

AGENDA

MEETING, APRIL 5, 2019

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

Questions About an Agenda Item	•	The name and telephone number of the appropriate staff person to call for additional information or to resolve concerns is listed for each agenda item. In preparation for the meeting, you are encouraged to obtain whatever clarifying information may be needed to allow the Board to move expeditiously in its deliberations.
Meeting Procedures	•	The public meeting of the SCAQMD Governing Board begins at 9:00 a.m. The Governing Board generally will consider items in the order listed on the agenda. However, <u>any item</u> may be considered in <u>any order</u> . After taking action on any agenda item not requiring a public hearing, the Board may reconsider or amend the item at any time during the meeting.
Questions About Progress of the Meeting	•	During the meeting, the public may call the Clerk of the Board's Office at (909) 396-2500 for the number of the agenda item the Board is currently discussing.

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

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

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

CALL TO ORDER

- Pledge of Allegiance
- Opening Comments: With the second secon

William A. Burke, Ed.D., Chair Other Board Members Wayne Nastri, Executive Officer

CONSENT CALENDAR (Items 1 through 15)

Note: Consent Calendar items held for discussion will be moved to Item No. 16

1. Approve Minutes of March 1, 2019 Board Meeting

Garzaro/2500

Nastri/3131

Staff/Phone (909) 396-

- 2. Set Public Hearings May 3, 2019 to:
 - A. Determine that Proposed Amendments to Regulation III Nastri/3131 Fees and Rule 209 – Transfer and Voiding of Permits Are Exempt from CEQA; Amend Regulation III; Amend Rule 209; and Adopt Executive Officer's FY 2019-20 Proposed Goals and Priority Objectives, and Proposed Budget

The Executive Officer's Proposed Goals and Priority Objectives, and Proposed Budget for FY 2019-20 have been developed and are recommended for adoption. The Proposed Budget includes implementation of the phased fee increase adopted by the Board on June 2, 2017 to continue cost recovery efforts. In addition, staff is proposing amendments to Regulation III – Fees and Rule 209 – Transfer and Voiding of Permits. The amendments include: 1) pursuant to Rule 320, an increase of most fees by 3.5% consistent with the Consumer Price Index; 2) new or increased fees including toxics fees which are necessary to provide more specific cost recovery for agency activities by the agency; and 3) administrative changes that include clarification, deletions, or corrections of existing rule language, which have no fee impact; and 4) a clarification on how permit transfers are considered when there is a change of owner/operator. The fee increases were presented at a public consultation meeting on March 22, 2019; and the fee increases and proposed budget will be presented at a Budget Study Session, Budget Advisory Committee meeting, and a public consultation meeting in April with recommendations and comments provided to the Board. This action is to: 1) Determine that the proposed amendments to Regulation III - Fees and Rule 209 – Transfer and Voiding of Permits are exempt from the California Environmental Quality Act; 2) Adopt the Executive Officer's Proposed Goals and Priority Objectives, and Proposed Budget for FY 2019-20; 3) Amend Regulation III; and 4) Amend Rule 209. (Review: Special Board Meeting/Budget Study Session, April 12, 2019)

B. Certify Revised Final Environmental Assessment, Amend Rule 1106 – Marine Coating Operations, as set forth in Proposed Amended Rule 1106 - Marine and Pleasure Craft Coatings, and Rescission of Rule 1106.1 - Pleasure Craft Coating Operations

The proposed amendments would revise VOC content limits for marine and pleasure craft coatings to align limits with U.S. EPA Control Techniques Guidelines and other air districts, add new categories for coatings and sealants, and require the most restrictive VOC content limit for products that may be marketed for both marine and pleasure craft coatings use. The proposed amendments would also prohibit possession and sale of noncompliant coatings and establish requirements for transfer efficiency. Finally, the proposed amendments would move the requirements of Rule 1106.1 to Rule 1106 so that there would be a single rule covering both marine and pleasure craft coatings. This action is to adopt the Resolution: 1) Certifying the Revised Final Environmental Assessment for Proposed Amended Rule 1106 – Marine and Pleasure Craft Coatings and rescission of Rule 1106.1 - Pleasure Craft Coating Operations; 2) Amending Rule 1106 – Marine Coating Operations; and 3) Rescinding Rule 1106.1 – Pleasure Craft Coating Operations. (Reviewed: Stationary Source Committee, March 15, 2019)

Budget/Fiscal Impact

Execute Contracts to Conduct Natural Gas Engine and Vehicle Miyasato/3249 Research Projects

The DOE, National Renewable Energy Laboratory (NREL), CEC and SCAQMD partnered to launch a research effort to increase efficiency of natural gas engines for medium- and heavy-duty engines and vehicles. In September 2018, NREL issued an RFP to solicit proposals to conduct natural gas engine and vehicle research projects to achieve these goals. Staff identified four proposals that align well with AQMP priorities to reduce NOx and PM emissions from transportation sources. This action is to execute contracts in an amount not to exceed \$1,700,000 from the Clean Fuels Program Fund (31) to cost-share these four projects. (Reviewed: Technology Committee, March 15, 2019; Recommended for Approval)

Issue RFP to Establish Endowment to Support Graduate Student Miyasato/3249 Scholarship Fund

Staff seeks to issue an RFP to solicit bids to support university graduate student scholarships that will, in part, train students entering the workforce, along with guidance from SCAQMD, on the emerging issues and latest research related to air quality and climate change. Relevant areas of study will include, but are not limited to: emissions and air quality impacts, health impacts of air pollution, climate change impacts, sustainable transportation and energy, and improving policy to achieve clean air standards and stabilize GHG emissions. This action is to issue an RFP to solicit bids to establish a university graduate scholarship endowment on air quality and climate change research. (Reviewed: Technology Committee, March 15, 2019; Recommended for Approval)

Transfer and Appropriate Funds, Issue Solicitations, and Execute Low/2269 5. Purchase Orders and Contracts for AB 617 Implementation

In January and June 2018, the Board recognized revenue from CARB for AB 617 expenditures. Based on an assessment of the AB 617 program including input from multiple community steering group meetings, there is a need to reallocate funds and realign expenditures between Offices and Major Objects. These actions are to transfer and appropriate funds, issue solicitations, and execute contracts and purchase orders for equipment and services to implement the AB 617 program in the three Year 1 communities. (Reviewed: Administrative Committee, March 8, 2019; Recommended for Approval)

Alatorre/3122 6. Execute Contract for Consultant Services for SCAQMD's High School Air Quality Educational Program

At the February 1, 2019 meeting, the Board approved the release of an RFP to solicit proposals from individuals and organizations to provide assistance with SCAQMD's High School Air Quality Educational Program. Four proposals were submitted to the Administrative Committee for consideration at its March 8, 2019 meeting. After the Committee interviewed representatives of each of the firms, Lee Andrews Group was selected for recommendation to the full Board. This action is to execute a contract with Lee Andrews Group for an amount not to exceed \$500,000 for a one-year contract with an option for up to two one-year term renewals, upon satisfactory performance, at the Board's discretion. Funding for the initial year will be from the BP Arco Settlement Project Fund (46). Funding for the two optional years will be subject to future Board approval. (Reviewed: Administrative Committee, March 8, 2019; Recommended for Approval)

Jain/2804 7. Remove Various Fixed Assets from SCAQMD Inventory

SCAQMD Administrative Policies and Procedures No. 20 requires each organizational unit to review fixed assets for obsolescence and disposal every six months. This action is to approve removal of surplus equipment determined to be obsolete, non-operational and not worth repairing. (Reviewed: Administrative Committee, March 8, 2019; Recommended for Approval)

8. Approve Contract Award and Modification and Issue Solicitation Approved by MSRC

As part of their FYs 2018-21 Work Program, the MSRC approved a new contract to provide special transit service to Dodger Stadium in 2019. The MSRC also approved a modification to a contract under the County Transportation Commission Partnership Program as part of their FYs 2016-18 Work Program. Finally, the MSRC approved the release of a Program Announcement for a Major Event Center Transportation Program as part of their FYs 2018-21 Work Program. At this time the MSRC seeks Board approval of the contract award and modification, and to release the solicitation. (Reviewed: Mobile Source Air Pollution Reduction Review Committee, March 21, 2019; Recommended for Approval)

Winterbottom

Items 9 through 15 - Information Only/Receive and File

9.	Legislative, Public Affairs, and Media Report	Alatorre/3122
	This Report highlights the February 2019 outreach activities of the Legislative, Public Affairs and Media Office, which includes: Major Events, Community Events/Public Meetings, Environmental Justice Update, Speakers Bureau/Visitor Services, Communications Center, Public Information Center, Business Assistance, Media Relations and Outreach to Business and Federal, State, and Local Government. (No Committee Review)	
10.	Hearing Board Report	Prussack/2500
	This reports the actions taken by the Hearing Board during the period of February 1 through February 28, 2019. (No Committee Review)	
11.	Civil Filings and Civil Penalties Report	Gilchrist/3459
	This reports the monthly penalties from February 1 through February 28, 2019, and legal actions filed by the General Counsel's Office from February 1 through February 28, 2019. An Index of District Rules is attached with the penalty report. (Reviewed: Stationary Source Committee, March 15, 2019)	
12.	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 February 1, 2019 and February 28, 2019, and those projects for which the SCAQMD is acting as lead agency pursuant to CEQA. (Reviewed: Mobile Source Committee, March 15, 2019)	
13.	Report of RFPs Scheduled for Release in April	Jain/2804
	This report summarizes the RFPs for budgeted services over \$75,000 scheduled to be released for advertisement for the month of April. (Reviewed: Administrative Committee, March 8, 2019)	
14.	Rule and Control Measure Forecast	Fine/2239
	This report highlights SCAQMD rulemaking activities and public hearings scheduled for 2019. (No Committee Review)	
15.	Status Report on Major Ongoing and Upcoming Projects for Information Management	Moskowitz/3329
	Information Management is responsible for data systems management services in support of all SCAQMD operations. This action is to provide the monthly	

in support of all SCAQMD operations. This action is to provide the monthly status report on major automation contracts and planned projects. (Reviewed: Administrative Committee, March 8, 2019)

16. <u>Items Deferred from Consent Calendar</u>

BOARD CALENDAR

17.	Administrative Committee (Receive	Chair: Burke	Nastri/3131	
18.	Legislative Committee		Chair: Mitchell	Alatorre/3122
	Receive and file; and take the following			
	Agenda Item – March 8, 2019	Recommendatior	ı	
	SB 210 (Leyva) Heavy-Duty Vehicle Inspections and Maintenance Program	Support		
	AB 210 (Voepel) Smog Check: Exemption	Oppose		
	AB 285 (Friedman) California Transportation Plan	Work with Author		
	Agenda Item – February 8, 2019	Recommendatior	ı	
	SB 1 (Atkins) California Environmental, Public Health, and Workers Defense Act of 2019	Support		
	AB 142 (C. Garcia) Lead-acid Batteries	Support		
19.	Mobile Source Committee (Receive	e & File)	Chair: Parker	Fine/2239
20.	Stationary Source Committee (Receive & File)		Chair: Benoit	Tisopulos/3123
21.	Technology Committee (Receive &	File)	Chair: Buscaino	Miyasato/3249
22.	Mobile Source Air Pollution Redu Review Committee (Receive & File)	uction B	oard Liaison: Benoit	Berry/2363
23.	California Air Resources Board M Report (Receive & File)	<i>l</i> onthly	Board Rep: Mitchell	Garzaro/2500

PUBLIC HEARING

 Certify Final Subsequent Environmental Assessment and Amend Nakamura/3105 Rule 1134 – Emissions of Oxides of Nitrogen from Stationary Gas Turbines

The adoption Resolution of the Final 2016 AQMP directed staff to achieve additional NOx emission reductions and to transition the RECLAIM program to a command-and-control regulatory structure as soon as practicable. Proposed Amended Rule 1134 applies to RECLAIM and non-RECLAIM stationary gas turbines and is being amended to update NOx emission limits to reflect current BARCT, establish ammonia emission limits, and provide implementation timeframes to facilitate the transition of the NOx RECLAIM program to a command-and-control regulatory structure. The proposed amended rule also establishes provisions for monitoring, reporting, and recordkeeping. Other provisions are incorporated to remove obsolete provisions and provide clarifications. This action is to adopt the Resolution: 1) Certifying the Final Subsequent Environmental Assessment for Proposed Amended Rule 1134 – Emissions of Oxides of Nitrogen from Stationary Gas Turbines, and 2) Amending Rule 1134 – Emissions of Oxides of Nitrogen from Stationary Gas Turbines. (Reviewed: Stationary Source Committee, February 15, 2019)

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

BOARD MEMBER TRAVEL – (No Written Material)

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

CONFLICT OF INTEREST DISCLOSURES - (No Written Material)

Under the approval authority of the Executive Officer, the District will enter into a contract with the Century Villages at Cabrillo (Contract No. C19319). Dr. William A. Burke's spouse is a member of the Board of Directors for the Century Villages at Cabrillo. However, officers and employees of nonprofit entities qualify for a remote interest exception to Section 1090 of the California Government Code. Dr. Burke abstained from any participation in the making of the contract.

Under the approval authority of the Executive Officer, the District will enter into a license agreement with Southern California Edison (Contract No. C134652). Southern California Edison 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 license agreement.

CLOSED SESSION - (No Written Material)

Gilchrist/3459

CONFERENCE WITH LEGAL COUNSEL – EXISTING LITIGATION

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

- In the Matter of SCAQMD v. Aerocraft Heat Treating Co., Inc. and Anaplex Corp., SCAQMD Hearing Board Case No. 6066-1 (Order for Abatement);
- <u>SCAQMD v. Anaplex</u>, Los Angeles Superior Court Case No. BC608322 (Paramount Hexavalent Chromium);
- In the Matter of SCAQMD v. Browning-Ferris Industries of California, Inc. dba Sunshine Canyon Landfill, SCAQMD Hearing Board Case No. 3448-14;
- <u>Communities for a Better Environment v. SCAQMD</u>, Los Angeles Superior Court Case No. BS161399 (RECLAIM);
- <u>Communities for a Better Environment v. South Coast Air Quality Management District</u>, Court of Appeals, Second Appellate District, Case No. B294732;
- <u>People of the State of California, ex rel. SCAQMD v. Exide Technologies, Inc.</u>, Los Angeles Superior Court Case No. BC533528;
- In re: Exide Technologies, Inc., U.S. Bankruptcy Court, District of Delaware, Case No. 13-11482 (KJC) (Bankruptcy Case);
- 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, <u>ex rel SCAQMD</u> v. Southern California Gas Company, Los Angeles Superior Court Case No. BC608322; Judicial Council Coordinated Proceeding No. 4861;
- <u>In the Matter of SCAQMD v. Torrance Refining Company, LLC</u>, SCAQMD Hearing Board Case No. 6060-5 (Order for Abatement);
- <u>State of California, et al. v. U.S. EPA, et al.</u>, U.S. Court of Appeals, D.C. Circuit, Case No. 18-1114 (mid-term evaluation for light-duty vehicles);
- <u>People of the State of California, ex rel South Coast Air Quality Management District v. The Sherwin-Williams Company, an Ohio Corporation, and Does 1 through 50, Inclusive</u>, Los Angeles Superior Court Case No. PSCV 00136; and
- <u>Allan Kalpakoff v. SCAQMD, et al.</u>, Los Angeles Superior Court Case No. PSCV 00136.

CONFERENCE WITH LEGAL COUNSEL – INITIATING LITIGATION It is also necessary for the Board to recess to closed session pursuant to Government Code section 54956.9(a) and 54956.9(d)(4) to consider initiation of litigation (two cases).

CONFERENCE WITH LEGAL COUNSEL – ANTICIPATED LITIGATION

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

ADJOURNMENT

PUBLIC COMMENTS

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

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

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

ACRONYMS

AQ-SPEC = Air Quality Sensor Performance Evaluation Center AQIP = Air Quality Investment Program AQMP = Air Quality Management Plan AVR = Average Vehicle Ridership BACT = Best Available Control Technology BARCT = Best Available Retrofit Control Technology Cal/EPA = California Environmental Protection Agency CARB = California Air Resources Board CEMS = Continuous Emissions Monitoring Systems CEC = California Energy Commission CEQA = California Environmental Quality Act CE-CERT =College of Engineering-Center for Environmental Research and Technology CNG = Compressed Natural Gas CO = Carbon Monoxide DOE = Department of Energy EV = Electric Vehicle FY = Fiscal Year GHG = Greenhouse Gas HRA = Health Risk Assessment LEV = Low Emission Vehicle LNG = Liquefied Natural Gas MATES = Multiple Air Toxics Exposure Study MOU = Memorandum of Understanding MSERCs = Mobile Source Emission Reduction Credits MSRC = Mobile Source (Air Pollution Reduction) Review Committee NATTS =National Air Toxics Trends Station

NESHAPS = National Emission Standards for
Hazardous Air Pollutants
NGV = Natural Gas Vehicle
NOx = Oxides of Nitrogen
NSPS = New Source Performance Standards
NSR = New Source Review
OEHHA = Office of Environmental Health Hazard
Assessment
PAMS = Photochemical Assessment Monitoring
Stations
PEV = Plug-In Electric Vehicle
PHEV = Plug-In Hybrid Electric Vehicle
PM10 = Particulate Matter ≤ 10 microns
PM2.5 = Particulate Matter \leq 2.5 microns
RECLAIM=Regional Clean Air Incentives Market
RFP = Request for Proposals
RFQ = Request for Quotations
SCAG = Southern California Association of Governments
SIP = State Implementation Plan
SOx = Oxides of Sulfur
SOON = Surplus Off-Road Opt-In for NOx
SULEV = Super Ultra Low Emission Vehicle
TCM = Transportation Control Measure
ULEV = Ultra Low Emission Vehicle
U.S. EPA = United States Environmental Protection
Agency
VOC = Volatile Organic Compound
ZEV = Zero Emission Vehicle

1 Back to Agenda

BOARD MEETING DATE: April 5, 2019

AGENDA NO. 1

MINUTES: Governing Board Monthly Meeting

SYNOPSIS: Attached are the Minutes of the March 1, 2019 meeting.

RECOMMENDED ACTION: Approve Minutes of the March 1, 2019 Board Meeting.

> Denise Garzaro Clerk of the Boards

DG

FRIDAY, MARCH 1, 2019

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

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

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

Supervisor Lisa A. Bartlett County of Orange

Council Member Joe Buscaino City of Los Angeles

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

Supervisor Janice Hahn County of Los Angeles

Dr. Joseph K. Lyou Governor's Appointee

Mayor Pro Tem Larry McCallon Cities of San Bernardino County

Mayor Judith Mitchell Cities of Los Angeles County – Western Region

Supervisor V. Manuel Perez County of Riverside

Council Member Dwight Robinson Cities of Orange County

Supervisor Janice Rutherford County of San Bernardino

Member absent:

Council Member Ben Benoit Cities of Riverside County **CALL TO ORDER**: Chairman Burke called the meeting to order at 9:05 a.m.

- Pledge of Allegiance: Led by Mayor Mitchell.
- Opening Comments

Supervisor Perez expressed appreciation to staff for co-hosting with CARB an AB 617 community meeting in Mecca on February 22, 2019. He noted the importance of addressing air pollution concerns in the Eastern Coachella Valley.

Mayor Mitchell shared photos from a trip to Washington, D.C. on February 24-27, 2019 along with Mayor Pro Tem McCallon, Council Member Robinson and staff. She noted that they had a productive meeting with Bill Wehrum of U.S. EPA and commented that EPA is moving forward with an update to the national NOx standards for heavy-duty trucks. She added that they also met with Congressman Alan Lowenthal and Congressman Harley Rouda who represent Orange County.

Council Member Robinson echoed Mayor Mitchell's comments on the success of the Washington, D.C. trip. He noted that Cummins, Inc. has made great strides in developing an ultra-low NOx heavy-duty truck engine which is being deployed at the ports. He noted the importance of U.S. EPA moving forward with a new national NOx standard for heavy-duty trucks.

Mayor Pro Tem McCallon also thought the Washington, D.C. meetings were collaborative and commented on bipartisan agreement for continued funding for DERA.

Chairman Burke thanked the Board members who participated in the trip to Washington D.C. and noted the importance of meeting with legislative officials.

Chairman Burke introduced a video from the television program 60 Minutes regarding the significant increase in the use of EVs in China.

Council Member Cacciotti commented on how China's focus on air pollution has changed over the years and noted that many air quality regulations in the country closely mirror District rules and regulations.

• Presentation of Retirement Award to Norma Martinez

Chairman Burke presented a retirement award to Norma Martinez, in recognition of over 32 years of dedicated District service.

• Swearing in of Newly Appointed Board Member Lisa A. Bartlett

Chairman Burke administered the oath of office to Supervisor Bartlett who was appointed to the Board by the Orange County Board of Supervisors to a term ending January 15, 2022. Supervisor Bartlett expressed appreciation for the opportunity to serve on the Board.

CONSENT CALENDAR

1. Approve Minutes of February 1, 2019 Board Meeting

An errata sheet containing an amendment to the February 1, 2019 minutes was provided to the Board Members and copies were made available to the public.

2. Set Public Hearing April 5, 2019 to Consider Adoption of and/or Amendments to SCAQMD Rules and Regulations

Certify Final Subsequent Environmental Assessment and Amend Rule 1134 – Emissions of Oxides of Nitrogen from Stationary Gas Turbines

Budget/Fiscal Impact

- Recognize Funds, Execute and Amend Agreements for Installation and Maintenance of Air Filtration Systems, and Reimburse General Fund for Administrative Costs
- Adopt Resolution Recognizing Funds and Accepting Terms and Conditions for FY 2018-19 Carl Moyer Program Award, Issue Program Announcements for Carl Moyer Program and SOON Provision, and Transfer Funds for Voucher Incentive Program
- 5. Approve SCAQMD Annual Investment Policy and Delegation of Authority to Appointed Treasurer to Invest SCAQMD Funds
- 6. Transfer and Appropriate Funds and Amend Contracts to Provide Short- and Long-Term Systems Development, Maintenance and Support Services
- 7. Authorize Purchase of Maintenance and Support Services for Servers and Storage Devices
- 8. Execute Contract for Consultant Services for SCAQMD Environmental Justice Outreach and Initiatives

9. Approve Contract Awards as Approved by MSRC

Action Item/No Fiscal Impact

- 10. Annual Meeting of Health Effects of Air Pollution Foundation
- 11. Amend Charter for Environmental Justice Community Partnership Advisory Council and Young Leaders Advisory Council

Items 12 through 20 – Information Only/Receive and File

- 12. Legislative, Public Affairs and Media Report
- 13. Hearing Board Report
- 14. Civil Filings and Civil Penalties Report
- 15. Lead Agency Projects and Environmental Documents Received by SCAQMD
- 16. Report of RFPs Scheduled for Release in March
- 17. Rule and Control Measure Forecast
- 18. FY 2018-19 Contract Activity
- 19. Status Report on Major Ongoing and Upcoming Projects for Information Management
- 20. Approve Annual Report on AB 2766 Funds from Motor Vehicle Registration Fees for FY 2016-17

Dr. Lyou announced his abstention on Item No. 3 because IQAir North America is a potential source of income to him; and on Item No. 4 because CARB is a potential source of income to him.

Supervisor Bartlett noted that since she was not present at the February 1, 2019 Board Meeting, she would abstain from voting on agenda Item No. 1.

Mayor Mitchell noted that she is a CARB Board Member which is involved with Item No. 4.

Supervisor Hahn noted that she is a member of the County of Los Angeles Board of Supervisors which is involved with Item No. 9.

Agenda Item Numbers 1, 4 and 10 were pulled for comment and discussion.

21. <u>Items Deferred from Consent Calendar</u>

1. Approve Minutes of February 1, 2019 Board Meeting

Dr. Lyou noted that an errata sheet containing an amendment to the February 1, 2019 Board meeting minutes was prepared in order to accurately reflect Chairman Burke's direction to address MHF.

10. Annual Meeting of Health Effects of Air Pollution Foundation

Council Member Cacciotti expressed support for the four major health studies that are being conducted by the foundation and asked if Dr. Black could provide a presentation on the studies at a future Board meeting.

Mr. Nastri responded that staff would contact Dr. Black to inquire about his availability.

MOVED BY CACCIOTTI, SECONDED BY LYOU, AGENDA ITEMS 1 AND 10 APPROVED AS RECOMMENDED, WITH THE MODIFICATION TO THE MINUTES AS SET FORTH BELOW, BY THE FOLLOWING VOTE:

- AYES: Bartlett (except Item #1), Burke, Buscaino, Cacciotti, Hahn, Lyou, McCallon, Mitchell, Parker, Perez, Robinson and Rutherford
- NOES: None
- ABSTAIN: Bartlett (Item #1 only)
- ABSENT: Benoit

Amend Minutes of February 1, 2019 Board meeting as follows:

Page 17, last paragraph:

Chairman Burke noted that the information that has been received has revealed that MHF is more dangerous than initially thought and noted the importance of coming to an agreement that protects the public. Chairman Burke indicated that he would introduce a motion to direct staff to pursue both an MOU approach and proceed with rule development.

Dr. Lyou left the room during discussion of Item No. 4.

4. Adopt Resolution Recognizing Funds and Accepting Terms and Conditions for FY 2018-19 Carl Moyer Program Award, Issue Program Announcements for Carl Moyer Program and SOON Provision, and Transfer Funds for Voucher Incentive Program

Michael Munoz, Clean and Safe Ports Project, expressed concern about the award of subsidies to trucking companies who violate labor laws and suggested that language be included in the program application indicating that a review of labor practices will be considered as part of the award process.

Supervisor Hahn asked if the program solicitation contains language regarding the guidelines that are used to award funds and if it includes information about the review of labor law violations. She suggested continuing the item to allow for further review.

Dr. Matt Miyasato, DEO/Science and Technology Advancement, explained that applicants must provide proof about how it has addressed any labor law violations after the applications are evaluated by staff and deemed eligible for award.

Council Member Buscaino noted the importance of being responsive to labor concerns.

Bayron Gilchrist, General Counsel, responded that CARB sets forth the eligibility criteria but a notation could be placed on the solicitation document indicating that labor law violations will be reviewed as part of the evaluation process.

Mr. Nastri explained that staff could amend the solicitation document prior to release to include language regarding the evaluation of labor law violations if that was the consensus of the Board. MOVED BY HAHN. SECONDED BY **BUSCAINO. AGENDA ITEM 4 APPROVED AS** RECOMMENDED AND DIRECTING STAFF TO INCLUDE LANGUAGE IN THE PROGRAM SOLICITATION DOCUMENT REGARDING THE REVIEW OF LABOR AGREEMENTS FOR TRUCKING COMPANIES PRIOR TO AWARD AND ADOPTING RESOLUTION NO. 19-3 RECOGNIZING FUNDS AND ACCEPTING THE TERMS AND CONDITIONS OF THE FY 2018-19 CARL MOYER GRANT AWARD, BY THE FOLLOWING VOTE:

- AYES: Bartlett, Burke, Buscaino, Cacciotti, Hahn, McCallon, Mitchell, Parker, Perez, Robinson and Rutherford
- NOES: None
- ABSTAIN: Lyou
- ABSENT: Benoit

MOVED BY ROBINSON, SECONDED BY CACCIOTTI, AGENDA ITEMS 2, 3, 5 THROUGH 9 AND 11 THROUGH 20 APPROVED AS RECOMMENDED, ADOPTING RESOLUTION NO. 19-4**AUTHORITY** DELEGATING TO THE TREASURER OF THE COUNTY OF THE LOS ANGELES TO INVEST AND REINVEST FUNDS OF THE SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT, ΒY THE FOLLOWING VOTE:

- AYES: Bartlett, Burke, Buscaino, Cacciotti, Hahn, Lyou *(except Item #3)*, McCallon, Mitchell, Parker, Perez, Robinson and Rutherford
- NOES: None
- ABSTAIN: Lyou (Item #3 only)
- ABSENT: Benoit

BOARD CALENDAR

- 22. Administrative Committee
- 23. Investment Oversight Committee
- 24A. Legislative Committee
- 24B. 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

CARB's meeting summary was not available, and therefore, Item 29 was pulled from consideration.

ΒY MOVED LYOU, SECONDED BY CACCIOTTI, AGENDA ITEMS 22 THROUGH 28, APPROVED AS RECOMMENDED, RECEIVING AND FILING THE COMMITTEE, AND MSRC REPORTS, BY THE FOLLOWING VOTE: AYES: Bartlett, Burke, Buscaino, Cacciotti, Hahn, Lyou, McCallon, Mitchell, Parker, Perez, Robinson and Rutherford NOES: None

ABSENT: Benoit

Staff Presentation/Board Discussion

 Update on Development of Facility-Based Mobile Source Measures in 2016 AQMP

Dr. Sarah Rees, Assistant DEO/Planning, Rule Development and Area Sources, gave the staff presentation on Item 30.

Supervisor Hahn commented that ocean going vessels are one of the largest sources of air pollution and recognized the ports for their adoption of the Clean Air Action Plan. She commented that communities located near ports are heavily impacted by air pollution and asked staff to comment on plans to reduce emissions at berth.

Dr. Rees explained that there are requirements in place for plug-in to shore power at berth and CARB is developing revised at-berth regulations and considering newer technology such as the bonnet system. Staff is also looking at operational modes at the Port to address air pollution concerns in local communities and added that NOx and PM emissions associated with the maneuvering and transiting of ships from the port are significant and directly impact ozone. There is also strong interest from multiple shipping lines regarding engine retrofit systems.

Supervisor Hahn commented that the use of technology, such as the bonnet system, may allow for a reduction in emissions more quickly than engine retrofit systems.

Mr. Nastri noted that staff is working closely with CARB to reduce emissions at berth.

Council Member Cacciotti asked for information on LNG which is being used in European vessels.

Dr. Rees responded that staff is exploring all technologies including LNG which is used in Europe and Asia, primarily in river vessels. She commented on the amount of infrastructure that is required to deliver this type of gas and noted that other technologies provide a greater reduction of NOx emissions. She added that China is very interested in the District's work on retrofit technology for ocean going and smaller inland vessels.

Supervisor Rutherford expressed concern about adopting ISRs for warehouses and noted that if warehouses move out of state due to increased regulation there will still be trucks driving through California. She added that any fleet crediting or mitigation fees should be returned to the communities most impacted by pollution from trucks. Dr. Rees responded that staff is carefully looking at warehouse business models to better understand the impacts of regulation on businesses and local communities.

Dr. Parker commented on the challenges associated with regulating interstate truck traffic and emphasized the importance of collaboration between the ports, airports and warehouses in reducing pollution.

Council Member Robinson asked if an individualized approach is being considered for the airport MOUs. He expressed support for the collaborative approach taken with the Ports and commented on the need to collaborate with heavy-duty truck partners in regards to rulemaking and funding for truck replacement. He asked about the low sulfur rule that the International Maritime Organization (IMO) has adopted and whether the reduction in sulfur content in bunker fuel will provide NOx benefits. He also asked if potential rules for new development or redevelopment would conflict with the Governor's focus on affordable housing.

Dr. Rees responded that an individualized MOU that is tailored to the operations of each airport is being considered, whereas with the ports there would be one MOU being developed that covers both ports. She added that the airports are developing their air quality improvement plans and once those are in place, specific MOU language can be developed. The sulfur reduction in bunker fuel provides a reduction in SOx and particulate matter, but not NOx. She added that the IMO adopted regulations for NOx in 2015, however, the turnover for vessels is so long that these regulations will not greatly reduce emissions in the near future. With regards to ISRs for new development, the issue of potential adverse impacts on affordable housing is being evaluated.

Council Member Robinson inquired about fleet credits in regards to ISRs for warehouses and asked about the timelines for facility-based measures. He noted the challenges involved with the ISR process in comparison to the MOU process and added concern about potential litigation that could further delay the adoption of rules and progress towards attainment. He noted the benefits of an MOU process that allows for air quality improvements more expeditiously.

Dr. Rees explained that staff is exploring concepts in which individual trucking fleets could get credits if their trucks are cleaner on average than current regulatory requirements and creating a bank where warehouse operators could purchase those credits to meet their emissions reduction obligation. She noted the longer timeline with the regulatory process due to the need to conduct additional research and economic studies to produce better informed rules.

Dr. Lyou noted that a comprehensive air quality and source apportionment study commissioned by LAX focused on air pollution and the impacts on the local community over a seven-year period. The study concluded that the largest source of emissions impacting the community was the result of trucks and cars traveling to the airport. He noted the importance of looking at direct and indirect sources of pollution when developing MOUs. In regards to the retrofitting of ships, he noted the challenges over the years with commitments made to utilize cleaner ships and questioned the viability of retrofit technologies. He concurred with Supervisor Hahn that ship-capture and plug-in technologies at berth should be pursued, as well as technologies for the outer harbor. With regards for warehouses and the credit program, he expressed concerns with creating such a program while the sunsetting of the RECLAIM program has proved so complex. He concurred with Supervisor Rutherford about ensuring that mitigation funds benefit local communities that are most impacted. He noted the importance of engaging cargo owners and retail associations in the development of fleet rules for warehouses and ports. He acknowledged the potential for the District to be subject to litigation and noted that San Joaquin Valley Air Pollution Control District faced similar legal challenges, but ultimately prevailed.

Mayor Mitchell noted that ISRs are part of the AQMP and asked if the proposed measures will meet the expectations in the AQMP and if they are creditable to the State Implementation Plan (SIP).

Dr. Fine explained that specific emission reduction targets were not included for these measures in the AQMP, but it was noted that a large amount of emission reductions would come from the further deployment of clean air technologies. Facility-based measures are one of the measures to help define specifically how further deployment is going to occur, along with CARB regulations and incentive funding. The goal is to get SIP credit for both voluntary and regulatory measures.

Mayor Mitchell inquired about the legal authority that is granted to the District and CARB to impose facility-based regulations.

Barbara Baird, Chief Deputy Counsel, responded that CARB legal counsel determined that air districts were in a better position to impose facility-based measures based on specific statutory authority in the Health and Safety Code.

Mayor Mitchell noted that she concurred with Dr. Lyou about involving cargo owners during the development of warehouse options, expressed concerns about entering into a credit trading program and added support for exploring other possibilities for warehouse rules.

Mr. Nastri explained that there has been a lot of discussion on the merits of a credit-based system, particularly in light of what the legislature directed the District to do with regards to RECLAIM and BARCT provisions and the move to a command-and-control approach. He noted the challenges in looking for opportunities for significant emission reductions to meet the goals of the AQMP, and the collaborative work that is required between federal, state and local authorities. He noted the success of the petition that resulted in the Cleaner Trucks Initiative and the broad-based coalition of state, local and business stakeholders that started the rulemaking process for heavy-duty truck emissions. He added that with regards to the ocean going vessels initiative, the District is spearheading an effort to build a coalition of stakeholders in many of the ports to bring additional resources and leverage the work that is being done. The District is working with community groups, industry and all stakeholders to address concerns and bring the best options for reductions to the Board.

Supervisor Bartlett commented that Orange County airport staff will be meeting with the District to discuss their plans to reduce emissions, including making minor revisions to their runways to allow newer jets with less emissions. She noted support for bonnet technology at the ports and commented that it may be more cost effective than other options for ships. She added concerns about ISRs for new development that may make the challenges of building out housing, especially affordable housing, more difficult.

Mayor Pro Tem McCallon noted that he does not support ISRs for warehouses and development and expressed support for the MOU process with the ports and airports. He added support for a national truck emission standard and incentive funding to encourage fleet turnover, but expressed opposition to a sales tax measure. He expressed concern about meeting the 2023 ozone attainment standard and asked why reductions in NOx emissions have not led to improved ozone levels.

Dr. Fine explained that the District is working diligently on meeting the 2023 and 2031 deadlines and goals outlined in the AQMP and explained the difficult challenges involved. He noted that incentive funding has doubled for projects that assist in meeting reduction goals. There has been progress but more incentive funding is needed. He commented that warmer weather patterns and possibly climate change have contributed to the increase in ozone levels. In addition, ozone is formed through complex chemistry in the atmosphere and a reduction in NOx emissions does not equate one-to-one with ozone reductions, but both NOx and VOC reductions are necessary to reduce ozone levels. At the end of this year or early next year, staff will submit a specific plan to U.S. EPA on the efforts and progress by the District to meet air quality standards and report progress on AQMP measures.

Chairman Burke suggested that staff present at the next Board retreat on proposed approaches to meet attainment goals.

Council Member Buscaino noted that he is encouraged by the MOU process with the ports and expressed support for using best technology at berth to reduce emissions. He noted support for working with the ports to encourage investment in bonnet technology which is proven and certified by CARB. He stressed the importance of improving air quality for disadvantaged and impacted communities near the ports.

(Supervisor Perez left at 11:00 a.m.)

David Pettit, Natural Resources Defense Council Veronica Alvarado, The Warehouse Worker Resource Center Benjamin Reynoso, San Bernardino Generation Now Nazareth Velazco Miriam Garcia, The Warehouse Worker Resource Center Juan Oscar Barrios Caillie Roach, Student, University of Redlands Mackenzie Nelson, University of Redlands, Students for Environmental Action Jason Martinez, Chicano Indigenous Community for Cultured Conscience Advocacy and Action (ChICCCAA) Else Eifler, Student, University of Redlands Mat Taylor, ChICCCAA Mary Valdamar Paula Venegas Connor Tibbetts Abram Gastelum Miguel Rivera Iris Verduzco, Moving Forward Network, Occidental College Adrian Martinez, EarthJustice Carlo De La Cruz, Sierra Club Lorena Rodarte Ericka Flores Andrea Vidaurre, Center for Community Action and Environmental Justice (CCAEJ) Graciela Larios, CCAEJ Mario Vasquez, Teamsters 1932 Laura Shultz Rich Smith, Teamsters 1932 Kathleen Brennan, Teamsters 1932 Jacob Erwin, Inland Empire Democratic Socialists of America

Expressed concern about increased air pollution in the Inland Empire due to increased truck traffic and construction of warehouses. They urged the Board to continue to support newer and zero-emission technologies as well as adopt stricter policies and enforcement measures to support clean air. They noted the health effects associated with poor air quality in the areas most impacted by the construction of new warehouses and advocated for a strong ISR for warehouses.

Amardeep Gill, Los Angeles Alliance for a New Economy, expressed concerns about economic impacts to truck drivers due to new warehouse regulations and noted that the costs of regulations or MOUs are often passed down to truck drivers.

Chris Cannon, Port of Los Angeles Matt Arms, Port of Long Beach Thomas Jelenic, Pacific Merchant Shipping Association

Noted support for the MOU process for the ports and expressed their commitment to continue to work with the working group and District staff. They noted the complexities related to SIP credit.

Zully Juarez, University of Southern California, Keck School of Medicine, detailed the health concerns of impacted communities near LAX and urged support for strong ISRs. She referenced a study that focused on ultra-fine particulate emissions in the flight path area of LAX. (Submitted Written Comments)

Theo Whitcomb expressed socio economic concerns due to poor air quality in EJ areas and noted the pre-mature deaths associated with pollution.

Angelo Logan, Moving Forward Network, Occidental College, expressed opposition to MOUs and cited a previous MOU with the railyards that was unsuccessful. He urged support for strong ISRs that include a public process and are enforceable.

Chairman Burke commented that the Board was not in support of the MOU between CARB and the railyards.

Graciela Regalado expressed concern about railyards and trucks that pollute the Inland Empire and urged the Board to support clean energy technologies and a strong ISR for warehouses.

Daryl Gale urged support for a strong ISR for warehouses and solar electrification of warehouse operations.

Luis Portillo, Inland Empire Economic Partnership, expressed concerns about the economic impacts of ISRs and urged the Board to focus on clean energy and zero-emission technologies to reduce emissions from cars and trucks.

Mayor Mitchell referenced slide number nine in the presentation and inquired about facility caps and zero-emission technologies and the possibility of requiring clean technologies at warehouses. She recommended that an ISR for warehouses be technology forcing and compliment the efforts by CARB, and that incentives should be offered.

Mr. Nastri explained that the presentation highlighted best practices and the range of compliance options that are being considered to achieve the maximum reductions possible. He added that there are more options that need to be addressed with input from communities before the Board's consideration.

PUBLIC HEARINGS

 Determine that Proposed Amendments to Rules 110, 212, 301, 303, 306, 307.1, 309, 315, 518.2, 1310, 1605, 1610, 1612, 1620, 1623, 1710, 1714, and 3006 are Exempt from CEQA; Amend Rules 110, 212, 301, 303, 306, 307.1, 309, 315, 518.2, 1310, 1605, 1610, 1612, 1620, 1623, 1710, 1714, and 3006

The presentation on Item No. 31 was waived.

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

MOVED BY MCCALLON, SECONDED BY CACCIOTTI, AGENDA ITEM NO. 31 APPROVED AS RECOMMENDED, ADOPTING RESOLUTION NO. 19-5 DETERMINING THAT PROPOSED AMENDED RULES 110, 212, 301, 303, 306, 307.1, 309, 315, 518.2, 1310, 1605, 1610, 1612, 1620, 1623, 1710, 1714, AND 3006 ARE EXEMPT FROM THE REQUIREMENTS OF CEQA AND AMENDING RULES 110, 212, 301, 303, 306, 307.1, 309, 315, 518.2, 1310, 1605, 1610, 1612, 1620, 1623, 1710, 1714, AND 3006, BY THE FOLLOWING VOTE:

- AYES: Bartlett, Burke, Buscaino, Cacciotti, Hahn, Lyou, McCallon, Mitchell, Parker, Robinson and Rutherford
- NOES: None
- ABSENT: Benoit and Perez
- 32. Approve and Adopt Technology Advancement Office Clean Fuels Program 2018 Annual Report and 2019 Plan Update and Resolution, Receive and File Revised Membership of Technology Advancement Advisory Group, and Approve and Adopt Membership Changes for Clean Fuels Advisory Group

The presentation on Item No. 32 was waived.

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

MOVED BY LYOU. SECONDED BY AGENDA CACCIOTTI. ITEM NO. 32 APPROVED AS RECOMMENDED. ADOPTING RESOLUTION NO. 19-6 APPROVING THE TECHNOLOGY ADVANCEMENT OFFICE CLEAN FUELS **PROGRAM ANNUAL REPORT FOR 2018 AND** ADOPTING THE CLEAN FUELS PROGRAM PLAN UPDATE FOR 2019. BY THE FOLLOWING VOTE:

AYES: Bartlett, Burke, Buscaino, Cacciotti, Hahn, Lyou, McCallon, Mitchell, Parker, Robinson and Rutherford

NOES: None

ABSENT: Benoit and Perez

33. Approve Annual RECLAIM Audit Report for 2017 Compliance Year

The presentation on Item No. 33 was waived.

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

MOVED BY ROBINSON, SECONDED BY CACCIOTTI, AGENDA ITEM NO. 33 APPROVED AS RECOMMENDED, BY THE FOLLOWING VOTE:

- AYES: Bartlett, Burke, Buscaino, Cacciotti, Hahn, Lyou, McCallon, Mitchell, Parker, Robinson and Rutherford
- NOES: None

ABSENT: Benoit and Perez

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

Chairman Burke inquired why a number of furnace manufacturers were providing public comments. Mr. Nastri responded that several of the manufacturers appeared before the Stationary Source Committee in February and were not satisfied with the committee's response. Dr. Lyou noted that the committee supported staff's recommendation to not amend Rule 1111 to include a sell-through provision.

In response to Dr. Parker's inquiry regarding a previous extension of Rule 1111, Mr. Nastri confirmed there had been an extension granted.

Matthew Pereira, Ingersoll Rand *Rusty Tharp, Goodman Manufacturing Company Doug Stewart, U.S. Air Conditioning distributors Chris Forth, Johnson Controls Steve Gaardsmoe, Signer Distribution *Braden Cook, Carrier Corporation Craig Benefield, Carrier Corporation Jeff Winter, Howard Industries

Urged the Board to consider a six-month sell-through period for Rule 1111, similar to the sell-through period adopted by San Joaquin Valley Air Pollution Control District, due to the lack of compliant products on the market to meet demand, the need to transition inventory, and the complexity of planning for new construction. *(Submitted Written Comments)

David Winningham, Lennox International, noted that they are not in support of an extended sell-through period and commented that Rule 1111 has been amended twice to allow additional time. Lennox has manufactured compliant products by the deadline specified in Rule 1111, and stated that regulatory certainty is the key to drive market adoption of compliant products. An extended sell-through provision would further delay compliance. (Submitted Written Comments)

Written Comments Submitted By:

Ryan Teschner, Rheem Manufacturing Company

Chairman Burke asked about the market for units in the District and the life span of furnaces.

Dr. Fine responded that approximately 100,000 units are sold in the Basin each year, and the life span is between 10 to 15 years.

Dr. Lyou asked how Lennox was able to bring compliant products to the market in a timely manner.

Mr. Winningham commented on the substantial investments, challenges and efforts faced to develop compliant furnaces and weatherized products, in order to meet impending limits.

Chairman Burke explained that there was a need to take immediate action to confer with District Counsel regarding a settlement offer communicated to the District for existing litigation, to which the agency is a party, which has been initiated formally in <u>Allan Kalpakoff v. SCAQMD, et al</u>, Los Angeles Superior Court Case No. BC666018, and that the need for action came to the attention of the District subsequent to the posting of the agenda. If the Board would like to consider this request a motion would be needed to add the item as an urgency item to the Closed Session agenda. The urgency for this matter was due to the fact that the settlement offer would expire at the close of business on March 1, 2019.

CHAIRMAN BURKE MOVED TO APPROVE THE ADDITION OF AN URGENCY ITEM TO CLOSED SESSION THE REGARDING EXISTING LITIGATION TO WHICH THE AGENCY IS A PARTY AND HAS BEEN INITIATED FORMALLY IN ALLAN KALPAKOFF V. SCAQMD, ET AL, LOS ANGELES SUPERIOR COURT CASE NO. BC666018. THE MOTION WAS COUNCIL SECONDED ΒY MEMBER CACCIOTTI AND APPROVED, BY THE FOLLOWING VOTE:

- AYES: Bartlett, Burke, Buscaino, Cacciotti, Hahn, Lyou, McCallon, Mitchell, Parker, Robinson and Rutherford
- NOES: None

ABSENT: Benoit and Perez

CLOSED SESSION

The Board recessed to closed session at 12:25 p.m., pursuant to Government Code sections:

CONFERENCE WITH LEGAL COUNSEL – EXISTING LITIGATION

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

Allan Kalpakoff v SCAQMD, et al., Los Angeles Superior Court Case No. BC666018;

In the Matter of SCAQMD v. Aerocraft Heat Treating Co., Inc. and Anaplex Corp., SCAQMD Hearing Board Case No. 6066-1 (Order for Abatement);

<u>SCAQMD v. Anaplex</u>, Los Angeles Superior Court Case No. BC608322 (Paramount Hexavalent Chromium);

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

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

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

<u>People of the State of California, ex rel South Coast Air Quality Management District</u> v. The Sherwin-Williams Company, an Ohio Corporation, and Does 1 through 50, <u>Inclusive</u>, Los Angeles Superior Court Case No. PSCV 00136.

CONFERENCE WITH LEGAL COUNSEL – ANTICIPATED LITIGATION

 54956.9(d)(2) to confer with its counsel because there is a significant exposure to litigation against the SCAQMD (one case)—Letter from Steven J. Olson, O'Melveny & Myers LLP, on behalf of ExxonMobil Corporation, dated August 22, 2018.

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

ADJOURNMENT

There being no further business, the meeting was adjourned by Mr. Gilchrist at 12:55 p.m.

The foregoing is a true statement of the proceedings held by the South Coast Air Quality Management District Board on March 1, 2019.

Respectfully Submitted,

Denise Garzaro Clerk of the Boards

Date Minutes Approved: _____

Dr. William A. Burke, Chairman

ACRONYMS

AQMP = Air Quality Management Plan

- BACT = Best Available Control Technology
- BARCT = Best Available Retrofit Control Technology
- CARB = California Air Resources Board
- CEQA = California Environmental Quality Act
- DERA = Diesel Emissions Reduction Act
- EJ = Environmental Justice
- EV = Electric Vehicle
- FY = Fiscal Year
- IMO = International Maritime Organization
- ISR = Indirect Source Rule
- MOU = Memorandum of Understanding
- MSRC = Mobile Source (Air Pollution Reduction) Review Committee
- NOx = Oxides of Nitrogen
- LNG = Liquefied Natural Gas
- PM = Particulate Matter
- RECLAIM = Regional Clean Air Incentives Market
- RFP = Request for Proposals
- SIP = State Implementation Plan
- SOx = Oxides of Sulfur
- SOON = Surplus Off-Road Opt-in for NOx
- U.S. EPA = United States Environmental Protection Agency
- VOC = Volatile Organic Compound

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BOARD MEETING DATE: April 5, 2019

AGENDA NO. 2

PROPOSAL: Set Public Hearings May 3, 2019 to:

(A) Determine that Proposed Amendments to Regulation III – Fees and Rule 209 – Transfer and Voiding of Permits Are Exempt from CEQA; Amend Regulation III; Amend Rule 209; and Adopt Executive Officer's FY 2019-20 Proposed Goals and Priority **Objectives**, and Proposed Budget The Executive Officer's Proposed Goals and Priority Objectives, and Proposed Budget for FY 2019-20 have been developed and are recommended for adoption. The Proposed Budget includes implementation of the phased fee increase adopted by the Board on June 2, 2017 to continue cost recovery efforts. In addition, staff is proposing amendments to Regulation III – Fees and Rule 209 – Transfer and Voiding of Permits. The amendments include: 1) pursuant to Rule 320, an increase of most fees by 3.5% consistent with the Consumer Price Index; 2) new or increased fees including toxics fees which are necessary to provide more specific cost recovery for agency activities by the agency; and 3) administrative changes that include clarification, deletions, or corrections of existing rule language, which have no fee impact; and 4) a clarification on how permit transfers are considered when there is a change of owner/operator. The fee increases were presented at a public consultation meeting on March 22, 2019; and the fee increases and proposed budget will be presented at a Budget Study Session, Budget Advisory Committee meeting, and a public consultation meeting in April with recommendations and comments provided to the Board. This action is to: 1) Determine that the proposed amendments to Regulation III - Fees and Rule 209 - Transfer and Voiding of Permits are exempt from the California Environmental Quality Act; 2) Adopt the Executive Officer's Proposed Goals and Priority Objectives, and Proposed Budget for FY 2019-20; 3) Amend Regulation III; and 4) Amend Rule 209. (Review: Special Board Meeting/Budget Study Session, April 12, 2019)

(B) Certify Revised Final Environmental Assessment, Amend Rule 1106 – Marine Coating Operations, as set forth in Proposed Amended Rule 1106 - Marine and Pleasure Craft Coating Operations, and Rescission of Rule 1106.1 - Pleasure Craft Coating Operations The proposed amendments would revise VOC content limits for marine and pleasure craft coatings to align limits with U.S. EPA Control Techniques Guidelines and other air districts, add new categories for coatings and sealants, and require the most restrictive VOC content limit for products that may be marketed for both marine and pleasure craft coatings use. The proposed amendments would also prohibit possession and sale of non-compliant coatings and establish requirements for transfer efficiency. Finally, the proposed amendments would move the requirements of Rule 1106.1 to Rule 1106 so that there would be a single rule covering both marine and pleasure craft coatings. This action is to adopt the Resolution: 1) Certifying the Revised Final Environmental Assessment for Proposed Amended Rule 1106 - Marine and Pleasure Craft Coatings and rescission of Rule 1106.1 – Pleasure Craft Coating Operations: 2) Amending Rule 1106 – Marine Coating Operations; and 3) Rescinding Rule 1106.1 – Pleasure Craft Coating Operations. (Reviewed: Stationary Source Committee, March 15, 2019)

The complete text of the proposed amendments, staff report and other supporting documents will be available from the SCAQMD's Public Information Center, (909) 396-2001 and on the Internet (www.aqmd.gov) as of April 3, 2019.

RECOMMENDED ACTION:

Set Public Hearings May 3, 2019 to Adopt the Executive Officer's Budget, Goals and Priority Objectives for FY 2019-20, Amend Rule 209 and Regulation III; and Amend Rule 1106 and Rescind Rule 1106.1.

Wayne Nastri Executive Officer

dg

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BOARD MEETING DATE: April 5, 2019

AGENDA NO. 3

- TITLE:Execute Contracts to Conduct Natural Gas Engine and
Vehicle Research Projects
- SYNOPSIS: The DOE, National Renewable Energy Laboratory (NREL), CEC and SCAQMD partnered to launch a research effort to increase efficiency of natural gas engines for medium- and heavy-duty engines and vehicles. In September 2018, NREL issued an RFP to solicit proposals to conduct natural gas engine and vehicle research projects to achieve these goals. Staff identified four proposals that align well with AQMP priorities to reduce NOx and PM emissions from transportation sources. This action is to execute contracts in an amount not to exceed \$1,700,000 from the Clean Fuels Program Fund (31) to cost-share these four projects.

COMMITTEE: Technology, March 15, 2019; Recommended for Approval

RECOMMENDED ACTIONS:

Authorize the Chairman to execute the following in an amount not to exceed \$1,700,000 from the Clean Fuels Program Fund (31):

- a. A contract with Cummins Inc. in an amount not to exceed \$250,000 to develop a natural gas specific combustion design and demonstrate it on the 12 to 15-liter engine displacement range;
- b. A contract with US Hybrid Corporation in an amount not to exceed \$500,000 to develop and demonstrate a fully integrated and optimized natural gas, plug-in hybrid Class 8 vehicle;
- c. A contract with Southwest Research Institute in an amount not to exceed \$475,000 to develop and demonstrate a hybrid medium-duty truck using advanced technology natural gas spark-ignited engine; and
- d. A contract with Gas Technology Institute in an amount not to exceed \$475,000 to develop a production intent spark-ignited natural gas engine.

Wayne Nastri Executive Officer

Background

According to the Department of Transportation, vehicles transport 11 billion tons of freight annually. And as the transportation sector continues to grow, diversified and cost-effective solutions are necessary to ensure resiliency and affordability, while meeting increasing energy demands. Based on DOE's projections, natural gas is poised to play a key role as a versatile, low-emission fuel and is an increasingly attractive alternative to conventional diesel fuel on a nationwide basis.

To help advance natural gas vehicle technologies, DOE, NREL, CEC and SCAQMD partnered to launch a research effort to increase efficiencies from natural gas mediumand heavy-duty engines and vehicles. These efforts will complement DOE's Vehicle Technologies Office research efforts initiated in FY 2017.

In September 2018, as part of this ongoing effort, NREL issued an RFP offering funding of approximately \$37 million for projects focusing on: (1) reducing the cost of natural gas vehicles; (2) increasing vehicle efficiency; and (3) advancing new innovative medium- and heavy-duty natural gas engine designs. Nine projects were selected for funding through this solicitation. Upon review of the funded projects, staff has identified four projects that align well with AQMP priorities to reduce NOx and PM emissions from transportation sources.

Proposal

Cummins Inc.

Cummins Inc. will address natural gas engine emissions and efficiency improvements by developing a natural gas specific combustion design utilizing high tumble charge motion and cooled exhaust gas recirculation (EGR). The engine will be integrated on a global heavy-duty base engine platform in the 12 to 15-liter displacement range, enabling up to 20 percent reduction in system costs. The technical targets of the project include demonstrating a ten percent improvement in cycle average and peak brake thermal efficiency over the commercially available product and maintaining 0.02 g/bhphr NOx capability with reduced aftertreatment cost.

US Hybrid

US Hybrid Corporation will address total cost of ownership by developing and demonstrating a fully integrated and optimized natural gas, plug-in hybrid Class 8 vehicle that will employ the 9-liter Cummins-Westport L9N commercialized engine certified to the 0.02 g/bhp-hr optional low NOx standard, a commercialized parallel hybrid-electric powertrain, and a 40 kilowatt hour liquid-cooled high-power density lithium-ion battery pack. The project includes a 24-month demonstration in port drayage operations to quantify emissions and performance improvements and will implement a GPS-based predictive geo-fencing hybrid control architecture to ensure zero emissions operation at ports.

Southwest Research Institute

Southwest Research Institute (SwRI) along with Isuzu will address natural gas engine emissions and efficiency improvements by developing and demonstrating a hybrid medium-duty truck using advanced technology natural gas spark-ignited engine. Developing a pent-roof cylinder head for the Isuzu 4HK engine is expected to enable the use of elevated levels of exhaust gas recirculation dilution to yield a high-efficiency engine meeting future NOx regulations. Integrating a hybrid drivetrain will further the vehicle level efficiency gains.

Gas Technology Institute (GTI)

GTI along with its partners, Westport Fuel Systems, McLaren Performance Technologies, Southern California Gas Company (SoCalGas) and Utilization Technology Development, will address natural gas engine and vehicle availability by developing a production intent spark-ignited natural gas engine, optimized to achieve 0.02 g/bhp-hr optional low NOx standard and meeting U.S. EPA's 2027 MY greenhouse gas targets. Upon completion, the engine will be demonstrated in a Class 6 vocational vehicle.

Sole Source Justification

Section VIII.B.2 of the Procurement Policy and Procedure identifies four major provisions under which a sole source award may be justified. This request for sole source award is made under provision B.2.d.: Other circumstances exist which in the determination of the Executive Officer require such waiver in the best interest of the SCAQMD. Specifically, these circumstances are B.2.d.(1): Project involving cost-sharing by multiple sponsors. The proposed projects will include in-kind contributions and cost-share by DOE and CEC.

Benefits to SCAQMD

The proposed projects are relevant to the SCAQMD's priorities to reduce NO_x and PM emissions from transportation sources in order to achieve federal ambient air quality standards and protect public health. Projects to support development and demonstration of advanced technologies are included in the *Technology Advancement Office Clean Fuels Program 2019 Plan Update* under the categories of "Engine Systems". The four selected projects include technology intended to lead to a pathway of production engines as well as medium- and heavy-duty vehicles that improve efficiencies and lower criteria pollutant emissions. Increasing natural gas engine options for different applications in the marketplace will help accelerate fleet turnover.

Resource Impacts

The total estimated cost for the proposed projects is up to \$26,950,784. SCAQMD's total proposed cost-share shall not exceed \$1,700,000 from the Clean Fuels Program Fund (31).

Proposed Projects	SCAQMD Funding (requested)	DOE	CEC	SoCalGas	Proponent Cost-share	Total Project Cost	
Cummins	\$250,000	\$3,069,349	\$680,651	\$0	\$6,996,626	\$10,996,626	
US Hybrid	\$500,000	\$473,162	\$1,020,975	\$0	\$858,869	\$2,853,006	
SwRI	\$475,000	\$3,525,000	\$0	\$0	\$4,200,000	\$8,200,000	
GTI	\$475,000	\$1,975,537	\$0	\$750,000	\$1,700,615	\$4,901,152	
Total	\$1,700,000	\$9,043,048	\$1,701,626	\$750,000	\$13,756,110	\$26,950,784	

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

1 Back to Agenda

BOARD MEETING DATE: April 5, 2019

AGENDA NO. 4

- PROPOSAL: Issue RFP to Establish Endowment to Support Graduate Student Scholarship Fund
- SYNOPSIS: Staff seeks to issue an RFP to solicit bids to support university graduate student scholarships that will, in part, train students entering the workforce, along with guidance from SCAQMD, on the emerging issues and latest research related to air quality and climate change. Relevant areas of study will include, but are not limited to: emissions and air quality impacts, health impacts of air pollution, climate change impacts, sustainable transportation and energy, and improving policy to achieve clean air standards and stabilize GHG emissions. This action is to issue an RFP to solicit bids to establish a university graduate scholarship endowment on air quality and climate change research.
- COMMITTEE: Technology, March 15, 2019; Recommended for Approval

RECOMMENDED ACTION:

Issue RFP #P2019-18 to solicit bids to establish a university graduate scholarship endowment on air quality and climate change research.

Wayne Nastri Executive Officer

MMM:NB:JI:SH

Background

The SCAQMD is the local agency with primary responsibility for regulating stationary source air pollution in the South Coast Air Basin (Basin) in the State of California. The Basin has multiple sources of emissions of hydrocarbons, particulate matter, NOx, carbon monoxide, toxic air contaminants and greenhouse gases that adversely impact air quality and health for many of the Basin's 17 million residents, which is nearly half the population of California. The SCAQMD has supported research and education in the fields of emissions reductions, air quality research and clean energy and staff recommends issuing an RFP to create an endowment fund for graduate student scholarships.

Proposal

This action is to issue RFP #P2019-18 to solicit proposals to create an endowment fund for graduate student scholarships. The program will be sustained with investment and/or interest proceeds from the endowment and support the scholarship annually in perpetuity. The scholarship program will, in part, train students entering the workforce on the emerging issues and latest research related to air quality and climate change. Relevant areas of study will include, but are not limited to: emissions and air quality impacts, health impacts of air pollution, climate change impacts, sustainable transportation and energy, and improving policy to achieve clean air standards and stabilize GHG emissions.

This program will be overseen by an advisory board consisting of representatives from SCAQMD, potentially other cofunding organizations, and the awarded university providing guidance for the relevant topics for research and coursework and recommendations for program management and effectiveness. Depending on the proposals received, there may be more than one award.

Proposals will be evaluated by addressing the following criteria:

- Research capability: Complete description of the capability of the facility for a training and research program on air quality, transportation, and energy issues that embraces an interdisciplinary approach to learning and research, along with having unique equipment to study, in part, transportation emissions, atmospheric reactions, specific source emissions, energy, and health impacts;
- Previous research experience: Complete description of other related studies or projects performed demonstrating, researching and training ability to successfully achieve the goals of the program;
- Funding partnerships: Funding partners from other agency/foundation; and
- Educational program: Educational curriculum with new coursework that complement existing courses. The coursework areas that are suggested for the program include, but are not limited to, air quality, transportation emissions, atmospheric reactions, specific source emissions, energy, and health impact.

Scoring includes a possible additional ten points, five for established programs where our scholarship would integrate into an existing program(s) with a successful track record and five for national level laboratories. It does not include the standard additional 15 points for factors such as small or disabled veteran businesses since this solicitation does not lend itself to those categories.

The attached RFP outlines the proposed endowment approach, with anticipated refinements to be further discussed with the awardee along with guidance by the advisory board.

Proposal Evaluation

Proposals will be evaluated by a panel of three to five SCAQMD staff members familiar with the subject matter of the project. The panel members will be appointed by the Executive Officer or his designee, but it is anticipated they will be at least Program Supervisors or other highly qualified staff. In addition, the evaluation panel may include outside experts, such as representatives from state agencies, ports and/or utilities, as deemed desirable by the Executive Officer.

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 local universities, as well as 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 menu selection "Grants & Bids."

Benefits to SCAQMD

An opportunity has arisen to support an endowment funding in a manner that could result in significant dividends for SCAQMD. Specifically, the endowment will provide opportunities for enhanced candidate pools for technical, policy and health effects positions at SCAQMD as well as opportunities to partner on issues related to energy production and management, mobile source emissions characterization and control, related health impacts, and planning and control strategy implementation.

Resource Impacts

Staff will make recommendations on funding to the Board concurrently with an award recommendation, but it is anticipated that up to \$1 million will be allocated from the BP ARCO Settlement Projects Fund (46), which was established to fund projects and programs related to air pollution mitigation, research, public outreach and education and other projects to help improve air quality in the jurisdiction of the SCAQMD. There are sufficient funds in Fund 46.

Attachment

RFP #P2019-18 - Endowment to Support Graduate Student Scholarship Fund

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT



REQUEST FOR PROPOSALS

Endowment to Support Graduate Student Scholarship Fund

#P2019-18

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

PURPOSE

The purpose of this RFP is solicit proposals for endowment funding for graduate student scholarships. The program will be sustained with investment and/or interest proceeds from the endowment and that will be support the scholarship annually in perpetuity. The scholarship program will, in part, train students entering the workforce on the emerging issues and latest research related to air quality and climate change. Relevant areas of study will include, but are not limited to: emissions and air quality impacts, health impacts of air pollution, climate change impacts, sustainable transportation and energy, and improving policy to achieve clean air standards and stabilize GHG emissions.

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

Attachment A - Participation in the Procurement Process Attachment B - Certifications and Representations

SECTION I: BACKGROUND/INFORMATION

The SCAQMD is the local agency with primary responsibility for regulating stationary source air pollution in the South Coast Basin (referred to here as "Basin") in the State of California. The Basin has multiple has multiple sources of emissions of hydrocarbons, particulate matter, NOx, carbon monoxide, toxic air contaminants, and greenhouse gases that adversely impacts air quality and health for many of the Basin's 17 million residents, which is nearly half the population of California.

The RFP is to solicit proposals for endowment funding to establish a scholarship. This program will be overseen by an advisory board consisting of representatives from SCAQMD, potentially other cofunding organizations, and the awarded university providing guidance for the relevant topics for research and coursework and recommendations for program management and effectiveness.

The Program will be financed by an SCAQMD special revenue fund, which was established for the reduction or mitigation of emissions within the SCAQMD's jurisdiction.

SECTION II: <u>CONTACT PERSON:</u>

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

Dr. Seungbum Ha Air Quality Specialist Technology Demonstration SCAQMD 21865 Copley Drive Diamond Bar, CA 91765-4178 (909) 396-3146

SECTION III: SCHEDULE OF EVENTS

Date	Event
April 5, 2019	RFP Released
June 5, 2019	Initial Round of Proposals Due to SCAQMD – No later than 5:00 pm
Summer 2019	Proposal Evaluations
Fall 2019	Recommendations to Administrative Committee
Winter 2019	Recommendation to Governing Board

SECTION IV: PARTICIPATION IN THE PROCUREMENT PROCESS

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

SECTION V: STATEMENT OF WORK/SCHEDULE OF DELIVERABLES

Statement of Work

The purpose of this RFP is solicit proposals for endowment funding for a graduate student scholarship that will be supported annually in perpetuity. Proposals should address concisely the information requested below in their statement of work in the format specified in Section VII Proposal Submittal Requirements.

Proposers are encouraged to pay close attention to Section IX Proposal Evaluation/Contractor Selection Criteria to assess how their bids will be evaluated. Each bid will be evaluated separately. Information provided should be specific enough for evaluation and scoring purposes, and for inclusion into a contract.

The most competitive Proposer will effectively address the following elements:

- Experience and expertise, or other evidence of research and training ability to successfully achieve the goals and purpose of the program.
- Complete description of other emission reduction studies or projects performed demonstrating potential emission reductions and public health benefits.
- Complete description of potential impact, including but not limited to job creation, public health benefits, and secondary benefits (other than jobs)
- How the project meets or further advances the SCAQMD's regional air quality attainment and public health protection goals.

SECTION VI: REQUIRED QUALIFICATIONS

- A. Universities proposing to apply must demonstrate a wide range of knowledge and experience, or other evidence of capacity in air quality, climate change, and sustainability research, especially for battery electric, hydrogen and fuel cell technology and microgrids.
- B. Proposer must commit to support the program by providing faculty support towards the students, along with utilization of expertise to establish a training and research program that focuses on the issues surrounding climate change and air quality.
- C. Proposer must submit summary of related studies or projects performed during the last five years with references and signed letters of commitment of funding partners from other agency/foundation if applicable.

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. Each proposal must be submitted in three separate volumes:

- Volume I Technical Proposal
- Volume II 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.

VOLUME I - TECHNICAL PROPOSAL

The proposal must be provided by following categories.

<u>Summary (Section A)</u> - 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.

<u>Statement of Work (Section B)</u> – This section shall a training and research program that focuses on the issues surrounding climate change and air quality including the elements specified in the Statement of Work in Section V.

<u>Project Organization (Section C)</u> - 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 university's ability and willingness to commit and maintain staffing to successfully complete the project

<u>Educational program (Section D) -</u> State a comprehensive description of the educational curriculum with new coursework that complement existing courses. The coursework areas that are suggested for the program are, but are not limited to, outlined below:

Topic 1: Criteria Pollutant Emissions & Air Quality

- Pollutant emissions impacts of alternative fuels and conversion technologies
- Measurement of pollutant emissions from multiple sources
- System dynamic impacts of alternative fuels and conversion technologies
- Spatial and temporal characterization of future emissions
- Developing future pollutant emissions scenarios
- Regional air quality modeling

Topic 2: Sustainable Energy Conversion Technology

- Fuel cell technology for stationary power
- Fuel cell technology for vehicles (light and heavy-duty)
- Zero emissions and renewable hydrogen production technologies
- Zero emissions and renewable hydrogen end-use technologies
- Novel high efficiency electrolysis technology
- Hybrid fuel cell gas turbine and fuel cell battery systems

Topic 3: Energy Sustainability & Climate Change

- Primary energy resource availability and dynamics
- Climate change and sustainability
- Integrated food, energy, and water sustainability
- Climate modeling
- Atmospheric chemistry of PM formation, toxics, and ozone
- Atmospheric chemistry of greenhouse gases

Topic 4: Sustainable Transportation Systems

- Shared-use vehicles and mass transit facilitation
- Autonomous vehicle emissions and sustainability dynamics
- · Low carbon infrastructure and efficient transportation system operations
- Low impact and sustainable land use transportation systems
- Zero emission vehicles and fuels technology evaluation and comparisons
- Intelligent transportation systems and automation

Topic 5: Sustainable Stationary Power and Energy Systems

- Renewable solar and wind power generation
- Renewable gas production and use
- Energy storage technologies
- Smart grid technologies
- Sustainable Micro- and Nano-grid technologies

Topic 6: Sustainable Energy and Transportation Policy

- Sustainable energy law and policy development and support
- California region, state, and international air quality policies and regulations
- California region, state, and international sustainable energy and climate change policies and regulations
- Integrated analysis and support of climate change, toxic and air quality policies and regulations
- Impacts in disadvantaged communities

Research capability (Section E)

- Describe the capability of the facility for a training and research program on air quality, transportation, and energy issues that embraces an interdisciplinary approach to learning and research, along with having unique equipment to study, in part, transportation emissions, atmospheric reactions, specific source emissions, energy, and health impacts.
- Include a description of the faculty's knowledge, expertise, qualifications, and resources or the ability to successfully achieve the program's goals

<u>Experience (Section F) - Provide references of other related studies or projects performed</u> during the last five years demonstrating, researching and training ability to successfully achieve the goals of the program.

VOLUME II - 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 5:00 p.m., June 5, 2019, and should be directed to:

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

<u>Submittal</u> - 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 #P2019-18."

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.

<u>Modification or Withdrawal</u> - 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

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, but it is anticipated they will be at least Program Supervisors or other highly qualified staff. In addition, the evaluation panel may include outside experts, such as representatives from state agencies, ports and/or utilities, as deemed desirable by the Executive Officer and/or the Governing Board of SCAQMD for final selection of a contractor and negotiation of a contract.

A. 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.

Evaluation Criteria	Points
Research capability	40
Previous research experience	25
Funding partnerships	25
Educational program	10
Total	100

Proposal Evaluation Criteria

Additional Points

Established programs/ integrating into existing programs with track record	5
National level laboratories	5

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

SECTION X: FUNDING

SCAQMD anticipates providing \$1 million to the selected proposer to create an endowment to develop and support the graduate student scholarship. Depending on the proposals received, there may be more than one award.

ATTACHMENT A

PARTICIPATION IN THE PROCUREMENT PROCESS

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

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

- 1. "Women business enterprise" (WBE) as used in this policy means a business enterprise that meets all of the following criteria:
 - a. a business that is at least 51 percent owned by one or more women, or in the case of any business whose stock is publicly held, at least 51 percent of the stock is owned by one or more or women.
 - b. a business whose management and daily business operations are controlled by one or more women.
 - c. a business which is a sole proprietorship, corporation, or partnership with its primary headquarters office located in the United States, which is not a branch or subsidiary of a foreign corporation, foreign firm, or other foreign-based business.
- 2. "Disabled veteran" as used in this policy is a United States military, naval, or air service veteran with at least 10 percent service-connected disability who is a resident of California.
- 3. "Disabled veteran business enterprise" (DVBE) as used in this policy means a business enterprise that meets all of the following criteria:
 - a. is a sole proprietorship or partnership of which at least 51 percent is owned by one or more disabled veterans or, in the case of a publicly owned business, at least 51 percent of its stock is owned by one or more disabled veterans; a subsidiary which is wholly owned by a parent corporation but only if at least 51 percent of the voting stock of the parent corporation is owned by one or more disabled veterans; or a joint venture in which at least 51 percent of the joint venture's management and control and earnings are held by one or more disabled veterans.

- b. the management and control of the daily business operations are by one or more disabled veterans. The disabled veterans who exercise management and control are not required to be the same disabled veterans as the owners of the business.
- c. is a sole proprietorship, corporation, or partnership with its primary headquarters office located in the United States, which is not a branch or subsidiary of a foreign corporation, firm, or other foreign-based business.
- 4. "Local business" as used in this policy means a company that has an ongoing business within geographical boundaries of SCAQMD at the time of bid or proposal submittal and performs 90% of the work related to the contract within the geographical boundaries of SCAQMD and satisfies the requirements of subparagraph H below. Proposals for legislative representation, such as in Sacramento, California or Washington D.C. are not eligible for local business incentive points.
- 5. "Small business" as used in this policy means a business that meets the following criteria:
 - a. 1) an independently owned and operated business; 2) not dominant in its field of operation; 3) together with affiliates is either:
 - A service, construction, or non-manufacturer with 100 or fewer employees, and average annual gross receipts of ten million dollars (\$10,000,000) or less over the previous three years, or
 - A manufacturer with 100 or fewer employees.

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

- 1) Primarily engaged in the chemical or mechanical transformation of raw materials or processed substances into new products.
- 2) Classified between Codes 311000 and 339000, inclusive, of the North American Industrial Classification System (NAICS) Manual published by the United States Office of Management and Budget, 2007 edition.
- 6. "Joint ventures" as defined in this policy pertaining to certification means that one party to the joint venture is a DVBE or small business and owns at least 51 percent of the joint venture.
- "Low-Emission Vehicle Business" as used in this policy means a company or contractor that uses low-emission vehicles in conducting deliveries to SCAQMD. Low-emission vehicles include vehicles powered by electric, compressed natural gas (CNG), liquefied natural gas (LNG), liquefied petroleum gas (LPG), ethanol, methanol, hydrogen and diesel retrofitted with particulate matter (PM) traps.

- 8. "Off-Peak Hours Delivery Business" as used in this policy means a company or contractor that commits to conducting deliveries to SCAQMD during off-peak traffic hours defined as between 10:00 a.m. and 3:00 p.m.
- 9. "Benefits Incentive Business" as used in this policy means a company or contractor that provides janitorial, security guard or landscaping services to SCAQMD and commits to providing employee health benefits (as defined below in Section VIII.D.2.d) for full time workers with affordable deductible and co-payment terms.
- 10. "Minority Business Enterprise" as used in this policy means a business that is at least 51 percent owned by one or more minority person(s), or in the case of any business whose stock is publicly held, at least 51 percent of the stock is owned by one or more or minority persons.
 - a. a business whose management and daily business operations are controlled by one or more minority persons.
 - b. a business which is a sole proprietorship, corporation, or partnership with its primary headquarters office located in the United States, which is not a branch or subsidiary of a foreign corporation, foreign firm, or other foreign-based business.
 - c. "Minority person" for purposes of this policy, means a Black American, Hispanic American, Native-American (including American Indian, Eskimo, Aleut, and Native Hawaiian), Asian-Indian (including a person whose origins are from India, Pakistan, and Bangladesh), Asian-Pacific-American (including a person whose origins are from Japan, China, the Philippines, Vietnam, Korea, Samoa, Guam, the United States Trust Territories of the Pacific, Northern Marianas, Laos, Cambodia, and Taiwan).
- 11. "Most Favored Customer" as used in this policy means that the SCAQMD will receive at least as favorable pricing, warranties, conditions, benefits and terms as other customers or clients making similar purchases or receiving similar services.
- 12."Disadvantaged Business Enterprise" as used in this policy means a business that is an entity owned and/or controlled by a socially and economically disadvantaged individual(s) as described by Title X of the Clean Air Act Amendments of 1990 (42 U.S.C. 7601 note) (10% statute), and Public Law 102-389 (42 U.S.C. 4370d)(8% statute), respectively;

a Small Business Enterprise (SBE);

a Small Business in a Rural Area (SBRA);

a Labor Surplus Area Firm (LSAF); or

a Historically Underutilized Business (HUB) Zone Small Business Concern, or a concern under a successor program.

C. 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.

- D. 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.
- E. When contracts are funded in whole or in part by federal funds, and if subcontracts are to be let, the Contractor must comply with the following, evidencing a good faith effort to solicit disadvantaged businesses. Contractor shall submit a certification signed by an authorized official affirming its status as a MBE or WBE, as applicable, at the time of contract execution. SCAQMD reserves the right to request documentation demonstrating compliance with the following good faith efforts prior to contract execution.
 - 1. Ensure Disadvantaged Business Enterprises (DBEs) are made aware of contracting opportunities to the fullest extent practicable through outreach and recruitment activities. For Indian Tribal, State and Local Government recipients, this will include placing DBEs on solicitation lists and soliciting them whenever they are potential sources.
 - 2. Make information on forthcoming opportunities available to DBEs and arrange time frames for contracts and establish delivery schedules, where the requirements permit, in a way that encourages and facilitates participation by DBEs in the competitive process. This includes, whenever possible, posting solicitations for bids or proposals for a minimum of 30 calendar days before the bid or proposal closing date.
 - 3. Consider in the contracting process whether firms competing for large contracts could subcontract with DBEs. For Indian Tribal, State and Local Government recipients, this will include dividing total requirements when economically feasible into smaller tasks or quantities to permit maximum participation by DBEs in the competitive process.
 - 4. Encourage contracting with a consortium of DBEs when a contract is too large for one of these firms to handle individually.
 - 5. Using the services and assistance of the Small Business Administration and the Minority Business Development Agency of the Department of Commerce.
 - 6. If the prime contractor awards subcontracts, require the prime contractor to take the above steps.
- F. 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.
- G. In compliance with federal fair share requirements set forth in 40 CFR Part 33, SCAQMD shall establish a fair share goal annually for expenditures with federal funds covered by its procurement policy.

ATTACHMENT B



South Coast Air Quality Management District

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

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

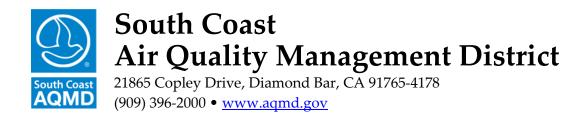
If you have any questions or need assistance in completing this information, please contact Accounting at (909) 396-3777. We appreciate your cooperation in completing this necessary information.

Sincerely,

Sujata Jain Asst. Deputy Executive Officer Finance

DH:tm

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



BUSINESS INFORMATION REQUEST

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

REMITTING ADDRESS INFORMATION

Address										
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 <u>for contracts or purchase orders funded in whole</u> <u>or in part by federal grants and contracts.</u>

- 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.

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

Check all that apply:					
 Small Business Enterprise/Small Business Joint Venture Local business Minority-owned Business Enterprise 	 Women-owned Business Enterprise Disabled Veteran-owned Business Enterprise/DVBE Joint Venture Most Favored Customer Pricing Certification 				
Percent of ownership:%					
Name of Qualifying Owner(s):					
State of California Public Works Contractor Registration No MUST BE INCLUDED IF BID PROPOSAL IS FOR PUBLIC WORKS PROJECT.					

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

NAME

TITLE

TELEPHONE NUMBER

DATE

Definitions

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Departr	W-9 Request for Taxpayer November 2017) Identification Number and Certification Inference of the Treasury al Revenue Service Go to www.irs.gov/FormW9 for instructions and the latest information.						Give Form requester. send to the	Do not
	1 Name (as shown on your income tax return). Name is required on this line; do not leave this line blank.							
с ^і		sregarded entity name, if differ						
page	3 Check appropria following seven to Individual/sole single-member	proprietor or C Corpo	_	_	heck only one of the	certain en instructior	tions (codes app tities, not individ ns on page 3):	uals; see
ype. tions	_	company. Enter the tax classi	ification (C-C corporation S	-S corporation P-Partne	ershin) 🕨	Exempt pa	ayee code (if any)	
Print or type. See Specific Instructions on	Note: Check LLC if the LLC another LLC t	e appropriate box in the line a is classified as a single-memb at is not disregarded from the from the owner should check t	above for the tax classification over LLC that is disregarded fr owner for U.S. federal tax p	n of the single-member o om the owner unless the urposes. Otherwise, a sin	owner. Do not check owner of the LLC is agle-member LLC that	Exemptior code (if ar	n from FATCA re ny)	porting
ecif	Other (see ins	uctions) 🕨				(Applies to acc	counts maintained outs	ide the U.S.)
See	6 City, state, and 27 List account num							
Par	Taxpa	er Identification Nur	mbor (TIN)					
		opriate box. The TIN prov		no divon on lino 1 to a	void Social sec	curity numb	ber	
backu reside entitie	p withholding. For nt alien, sole prop s, it is your emplo	ndividuals, this is generally etor, or disregarded entity, er identification number (El	y your social security nur , see the instructions for	nber (SSN). However, Part I, later. For other	for a	-	-	
TIN, la					or			
Note: If the account is in more than one name, see the instructions for line 1. Also see What Name and Number To Give the Requester for guidelines on whose number to enter. Employer identification number								
Par	Certifi	ation						
Under	penalties of perju	/, I certify that:						
2. I an Ser	n not subject to ba vice (IRS) that I an	this form is my correct tax kup withholding because: subject to backup withhole ckup withholding; and	(a) I am exempt from ba	ckup withholding, or (b	o) I have not been n	otified by	the Internal Re	
3. I an	n a U.S. citizen or	ther U.S. person (defined b	below); and					
4. The	4. The FATCA code(s) entered on this form (if any) indicating that I am exempt from FATCA reporting is correct.							
Certifi	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							

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 becaus you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and generally, payments other than interest and dividends, you are not required to sign the certification, but you must provide your correct TIN. See the instructions for Part II, later.

General Instructions

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

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

Purpose of Form

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

• Form 1099-INT (interest earned or paid)

Date 🕨

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

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

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

Cat. No. 10231X

Form W-9 (Rev. 11-2017)

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),

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

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

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

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

· An individual who is a U.S. citizen or U.S. resident alien;

 A partnership, corporation, company, or association created or organized in the United States or under the laws of the United States;

An estate (other than a foreign estate); or

A domestic trust (as defined in Regulations section 301.7701-7).

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

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

 In the case of a disregarded entity with a U.S. owner, the U.S. owner of the disregarded entity and not the entity;

 In the case of a grantor trust with a U.S. grantor or other U.S. owner, generally, the U.S. grantor or other U.S. owner of the grantor trust and not the trust; and

• In the case of a U.S. trust (other than a grantor trust), the U.S. trust (other than a grantor trust) and not the beneficiaries of the trust.

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

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

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

 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 becomes a resident alien of the United States. A Chinese student who qualifies for this exception (under paragraph 2 of the first protocol) and is relying on this exception to claim an exemption from tax on his or her scholarship or fellowship income would attach to Form W-9 a statement that includes the information described above to support that exemption.

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

Backup Withholding

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

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

Payments you receive will be subject to backup withholding if:

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

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

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

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

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

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

Also see Special rules for partnerships, earlier.

What is FATCA Reporting?

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

Updating Your Information

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

Penalties

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

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

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

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

Specific Instructions

Line 1

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

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

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

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

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

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

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

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

Line 2

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

Line 3

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

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

Partnership

Trust/estate

Line 4, Exemptions

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

Exempt payee code.

Partnership

Trust/estate

· 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

Page 3

Form W-9 (Rev. 11-2017)

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

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

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

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

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

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

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

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

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

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

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

G-A real estate investment trust

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

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

J—A bank as defined in section 581

K-A broker

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

Page 4

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

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

Line 5

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

Line 6

Enter your city, state, and ZIP code.

Part I. Taxpayer Identification Number (TIN)

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

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

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

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

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

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

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

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

Part II. Certification

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

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

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

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

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

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

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

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

What Name and Number To Give the Requester

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

For this type of account:	Give name and EIN of:
14. Account with the Department of Agriculture in the name of a public entity (such as a state or local government, school district, or prison) that receives agricultural program payments	The public entity
 Grantor trust filing under the Form 1041 Filing Method or the Optional Form 1099 Filing Method 2 (see Regulations section 1.671-4(b)(2)(i)(B)) 	The trust

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

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

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

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

*Note: The grantor also must provide a Form W-9 to trustee of trust. Note: If no name is circled when more than one name is listed, the number will be considered to be that of the first name listed.

Secure Your Tax Records From Identity Theft

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

To reduce your risk:

Protect your SSN,

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

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

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

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

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

Protect yourself from suspicious emails or phishing schemes. Phishing is the creation and use of email and websites designed to mimic legitimate business emails and websites. The most common act is sending an email to a user falsely claiming to be an established legitimate enterprise in an attempt to scam the user into surrendering private information that will be used for identity theft. The IRS does not initiate contacts with taxpayers via emails. Also, the IRS does not request personal detailed information through email or ask taxpayers for the PIN numbers, passwords, or similar secret access information for their credit card, bank, or other financial accounts.

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

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

Privacy Act Notice

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

2018 Withholding Exemption Certificate

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

Namo

Payee Information			
Namo	SSN or	ITTIN 🗆 F	EIN 🗆 CA Corp no. 🗆 CA SOS file no.
Address (apt./ste., room, PO box, or PMB no.)			
City (If you have a foreign address, see instructions.)		State	ZIP code

Exemption Reason

Check only one box.

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

Individuals — Certification of Residency:

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

Corporations:

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

Partnerships or Limited Liability Companies (LLCs):

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

Tax-Exempt Entities:

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

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

California Trusts:

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

Estates — Certification of Residency of Deceased Person:

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

Nonmilitary Spouse of a Military Servicemember:

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

CERTIFICATE OF PAYEE: Payee must complete and sign below.

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

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

Type or print payee's name and title	 	 Telephone ()
Payee's signature 🕨		Date
	7061183	Form 590 2017

2017 Instructions for Form 590

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

General Information

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

A Purpose

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

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

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

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

The following are excluded from withholding and completing this form:

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

B Income Subject to Withholding

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

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

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

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

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

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

C Who Certifies this Form

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

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

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

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

D Definitions

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

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

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

Permanent Place of Business:

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

E Military Spouse Residency Relief Act (MSRRA)

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

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

Domicile is defined as the one place:

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

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

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

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

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

Specific Instructions

Payee Instructions

Enter the withholding agent's name.

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

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

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

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

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

Withholding Agent Instructions

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

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

- The individual payee becomes a nonresident.
- The corporation ceases to have a permanent place of business in California or ceases to be qualified to do business in California.

Page 2 Form 590 Instructions 2016

- The partnership ceases to have a
- permanent place of business in California. The LLC ceases to have a permanent place
- of business in California.
- The tax-exempt entity loses its tax-exempt status.

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

Additional Information

Website:	For more information go to ftb.ca.gov and search for nonwage.
	MyFTB offers secure online tax account information and services. For more information and to register, go to ftb.ca.gov and search for myftb .
Telephone:	888.792.4900 or 916.845.4900, Withholding Services and Compliance phone service
Fax:	916.845.9512
Mail:	WITHHOLDING SERVICES AND COMPLIANCE MS F182 FRANCHISE TAX BOARD PO BOX 942867 SACRAMENTO CA 94267-0651
download, v and publica	ns unrelated to withholding, or to view, and print California tax forms tions, or to access the TTY/TDD ee the information below.
Internet and	d Telephone Assistance
Website:	ftb.ca.gov
Telephone:	800.852.5711 from within the United States
	916.845.6500 from outside the

hearing or speech impairments

TTY/TDD:

United States

800.822.6268 for persons with

Asistencia Por Internet y Teléfono

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

TTY/TDD: 800.822.6268 para personas con discapacidades auditivas o de habla

Certification Regarding Debarment, Suspension, and Other Responsibility Matters

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

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

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

Typed Name & Title of Authorized Representative

Signature of Authorized Representative Date

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



CAMPAIGN CONTRIBUTIONS DISCLOSURE

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

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

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

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

<u>SECTION I</u>.

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

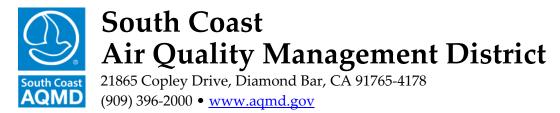
I declare the foregoing disclosures to be true and correct.

By:_____

Title:

Date:_____

		DEFINITIONS
		Parent, Subsidiary, or Otherwise Related Business Entity (2 Cal. Code of Regs., §18703.1(d).)
(1)		t subsidiary. A parent subsidiary relationship exists when one corporation directly or indirectly owns shares possessing than 50 percent of the voting power of another corporation.
(2)	organi	wise related business entity. Business entities, including corporations, partnerships, joint ventures and any other izations and enterprises operated for profit, which do not have a parent subsidiary relationship are otherwise related if ne 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.



Direct Deposit Authorization

STEP 1: Please check all the appropriate boxes

- Individual (Employee, Governing Board Member)
- Vendor/Contractor
 Changed Information

New RequestCancel Direct Deposit

STEP 2: Payee Information					
Last Name	First Name		Middle Initial	Title	
Vendor/Contractor Business Name (if applicable)					
Address			Apartment or P.	O. Box Number	
0.1					
City		State	Zip	Country	
Townsyler ID Number	Telephone Number			Email Address	
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.
- 2. 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.

То	be	Com	pleted	by g	your	Bank
----	----	-----	--------	------	------	------

ere	Name of Bank/Institution				
Staple Voided Check Here	Account Holder Name(s)				
oided C	Saving Checking	Account Number		Routing Number	
taple V	Bank Representative Printed Name		Bank Representative Signature		Date
Ś	ACCOUNT HOLDER SIG	NATURE:			Date

For SCAQMD Use Only

1 Back to Agenda

BOARD MEETING DATE: April 5, 2019

AGENDA NO. 5

- PROPOSAL: Transfer and Appropriate Funds, Issue Solicitations, and Execute Purchase Orders and Contracts for AB 617 Implementation
- SYNOPSIS: In January and June 2018, the Board recognized revenue from CARB for AB 617 expenditures. Based on an assessment of the AB 617 program including input from multiple community steering group meetings, there is a need to reallocate funds and realign expenditures between Offices and Major Objects. These actions are to transfer and appropriate funds, issue solicitations, and execute contracts and purchase orders for equipment and services to implement the AB 617 program in the three Year 1 communities.

COMMITTEE: Administrative, March 8, 2019; Recommended for Approval

RECOMMENDED ACTIONS:

- Transfer and appropriate funds in an amount up to \$800,000 from Planning, Rule Development and Area Source's FYs 2018-19 and/or 2019-20 Budgets, Professional and Special Services Major Object, to Science & Technology Advancement's FYs 2018-19 and/or 2019-20 Budgets, Capital Outlay and Professional and Special Services Major Objects, for AB 617 expenditures as set forth in Tables 1 and 2.
- 2. Appropriate funds up to \$456,000 into Science & Technology Advancement's and Information Management's FYs 2018-19 and/or 2019-20 Budgets, Capital Outlays and Professional and Special Services Major Objects, for AB 617 expenditures as set forth in Tables 1 and 2.
- 3. Authorize the Procurement Manager, in accordance with SCAQMD Procurement Policy and Procedure, as listed in Table 1, to execute purchase orders for the following:
 - a. Two MAGICTM condensation particle counters from Aerosol Devices Inc.;
 - b. One GRIMM particulate matter monitor from GRIMM Technologies, Inc.;
 - c. One photoacoustic extinctiometer for black carbon measurements from Droplet Measurement Technologies, Inc.;
 - d. One Markes pre-concentrator system from Markes International, Inc.;
 - e. Up to 35 sampling containers from Entech Instruments, Inc.; and
 - f. One nCLD AL² for NO/NO2/NOx monitor from ECO PHYSICS, Inc.

- 4. Authorize the Procurement Manager, in accordance with SCAQMD Procurement Policy and Procedure, as listed in Table 1, to do the following:
 - a. Issue an RFQ(s), or a purchase order(s) based on prior-bid, last-price, for one continuous CO monitor and one continuous ozone monitor; and
 - b. If an RFQ(s) is issued in 4a, based on the results of the RFQ(s), execute a subsequent purchase order(s) for the monitors.
- 5. Authorize the Executive Officer or Procurement Manager to execute contracts or purchase orders, as deemed appropriate, for server and storage services from vendors in the SCAQMD's List of Prequalified Vendors to Provide Computer, Network, Printer, Hardware and Software, and Audio Visual Equipment, as listed in Table 1.
- 6. Issue RFP #P2019-20 in an amount not to exceed \$900,000 to solicit proposals to develop an environmental chamber for initiating a sensor performance verification program and to develop a pilot program for a sensor library for communities.
- Authorize the Executive Officer to execute sole source contracts, using funds from Science & Technology Advancement's FYs 2018-19 and/or 2019-20 Budgets, Professional and Special Services, as listed in Table 2 and as follows:
 - a. Aclima, Inc., for mobile VOC and black carbon measurements in an amount up to \$160,000; and
 - b. Aerodyne Research, Inc., for ship emissions measurements in an amount up to \$350,000.

Wayne Nastri Executive Officer

MMM:JCL:AP:ld

Background

In January and June 2018, the Board recognized revenue from CARB for AB 617 expenditures and approved adding new positions and funding allocations for contracts, equipment purchases (capital outlays), and other services and supplies for initial AB 617 work. In July 2018, the Board approved a list of four communities for CARB's consideration for first-year AB 617 communities. In September 2018, the CARB Board selected 10 communities statewide for emissions monitoring and/or community emissions reduction plans, including three communities for the South Coast: Wilmington/West Long Beach/Carson; East Los Angeles Neighborhoods/Boyle Heights/West Commerce; and Muscoy/San Bernardino. All three communities will have emissions monitoring and community emission reduction plans. Community steering committees have been formed for each area, and meetings are ongoing to provide input on these efforts. By July 1, 2019, SCAQMD must put air monitoring systems in place and be able to send data to CARB's data repository system. Staff is in the process of drafting community air monitoring plans and has purchased initial monitoring equipment using first-year AB 617 funding. In addition to emissions monitoring and community emissions reduction plans, AB 617 requires major efforts in accelerated Best Available Retrofit Control Technology (BARCT) rule-making and statewide emissions reporting.

Based on an assessment of the AB 617 program, including input from multiple Community steering committee meetings, there is a need to reallocate some funds. Cost savings of approximately \$96,000 have resulted from the purchase of air monitoring equipment. Staff has also determined that the purchase of a gas chromatograph/mass spectrometer system for conducting field measurements of VOCs and other gaseous pollutants is not needed for the current communities; this resulted in an additional \$200,000 in cost savings that can be used for air monitoring equipment that is more appropriate to the AB 617 communities. In addition, the use of funds for BARCT and CEQA analysis originally allocated in the Planning, Rule Development and Areas Sources Office in the amount of \$800,000 will be delayed to subsequent fiscal years, and staff proposes reallocating these funds to the Science & Technology Advancement Office. This is due to the timing of the Community Emissions Reduction Plans (CERPs) and the need to conduct future BARCT analysis and review. Lastly, in January 2018, the Board awarded \$160,000 to the Desert Research Institute for conducting hexavalent chromium surveys, but this contract amendment was not executed due to limitations of the monitoring capabilities provided by this vendor. Consequently, there is a total of \$1,256,000 in cost savings that staff proposes to reallocate to satisfy required monitoring needs for AB 617 implementation in the three Year 1 communities.

Proposal

This action is to transfer and appropriate the cost savings identified above in an amount up to \$1,256,000 as follows: 1) transfer and appropriate \$800,000 from Planning, Rule Development and Area Source's FYs 2018-19 and/or 2019-20 Budgets, Professional and Special Services Major Object, to Science & Technology Advancement's FYs 2018-19 and/or 2019-20 Budgets, Capital Outlay and Professional and Special Services Major Objects; and 2) appropriate funds up to \$456,000 into Science & Technology Advancement's and Information Management's FYs 2018-19 and/or 2019-20 Budgets, Capital Outlays and Professional and Special Services Major Objects.

Sole Source Purchase Orders

Several pieces of monitoring and measurement equipment are required for AB 617 implementation, which are only available from single manufacturers or vendors. The Procurement Manager, in accordance with SCAQMD Procurement Policy and Procedure, will execute sole source purchase orders not to exceed \$213,000 for these various pieces of equipment, as listed in Table 1.

Solicitation or Prior-Bid, Last-Price Purchase Orders

A continuous CO monitor and a continuous ozone monitor, as listed in Table 1, are required for AB 617 implementation. The Procurement Manager, in accordance with SCAQMD Procurement Policy and Procedure, will issue an informal RFQ(s) or execute purchase orders based on prior-bid, last-price for the monitors. If an RFQ(s) is issued, based on the results of the RFQ, the Procurement Manager will execute a subsequent purchase order(s) for the monitors.

Server and Storage Services

Additional server and storage services for AB 617 implementation are required for the expected increased need for laboratory data processing and storage that will be generated from the program. The Executive Officer or Procurement Manager will execute contracts or purchase orders, as appropriate, for these services, as listed in Table 1, from the SCAQMD's List of Prequalified Vendors to Provider Computer, Network, Printer, Hardware and Software, and Audio Visual Equipment. The List of Prequalified Vendors was approved by the Board in February 2018 for a two-year period.

Issue RFP

AB 617 is expected to require use of low-cost sensors for measuring particle and gaseous pollutants in communities. There is a need to categorize commercially available sensors based on their performance and applications. Staff proposed to expand AQ-SPEC and create a performance verification program for air quality sensors. This idea has been widely endorsed by a broad range of stakeholders. Under such a program, the AO-SPEC would obtain the new technologies, test them using standardized protocols, and verify their appropriateness for specific applications (e.g., community and fenceline monitoring) based upon well-established performance and application criteria. Staff has also been working on the development of a sensor library to allow communities in the South Coast Air Basin (Basin) to assess air quality conditions in their area using sensors provided by the SCAQMD. Under this program, all sensors would be calibrated by staff before and after community deployment to ensure that the collected data are of the highest quality. This, in turn, would allow for information gathering to look at potential future AB 617 communities. RFP #P2019-20 will solicit qualified contractors to develop an environmental chamber to initiate a sensor performance verification and a sensor library program within AQ-SPEC. The RFP evaluation panel proposed will consist of four internal panelists made up of one Atmospheric Measurements Manager, one Program Supervisor, one Air Quality Specialist and one Air Quality Chemist. Funds for these proposed projects would not exceed \$900,000, as listed in Table 1.

Sole Source Contracts

The Executive Officer will execute sole source contracts with Aclima, Inc., for mobile VOC and black carbon measurements and with Aerodyne Research, Inc., for ship emissions measurements, as listed in Table 2.

After the matter was considered by the Administrative Committee on March 8, 2019, staff determined that \$100,000 will be needed for the BARCT assessment and therefore only \$800,000 is available for transfer. To accommodate this change, the Aerodyne Research, Inc. contract has been reduced from \$450,000 to \$350,000.

Sole Source Justification

Section VIII.B.2 of the Procurement Policy and Procedure identifies provisions under which sole source awards can be made.

The requests for sole source awards are made under provision VIII.B.2.c.(1), the desired services are available from only the sole source based on the unique experience and capabilities of the proposed contractor or contractor team. Aerosol Devices Inc. is the only manufacturer of MAGICTM CPC instruments in the U.S. and whose products have a long history of scientific evaluation and testing. Droplet Measurement Technologies, Inc., is the only manufacturer of photoacoustic extinctiometer instruments in the U.S. and whose products have a long history of scientific evaluation and testing.

The requests for sole source awards are made under provision VIII.B.2.c.(2), the project involves the use of proprietary technology. GRIMM Technologies, Inc., is the only manufacturer of instruments used to conduct very precise isokinetic sampling of mobile particle mass and counts on mobile platforms. A Markes auto sampler and thermal desorber will be added to existing SCAQMD Markes pre-concentrator system; software and communications between the three pieces of equipment is proprietary. The sampling containers will be used with an Entech robotic auto sampler, which is configured for dimensions specific to their sampling containers. ECO PHYSICS, Inc., is the only manufacturer of instruments used to conduct fast response measurements of NO, NO2 and NOx for mobile monitoring applications.

The requests for sole source awards are made under provision VIII.B.2.c.(1), the desired services are available from only the sole source based on the unique experience and capabilities of the proposed contractor or contractor team; (2) the project involves the use of proprietary technology; and (3) the contractor has ownership of key assets required for project performance. Aclima, Inc., is the only contractor capable of delivering hyperlocal black carbon, VOC and other air pollution data using a scalable mobile platform that combines leading-edge sensor technology and machine learning to generate high-resolution maps. Aerodyne Research, Inc., is the exclusive distributor of the Vocus Time of Flight PTR-MS (proton transfer reaction mass spectrometer) instruments that will be used to measure aromatic hydrocarbons and higher molecular sulfur compounds at the detection levels required for this project.

Benefits to SCAQMD

The contracts, equipment and related services and supplies as described in this Board letter allows SCAQMD to fulfill the legislative directives of AB 617, which will result in benefits to environmental justice communities and to all residents in the Basin. The development of a performance verification and sensor library program within AQ-SPEC will provide credible and objective information to aid in decision-making for the benefit of developers, manufacturers, other air districts, community and academic groups, the general public and other users. This will strengthen SCAQMD's role as the leading agency in the area of air quality sensor development and applications.

Resource Impacts

Funding from CARB's Community Air Protection Program under AB 617 will provide sufficient resources to implement SCAQMD's AB 617 Program.

Attachments

- 1. Table 1 FYs 2018-19 and/or 2019-20 Proposed Capital Outlay Expenditures and Laboratory Supply Expenditures for AB 617
- 2. Table 2 FYs 2018-19 and/or 2019-20 Proposed Contracts for AB 617
- 3. RFP #P2019-20 For a Characterization Chamber System for Testing Air Monitoring Sensor Devices

Table 1FYs 2018-19 and/or 2019-20 Proposed Capital Outlay and Laboratory Supply
Expenditures for AB 617

Description	Org Unit	Account	Quantity	Estimated Amount	Contracting Method
MAGIC [™] Condensation Particle Counter	STA	77000	2	\$35,000	Sole Source
GRIMM Particulate Matter Monitor	STA	77000	1	35,000	Sole Source
Photoacoustic Extinctiometer for Black Carbon Measurements	STA	77000	1	55,000	Sole Source
Markes Pre- Concentrator System	STA	77000	1	51,000	Sole Source
Sampling Container	STA	68050	Up to 35	15,000	Sole Source
ECO PHYSICS nCLD AL ² NO/NO2/NOx Monitor	STA	77000	1	22,000	Sole Source
Continuous CO Monitor	STA	77000	1	15,000	RFQ or Prior Bid, Last Price
Continuous Ozone Monitor	STA	77000	1	18,000	RFQ or Prior Bid, Last Price
Server and Storage	IM	77000	1	50,000	Already Approved Vendors
AQ-SPEC Chamber*	STA	77000	0.5	450,000	RFP
			Total	\$746,000	

Note: Listed expenditures may be appropriated in the Services and Supplies Major Object as warranted.

*\$450,000 for the development of the first half of the chamber has already been approved by the Board in December 2018. Staff is seeking Board approval to fund the remaining part of the chamber system through the savings described in this Board letter.

Table 2FYs 2018-19 and/or 2019-20 Proposed Contracts for AB 617

Contractor	Description	Org Unit	Account	Estimated Amount
Aclima, Inc.	Mobile VOC and BC measurements	STA	67450	\$160,000
AerodyneShip emissionsResearch, Inc.measurements		STA	67450	350,000
			Total	Up to \$510,000

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT



REQUEST FOR PROPOSALS

FOR A CHARACTERIZATION CHAMBER SYSTEM FOR TESTING AIR MONITORING SENSOR DEVICES

P2019-20

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 submit proposals for the development of a fully-integrated characterization chamber system for testing air monitoring sensor devices under controlled laboratory conditions. This chamber system will be operated under the SCAQMD's Air Quality Sensor Performance Evaluation Center (AQ-SPEC) program. The chamber system will be set-up inside the SCAQMD laboratory or in another dedicated area, and will be used to test the performance of commercially available particle and gaseous sensors. Targeted particle and gaseous pollutants include carbon monoxide (CO), ozone (O₃), nitrogen oxides (NO_x), particulate matter (PM_{2.5} and PM₁₀), volatile organic compounds (VOCs), hydrogen sulfide (H₂S) and methane (CH₄). Sensors shall be tested under known target or interferent concentrations and different temperature and relative humidity levels.

INDEX - The following are contained in this RFP:

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

SECTION I: BACKGROUND/INFORMATION

The SCAQMD is the air pollution control agency for all of Orange County and the urban portions of Los Angeles, Riverside and San Bernardino counties.

Within the SCAQMD, the AQ-SPEC program was established in 2014 and during the summer of 2015, the program successfully developed and implemented the first characterization chamber system in the U.S. for testing commercially available, consumer-grade air monitoring sensors and reporting the evaluation results to the general public. AB 617 and other upcoming state and local regulation programs may use low-cost sensors for measuring particle and gaseous pollutants in communities. Therefore, there is a need to categorize commercially available sensors based on their performance and applications and enhance the AQ-SPEC program to create a performance verification program for air quality sensors. This idea has been widely endorsed by a broad range of stakeholders. Thus, the AQ-SPEC program is in need of procuring a second environmental chamber system for testing, calibrating and characterizing large numbers of commercially available air monitoring sensor devices.

Under such program, AQ-SPEC would obtain the new technologies, test them using standardized protocols, and verify their appropriateness for specific applications (e.g., community and fenceline monitoring) based upon well-established performance and application criteria. Staff has also been working on the development of a sensor library program to allow communities to assess air quality conditions in their area using sensors provided by AQ-SPEC. Under this program, all sensors would be calibrated by staff before and after community deployment to ensure that the collected data are of the highest quality. Thus, SCAQMD would like to solicit qualified contractors to develop a characterization chamber system to initiate a sensor performance verification and a sensor library program within the AQ-SPEC group.

SECTION II: <u>CONTACT PERSON:</u>

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

Vasileios Papapostolou Program Supervisor, AQ-SPEC SCAQMD 21865 Copley Drive Diamond Bar, CA 91765-4178 (909) 396-2254

SECTION III: SCHEDULE OF EVENTS

Date	Event
April 5, 2019	RFP Released
April 19, 2019	Bidder's Conference*
May 8, 2019	Proposals Due to SCAQMD - No
	Later Than 4:00 P.M. PDT
May 9 – May 17, 2019	Proposal Evaluations
May 17, 2019	Interviews, if required
June 7, 2019	Governing Board Approval
July 5, 2019	Anticipated Contract Execution

*Participation in the Bidder's Conference is <u>required</u>. Such participation would assist in notifying potential Bidders of any updates or amendments. The Bidder's Conference will be held in Conference Room CC3-5 at SCAQMD Headquarters in Diamond Bar, California at 10:00 a.m. on Friday, April 19, 2019. Please contact Vasileios Papapostolou at (909) 396-2254 by close of business on Friday, April 12, 2019 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

STATEMENT OF WORK

Under the direction of the SCAQMD, the Contractor will provide a fully-integrated characterization chamber system to SCAQMD for testing, calibrating and characterizing large numbers (20 sensors or more simultaneously; indicative individual sensor dimensions: 12x12x12 inches) of commercially available air monitoring sensors. The sensor devices to be tested measure criteria pollutants, air toxics, and other particle and gaseous pollutants of interest. Testing parameters shall include but are not limited to sensor accuracy, precision, bias, response time, short and long-term drift, aging, lifetime, interference, pressure effect and overall performance under controlled environmental conditions.

The chamber system shall consist of five components:

1st Component (Main Component): Chamber

The chamber shall:

- Be leak-free and be able to be operated in static and dynamic mode, and in steady-state
- Generate stable and reproducible known target and interferent dust/aerosol and gaseous concentrations under extreme cold and hot temperatures combined with humidity, altitude and vibration
- Mimic a wide range of climatic conditions including variable winds and dust
- Provide an aging test room with the capability of testing sensors for extended periods of time under hot, cold, dry, and humid conditions
- Generate minimal particle and gas losses
- Accommodate testing of both reactive and non-reactive gases and air toxics, including a wide variety of volatile organic compounds (VOCs)
- Carry access ports, multiple sampling ports and adjustable shelves
- Accommodate all sensor data communication and transmittance options (e.g., WiFi, Ethernet, Bluetooth, computer PC) and access options between inside and outside of the chamber
- Carry sensor power supply access option between inside and outside of the chamber
- Provide for excess chamber air to be routed to a laboratory fume hood
- Include a dry air purge system to achieve low relative humidity
- Include a fast Temperature and Relative Humidity change rate system
- Include a Temperature and Relative Humidity cycling testing feature
- Include demineralizer(s)
- Include a color touch-screen controller

2nd Component - Dilution Air system (scrubbing and calibrator):

- The dilution air system shall be able to provide high-flow, particle-free, gas-free, dry air capable of diluting aerosol/dust and gas concentrations inside the chamber as well as gas concentration in the dilution calibrator.
- The dilution calibrator shall be able to accommodate various levels of dilution (from very low to very high) of aerosol/dust and gas concentrations with dilution air by maintaining a balanced chamber flow.

<u>3rd Component – Particle Generation system:</u>

The chamber system shall include:

- Artificial aerosol generation system(s) for fine and ultrafine particles coupled with an aerosol charge neutralizer
- Mechanical Dispenser(s) of dust/coarse particles

4th Component - Reference Instrumentation:

The chamber system shall include:

- Regulatory-grade (e.g., FEM) continuous/semi-continuous monitors for measuring:
 - o Ozone, Nitrogen Oxides, Carbon Monoxide and Sulfur Dioxide
 - PM2.5 and PM10 mass concentration
- Research-grade continuous/semi-continuous monitors for measuring:
 - Carbon Dioxide, Hydrogen Sulfide, Methane, and Total/Speciated Volatile Organic Compounds (e.g., GC-FID system; spectroscopic/spectrometric instrument; other)
 - Particle count concentration, size distribution and fractionation

5th Component – Chamber System Software:

A fully integrated custom computer software (compatible with MS Windows and MS Office) shall be developed and provided on two copies on CD or other acceptable format and also installed on a high-end (large processor and memory) computer PC to control all chamber, dilution air system, particle generation, reference instrumentation, weather sensor(s) and air quality sensor(s) operational parameters and functionalities. The chamber and all components shall be remotely accessible via the computer software. This system should be provided with two 21" computer monitors and one large screen TV monitor to visualize all data and information.

EQUIPMENT AND SERVICES TO BE FURNISHED BY THE CONTRACTOR

Contractor shall provide with the chamber system the following:

- 1. All accessories and specialized tools required for operation and necessary servicing of the chamber system for a period of one year after completion of acceptance testing.
- 2. Two (2) color hard copies of the operating manual, two (2) color hard copies of the service manual and two (2) color hard copies of the electronic schematic and flow diagram of the entire system.
- 3. Two (2) copies of all available performance reports for testing conducted by the manufacturer.
- 4. Two (2) copies of a complete list of components and spare parts including current prices.
- 5. A list of Contractor's standard rates for time and travel of his/her service personnel.
- 6. The Contractor shall provide delivery and training schedules within 30 days of contract approval.

<u>TRAINING</u>

Contractor shall provide training that shall include operation, routine servicing, calibration, repair, preventive maintenance and non-routing servicing, using schematics, flow diagrams and written trouble shooting guidelines. Training must be itemized in the proposal.

WARRANTY

- 1. <u>Specifications</u>: Contractor shall provide a written warranty that, for a period of a least one year following its acceptance, the chamber system, including its components, will meet the requirements listed above and will comply with the physical and performance specifications listed hereinafter. If there is a failure of any component or chamber system part during the warranty period, the Contractor shall agree to replace such component or part at no cost in time to arrive at the South Coast Air Quality Management District within 72 hours of notification of the Contractor.
- 2. <u>Field Service</u>: In the event the chamber system develops a malfunction which cannot be solved by the application of routine servicing procedures described in the operating and service manual or by replacement of a part supplied under the warranty, Contractor shall agree to place the chamber system into proper operating condition within seven days after the arrival of service personnel. During the first year following acceptance by the SCAQMD, Contractor shall agree to make no charge for this service at any location within the jurisdiction of the SCAQMD and to provide this service in time to comply with the terms of the warranty concerning total operating hours per year.
- 3. <u>Components and Spare Parts</u>: Contractor shall agree to supply, on request, components and spare parts for the characterization chamber for at least ten years following the date of acceptance by the SCAQMD. Contractor shall agree to place parts Contractor manufactured in the hands of the SCAQMD within 15 days of receipt of the order. In the case of spare parts which the Contractor does not manufacture, Contractor shall agree to either of the following: (1) place the parts requested in the hands of the SCAQMD within 45 days of receipt of the first order and within 15 days of receipt of subsequent orders, or (2) find and identify to the SCAQMD, within 15 days a convenient, reliable source of supply which will place parts in the hands of the SCAQMD within 30 days of the receipt of the order.

Contractor shall warrant all replacement parts to be of quality equal or superior to the components in the original chamber. Repairs or replacements accomplished under the warranty during the last 90 days of the warranty year shall be further warranted for a minimum period of 90 days following completion of the work or delivery of replacement parts.

Contractor shall agree not to make any unreasonable increases in the prices of components and spare parts and in no case more than those necessary to offset actual increases in costs of labor and materials. Contractor shall warrant that the price charged the SCAQMD for components and spare parts are no higher than the prices charged to the Contractor's most favored customer.

As part of the response to this RFP, Contractor shall provide an annual estimated cost of spare parts after expiration on the warranty period. The annual estimated cost shall be based on an anticipated 10-year life and Contractor supplied failure rates. Contractor must provide supporting documentation to substantiate the failure rates quoted.

ACCEPTANCE TESTING

The chamber system will be required to pass acceptance testing. Within ten days after the delivery of all chamber system components and set-up, the acceptance test shall be initiated. The acceptance test shall consist of checking the chamber system for compliance with the requirements listed above and those listed under this "STATEMENT OF WORK". The duration of the acceptance test shall be 30 days minimum and 60 days maximum. Representatives of the Contractor shall have the option, but not the requirement, of setting up the chamber and making it ready for acceptance testing.

If the chamber system does not meet the specifications listed, the chamber system will be rejected and the Contractor will have one opportunity to repair or replace the chamber system to cure all defects. The chamber system will be returned to Contractor freight collect. If the chamber system fails, except for external causes, within a 30-day period, Contractor shall be given the opportunity to make any necessary corrections or replacements, including the entire chamber system, if necessary, after which another 30-day test shall be initiated. If, by the end of 70 days after the beginning of the first 30-day test, the chamber system has not met all specifications, including a 30-day period of continuous operation (with allowance for shut-downs due to external causes) followed by compliance with the performance specifications and the acceptance tests, the chamber shall be rejected and the order canceled.

PAYMENT

Payment will be made within thirty (30) days after the completion of the acceptance test.

<u>SHIPMENT</u>

The chamber system ordered, complete with all components, accessories, specialized tools, manuals, calibration reports and parts lists, shall be shipped, transportation prepaid, to:

South Coast Air Quality Management District 21865 Copley Drive Diamond Bar, CA 91765-4182

Science and Technology Advancement Attn.: Vasileios Papapostolou Air Quality Sensor Performance Evaluation Center Monitoring & Analysis Division

Contractor shall be responsible for any damage sustained by the chamber system and/or its components and accessories during shipment.

SCHEDULE OF DELIVERABLES

Contractor shall deliver the entire chamber system including all five components described above to SCAQMD by October 9, 2019.

TECHNICAL SUPPORT – SERVICE AGREEMENT

For the first two years of the chamber system operation, Contractor shall be responsible for regular preventive maintenance of the characterization chamber system, all functions related to the testing of the sensors, and the custom computer software. This will include chamber system operation maintenance, software maintenance and support for potential bug fixing and system upgrades as and when requested. SCAQMD personnel will continue to be responsible

for all matters related to reference and testing Instrumentation (instrument service, new instrument installation, troubleshooting and preventive maintenance).

SECTION VI: <u>REQUIRED QUALIFICATIONS</u>

- A. Contractor of the offered chamber system shall have demonstrated experience in the fabrication of characterization chambers or similar environmental enclosures, the development of custom software for air quality monitoring and calibration applications of the types being sought, the customization and integration of hardware components relating to air quality monitoring applications, and shall supply strong evidence of his/her financial and technical capabilities. The Contractor shall supply the names, addresses and phone numbers or point of contact of at least four users of the chamber system being offered or of similar products.
- B. Proposer must submit the following:
 - 1. Resumes or similar statement of qualifications of person or persons who may be designated as Lead for this project.
 - 2. List of staff members involved with copies of their resumes attached.
 - 3. Summary of proposer's general qualifications to meet required qualifications and fulfill statement of work, including additional Company personnel and resources beyond those of the designated Lead and staff members.

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 (<u>http://www.aqmd.gov/grants-bids</u>). 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

<u>Summary (Section A)</u> - 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.

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

<u>Project Organization (Section C)</u> - 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.

<u>Qualifications (Section D)</u> - 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.

<u>Assigned Personnel (Section E)</u> - 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.

<u>Subcontractors (Section F)</u> - 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.

<u>Conflict of Interest (Section G)</u> - 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.

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

VOLUME II - COST PROPOSAL

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

<u>Cost Proposal</u> – 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. <u>Labor</u> 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. <u>Subcontractor Costs</u> List subcontractor costs and identify subcontractors by name. Itemize subcontractor charges per hour or per day.
 - C. <u>Travel Costs</u> 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. <u>Other Direct Costs</u> -This category may include such items as postage and mailing expense, printing and reproduction costs, etc. Provide a basis of estimate for these costs.
- 2. It is the policy of the SCAQMD to receive at least as favorable pricing, warranties, conditions, benefits and terms as other customers or clients making similar purchases or receiving similar services. SCAQMD will give preference, where appropriate, to vendors who certify that they will provide "most favored customer" status to the SCAQMD. To receive preference points, Proposer shall certify that SCAQMD is receiving "most favored customer" pricing in the Business Status Certifications page of Volume III, Attachment B Certifications and Representations.

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

SECTION VIII: PROPOSAL SUBMISSION

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

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

Due Date - All proposals are due no later than 4:00 p.m., May 8, 2019, and should be directed to:

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

<u>Submittal</u> - 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 P2019-20."

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.

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

SECTION IX: PROPOSAL EVALUATION/CONTRACTOR SELECTION CRITERIA

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

(a)			
	Expertise, or Special Projects Requiring Unique		
	Knowledge or Abilities		
	Understanding the Problem	25	
	Technical/Management Approach	30	
	Contractor Qualifications	15	
	Previous Experience on Similar Projects	10	
	Cost	20	
	TOTAL	100	

(b) Additional Points

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

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

Self-Certification for Additional Points

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

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

Business, Low-Emission Vehicle Business and Off-Peak Hour Delivery Business shall not exceed 15 points.

- 3. For procurement of Research and Development (R & D) projects or projects requiring technical or scientific expertise or special projects requiring unique knowledge and abilities, technical factors including past experience shall be weighted at 80 points and cost shall be weighted at 20 points. A proposal must receive at least 64 out of 80 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 20 points, this proposal would receive the full 20 points. If the next lowest cost proposal is \$1,100 it would receive 18 points reflecting the fact that it is 10% higher than the lowest cost (90% of 20 points = 18 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. <u>Disposition of Proposals</u> Pursuant to SCAQMD's Procurement Policy and Procedure, SCAQMD reserves the right to reject any or all proposals. All proposals become the property of SCAQMD, and are subject to the California Public Records Act. One copy

of the proposal shall be retained for SCAQMD files. Additional copies and materials will be returned only if requested and at the proposer's expense.

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

SECTION X: FUNDING

The total one time funding for the work contemplated by this RFP will be a maximum **\$900,000**.

SECTION XI: SAMPLE CONTRACT

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

ATTACHMENT A

PARTICIPATION IN THE PROCUREMENT PROCESS

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

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

- 1. "Women business enterprise" (WBE) as used in this policy means a business enterprise that meets all of the following criteria:
 - a. a business that is at least 51 percent owned by one or more women, or in the case of any business whose stock is publicly held, at least 51 percent of the stock is owned by one or more or women.
 - b. a business whose management and daily business operations are controlled by one or more women.
 - c. a business which is a sole proprietorship, corporation, or partnership with its primary headquarters office located in the United States, which is not a branch or subsidiary of a foreign corporation, foreign firm, or other foreign-based business.
- 2. "Disabled veteran" as used in this policy is a United States military, naval, or air service veteran with at least 10 percent service-connected disability who is a resident of California.
- 3. "Disabled veteran business enterprise" (DVBE) as used in this policy means a business enterprise that meets all of the following criteria:
 - a. is a sole proprietorship or partnership of which at least 51 percent is owned by one or more disabled veterans or, in the case of a publicly owned business, at least 51 percent of its stock is owned by one or more disabled veterans; a subsidiary which is wholly owned by a parent corporation but only if at least 51 percent of the voting stock of the parent corporation is owned by one or more disabled veterans; or a joint venture in which at least 51 percent of the joint venture's management and control and earnings are held by one or more disabled veterans.

- b. the management and control of the daily business operations are by one or more disabled veterans. The disabled veterans who exercise management and control are not required to be the same disabled veterans as the owners of the business.
- c. is a sole proprietorship, corporation, or partnership with its primary headquarters office located in the United States, which is not a branch or subsidiary of a foreign corporation, firm, or other foreign-based business.
- 4. "Local business" as used in this policy means a company that has an ongoing business within geographical boundaries of SCAQMD at the time of bid or proposal submittal and performs 90% of the work related to the contract within the geographical boundaries of SCAQMD and satisfies the requirements of subparagraph H below. Proposals for legislative representation, such as in Sacramento, California or Washington D.C. are not eligible for local business incentive points.
- 5. "Small business" as used in this policy means a business that meets the following criteria:
 - a. 1) an independently owned and operated business; 2) not dominant in its field of operation; 3) together with affiliates is either:
 - A service, construction, or non-manufacturer with 100 or fewer employees, and average annual gross receipts of ten million dollars (\$10,000,000) or less over the previous three years, or
 - A manufacturer with 100 or fewer employees.

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

- 1) Primarily engaged in the chemical or mechanical transformation of raw materials or processed substances into new products.
- 2) Classified between Codes 311000 and 339000, inclusive, of the North American Industrial Classification System (NAICS) Manual published by the United States Office of Management and Budget, 2007 edition.
- 6. "Joint ventures" as defined in this policy pertaining to certification means that one party to the joint venture is a DVBE or small business and owns at least 51 percent of the joint venture.
- "Low-Emission Vehicle Business" as used in this policy means a company or contractor that uses low-emission vehicles in conducting deliveries to SCAQMD. Low-emission vehicles include vehicles powered by electric, compressed natural gas (CNG), liquefied natural gas (LNG), liquefied petroleum gas (LPG), ethanol, methanol, hydrogen and diesel retrofitted with particulate matter (PM) traps.

- 8. "Off-Peak Hours Delivery Business" as used in this policy means a company or contractor that commits to conducting deliveries to SCAQMD during off-peak traffic hours defined as between 10:00 a.m. and 3:00 p.m.
- 9. "Benefits Incentive Business" as used in this policy means a company or contractor that provides janitorial, security guard or landscaping services to SCAQMD and commits to providing employee health benefits (as defined below in Section VIII.D.2.d) for full time workers with affordable deductible and co-payment terms.
- 10. "Minority Business Enterprise" as used in this policy means a business that is at least 51 percent owned by one or more minority person(s), or in the case of any business whose stock is publicly held, at least 51 percent of the stock is owned by one or more or minority persons.
 - a. a business whose management and daily business operations are controlled by one or more minority persons.
 - b. a business which is a sole proprietorship, corporation, or partnership with its primary headquarters office located in the United States, which is not a branch or subsidiary of a foreign corporation, foreign firm, or other foreign-based business.
 - c. "Minority person" for purposes of this policy, means a Black American, Hispanic American, Native-American (including American Indian, Eskimo, Aleut, and Native Hawaiian), Asian-Indian (including a person whose origins are from India, Pakistan, and Bangladesh), Asian-Pacific-American (including a person whose origins are from Japan, China, the Philippines, Vietnam, Korea, Samoa, Guam, the United States Trust Territories of the Pacific, Northern Marianas, Laos, Cambodia, and Taiwan).
- 11. "Most Favored Customer" as used in this policy means that the SCAQMD will receive at least as favorable pricing, warranties, conditions, benefits and terms as other customers or clients making similar purchases or receiving similar services.
- 12."Disadvantaged Business Enterprise" as used in this policy means a business that is an entity owned and/or controlled by a socially and economically disadvantaged individual(s) as described by Title X of the Clean Air Act Amendments of 1990 (42 U.S.C. 7601 note) (10% statute), and Public Law 102-389 (42 U.S.C. 4370d)(8% statute), respectively;

a Small Business Enterprise (SBE);

a Small Business in a Rural Area (SBRA);

a Labor Surplus Area Firm (LSAF); or

a Historically Underutilized Business (HUB) Zone Small Business Concern, or a concern under a successor program.

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

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

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

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

ATTACHMENT B



South Coast Air Quality Management District

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

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

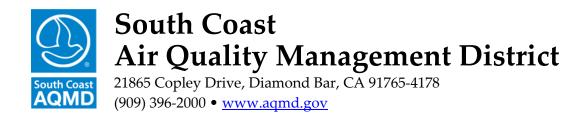
If you have any questions or need assistance in completing this information, please contact Accounting at (909) 396-3777. We appreciate your cooperation in completing this necessary information.

Sincerely,

Sujata Jain Asst. Deputy Executive Officer Finance

DH:tm

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



BUSINESS INFORMATION REQUEST

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

REMITTING ADDRESS INFORMATION

Address										
Audress										
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 <u>for contracts or purchase orders funded in whole</u> <u>or in part by federal grants and contracts.</u>

- 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.

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

Check all that apply:				
 Small Business Enterprise/Small Business Joint Venture Local business Minority-owned Business Enterprise 	 Women-owned Business Enterprise Disabled Veteran-owned Business Enterprise/DVBE Joint Venture Most Favored Customer Pricing Certification 			
Percent of ownership:%				
Name of Qualifying Owner(s):				
State of California Public Works Contractor Registration No MUST BE INCLUDED IF BID PROPOSAL IS FOR PUBLIC WORKS PROJECT.				

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

NAME

TITLE

TELEPHONE NUMBER

DATE

Definitions

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Departr	W-9 November 2017) ment of the Treasury Revenue Service	DN nation.	Give Form to the requester. Do not send to the IRS.		
	1 Name (as shown	on your income tax return). Name is required on this line; do not leave this line blank.			
Print or type. c Instructions on page 3.	Check appropria following seven t Individual/sole single-member	e proprietor or C Corporation S Corporation Partnership Tru	certain en instruction Exempt pa	ions (codes apply only to titles, not individuals; see is on page 3): wee code (if any)	
Print or type. Specific Instructions	LLC if the LLC another LLC t is disregarded	C is classified as a single-member LLC that is disregarded from the owner unless the owner of t hat is not disregarded from the owner for U.S. federal tax purposes. Otherwise, a single-memb i from the owner should check the appropriate box for the tax classification of its owner.	he LLC is er LLC that	iy)	
bec	Other (see ins		(Applies to acc ter's name and address	(Applies to accounts maintained outside the U.S.)	
See	6 City, state, and Z	IP code			
	7 List account num	nber(s) here (optional)			
Par		yer Identification Number (TIN)			
		propriate box. The TIN provided must match the name given on line 1 to avoid	Social security numb	ber	
backu reside	p withholding. For nt alien, sole prop s, it is your employ	individuals, this is generally your social security number (SSN). However, for a rietor, or disregarded entity, see the instructions for Part I, later. For other yer identification number (EIN). If you do not have a number, see <i>How to get a</i>	or	-	
Note: If the account is in more than one name, see the instructions for line 1. Also see What Name and Number To Give the Requester for guidelines on whose number to enter. Employer identification number					
Par	Certifi	cation			
Under	penalties of perju	ry, I certify that:			
2. I an Ser	n not subject to ba vice (IRS) that I an	n this form is my correct taxpayer identification number (or I am waiting for a numbe ackup withholding because: (a) I am exempt from backup withholding, or (b) I have r n subject to backup withholding as a result of a failure to report all interest or divide backup withholding; and	not been notified by	the Internal Revenue	
3. I an	n a U.S. citizen or	other U.S. person (defined below); and			
4. The	FATCA code(s) er	ntered on this form (if any) indicating that I am exempt from FATCA reporting is corr	rect.		
Certif	ication instruction	s. You must cross out item 2 above if you have been notified by the IRS that you are cu	rrently subject to bac	kup withholding because	

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

General Instructions

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

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

Purpose of Form

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

• Form 1099-INT (interest earned or paid)

Date 🕨

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

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

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

Cat. No. 10231X

Form W-9 (Rev. 11-2017)

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),

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

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

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

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

· An individual who is a U.S. citizen or U.S. resident alien;

 A partnership, corporation, company, or association created or organized in the United States or under the laws of the United States;

An estate (other than a foreign estate); or

A domestic trust (as defined in Regulations section 301.7701-7).

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

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

 In the case of a disregarded entity with a U.S. owner, the U.S. owner of the disregarded entity and not the entity;

 In the case of a grantor trust with a U.S. grantor or other U.S. owner, generally, the U.S. grantor or other U.S. owner of the grantor trust and not the trust; and

• In the case of a U.S. trust (other than a grantor trust), the U.S. trust (other than a grantor trust) and not the beneficiaries of the trust.

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

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

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

 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 becomes a resident alien of the United States. A Chinese student who qualifies for this exception (under paragraph 2 of the first protocol) and is relying on this exception to claim an exemption from tax on his or her scholarship or fellowship income would attach to Form W-9 a statement that includes the information described above to support that exemption.

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

Backup Withholding

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

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

Payments you receive will be subject to backup withholding if:

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

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

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

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

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

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

Also see Special rules for partnerships, earlier.

What is FATCA Reporting?

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

Updating Your Information

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

Penalties

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

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

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

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

Specific Instructions

Line 1

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

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

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

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

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

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

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

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

Line 2

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

Line 3

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

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

Line 4, Exemptions

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

Exempt payee code.

 Generally, individuals (including sole proprietors) are not exempt from backup withholding.

 Except as provided below, corporations are exempt from backup withholding for certain payments, including interest and dividends.

 Corporations are not exempt from backup withholding for payments made in settlement of payment card or third party network transactions.

• Corporations are not exempt from backup withholding with respect to attorneys' fees or gross proceeds paid to attorneys, and corporations that provide medical or health care services are not exempt with respect to payments reportable on Form 1099-MISC.

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

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

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

3-A state, the District of Columbia, a U.S. commonwealth or

possession, or any of their political subdivisions or instrumentalities

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

5-A corporation

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

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

8-A real estate investment trust

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

10-A common trust fund operated by a bank under section 584(a) 11-A financial institution

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

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

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Form W-9 (Rev. 11-2017)

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

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

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

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

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

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

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

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

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

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

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

G-A real estate investment trust

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

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

J—A bank as defined in section 581

K-A broker

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

Page 4

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

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

Line 5

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

Line 6

Enter your city, state, and ZIP code.

Part I. Taxpayer Identification Number (TIN)

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

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

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

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

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

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

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

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

Part II. Certification

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

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

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

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

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

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

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

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

What Name and Number To Give the Requester

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

For this type of account:	Give name and EIN of:
14. Account with the Department of Agriculture in the name of a public entity (such as a state or local government, school district, or prison) that receives agricultural program payments	The public entity
 Grantor trust filing under the Form 1041 Filing Method or the Optional Form 1099 Filing Method 2 (see Regulations section 1.671-4(b)(2)(i)(B)) 	The trust

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

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

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

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

*Note: The grantor also must provide a Form W-9 to trustee of trust. Note: If no name is circled when more than one name is listed, the number will be considered to be that of the first name listed.

Secure Your Tax Records From Identity Theft

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

To reduce your risk:

Protect your SSN,

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

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

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

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

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

Protect yourself from suspicious emails or phishing schemes. Phishing is the creation and use of email and websites designed to mimic legitimate business emails and websites. The most common act is sending an email to a user falsely claiming to be an established legitimate enterprise in an attempt to scam the user into surrendering private information that will be used for identity theft. The IRS does not initiate contacts with taxpayers via emails. Also, the IRS does not request personal detailed information through email or ask taxpayers for the PIN numbers, passwords, or similar secret access information for their credit card, bank, or other financial accounts.

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

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

Privacy Act Notice

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

2018 Withholding Exemption Certificate

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

Namo

Payee Information			
Namo	SSN or I	TIN 🗆 F	EIN 🗆 CA Corp no. 🗆 CA SOS file no.
Addreas (apt./sta., room, PO box, or PMB no.)			
City (If you have a foreign address, see instructions.)		State	ZIP code

Exemption Reason

Check only one box.

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

Individuals — Certification of Residency:

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

Corporations:

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

Partnerships or Limited Liability Companies (LLCs):

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

Tax-Exempt Entities:

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

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

California Trusts:

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

Estates — Certification of Residency of Deceased Person:

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

Nonmilitary Spouse of a Military Servicemember:

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

CERTIFICATE OF PAYEE: Payee must complete and sign below.

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

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

Type or print payee's name and title			Teleph	Telephone ()				
Payee's signature ►				Date	Date			
		7061183	— -		Form 590	2017		

2017 Instructions for Form 590

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

General Information

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

A Purpose

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

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

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

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

The following are excluded from withholding and completing this form:

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

B Income Subject to Withholding

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

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

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

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

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

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

C Who Certifies this Form

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

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

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

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

D Definitions

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

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

Foreign refers to non-U.S.

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

Permanent Place of Business:

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

E Military Spouse Residency Relief Act (MSRRA)

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

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

Domicile is defined as the one place:

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

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

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

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

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

Specific Instructions

Payee Instructions

Enter the withholding agent's name.

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

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

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

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

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

Withholding Agent Instructions

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

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

- The individual payee becomes a nonresident.
- The corporation ceases to have a permanent place of business in California or ceases to be qualified to do business in California.

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- The partnership ceases to have a
- permanent place of business in California. The LLC ceases to have a permanent place
- of business in California.
- The tax-exempt entity loses its tax-exempt status.

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

Additional Information

Website:	For more information go to ftb.ca.gov and search for nonwage. MyFTB offers secure online tax account information and services. For more information and to register, go to ftb.ca.gov and search for myftb.
Telephone:	888.792.4900 or 916.845.4900, Withholding Services and Compliance phone service
Fax:	916.845.9512
Mail:	WITHHOLDING SERVICES AND COMPLIANCE MS F182 FRANCHISE TAX BOARD PO BOX 942867 SACRAMENTO CA 94267-0651
download, v and publica	ns unrelated to withholding, or to view, and print California tax forms tions, or to access the TTY/TDD ee the information below.
Internet and	d Telephone Assistance
Website:	ftb.ca.gov
Telephone:	800.852.5711 from within the United States
	916.845.6500 from outside the

TTY/TDD: 800.822.6268 for persons with hearing or speech impairments

United States

Asistencia Por Internet y Teléfono

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

TTY/TDD: 800.822.6268 para personas con discapacidades auditivas o de habla

Certification Regarding Debarment, Suspension, and Other Responsibility Matters

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

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

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

Typed Name & Title of Authorized Representative

Signature of Authorized Representative Date

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



CAMPAIGN CONTRIBUTIONS DISCLOSURE

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

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

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

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

<u>SECTION I</u>.

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

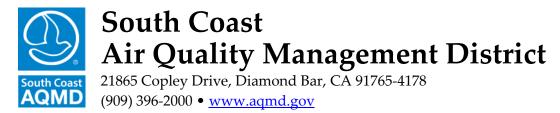
I declare the foregoing disclosures to be true and correct.

By:_____

Title:_____

Date:_____

		DEFINITIONS
		Parent, Subsidiary, or Otherwise Related Business Entity (2 Cal. Code of Regs., §18703.1(d).)
(1)		t subsidiary. A parent subsidiary relationship exists when one corporation directly or indirectly owns shares possessing than 50 percent of the voting power of another corporation.
(2)	organi	wise related business entity. Business entities, including corporations, partnerships, joint ventures and any other izations and enterprises operated for profit, which do not have a parent subsidiary relationship are otherwise related if ne 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.



Direct Deposit Authorization

STEP 1: Please check all the appropriate boxes

- Individual (Employee, Governing Board Member)
- Vendor/Contractor Changed Information

New Request Cancel Direct Deposit

STEP 2: Payee Information					
Last Name	First Name		Middle Initial	Т	itle
Vendor/Contractor Business Name (if applicable)					
Address			Apartment or P.	O. Box Num	nber
City		State	Zip		Country
Taxpayer ID Number	Telephone Number		I	Email Add	ress

Authorization

- I authorize South Coast Air Quality Management District (SCAQMD) to direct deposit funds to my account in the financial 1. 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. 2.
- I hereby release and hold harmless SCAQMD for any claims or liability to pay for any losses or costs related to insufficient 3. 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 helow

To be Complet	ed by your Bank
---------------	-----------------

đ	Name of Bank/Institution						
Check Here	Account Holder Name(s)						
	Saving Checking	Account Number		Routing Number			
Staple Voided	Bank Representative Printed Name		Bank Representative Signature		Date		
Ś	ACCOUNT HOLDER SIG	NATURE:			Date		
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For SCAQMD Use Only

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BOARD MEETING DATE: April 5, 2019

AGENDA NO. 6

- PROPOSAL: Execute Contract for Consultant Services for SCAQMD's High School Air Quality Educational Program
- SYNOPSIS: At the February 1, 2019, meeting, the Board approved the release of an RFP to solicit proposals from individuals and organizations to provide assistance with SCAQMD's High School Air Quality Educational Program. Four proposals were submitted to the Administrative Committee for consideration at its March 8, 2019 meeting. After the Committee interviewed representatives of each of the firms, Lee Andrews Group was selected for recommendation to the full Board. This action is to execute a contract with Lee Andrews Group for an amount not to exceed \$500,000 for a oneyear contract with an option for up to two one-year term renewals, upon satisfactory performance, at the Board's discretion. Funding for the initial year will be from the BP Arco Settlement Project Fund (46). Funding for the two optional years will be subject to future Board approval.
- COMMITTEE: Administrative, March 8, 2019; Recommended for Approval

RECOMMENDED ACTION:

Authorize the Chairman to execute a one-year contract with Lee Andrews Group for consultant services for the SCAQMD's High School Air Quality Educational Program for an amount not to exceed \$500,000 from the BP Arco Settlement Project Fund (46).

Wayne Nastri
Executive Officer

DJA:KH:LT:RAR

Background

SCAQMD has a long history of educational outreach to teachers and students in the South Coast Air Basin through programs and events, especially within environmental justice communities. These activities have been effective in raising awareness about SCAQMD and air quality issues among teachers and students, reaching several thousand program and event participants. Additionally, SCAQMD's outreach efforts to high school students has yielded exponential benefits as participants in programs have shared information with their families, communities and peers.

In 2019, SCAQMD seeks to implement an air quality educational program at 100 high schools in environmental justice communities within its jurisdiction.

At the February 1, 2019, meeting, the Board approved the release of an RFP to solicit proposals from individuals and organizations to provide assistance with SCAQMD's High School Air Quality Educational Program.

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.

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

Bid Evaluation

Seven proposals were received in response to the RFP. The proposals were evaluated and scored by a three-member evaluation panel. Of the seven proposals evaluated, four were considered technically qualified and were forwarded to the Administrative Committee for consideration. The attached matrix presents the scores and total proposal costs for the firms interviewed by the Administrative Committee.

The evaluation panel consisted of a Deputy Executive Officer, Senior Public Affairs Manager, and a representative from California State University, Los Angeles. Of the three panelists, two are Hispanic and one is Asian; one is male and two are female.

Proposal

After interviewing the three firms, and reviewing written materials submitted as part of the proposals, the Administrative Committee recommends to the Board the selection of the Lee Andrews Group for one year of consultant services for SCAQMD's High School Air Quality Educational Program for an amount not to exceed \$500,000 from the BP Arco Settlement Project Fund (46). An option for two one-year contract renewals will be contingent on satisfactory performance, approval of subsequent budgets, and Board approval,

Resource Impacts

Sufficient funding is available from the BP Arco Settlement Project Fund (46) for this contract.

Attachment

RFP #P2019-11 Scores and Costs Matrix

Firm	Technical	Cost	Additional	Total	Cost
	Score	Score	Points	Score	
Arellano	58	16.5	15	89.5	\$498,191.00
Associates					
Gladstein,	60	16.3	15	91.3	\$499,522.64
Neandross &					
Associates					
Global	56	30.0	15	101	\$343,300.00
Inheritance					
Lee Andrews	60	16.3	15	91.3	\$500,000.00
Group					

RFP #P2019-11 Scores and Costs Matrix



BOARD MEETING DATE: April 5, 2019

AGENDA NO. 7

PROPOSAL: Remove Various Fixed Assets from SCAQMD Inventory

- SYNOPSIS: SCAQMD Administrative Policies and Procedures No. 20 requires each organizational unit to review fixed assets for obsolescence and disposal every six months. This action is to approve removal of surplus equipment and motor vehicles determined to be obsolete, non-operational and not worth repairing.
- COMMITTEE: Administrative, March 8, 2019; Recommended for Approval

RECOMMENDED ACTION:

Declare the items on Attachments A and B as surplus and authorize removal of these items from the fixed assets inventory through donation, auction process, salvage, or dismantlement for parts.

Wayne Nastri Executive Officer

SJ:tm

Background

SCAQMD Administrative Policies and Procedures No. 20 establishes procedures for the approval, purchasing, tagging, physical inventory, and disposal of fixed assets. This policy requires the review of the fixed assets and controlled items for obsolescence and disposal every six months. The list of equipment appearing on Attachment A represents old, obsolete and non-operational equipment that could not be repaired. The list of vehicles appearing on Attachment B represents vehicles that are non-operational and not worth repairing. These vehicles have been driven an average of over 99,000 miles. Equipment and vehicles purchased with federal funds are being disposed of in accordance with applicable federal regulations.

Proposal

Staff is recommending that assets on Attachments A and B, as in the past, be surplused through the surplus process and properly disposed. Equipment will be auctioned, donated or dismantled for parts and the motor vehicles will be disposed of through auction.

Resource Impacts

Miscellaneous revenue from auction sales will be recorded in the General Fund. The total original cost of \$848,015.99 for the fixed assets in Attachments A and B was accounted for, depreciated, and reported in the annual audited financial statements.

Attachments

- A. Obsolete or Non-repairable Equipment
- B. Obsolete or Non-repairable Motor Vehicles

ATTACHMENT A Obsolete or Non-repairable Equipment

Asset ID	Tag#	Description	Cost	Date Purchased	Net Book Value **	Disposition
00002760	0038598	TRAILER CARGO 5TH WHEEL	\$ 13,742.37	6/28/1996	\$ 0.00	Scrap/Auction (1)
00001378	0015489	SAMPLE PRECONCENTRATOR 7100GC	30,095.69	12/5/1997	0.00	Scrap/Auction (1)
00002735	0015763	SAMPLER CANISTER ENTECH	6,870.00	12/10/1998	0.00	Scrap/Auction (1)
00002782	E000010 *	SAMPLER ANDERSEN RAAS 2.5	10,500.00	1/29/1999	0.00	Scrap/Auction (1)
00002784	E000012 *	SAMPLER ANDERSEN RAAS 2.5	10,500.00	1/29/1999	0.00	Scrap/Auction (1)
00002788	E000016 *	SAMPLER ANDERSEN RAAS 2.5	10,500.00	1/29/1999	0.00	Scrap/Auction (1)
00003090	0016478	ANALYZER, HORIBA APMA-360CE CO	5,013.72	7/21/2000	0.00	Scrap/Auction (1)
00003397	0016522	AIR GENERATION SYS AADCO 737R	7,464.09	1/1/2002	0.00	Scrap/Auction (1)
00003557	E000179 *	GAS CHROMATOGRAPH SYSTEM	49,439.03	1/1/2003	0.00	Scrap/Auction (1)
00000003731	0016631	ANALYZER, SO2, THERMO ENVIRON	6,197.31	1/1/2006	0.00	Scrap/Auction (1)
00000003733	0016633	ANALYZER, SO2, THERMO ENVIRON	6,197.31	1/1/2006	0.00	Scrap/Auction (1)
00000003787	E000327 *	CALIBRATION SYSTEM AMBIENT MON	14,804.48	1/1/2007	0.00	Scrap/Auction (1)
00000003809	0016647	AMBIENT MONITOR CALBRATION SYS	14,804.48	1/1/2007	0.00	Scrap/Auction (1)
00000003908	E000349 *	AIR MONITORING CALIBRATION SYS	15,865.70	1/1/2008	0.00	Scrap/Auction (1)
00000003944	E000379 *	AUTO SAMPLE CANISTER 16-POSITION	10,858.44	6/3/2008	0.00	Scrap/Auction (1)
00000003974	E000381 *	THERMO TRACE-LEVEL S02 ANALYZE	11,715.69	10/14/2008	0.00	Scrap/Auction (1)
00000003977	E000377 *	GENERATOR HYDROGEN CHRYSALISII	14,462.19	10/14/2008	0.00	Scrap/Auction (1)
00000003991	0016721	ANALYZER AMBIENT NOX	8,791.26	6/23/2009	0.00	Scrap/Auction (1)
00000004095	E000428 *	MICROWAVE DIGESTION SYSTEM	24,951.66	5/6/2010	0.00	Donate (2)
00000004122	E000429 *	ANALYZER SPECIATION W/HPLC	38,797.14	5/12/2010	0.00	Scrap/Auction (1)
00000004206	E0016825 *	DATALOGGER AMBIENT AIR ESC8832	7,753.55	2/24/2011	0.00	Scrap/Auction (1)
00000004283	E000512 *	GENERATOR, HYDROGEN GAS	6,753.23	12/13/2011	0.00	Scrap/Auction (1)
00000004284	16928/16536	PUMP VACCUM, EDWARDS EXT225HI	5,398.61	12/16/2011	0.00	Disposed (3)
00000004604	0017007	FD31-GAS SPECTROSCOPY, ANLYZR	91,881.08	1/29/2015	37,198.23	Donate (2)
	Total Obsolete	or Non-repairable Equipment	\$ 423,357.03		\$ 37,198.23	

* Assets purchased with federal funds.

** Net Book Value represents historical cost reduced by estimated depreciation. It is expected that some revenue will be realized upon sale at auction.

(1) Usable parts will be removed and the remainder will be auctioned and scrapped.

(2) Equipment will be donated.

(3) Disposed prior to the Board approval. Met with staff to reinforce disposal procedures and will conduct training.

ATTACHMENT B
Obsolete or Non-repairable Motor Vehicles

Asset ID	Tag#	Description	Cost	Date Purchased	Net Bo Value	-	Disposition
00001868	38545	1991 GMC 1 Ton Step Van	\$ 53,457.20	6/7/1991	\$	0.00	Auction (3)
00001880	38559	1992 GMC 4x4 P/U	16,433.13	1/8/1992		0.00	Auction (1)
00002858	38602	1999 Ford 8 Passenger Van	27,500.00	3/31/1999		0.00	Auction (1)
00003160	38685	2000 Ford Crown Victoria	30,926.32	1/31/2001		0.00	Auction (1)
00003478	38748	2002 Ford Crown Victoria	22,483.12	5/24/2002		0.00	Auction (1)
00000003684	D000001 *	Ford F350 Cargo Van	34,079.28	1/31/2005		0.00	Auction (1)
00000003841	H0002 *	2007 Honda Civic GX	25,866.66	1/1/2007		0.00	Auction (1)
00000003872	38796	2006 Honda Civic GX	25,866.67	1/1/2007		0.00	Auction (1)
00000003889	38813	2007 Honda Civic GX	25,866.66	1/1/2007		0.00	Auction (1)
000000004117	38838	2010 Honda Civic GX	25,452.22	5/7/2010		0.00	Auction (2)
000000004229	E000441 *	2010 Honda Civic GX	27,841.35	1/1/2011		0.00	Auction (2)
00000004367	38943	2012 Coda (White)	41,053.60	8/16/2012		0.00	Auction (3)
00000004368	38940	2012 Coda (Silver)	41,053.60	8/16/2012		0.00	Auction (3)
000000004496	H00014 *	2013 Honda Civic GX	26,779.15	10/25/2013		0.00	Auction (2)
	•	able Motor Vehicles	\$ 424,658.96		\$	0.00	

* Assets purchased with federal funds.

** Net Book Value represents historical cost reduced by estimated depreciation. It is expected that some revenue will be realized upon sale at auction.

Miles on these vehicles have an average of 99,000. These vehicles repairment cost exceeds value of the vehicles.

(1) Miles on these eight vehicles have an average of 141,000. These vehicles repairment cost exceeds value of the vehicles.

(2) Miles on these three vehicles have an average of 80,000. These vehicles were involved in collision and repair cost exceeds value of the vehicles.

(3) Miles on these three vehicles have an average of 8,000. These vehicles were used for demonstration or emergency response and replacement parts are not available by the manufacturers.



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BOARD MEETING DATE: April 5, 2019

AGENDA NO. 8

- PROPOSAL: Approve Contract Award and Modification and Issue Solicitation Approved by MSRC
- SYNOPSIS: As part of their FYs 2018-21 Work Program, the MSRC approved a new contract to provide special transit service to Dodger Stadium in 2019. The MSRC also approved a modification to a contract under the County Transportation Commission Partnership Program as part of their FYs 2016-18 Work Program. Finally, the MSRC approved the release of a Program Announcement for a Major Event Center Transportation Program as part of their FYs 2018-21 Work Program. At this time the MSRC seeks Board approval of the contract award and modification, and to release the solicitation.
- COMMITTEE: Mobile Source Air Pollution Reduction Review, March 21, 2019, Recommended for Approval

RECOMMENDED ACTIONS:

- Approve sole source contract award to Los Angeles County Metropolitan Transportation Authority (Metro) in an amount not to exceed \$1,163,485 to provide special bus service to Dodger Stadium in 2019, as part of approval of the FYs 2018-21 Work Program, as described in this letter;
- 2. Approve modified contract with Riverside County Transportation Commission (RCTC) under the County Transportation Commission (CTC) Partnership Program, allowing weekend Freeway Service Patrol service to be provided on other Riverside County highways other than those specified in the contract, as part of approval of the FYs 2016-18 Work Program, as described in this letter;
- 3. Issue Program Announcement for the Major Event Center Transportation Program, as part of approval of the FYs 2018-21 Work Program, with a targeted funding level of \$6,500,000 (inclusive of the \$1,163,485 above), as described in this letter and in the attached;
- 4. Authorize MSRC the authority to adjust contract awards up to five percent, as necessary and previously granted in prior work programs; and

5. Authorize the Chairman of the Board to execute the new and modified contracts under FYs 2016-18 and 2018-21 Work Programs, as described above and in this letter.

Greg Winterbottom, Vice Chair, MSRC

MMM:FM:CR

Background

In September 1990 Assembly Bill 2766 was signed into law (Health & Safety Code Sections 44220-44247) authorizing the imposition of an annual \$4 motor vehicle registration fee to fund the implementation of programs exclusively to reduce air pollution from motor vehicles. AB 2766 provides that 30 percent of the annual \$4 vehicle registration fee subvened to the SCAQMD be placed into an account to be allocated pursuant to a work program developed and adopted by the MSRC and approved by the Board.

At its March 21, 2019 meeting, the MSRC considered a recommended sole-source award to support special bus service for events at Dodger Stadium in 2019. The MSRC also considered a modified contract under the CTC Partnership Program and the issuance of a new solicitation for major event center transportation services. Details are provided below in the Proposals section.

Outreach

In accordance with SCAQMD's Procurement Policy and Procedure, public notices advertising the Major Event Center Transportation Program Announcement (PA) will be published in the Los Angeles Times, the Orange County Register, the San Bernardino Sun, and Riverside County Press Enterprise newspapers to leverage the most cost-effective method of outreach to the South Coast Basin. In addition, the solicitation will be advertised in the Desert Sun newspaper for expanded outreach in the Coachella Valley.

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

Proposals

At its March 21, 2019 meeting, the MSRC considered recommendations from its MSRC-TAC and approved the following:

Dodger Stadium Express Service for 2019

The Major League Baseball season begins March 28. In recognition that the Major Event Center Transportation PA cannot be released until April 5 at the earliest, at their February 21, 2019 meeting the MSRC authorized Metro to submit an application for consideration by MSRC at the MSRC's March meeting, under the condition that Metro agrees to abide by all recommendations resulting from the MSRC-TAC process and they agree to potential negotiations to revise their proposed project prior to contract execution. Metro submitted an application seeking \$1,163,485 in MSRC funding assistance to implement special transit service to one preseason game, 81 regular season games, up to two special events, and up to ten post-season playoff games in 2019. Consistent with the proposed Program Announcement, service would be provided between Union Station and Dodger Stadium by vehicles equipped with engines meeting the California Air Resources Board's optional 0.02 g/bhp-hr standard for oxides of nitrogen. Service would be provided from at least 90 minutes prior to each event until at least 45 minutes after the game ends or 20 minutes following a special event, whichever is later. Service would promote the use of public transit, including bus and rail, in lieu of personal automobile. Elimination of traffic congestion, especially reductions in automobile stop and go driving and queuing, has a direct link to reduced vehicle exhaust emissions. Metro and the Los Angeles Dodgers would contribute at least \$1,491,285 in co-funding. The MSRC approved a sole-source contract award to Metro in an amount not to exceed \$1,163,485 as part of the FYs 2018-21 Work Program to implement the 2019 Dodger Stadium Express service.

Freeway Service Patrols (FSP) in Riverside County

In January 2018, the MSRC approved a contract award to Riverside County Transportation Commission (RCTC) to implement new weekend FSP services along designated freeway segments (referred to as beats) to relieve freeway congestion and facilitate the rapid removal of disabled vehicles as well as vehicles involved in minor accidents. Subsequently, higher than normal rainfall has recently resulted in spectacular poppy growth in the Lake Elsinore area, drawing tremendous crowds and traffic on the weekends. RCTC requests to modify their contract to allow weekend FSP service to be provided on segments of Riverside County highways, such as the Interstate 15 near Lake Elsinore, in addition to the designated beats. Service on other beats would need to be within SCAQMD jurisdiction, only when there is an urgent need, and would be limited to a maximum of \$50,000. The MSRC considered and approved RCTC's requested contract modification as part of the FYs 2016-18 Work Program.

Major Event Center Transportation Program

The MSRC approved the release of PA #PA2019-03 under the FYs 2018-21 Work Program. The PA, with an initial targeted funding amount of \$6,500,000 (inclusive of the \$1,163,485 award to Metro above), solicits applications from qualifying major event centers and/or transportation providers to provide transportation service for venues not currently served by sufficient transportation service. A geographical funding minimum has been set at \$450,000 per county, which will be made available to projects from other counties if there are insufficient qualifying projects within a county. To qualify, an event center must have an occupancy capacity of at least 7,500, and an average event attendance of at least 5,000. The applicant must demonstrate that the center is impacted by traffic to the extent that the design capacity of the surrounding streets is exceeded. Applications may be submitted at any time from April 5, 2019 to March 30, 2021, and projects will be brought to the MSRC for consideration of awards throughout this period. The maximum total funding award to any entity shall not exceed \$3,250,000. The MSRC can waive this funding restriction in the event the MSRC does not receive sufficient meritorious applications from other bidders to utilize the remaining funds, or if the MSRC allocates additional funds to the Program. Applicants are eligible to propose a maximum of two consecutive event seasons in any one application.

At this time, the MSRC requests the SCAQMD Board to approve the contract award and modification and to approve release of the PA as part of approval of the FYs 2016-18 and 2018-21 AB 2766 Discretionary Fund Work Programs as outlined above. The MSRC also requests the Board to authorize the SCAQMD Chairman of the Board the authority to execute all agreements described in this letter. The MSRC further requests authority to adjust the funds allocated to each project specified in this Board letter by up to five percent of the project's recommended funding. The Board has granted this authority to the MSRC for all past Work Programs.

Sole Source Justification

As discussed in Proposals above, special transit service to Dodger Stadium for 2019 will be implemented by initiating a sole-source contract with Metro. While the MSRC and SCAQMD strive to retain technical services on a competitive basis, the SCAQMD's Procurement Policy and Procedure recognizes that, at times, the required services are available from only one source, making the pursuit of a competitive procurement futile. Metro has been implementing Dodger Stadium Express service for the past several years, and already possesses vehicles meeting the standards proposed for the MSRC's new Major Event Center Transportation Program. The baseball season is starting before that solicitation could be released; otherwise, Metro would have applied under that Program. This request for a sole source award is made under provision VIII.B.2.c.(1): The desired services are available from only the sole source due to the unique experience and capabilities of the proposed contractor or contractor team, and VIII.B.2.d.: Other circumstances exist which in the determination of the Board require such waiver in the best interests of the Mobile Source Air Pollution Reduction Program

Resource Impacts

The SCAQMD acts as fiscal administrator for the AB 2766 Discretionary Fund Program (Health & Safety Code Section 44243). Money received for this program is recorded in a special revenue fund (Fund 23) and the contracts specified herein, as well as any contracts awarded in response to the solicitation, will be drawn from this fund.

Attachment

Program Opportunity Notice PA2019-03 - Major Event Center Transportation Programs



MAJOR EVENT CENTER TRANSPORTATION PROGRAMS

Funding for the Implementation of Zero & Near-Zero Emissions Transportation for Major Event Center Destinations in the South Coast Air Quality Management District

2019 - 2021 Edition

Program Announcement

PA2019-03

April 5, 2019

SECTION 1 - INTRODUCTION

The MSRC's Major Event Center Transportation Program first debuted in 2010, and over the past nine years the MSRC has co-funded numerous programs that provided convenient, low cost transportation alternatives for accessing several major sports and entertainment venues throughout the South Coast region. The purpose of this Program Announcement is to reintroduce the Program and seek cost-effective opportunities to reduce a significant number of automobile trips and their associated air pollutant emissions by shifting attendees of major event center functions out of their personal automobile and onto zero and near-zero emission transportation alternatives.

The past decade has brought significant advancements in automotive technology. Low-emitting gasoline vehicles, hybrid electric vehicles, and a rapidly increasing number of zero-emission electric vehicles have resulted in an overall cleaner fleet of personal automobiles. The past four years reflect an unprecedented stretch of record-breaking annual automobile sales, with these new vehicles replacing older, higher emitting cars. As a result of this fleet modernization, the overall automobile fleet emissions in the South Coast region are about 77% lower than when the Event Center Program began in 2010.

To ensure the Event Center program continues to achieve cost-effective air quality benefits, a primary focus of this funding opportunity is to align major event centers with operators of the cleanest vehicles and create a "zero or near-zero" emission transportation option for event attendees.

To facilitate implementation of new or expanded zero and/or near-zero emission transportation program service to major event centers, the Mobile Source Air Pollution Reduction Review Committee (MSRC) has allocated a total of \$6.5M in **Clean Transportation Funding**[™] for the period beginning April 5, 2019 and ending March 30, 2021. This funding opportunity has at its core the following goals and objectives:

- Seek out major event center venues located within the South Coast AQMD jurisdiction that experience high levels of traffic congestion during scheduled events and are not served by, or are insufficiently served by, regular public transit services;
- ⇒ Partner with transportation providers and event center venues to develop and implement new or expanded programs to attract patrons to transit services that are tailored to each venue's scheduled events;
- ⇒ Utilize the cleanest commercially available vehicles to implement the event center transportation service, a minimum of 90% lower emitting than the current "2010" heavy-duty emissions standards;
- ⇒ Encourage transportation providers and event center venues to establish ongoing relationships to continue event-specific transit service beyond the MSRC funding period, including the identification of funding sources in addition to the MSRC to support future transportation services.

This MSRC has offered funding for implementation of Event Center Transportation programs for the past several years. This Event Center Transportation Program funding opportunity spans *three fiscal years* – FYs 2018/'19 through 2020/'21. As noted herein, however, applicants may propose transportation services for a maximum of two event consecutive seasons. Thus, applicants seeking MSRC funding for all three fiscal years will be required to submit multiple applications.

To reduce the need to photocopy, package, and physically submit paper applications, the FY 2019-'21 Edition of the Major Event Center Transportation Program **requires that applications be submitted electronically in PDF format using the MSRC Website**. We believe this benefits the applicant, the MSRC staff, and the environment.

While many of the features of the previous event center programs are retained in this funding opportunity, several major changes should be noted:

- All on-road transportation performing Event Center transportation services under this Program must be zero emission or near-zero emission. This means that the vehicle drive system must be certified by the California Air Resources Board (CARB) as a zero-emission vehicle or meet CARB's Optional Low-NOx Standard of 0.02 grams per brake horsepower hour (g/bhp-hr).
- All events receiving MSRC Clean Transportation Funding[™] under this Program Announcement must be held no later than December 31, 2021.
- Applicants are eligible to propose a maximum of two (2) consecutive event "seasons", wherein a "season" consists of multiple events or an event that spans multiple days. A mid-project evaluation will be conducted by the MSRC prior to authorization to initiate transportation services for the second consecutive season.

The following Sections describe the eligibility requirements to participate in the MSRC Major Event Center Transportation Services Program, limits on the amount of **Clean Transportation Funding™** available to Program participants, and guidelines for proposal preparation. It is important to recognize that the MSRC must ensure that the use of Clean Transportation funds will result in <u>direct, tangible, and quantifiable air quality benefits</u>. To this end, this Program Announcement stipulates specific performance thresholds and participation obligations that must be met in order to be deemed eligible for an MSRC funding award. Projects submitted for funding consideration will be scrutinized to ensure they meet the minimum eligibility requirements described herein. It is likely that some event center transportation proposals will be deemed ineligible or to offer insufficient benefits and will not receive an MSRC funding award.

MSRC staff members are available to answer questions and provide technical and programmatic guidance as appropriate. Please refer to Section 6 of this document for a list of MSRC Staff contacts.

Available Funding - The total amount of MSRC **Clean Transportation Funding**[™] allocated for the Major Event Center Transportation Program for three fiscal years is \$6.5M. This funding level is a targeted amount – should meritorious projects be received totaling greater than \$6.5M, the MSRC reserves the right to increase the amount of total funding available.

Also, should the MSRC receive proposals with total requests less than the amount allocated, or if proposals are deemed non-meritorious, the MSRC reserves the right to reduce the total funding available and reallocate funds to other Work Program categories. The MSRC also reserves the right to not fund any of the proposals received, irrespective of the merits of the proposals submitted.

Please note that the source of MSRC **Clean Transportation Funding**[™] for projects submitted in response to this solicitation is motor vehicle registration fees collected by the California Department of Motor Vehicles (DMV) in accordance with the California Health and Safety Code. Thus, the availability of MSRC **Clean Transportation**

Funding[™] is contingent upon the timely receipt of funds from the DMV. Neither the MSRC nor South Coast AQMD can guarantee the collection or remittance of registration fees by the DMV.

SECTION 2 – ELIGIBILITY REQUIREMENTS

This Program Announcement seeks to facilitate the reduction of automobile trips and mitigate traffic congestion by shifting event attendees out of their personal automobile and onto zero and near-zero emission transportation at major event centers that are not currently served by adequate, regularly scheduled transit or shuttle service prior to, during, and following the venue's events.

For the purpose of this Program Announcement, the following eligibility requirements apply:

- Major Event Center a Major Event Center is defined as a publicly or privately-owned, publicly accessible venue located within the geographical jurisdiction of the South Coast Air Quality Management District that possesses the following attributes, at a minimum:
 - Occupancy capacity of at least 7,500 people;
 - Average event attendance of at least 5,000 people;
 - Dedicated parking lot or structure co -located with the event center.
- Traffic Impacted Event A scheduled event held at a Major Event Center that results in recurrent traffic congestion prior to, during, or after the scheduled event whose impact on surrounding roadways, arterials, intersections, or freeways exceeds design capacity;
- Transportation Provider includes but is not necessarily limited to a) public transit agencies, including regional and municipal transit agencies and authorities; b) private transit operators, including subcontractor service providers to public transit agencies; and c) paratransit providers and other licensed, private transportation and shuttle providers;
- Qualifying Transportation Vehicles vehicles proposed for use in Event Center Transportation Services must conform to the following minimum requirements:

On-Road Bus and Shuttle Vehicles:

- All on-road vehicles performing Event Center transportation services under this Program must be certified by the California Air Resources Board as zero-emission vehicles or be equipped with an engine that is certified at CARB's Optional Low-NOx emission standard of 0.02 g/bhp-hr;
- Vehicle Seating Capacity vehicles must have a minimum seated position capacity of twentytwo (22) occupants;
- Vehicles must meet all Americans with Disabilities Act (ADA), US Department of Transportation (DOT), California Department of Motor Vehicles (DMV), and other applicable regulatory agency requirements.

 Transportation Deficient – the Event Center must be Transportation Deficient. This is defined as an Event Center that is not served by regularly scheduled public transit or private shuttle service sufficient to entice patrons to attend the event using public transit rather than private automobile, or is served by public and/or private transportation services that are operating at maximum capacity. Please note that this Program Announcement is NOT intended to subsidize ongoing public or private transportation services.

The MSRC seeks the formation of *partnerships* between traffic-impacted, transportation-deficient major event centers and transportation providers who operate qualifying vehicles. The following Sections define who is eligible to submit a proposal to the MSRC, who is eligible to enter in to a contract for event center transportation services, and what transportation costs are eligible for reimbursement by the MSRC:

- Who can submit a proposal in response to this Program Announcement? Either a qualifying major event center, a qualifying transportation provider, or a County Transportation Commission may respond to this Program Announcement and submit a proposal for MSRC consideration. Proposals may also be submitted from a joint County Transportation Commission/event center/transportation provider partnership. Please note that the following conditions apply:
 - A proposal submitted by a qualifying Major Event Center must identify what Transportation Provider(s) will provide the event center service. The proposal must include a Memorandum of Understanding (MOU) or letter of support between the event center and transportation provider(s) stating their mutual intent to implement and operate event center transit service in accordance with Program requirements in the event the MSRC provides a funding award;
 - A proposal submitted by a qualifying Transportation Provider must identify which Major Event Center(s) will be served in the Program. The proposal must include an MOU or letter of support between the transportation provider and event center(s) stating their mutual intent to implement and operate event center transit service in accordance with Program requirements in the event the MSRC provides a funding award;
 - A proposal submitted by a County Transportation Commission must identify which Major Event Center(s) will be served in the Program and identify what Transportation Provider(s) will provide the event center service. The proposal must include an MOU or letter of support between the County Transportation Commission and transportation provider and/or event center(s) stating their mutual intent to implement and operate event center transit service in accordance with Program requirements in the event the MSRC provides a funding award;
 - A proposal submitted jointly by a County Transportation Commission in partnership with an event center and transportation provider(s) must also include an MOU or letter of support, as above.
- Who is eligible to receive an award of MSRC Clean Transportation Funding[™] under this Program Announcement? While either a County Transportation Commission, major event center or qualifying transportation provider are eligible to submit a proposal, only the qualifying transportation provider or County Transportation Commission is eligible to enter into a contract on behalf of the proposed event

center transportation service partnership. The rationale for this restriction is that *only transportation service costs (including transit program and traffic control costs) are eligible for reimbursement under this Program.* Thus, it makes sense that the service provider who incurs direct expenses in providing transportation services be the party to the contract that provides reimbursement. Please note that the MSRC does not enter into three-party agreements.

In summary, major event centers that meet the above eligibility requirements and transportation providers that meet qualifying requirements are eligible to participate in this MSRC Program. Both Event Centers and Transportation Providers are eligible to submit a proposal; however, each party must be identified by name in the proposal, accompanied by a MOU between the named participants. Only the transportation provider can be the MSRC funding recipient and contract signatory.

SECTION 3 - PARTICIPATION GUIDELINES, CONDITIONS & RESTRICTIONS

The following guidelines, requirements, and conditions have been established and apply to all Proposals:

- 1. Program Scope The primary objective of this Program is to eliminate automobile trips, reduce automobile vehicle miles traveled (VMT), and reduce traffic congestion in the vicinity of a major event center prior to, during, and following an event, resulting in a reduction in air pollutant emissions. Automobile trip reduction and traffic congestion mitigation are achieved by shifting the travel mode of event attendees from their personal automobile and onto new or expanded zero or near-zero emission transportation service or dedicated zero/near-zero emission shuttle event center feeder service. MSRC Clean Transportation Funding™ is available to co-fund the cost of implementing new or expanded transportation programs. Only direct costs of transportation programs are eligible for reimbursement under this Program. Proposals submitted in response to this Program Announcement must include as named participants the major event center where new or expanded transit or shuttle service will be operated, as well as the transportation provider who will implement the event center transportation program.
- 2. **Maximum MSRC Funding Limits** To ensure broad-based participation, the MSRC has established the following maximum funding parameters:
 - a. The maximum total funding award to any entity that provides event center transportation programs under this solicitation shall not exceed 50% of the total Available Funding. The total available funding currently allocated by the MSRC for this Program is \$6.5M. Thus, the maximum total funding award for any single transportation service provider is currently set at \$3.25M. This maximum funding restriction can be waived by the MSRC in the event the MSRC does not receive meritorious proposals from other bidders that meet or exceed 50% of the total available funds, or if the MSRC allocates additional funds to the Program. The MSRC reserves the right to determine which projects, if any, are deemed meritorious and warrant a **Clean Transportation Funding**[™] award; and
 - b. All events receiving MSRC **Clean Transportation Funding**[™] under this Program Announcement must be held prior to December 31, 2021.
 - c. Applicants are eligible to propose a maximum of two (2) consecutive event "seasons", wherein a "season" consists of multiple events or an event that spans multiple days. Applicants are eligible to

submit multiple proposals within the proposal acceptance period commencing on April 5, 2019 and ending on March 30, 2021.

- 3. **Geographical Funding Minimum** The MSRC has established a Geographical Funding Minimum for each county within the SCAQMD. The geographical funding minimum amount has been set at \$450,000 per county. This funding set-aside guarantees a minimum level of funding for each county to implement Event Center Transportation projects. At the end of the application submittal period, March 30, 2021, if any county has funds remaining in its geographical minimum, these funds will be made available to qualifying projects from any other county in order of receipt.
- 4. Eligible Uses of MSRC Funds MSRC funds may be used to offset direct operating costs associated with event center transportation programs. These include transportation operations and traffic control costs as defined below:
 - Transportation Operations Direct costs associated with operations of event center transportation vehicle and/or rail operations subject to the requirements and conditions outlined in Section 2, Eligibility Requirements;
 - Event Center Traffic Control/Bus Priority Costs associated with providing traffic control to provide participating transportation vehicles event center ingress and egress priority may also be proposed as project co-funding. This includes, but is not necessarily limited to: special lane designation for transit vehicles, including cones, lane striping, etc.; traffic control personnel to direct traffic and grant participating vehicles faster entry and exit; designation of areas for drop off and pickup of event center patrons who utilize the transportation service, including directional signage, markings and placards, etc.
- 5. Transportation Programs Advertising, Outreach, Marketing, and Promotion All event center transportation programs projects that receive an MSRC Clean Transportation Funding[™] award must include advertising and promotion of the availability of the service as a project element. *This is a mandatory component of any MSRC-funded event center transportation programs project.* Advertising and promotion may include, but is not limited to:
 - a) Radio, television, newspaper, or specialty publication advertisements;
 - b) Print materials;
 - c) Materials developed for incorporation into a website, electronic media, etc.;
 - d) Transportation program kickoff events, ribbon cuttings, or news conferences, etc.
- 6. **Program Co-Funding Requirements** Major event center projects funded by the MSRC are required to provide minimum project co-funding in the amounts shown below:
 - Projects implemented between Program Announcement release and December 31, 2019: Co-funding must be no less than 50% of the total project cost, i.e., a "dollar for dollar match of eligible project co-funding to MSRC Clean Transportation Funding™;

- Projects implemented between January 1, 2020 and December 31, 2020: Co-funding must be greater than or equal to 55% of the total project cost, i.e., a maximum of 45% of total project costs to be co-funded by the MSRC;
- Projects implemented between January 1, 2021 and December 31, 2021: Co-funding must be greater than or equal to 60% of the total project cost, i.e., a maximum of 40% of total project costs to be co-funded by the MSRC.

Eligible project co-funding includes the following:

- Direct Cost Share Cash, direct labor, and equipment use contributions from the transportation provider may be accounted for as co-funding;
- Fare box Revenue Fare box revenue collected to augment MSRC-funded transportation program may be documented and applied as co-funding;
- Transportation Programs Outreach, Marketing, and Promotion Direct costs associated with advertising the availability of event center transportation programs may be applied as co-funding. Appropriate outreach may include, but is not limited to, radio, television, newspaper, or specialty publication advertisements, printed materials, materials developed for incorporation into a website, electronic media, transportation program kickoff events, ribbon cuttings, or news conferences, etc.
- Event Center Traffic Control/Bus Priority Direct costs associated with providing traffic control to provide participating transportation vehicles event center ingress and egress priority may also be proposed as project co-funding.
- Funding Restrictions MSRC funds may only be applied to direct operating costs associated with event center transportation programs. These include transportation operations and traffic control costs only. MSRC funds cannot be used:
 - To fund capital acquisition costs associated with transportation vehicle purchase;
 - To recoup lost parking lot revenue.
- 8. **MSRC Funds Remitted on a Reimbursement Basis** MSRC funds will be distributed on a reimbursement basis only upon completion of approved project milestones and submission of all required reports and invoices.

9. Additional Conditions on MSRC Funding

- MSRC projects are funded on a "site-specific" basis; that is, each project is evaluated with respect to the proposed event center's unique location, traffic congestion, availability of other transportation options, etc. Thus, proposals that result in an award of MSRC funds are <u>not allowed</u> to change the event center venue under any circumstances. In the event the proposed venue becomes unavailable, nonviable, or no longer cost-effective, either contract negotiations will terminate or the contract will terminate, as applicable;
- All projects must include an advertising, marketing, and outreach component. Acceptable outreach strategies are described in the previous section;

- Conflict of Interest Proposers must identify possible conflicts of interest with other clients affected by actions performed by the firm on behalf of the MSRC. Although the bidder will not be automatically disqualified by reason of work performed for such firms, the MSRC reserves the right to consider the nature and extent of such work in evaluating the proposal;
- Certifications All Proposers must complete and submit the included Attachment G forms as an element of their Proposal (unless specifically exempted below):
 - Internal Revenue Service Form W-9 Request for Taxpayer Identification Number and Certification, and Franchise Tax Board Form 590 Withholding Exemption Certificate. If you are selected for an award, you cannot be established as a vendor without this information.
 - Campaign Contributions Disclosure. This information must be provided at the time of application in accordance with California law. You may be asked for an update when awards are considered.
 - MSRC Prospective Contractor Information. This information is needed to help determine if any financial interests exist under the Government Code or other California law. For purposes of this form, the entity which would enter into a contract with SCAQMD is the Contractor.
 - Disadvantaged Business Certification. The SCAQMD needs this information for their vendor database. It will not be considered in the determination of your MSRC funding award. Governmental entities do not need to complete this form.
- Finally, in accordance with state law, all projects awarded MSRC Clean Transportation Funding[™] are subject to audit. The provisions of the audit are discussed in the Sample Contact, included as Section 9 of this Program Announcement. It is highly recommended that bidders employ government accepted accounting practices when administering their MSRC co-funded project.

SECTION 4 – PROGRAM ANNOUNCEMENT TIMETABLE

The MSRC understands that developing an event center transportation programs project is a complex undertaking. The MSRC also appreciates that events scheduled at a major venue are firm; thus, the MSRC Program is designed to afford potential proposers as much flexibility as possible to allow development of outstanding event center transportation projects.

Program Event	Date
Program Announcement Release	April 5, 2019
Application Submittal Period	April 5, 2019 – March 30, 2021
Latest Date/Time for Electronic Application Submittal	March 30, 2021 @ 11:59 p.m.

Table 4.1 Kov Event Contor	Transportation	Dragrams Dragram Datas
Table 4-1 - Key Event Center	Transportation	Programs Program Dates

SECTION 5 - PROPOSAL PREPARATION & SUBMITTAL INSTRUCTIONS

An Event Center Transportation Project Proposal must be completed and submitted for funding consideration under this Program. Proposals must be prepared and submitted in accordance with the instructions outlined below.

- Proposal Preparation The following information must be included in all Proposals seeking MSRC Clean Transportation Funding[™] under the Major Event Center Transportation Programs Program:
 - a) Attachments A-G Proposals must include the following completed Attachments, including all required supporting documentation as requested. Proposal Templates and Instructions are included in Section 8 of this Program Announcement:
 - Attachment A: Proposer and Project Participant Information
 - Attachment B: Project Description
 - Attachment C: Project Cost Breakdown
 - Attachment D: Project Implementation Schedule
 - Attachment E: Memorandum of Understanding/letter of support between Event Center(s) and Transportation Services Provider(s) (as applicable)
 - Attachment F: Transportation Service Ridership Estimates
 - Attachment G: Certifications
- 2. Electronic Application Submittal Process To reduce the need to photocopy, package, and physically submit paper applications, the Major Event Center Transportation Program requires that applications be submitted electronically in PDF format using the MSRC Website. We believe this benefits the applicant, the MSRC staff, and the environment.

The application that will be submitted as a **PDF document** is comprised of seven (7) primary sections – these correspond to the application Attachments A-G as described in the preceding section. Thus, a complete application will be comprised of the following elements:

- 1. Attachment A: Proposer and Project Participant Information
- 2. Attachment B: Project Description
- 3. Attachment C: Project Cost Breakdown
- 4. Attachment D: Project Implementation Schedule
- 5. Attachment E: Memorandum of Understanding/letter of support between Event Center(s) and Transportation Services Provider(s) (as applicable)
- 6. Attachment F: Transportation Service Ridership Estimates

- 7. Attachment G: Certifications
 - a. W-9 Form and Form 590
 - b. Disadvantaged Business Certification Form
 - c. MSRC Prospective Contractor Information
 - d. Campaign Contribution Disclosure Form

These seven sections, including Attachment G certifications, are to be compiled into a **single PDF document** for submittal to the MSRC Clean Transportation Funding Website. **Please note that ONLY PDF format can be accepted. Microsoft Word documents cannot be accepted by the MSRC Website**. Applicants will need to register on the MSRC Clean Transportation Funding website.

Please note that the latest date and time to submit an application is March 30, 2021 at 11:59 pm!

- 3. Addenda The Mobile Source Air Pollution Reduction Review Committee may modify the Program Announcement and/or issue supplementary information or guidelines relating to the Program Announcement during the Proposal preparation and acceptance period of April 5, 2019 to March 30, 2021. Amendments will be posted on the MSRC website at www.cleantransportationfunding.org.
- 4. **Proposal Modifications** Once submitted, Proposals cannot be altered without the prior written consent of the Mobile Source Air Pollution Reduction Review Committee.
- 5. **Certificates of Insurance** Upon notification of an MSRC funding award, a certificate(s) of insurance naming the South Coast Air Quality Management District (SCAQMD) as an additional insured will be required within forty-five (45) days. Entities that are self-insured will be required to provide proof of self-insurance prior to contract execution.

SECTION 6 - IF YOU NEED HELP...

This Program Announcement can be obtained by accessing the MSRC web site at <u>www.cleantransportationfunding.org</u>. MSRC 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 or Technical Assistance, please contact: Ray Gorski
 MSRC Technical Advisor
 Phone: 909-396-2479
 E-mail: Ray@CleanTransportationFunding.org

- For Administrative Assistance, please contact: Cynthia Ravenstein MSRC Contracts Administrator Phone: 909-396-3269 E-mail: <u>Cynthia@CleanTransportationFunding.org</u>
- For Contractual Assistance, please contact: Dean Hughbanks
 SCAQMD Procurement Manager
 Phone: 909-396-2808
 E-mail: dhughbanks@aqmd.gov

SECTION 7 - PROPOSAL EVALUATION AND APPROVAL PROCESS

MSRC staff members will screen proposals upon receipt to ensure compliance with all mandatory Program Announcement requirements. In the event a proposal is deemed noncompliant, MSRC Staff will notify the proposer of the issues and corrective actions required. Note that a noncompliant proposal is not considered "received" and will not undergo further evaluation until all proposal deficiencies are remedied.

Proposals deemed compliant will be forwarded to an Evaluation Subcommittee comprised of members of the MSRC Technical Advisory Committee (MSRC-TAC). Proposals will be evaluated in order of receipt using criteria established by the MSRC; these criteria are listed below. Proposals will be recommended for funding based upon their conformance with the established criteria and in accordance with the maximum funding provisions stipulated in Section 3.3 of this Program Announcement. It is possible that all funding allocated to this Program could be fully expended prior to the close of the proposal submittal period, March 30, 2021.

Evaluation Criteria – Proposals will be evaluated using a two-step process. The first step (Step 1) consists of a technical analysis to ensure that the project has a high probability of achieving a net air quality benefit. Only proposals that are determined to result in a net reduction in mobile source air pollution will undergo further evaluation (Step 2). MSRC Staff may request additional information from the project applicant to assist in this determination.

Step 2 continues the assessment of the merits of a proposed Event Center project. The specific criteria to be evaluated are outlined below. Each project will be assessed individually against the evaluation criteria. A maximum of 100 points is available – only projects that receive greater than 70 points will be considered for an MSRC funding award. Projects scoring less than 70 points will not be eligible for an MSRC funding award.

STEP 1: POTENTIAL TO ACHIEVE QUANTIFIABLE AIR POLLUTANT REDUCTIONS - Each project will be analyzed to estimate its potential to achieve motor vehicle air pollution reductions, emphasizing reductions in oxides of nitrogen and particulate matter pollution. Factors to be evaluated include, but are not limited to:

 The types, quantity, emissions profile, and proposed utilization of the vehicles proposed to implement the event center transportation services;

- Event center transportation service ridership estimates based on previous documented event center project results, surveys or focus groups conducted to estimate potential transportation service utilization, etc.;
- The event center location, population density, and location relative to major arterial roadways and freeways;
- Availability of existing transportation options other than personal automobile;
- The number of events scheduled or planned for the event center during the proposed period of program; and
- The average venue attendance.

STEP 2:

EVENT CENTER PROJECT COST-EFFECTIVENESS (0 – 50 Points). Cost-effectiveness is a measure of a proposed project's potential for reducing mobile source air pollution relative to the MSRC funding amount sought. This is typically presented in units of "dollars per pound of air pollution reduced". The results of Step 1 will be evaluated in the context of the MSRC funding request. Points will be awarded in accordance with the following cost-effectiveness (CE) matrix:

CE (\$/Lb.)	POINTS
< \$500/Lb.	50
\$500 - \$1,499/Lb.	40
\$1,500 - \$2,499/Lb.	30
\$2,500 - 3,499/Lb.	20
\$3,500 - \$4,499/Lb.	10
> \$4,500/Lb.	0

- 2. <u>NEXUS TO OTHER PUBLIC TRANSIT SERVICES (0 25 Points</u>). MSRC experience over the past nine years has shown that Event Center projects that are ultimately most successful have a high degree of connectivity with other existing public transit services. This criterion evaluates the probability of successfully integrating the proposed transportation program with other existing public transportation services, including connectivity with <u>existing</u> regional or municipal bus service, Metrolink, light rail, transit centers, etc. Proposers should clearly outline the proposed Event Center transportation connectivity with other existing public transit services in their proposal.
- 3. <u>PROGRAM CONTINUATION PLAN (0 25 Points)</u>. MSRC funding is intended to be "seed funding" to initiate Event Center Transportation services it is not intended to serve as an ongoing funding source. Event Center projects are required to develop a plan to demonstrate how the service, if successful, will continue beyond the MSRC funding period, including the sources of internal and external revenue that will be pursued to augment and ultimately replace MSRC funding. Projects

that have a definitive plan for continuing transportation programs beyond the initial MSRC funding period will be awarded a higher point allocation.

Proposals deemed meritorious by the MSRC-TAC will be forwarded to the MSRC for evaluation, review, and potential funding approval. Please note that the MSRC retains full discretion and authority as it pertains to a potential award of **Clean Transportation Funding**[™]. The decision to award funding, or not award funding, will be based on the proposed project's potential to achieve direct and tangible emission reductions. Thus, it is anticipated that not all projects submitted for funding consideration will receive an MSRC award.

SECTION 8 - PROPOSAL ATTACHMENTS - PA2019-03

ATTACHMENT A: PROPOSAL CONTACT INFORMATION

A. Please provide the following Proposer information in the space provided (This is information about the entity submitting the proposal):

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

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

B. Funding Request Summary:

MSRC Clean Transportation Funding™	Requested:	\$
Other Co-Funding Applied to Project:		\$
	Total Project Cost:	\$

C. Please provide the following information about the Event Center in the space provided below:

Event Center Name	
Website Address	
Type of Venue	

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

D. Please provide the following information about the Transportation Service Provider in the space provided (If this information was provided in Section 8.A, simply type "See Above"):

Business Name	
Division of:	
Subsidiary of:	
Website Address	
Type of Business	

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

ATTACHMENT B: PROJECT DESCRIPTION

- 1. **Event Center Description** Please provide a detailed description of the major event center. At a minimum, provide the following information:
 - a) General Characteristics of the Event Center, including type of venue, facility physical size, occupancy capacity, parking lot capacity, etc.;
 - b) Average number of events held annually or during a full season of operation;
 - c) Average attendance at a regularly scheduled event; peak attendance at special events;
 - d) Traffic conditions in proximity to event center prior to, during, and following a regularly scheduled event. If possible, provide a statement from the City or County Traffic Engineering Department verifying that traffic volumes on adjacent roadways and intersections prior to and following a scheduled event exceed roadway and intersection capacity.
- 2. **Proposed Transportation Program Description** Provide a detailed description of the proposed event center transportation program. This should include, at a minimum:
 - a) A description of the vehicles proposed to perform transportation services, including the make and model, model year, engine model and year, alternative fuel type if required, seating positions, and total capacity (seated and standing) for each vehicle proposed to be utilized in event center transportation services.
 - b) The estimated number of events for which transportation program will be implemented. Include event schedules, dates, etc. to the extent feasible.
 - c) A description of how the transportation program services will be conducted, including passenger pickup locations, passenger drop-off locations, anticipated headways, hours of operation, etc.
 - d) For circulator-type transportation services, please include a map of the vehicle route(s) that graphically illustrates vehicle routing, passenger pickup and drop-off locations, etc.
- 3. **Connectivity with Other Public Transit Service** Please discuss potential connectivity with other public transit services, including but not limited to potential connectivity with existing regional or municipal bus lines, Metrolink, light rail, transit centers, park and ride lots, etc.
- 4. Advertising, Marketing, Outreach, and Promotion of Event Center Transportation Program Please describe the plan for conducting outreach and promotion of the availability of event center transportation programs. This may include, but is not limited to, radio, television, newspaper, or specialty publication advertisements; other printed materials; materials developed for incorporation into a website, electronic media, etc., transportation program kickoff events, ribbon cuttings, or news conferences, etc. Please note that outreach and promotion is a mandatory element of any event center transportation program project funded by the MSRC and may be accounted for as an in-kind co-funding contribution.
- 5. **Program Continuation Plan** Please describe what efforts will be made by the event center/transportation provider partnership to secure necessary resources to continue event center transportation program beyond the initial MSRC funding period.

ATTACHMENT C: COST BREAKDOWN: Please provide a detailed cost breakdown of the proposed project. Please note that MSRC **Clean Transportation Funding**[™] is intended to help offset the cost of transportation program, and cannot be applied to capital equipment purchases or used to offset lost parking facility revenues. The MSRC reserves the right to exclude cost elements deemed unallowable, as well as award funding in an amount less than the requested amount.

ATTACHMENT D: PROJECT IMPLEMENTATION SCHEDULE

Please provide a Milestone Schedule for your proposed event center transportation program project. This should include, at a minimum, the anticipated date event center transportation program will commence, as well as any additional information regarding scheduled events to be supported by transportation services.

ATTACHMENT E: MEMORANDUM OF UNDERSTANDING/LETTER OF SUPPORT BETWEEN TRANSPORTATION SERVICE PROVIDER (PROPOSED CONTRACTOR) AND EVENT CENTER SITE

For projects seeking MSRC **Clean Transportation Funding**[™] for implementation or expansion of an event center transportation program, a fully executed Memorandum of Understanding (MOU) or letter of support must be submitted as an element of the proposal package.

The MOU/Letter of Support must be provided at the time of Proposal Submittal and must contain the following essential elements, at a minimum:

- The parties to the MOU/Letter of Support, including the transportation service provider(s) and event center site owner or authorized representative;
- The term of the MOU/Letter of Support;
- The specific location of where transportation services will be provided;
- Anticipated dates of transportation service start of operation and completion;
- Executed signatures by individuals authorized on behalf of the parties to the MOU/Letter of Support.

If the proposal package contains a letter of support, an MOU may be required prior to execution of a contract.

ATTACHMENT F: TRANSPORTATION PROGRAM RIDERSHIP ESTIMATES

Please provide an estimate of the anticipated utilization of the event center transportation program if implemented as proposed. Please include any empirical information used to generate ridership estimates, including but not limited to survey results, focus group results, etc.

Please note that as a condition of funding award, the contractor will be required to survey, document, or otherwise quantify the patronage of the event center transportation program in order for the MSRC to quantify motor vehicle emission reductions achieved by the transportation program.

Departr	W-9 Dotober 2018) ment of the Treasury Revenue Service	Request for Taxpayer Identification Number and Certifi Go to www.irs.gov/FormW9 for instructions and the lates		Give Form to the requester. Do not send to the IRS,	
	1 Name (as shown	on your income tax return). Name is required on this line; do not leave this line blank.			
	2 Business name/o	lisregarded entity name, if different from above			
t is on page 3.	 3 Check appropria following seven 1 Individual/sole single-member 	4 Exemptions (codes apply only to certain entities, not individuals; see instructions on page 3): Exempt payee code (if any)			
Print or type. Specific Instructions	Limited flability company. Enter the tax classification (C=C corporation, S=S corporation, P=Partnership) ►			Exemption from FATCA reporting code (if any)	
ecij	☐ Other (see instructions) ►			(Applies to accounts maintained outside the (J.S.)	
See Sp	5 Address (number 6 City, state, and Z	r, street, and apt. or suite no.) See instructions.	Requester's name a	nd address (optional)	
	7 List account num	ber(s) here (optional)			
Par	ti Taxpay	ver Identification Number (TIN)			
Enter	your TIN in the app	propriate box. The TIN provided must match the name given on line 1 to ave	pid Social sec	urity number	

Enter your TIN in the appropriate box. The TIN provided must match the name given on line 1 to avoid	Social security number
backup withholding. For individuals, this is generally your social security number (SSN). However, for a resident allen, sole proprietor, or disregarded entity, see the instructions for Part I, later. For other entities, it is your employer identification number (EIN). If you do not have a number, see <i>How to get a TIN</i> , later.	or
Note: If the account is in more than one name, see the instructions for line 1. Also see What Name and	Employer identification number
Number To Give the Requester for guidelines on whose number to enter.	
Part II Certification	

Under penalties of perjury, I certify that:

1. The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me); and

2. I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding; and

3. I am a U.S. citizen or other U.S. person (defined below); and

4. The FATCA code(s) entered on this form (if any) indicating that I am exempt from FATCA reporting is correct.

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

Sign Here	Signature of U.S. person ►	Date
Gono	ral Instructions	 Form 1099-DIV (dividends, including those from stocks or mutu

General Instructions

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

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

Purpose of Form

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

· Form 1099-INT (Interest earned or paid)

 Form 1099-DIV (dividends, including those from stocks or mutual funds)

 Form 1099-MISC (various types of income, prizes, awards, or gross proceeds)

Form 1099-B (stock or mutual fund sales and certain other

- transactions by brokers)
- Form 1099-S (proceeds from real estate transactions)
- Form 1099-K (merchant card and third party network transactions)
- Form 1098 (home mortgage interest), 1098-E (student loan interest), 1098-T (tuition)
- Form 1099-C (canceled debt)

 Form 1099-A (acquisition or abandonment of secured property) Use Form W-9 only if you are a U.S. person (including a resident alien), to provide your correct TIN.

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

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Form W-9 (Rev. 10-2018)

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

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

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

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

An individual who is a U.S. citizen or U.S. resident alien;

 A partnership, corporation, company, or association created or organized in the United States or under the laws of the United States;

An estate (other than a foreign estate); or

A domestic trust (as defined in Regulations section 301,7701-7).

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

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

 In the case of a disregarded entity with a U.S. owner, the U.S. owner of the disregarded entity and not the entity;

 In the case of a grantor trust with a U.S. grantor or other U.S. owner, generally, the U.S. grantor or other U.S. owner of the grantor trust and not the trust; and

 In the case of a U.S. trust (other than a grantor trust), the U.S. trust (other than a grantor trust) and not the beneficiaries of the trust.

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

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

2. The treaty article addressing the income.

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.

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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 24% 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,

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

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

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

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

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

Also see Special rules for partnerships, earlier.

What is FATCA Reporting?

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

Updating Your Information

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

Penalties

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

make a false statement with no reasonable basis that results in no backup withholding, you are subject to a \$500 penalty.

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

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

Specific Instructions

Line 1

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

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

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

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

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

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

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

e. Disregarded entity. For U.S. federal tax purposes, an entity that is disregarded as an entity separate from its owner is treated as a "disregarded entity." See Regulations section 301.7701-2(c)(2)(iii). Enter the owner's name on line 1. The name of the entity entered on line 1 should hever 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 lirst owner that is not disregarded for federal tax purposes. Enter the disregarded entity's name on line 2, "Business name/disregarded entity name." If the owner of the disregarded entity is a foreign person, the owner must complete an appropriate Form W-8 instead of a Form W-9. This is the case even if the foreign person has a U.S. TIN.

Line 2

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

Line 3

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

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

Line 4, Exemptions

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

Exempt payee code.

 Generally, Individuals (including sole proprietors) are not exempt from backup withholding.

 Except as provided below, corporations are exempt from backup withholding for certain payments, including interest and dividends.

 Corporations are not exempt from backup withholding for payments made in settlement of payment card or third party network transactions.

 Corporations are not exempt from backup withholding with respect to attorneys' fees or gross proceeds paid to attorneys, and corporations that provide medical or health care services are not exempt with respect to payments reportable on Form 1099-MISC.

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

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

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

3-A state, the District of Columbia, a U.S. commonwealth or

possession, or any of their political subdivisions or instrumentalities 4-A foreign government or any of its political subdivisions, agencies, or instrumentalities

a instrumentait

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

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

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

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

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

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

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

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

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

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

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

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

G-A real estate investment trust

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

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

J-A bank as defined in section 581

K-A broker

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

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

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

Line 5

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

Line 6

Enter your city, state, and ZIP code.

Part I. Taxpayer Identification Number (TIN)

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

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

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

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

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

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

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

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

Part II. Certification

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

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

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

Page 5

Form W-9 (Rev. 10-2018)

 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.

 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, royatties, goods (other than bills for merchandise), medical and health care services (including payments to corporations), payments to a nonemployee for services, payments made in settlement of payment card and third party network transactions, payments to certain fishing boat crew members and fishermen, and gross proceeds paid to attorneys (including payments to corporations).

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

What Name and Number To Give the Requester

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

For this type of account:	Give name and EIN of:
14. Account with the Department of Agriculture in the name of a public entity (such as a state or local government, school district, or prison) that receives agricultural program payments	The public entity
 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)()(B)) 	The trust

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

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

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

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

*Note: The grantor also must provide a Form W-9 to trustee of trust. Note: If no name is circled when more than one name is listed, the number will be considered to be that of the first name listed.

Secure Your Tax Records From Identity Theft

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

To reduce your risk:

- Protect your SSN,
- · Ensure your employer is protecting your SSN, and

Be careful when choosing a tax preparer.

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

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

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

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

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

Page 6

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

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

Privacy Act Notice

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

TAXABLE YEAR

2019 Withholding Exemption Certificate

590

CALIFORNIA FO

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

Namo

Payee Information				
	SSN or I	TIN 🗖 PI	EIN 🗖 GA G	rp no. 🗆 CA SOS 🐿
				-
Address (apt/sta., room, PO box, or PMB no.)				
City (if you have a foreign address, see instructions.)		State	ZIP code	
Franking Deserve				

Exemption Reason

Check only one box.

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

Individuals — Certification of Residency:

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

Corporations:

The corporation has a permanent place of business in California at the address shown above or is qualified through the California Secretary of State (SOS) to do business in California. The corporation will file a California tax return. If this corporation ceases to have a permanent place of business in California or ceases to do any of the above, I will promptly not 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 th 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 liabilit partnership (LLP) is treated like any other partnership.

Tax-Exempt Entitles:

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 not 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 informati go to ftb.ca.gov/forms and search for 1131. To request this notice by mail, call 800.852.5711.

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

Type or print payee's name and title				Telephone (Telephone ()		
Payee's signature 🕨				Date			
		7061193	<u> </u>	Form 590	2018		

2017 Instructions for Form 590

Withholding Exemption Certificate

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

General Information

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

A Purpose

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

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

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

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

The following are excluded from withholding and completing this form:

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

B Income Subject to Withholding

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

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

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

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

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

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

C Who Certifies this Form

Form 590 is certified by the payee. California residents or entities exempt from the withholding requirement should complete Form 590 and submit it to the withholding agent before payment is made. The withholding 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 pavee until a valid certificate is received. In lieu of a completed exemption certificate, the withholding agent may accept a letter from the payee as a substitute explaining why they are not subject to withholding. The letter must contain all the information required on the certificate in similar language, including the under penalty of perjury statement and the payee's taxpayer identification number (TIN). The withholding agent must retain a copy of the certificate or substitute for at least five years after the last payment to which the certificate applies, and provide it upon request to the FTB.

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

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

D Definitions

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

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

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

Permanent Place of Business:

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

E Military Spouse Residency Relief Act (MSRRA)

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

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

Domicile is defined as the one place:

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

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

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

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

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

Specific Instructions

Payee Instructions

Enter the withholding agent's name.

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

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

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

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

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

Withholding Agent Instructions

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

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

- The individual payee becomes a nonresident.
- The corporation ceases to have a permanent place of business in California or ceases to be qualified to do business in California.

Page 2 Form 590 Instructions 2016

- The partnership ceases to have a
- permanent place of business in California. • The LLC ceases to have a permanent place
- of business in California.
- The tax-exempt entity loses its tax-exempt status.

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

Additional Information

Website:	For more information go to ftb.ca.gov and search for nonwage.
	MyFTB offers secure online tax account information and services. For more information and to register, go to ftb.ca.gov and search for myftb.
Telephone:	888 .792.4900 or 916.845.4900, Withholding Services and Compliance phone service
Fax:	916.845.9512
Mail:	WITHHOLDING SERVICES AND COMPLIANCE MS F182 FRANCHISE TAX BOARD PO BOX 942867 SACRAMENTO CA 94267-0651
download, v and publica	ns unrelated to withholding, or to <i>v</i> iew, and print California tax forms tions, or to access the TTY/TDD ee the information below.
Internet and	d Telephone Assistance
Website:	ftb.ca.gov
Telephone:	800.852.5711 from within the United States
	916.845.6500 from outside the United States
TTY/TDD:	800.822.6268 for persons with hearing or speech impairments
Asistencia	Por Internet y Teléfono
Sitio web:	ftb.ca.gov
Teléfono:	800.852.5711 dentro de los Estados Unidos
	916.845.6500 fuera de los Estados Unidos

TTY/TDD: 800.822.6268 para personas con discapacidades auditivas o de habla



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

<u>SECTION I</u>.

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:

Nam	e of C	Contributor		
	Gover	ning Board Member or MSRC Member/Alternate	Amount of Contribution	Date of Contribution
Nam	e of (Contributor		
	Gover	ning Board Member or MSRC Member/Alternate	Amount of Contribution	Date of Contribution
Nam	e of C	Contributor		
	Gover	ning Board Member or MSRC Member/Alternate	Amount of Contribution	Date of Contribution
Nam	e of C	Contributor		
	Gover	ning Board Member or MSRC Member/Alternate	Amount of Contribution	Date of Contribution
			_	
		DEFINIT	IONS	
		Parent, Subsidiary, or Otherwise Related Business	Entity (2 Cal. Code of Regs., §187	03.1(d).)
(1)		t subsidiary. A parent subsidiary relationship exists whe		tly owns shares possessing
(2)	organ	than 50 percent of the voting power of another corporate		
		than 50 percent of the voting power of another corporative wise related business entity. Business entities, includizations and enterprises operated for profit, which do not ne of the following three tests is met:	ling corporations, partnerships, joi	
	(A)	wise related business entity. Business entities, includizations and enterprises operated for profit, which do not	ling corporations, partnerships, joi ot have a parent subsidiary relations	
	(A) (B)	wise related business entity. Business entities, includizations and enterprises operated for profit, which do no ne of the following three tests is met:	ling corporations, partnerships, joi of have a parent subsidiary relations est in the other business entity. e entities. In determining whether th	hip are otherwise related if

MSRC Prospective Contractor Information

1.	Contractor (Legal Name):						
2.	Brief Description of Project:						
3.	Did Contractor retain a consultant to help prepare the funding application?						
	Yes No If YES, identify consultant below and then sign and date the form. If NO, sign and date below.						
	Name of Consultant						
	I declare the foregoing disclosure to be true and correct. Name:						
	Signature:						
	Title:						
	Date:						

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 <u>for contracts or purchase orders funded in whole</u> <u>or in part by federal grants and contracts.</u>

- 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.

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

Check all that apply:						
 Small Business Enterprise/Small Business Joint Venture <i>Local business</i> Minority-owned Business Enterprise 	 Women-owned Business Enterprise Disabled Veteran-owned Business Enterprise/DVBE Joint Ven Most Favored Customer Pricing Certification 					
Percent of ownership:%						
Name of Qualifying Owner(s):						
State of California Public Works Contractor Re INCLUDED IF BID PROPOSAL IS FOR PUBLIC						

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

Α.

B. TELEPHONE NUMBER

DATE

TITLE

(a) **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.

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BOARD MEETING DATE: April 5, 2019

AGENDA NO. 9

REPORT: Legislative, Public Affairs and Media Report

SYNOPSIS: This report highlights the February 2019 outreach activities of the Legislative, Public Affairs and Media Office, which includes Major Events, Community Events/Public Meetings, Environmental Justice Update, Speakers Bureau/Visitor Services, Communications Center, Public Information Center, Business Assistance, Media Relations, and Outreach to Community Groups and Federal, State, and Local Governments.

COMMITTEE: No Committee Review

RECOMMENDED ACTION: Receive and file.

Wayne Nastri Executive Officer

BACKGROUND

DJA:FW:LTO:KH:DM:

This report summarizes the activities of the Legislative, Public Affairs and Media Office for February 2019. The report includes: Major Events; Community Events/Public Meetings; Environmental Justice Update; Speakers Bureau/Visitor Services; Communications Center; Public Information Center; Business Assistance; Media Relations; and Outreach to Community Groups and Governments.

MAJOR EVENTS (HOSTED AND SPONSORED)

Each year SCAQMD staff engage in holding and sponsoring a number of major events throughout the SCAQMD's four county area to promote, educate and provide important information to the public regarding reducing air pollution, protecting public health, and improving air quality and the economy.

February 21

SCAQMD hosted the Community Faith Based Leaders Breakfast and Panel Discussion in Los Angeles. The purpose of the event was to engage faith based community leaders on air quality and public health challenges in the community. There were approximately 75 people in attendance from diverse faith backgrounds.

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 rules and policy development; and
- Assistance in resolving air pollution-related problems.

SCAQMD staff attended and/or provided information and updates at the following events:

February 28

SCAQMD staffed an exhibit booth at the South Bay Cities Council of Governments (SBCCOG) General Assembly. The theme for the SBCCOG's 2019 General Assembly was *Celebrating the Past - Shaping the Future*.

ENVIRONMENTAL JUSTICE UPDATE

The following are key environmental justice-related activities in which staff participated throughout the month of February 2019. These events involve communities affected disproportionately from adverse air quality impacts.

February 7

Staff presented information to students in an urban pollution course at California State University, Los Angeles. The presentation covered background information on SCAQMD, air pollution and health effects, and environmental justice initiatives and programs.

February 9

Staff hosted an Environmental Justice Bus Tour with USC Environmental Health Sciences Division. The tour included a harbor tour of the Port of Long Beach and community tour of East Los Angeles and Boyle Heights. Participants saw first-hand environmental justice issues such as homes next to freeways, factories, and rail yards.

February 12

Staff held the third AB 617 Steering Committee meeting in Wilmington. The purpose of the meeting was to develop a prioritization of air quality concerns from the community members through a facilitated break out session and to receive community input to help guide SCAQMD's focus for the community emission reduction plans. Staff presented information on enforcement and strategies to address air quality concerns.

February 22

SCAQMD partnered with CARB and the Leadership Counsel for Justice and Accountability to host a community identification meeting in the North Shore community of the Eastern Coachella Valley. There were approximately 50 community members in attendance. Staff presented information regarding AB 617 community selection process and incentives available to the community. The meeting ended with a Q&A session.

February 26

Staff participated in a community forum hosted by Madison Park Neighborhood Association in Santa Ana. This meeting was the second community forum to educate the community on air quality and recruit steering committee members for their Community Air Grant. There were approximately 40 community leaders and residents in attendance.

February 27

Staff participated in the Coachella Valley Environmental Justice Enforcement Task Force meeting which was attended by local community organizations, U.S. EPA Region 9, Department of Toxic Substances Control, staff from elected officials and other agencies. Staff shared information on the Commercial Electric Lawn & Garden Equipment program.

February 28

Staff held the third AB 617 Steering Committee meeting in East Los Angeles which was co-hosted with East LA Rising. The purpose of the meeting was to develop a prioritization of air quality concerns from the community members through a facilitated break-out session and to receive community input to help guide SCAQMD's focus for the community emission reduction plans. Staff presented information on enforcement and strategies to address air quality concerns.

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.

February 22

Environmental science students from Montclair High School visited SCAQMD. Staff presented information on SCAQMD, the history of air quality, clean air technologies, and air monitoring. The visit also included a tour of the laboratory, and alternative fueling stations and vehicles.

February 27

Staff presented information to the City of Murrieta Building Safety Department, including plan reviewers and permit technicians. The presentation focused on SCAQMD regulations for residential, commercial, and industrial sources of air pollution, including outdoor wood-burning devices.

COMMUNICATION CENTER STATISTICS

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

Calls to SCAQMD's Main Line and	
1-800-CUT-SMOG [®] Line	3,223
Calls to SCAQMD's Spanish-language Line	37
Total Calls	3,260

PUBLIC INFORMATION CENTER STATISTICS

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

Calls Received by PIC Staff	156		
Calls to Automated System	547		
Total Calls	703		
Visitor Transactions	218		
Email Advisories Sent emails	12,764		

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 onsite consultation, as summarized below:

- Provided permit application assistance to 168 companies
- Processed 72 Air Quality Permit Checklists
- Conducted 2 free onsite consultations

Types of businesses assisted

Auto Body ShopsDry CleanersPlating FacilitiesGas StationsAuto Repair CentersRestaurantsEngineering, Construction, & Architecture Firms

Furniture Refinishing Facilities Manufacturing Facilities Printing Facilities

MEDIA RELATIONS

The Media Office handles all SCAQMD outreach and communications with television, radio, newspapers and all other publications and media operations.

Total Media Inquiries: 16 Total Web Updates: 127 Press Releases/Air Quality Advisories Issued: 1

Major Media Topics for February

(All inquiries closed unless noted as pending)

- Lawn Equipment Incentives La Prensa and KPCC/NPR inquired regarding the lawn equipment incentives and how local landscapers could take advantage of the program. The Santa Clarita Signal published an article about the program during the final week of February.
- Long Beach Unified School District (LBUSD) Emergency Generator ABC7 inquired regarding a reported incident at a LBUSD school in which an emergency generator may have been operated while school was in session.
- Refined Spots requested an update on the Board's actions or next steps regarding modified hydrofluoric acid.
- AQMP Incentive Funding the L.A. Times requested clarification on the amount of incentive funds that SCAQMD has received from AQMP Incentive funding.
- Fire Ring Jurisdiction a freelance reporter from Carmel requested clarification on SCAQMD's jurisdiction over fire rings at beaches in the South Coast basin.
- Clean Air Shelters Bloomberg Environment inquired about whether or not SCAQMD has set up "clean air shelters" during wildfires or "bad air" days.
- Facility Inspections L.A. Times spoke to staff about their ongoing public records request related to SCAQMD's inspection statistics.
- Voteing District Authorization Bill Long Beach Business Journal inquired about SCAQMD's efforts to develop a voter district authorization bill.

News Releases

• SCAQMD Issues Windblown Dust Advisory for the Coachella Valley – February 28, 2019

Media Campaigns

Check Before You Burn 2018/19

• 13 total No-Burn Days called to date in current season

OUTREACH TO COMMUNITY GROUPS AND FEDERAL, STATE, AND LOCAL GOVERNMENTS

Field visits and/or communications were conducted with elected officials or staff from the following cities:

Alhambra	El Monte	Pasadena
Arcadia	El Segundo	Pomona
Aliso Viejo	Fullerton	Rialto
Anaheim	Glendora	Riverside
Azusa	Hemet	Rosemead
Banning	Irvine	Stanton
Baldwin Park	Laguna Hills	San Dimas
Beaumont	Lawndale	San Clemente
Burbank	La Palma	San Gabriel
Buena Park	La Puente	San Marino
Calimesa	La Verne	Sierra Madre
Claremont	La Cañada Flintridge	South El Monte
Colton	Los Angeles	South Pasadena
Covina	Los Alamitos	Temple City
Cypress	Mission Viejo	Walnut
Dana Point	Monrovia	West Covina
Diamond Bar	Monterey Park	Yucaipa
Duarte	Palm Springs	

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

- U.S. Senator Dianne Feinstein
- U.S. Senator Kamala Harris
- U.S. Representative Pete Aguilar
- U.S. Representative Nanette Barragán
- U.S. Representative Paul Cook
- U.S. Representative Lizzy Fletcher
- U.S. Representative Trey Hollingsworth
- U.S. Representative Mike Levin
- U.S. Representative Alan Lowenthal
- U.S. Representative Grace Napolitano
- U.S. Representative Joe Neguse
- U.S. Representative Katie Porter

- U.S. Representative Harley Rouda
- U.S. Representative Lucille Roybal-Allard
- U.S. Representative Norma Torres
- Senator Connie Leyva
- Senator Susan Rubio
- Assembly Member Autumn Burke
- Assembly Member Ian Calderon
- Assembly Member Ed Chau
- Assembly Member Laura Friedman
- Assembly Member Chris Holden

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

Black Chamber of Commerce, Orange County Bureau of Automotive Repair Harbor Association of Industry and Commerce, Long Beach Inland Action Inland Empire Conservation District, Redlands Morongo Band of Mission Indians Oak Glen Apple Growers Association, Yucaipa **Riverside Chamber of Commerce Riverside Citrus Growers Association** San Bernardino Area Chamber of Commerce San Bernardino County Transportation Authority San Gabriel Valley Council of Governments San Gabriel Valley Economic Partnership San Manuel Band of Mission Indians Sunline Transit Agency, Riverside County Transportation Now, San Gorgonio Pass Area Chapter Transportation Now, Moreno Valley / Perris Western Community Energy, Riverside Western Riverside Council of Governments U.S. Forest Service Ranger Station, Mentone

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

Desert Sands Unified School District Coachella Valley Unified School District Loma Linda University Orange County Community Relations Collaborative Palm Springs Unified School District San Bernardino County Department of Education San Bernardino Valley College San Gabriel Valley Community Conservation Corps Wildlands Conservancy, Yucaipa

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BOARD MEETING DATE: April 5, 2019 AGENDA NO. 10

REPORT: Hearing Board Report

SYNOPSIS: This reports the actions taken by the Hearing Board during the period of February 1 through February 28, 2019.

COMMITTEE: No Committee Review

RECOMMENDED ACTION: Receive and file.

Julie Prussack Chairman of Hearing Board

DG

Two summaries are attached: February 2019 Hearing Board Cases and Rules From Which Variances and Orders for Abatement Were Requested in 2019. An Index of District Rules is also attached.

The total number of appeals filed during the period February 1 to February 28, 2019 is 1; and total number of appeals filed during the period of January 1 to February 28, 2019 is 1.

Report of February 2019 Hearing Board Cases

Case Name and Case No. (SCAQMD Attorney)		Rules	Reason for Petition/Hearing	District Position/ Hearing Board Action	Type and Length of Variance or Order	Excess Emissions		
1.		203(b)	Emergency generator exceeded permitted annual 200-hour operating limit due to inclement weather.	Not Opposed/Granted	IV granted commencing 2/14/19 and continuing through 3/27/19, when the RV hearing is scheduled.	CO: 0.2 lb/hr NOx: 0.5 lb/hr PM 10: 0.03 lb/hr VOC: 0.03 lb/hr SOx: 0.03 lb/hr		
2.	County of San Bernardino, Fleet Management Case No. 6070-3 (M. Reichert)	203(b)	Emergency generator exceeded permitted annual 200-hour operating limit due to inclement weather.	Not Opposed/Granted	IV granted commencing 2/27/19 and continuing through 4/3/19, when the RV hearing is scheduled.	CO: 7 lbs/day VOC: 3 lbs/day		
3.	SCAQMD vs. Bubbles Dry Cleaners Case No. 6132-1 (S. Pruitt)	201 203(a)	Operating without a valid permit.	Stipulated/Issued O/A issued commencing 2/26/19 and continuing through 11/30/19. The Hearing Board shall retain jurisdiction over this matter until 11/30/19.		N/A		
4.	SCAQMD vs. City of Westminster Fleet Department Case No. 5647-2 (K. Manwaring)	461(c)(1)(A) 461(c)(2)(A) 461(c)(3)(P) H&S §41960.2(a)	Require compliance with EVR requirements for storage tank.	Stipulated/Issued	O/A issued commencing 2/20/19 and continuing through 2/20/20. Jurisdiction of this matter ends when CARB certifies Respondent's Phase 1 configuration, or until 2/20/20, whichever occurs first, unless the Order is extended.	N/A		
5.	SCAQMD vs. JACCK Oil, Inc. Case No. 6119-2 (N. Sanchez)	461(c)(1)(A) 461(c)(2)(A) 461(c)(3)(P) H&S §41960.2	Require compliance with EVR requirements for storage tank.	Stipulated/Issued	O/A issued commencing 2/15/19 and continuing through 2/5/20. The Hearing Board shall retain jurisdiction over this matter until 2/5/20.	N/A		
6.	SCAQMD vs. Matchmaster Dyeing & Finishing, Inc. Case No. 6110-1 (M. Reichert)	Matchmaster Dyeing commencing 2/28 Finishing, Inc. continuing throug Case No. 6110-1 The Hearing Boar M. Reichert) retain jurisdiction		Mod. O/A issued commencing 2/28/19 and continuing through 7/31/19. The Hearing Board shall retain jurisdiction over this matter until 7/31/19.	N/A			

Case Name and Case No. Rules (SCAQMD Attorney)		-		Type and Length of Variance or Order	Excess Emissions
 SCAQMD vs. Mission Foods Corporation Case No. 5400-4 (K. Manwaring) 	202(c) 203(b) 1147 1153.1 1303	Require compliance with District rules and permit conditions.	Stipulated/Issued	O/A issued commencing 2/20/19 and continuing through 12/31/20. The Hearing Board shall retain jurisdiction over this matter until 12/31/20.	N/A

Acronyms CO: Carbon Monoxide EVR: Enhanced Vapor Recovery System IV: Interim Variance MOD O/A: Modification of an Order for Abatement NOx: Oxides of Nitrogen O/A: Order for Abatement PM10: Particulate Matter ≤ 10 microns RV: Regular Variance SOx: Oxides of Sulfur VOC: Volatile Organic Compounds

Rules from which Variances and Orders for Abatement were Requested in 2019														
	2019	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total Actions
# of HB Actions Involving Rules														
201			1											1
202(c)			1											1
203(a)			1											1
203(b)		1	3											4
461(c)(1)(A)			2											2
461(c)(2)(A)			2											2
461(c)(3)(P)			2											2
1147			1											1
1153.1			1											1
1303			1											1
2004(f)(1)		1												1
3002(c)(1)		1												1
H&S 41960.2			1											1
H&S 41960.2(a)			1											1

DISTRICT RULES AND REGULATIONS INDEX FOR 2019 HEARING BOARD CASES AS OF FEBRUARY 28, 2019

REGULATION II – PERMITS

- Rule 201 Permit to Construct
- Rule 202 Temporary Permit to Operate
- Rule 203 Permit to Operate

REGULATION IV – PROHIBITIONS

Rule 461 Gasoline Transfer and Dispensing

REGULATION XI - SOURCE SPECIFIC STANDARDS

- Rule 1147 NOx Reductions from Miscellaneous Sources
- Rule 1153.1 Emissions of Oxides of Nitrogen from Commercial Food Ovens

REGULATION XIII – NEW SOURCE REVIEW

Rule 1303 Requirements

REGULATION XX - REGIONAL CLEAN AIR INCENTIVES MARKET (RECLAIM)

Rule 2004 Requirements

REGULATION XXX - TITLE V PERMITS

Rule 3002 Requirements

CALIFORNIA HEALTH AND SAFETY CODE

§41960.2 Maintenance of Vapor Control System



BOARD MEETING DATE: April 5, 2019

AGENDA NO. 11

REPORT: Civil Filings and Civil Penalties Report

SYNOPSIS:This reports the monthly penalties from February 1, 2019 through
February 28, 2019, and legal actions filed by the General Counsel's
Office from February 1 through February 28, 2019. An Index of
District Rules is attached with the penalty report.

COMMITTEE: Stationary Source, March 15, 2019, Reviewed

RECOMMENDED ACTION: Receive and file.

> Bayron T. Gilchrist General Counsel

BTG:ew

There are no Civil Filings for February 2019

Attachments February 2019 Penalty Report Index of District Rules and Regulations

DISTRICT'S RULES AND REGULATIONS INDEX FOR FEBRUARY 2019 PENALTY REPORT

REGULATION II - PERMITS

- Rule 201 Permit to Construct
- Rule 203 Permit to Operate
- Rule 218 Continuous Emission Monitoring
- Rule 222 Filing Requirements for Specific Emission Sources Not Requiring a Written Permit Pursuant to Regulation II

REGULATION III - FEES

Rule 314 Fees for Architectural Coatings

REGULATION IV - PROHIBITIONS

- Rule 403 Fugitive Dust Pertains to solid particulate matter emitted from man-made activities
- Rule 431.1 Sulfur Content of Gaseous Fuels
- Rule 461 Gasoline Transfer and Dispensing

REGULATION XI - SOURCE SPECIFIC STANDARDS

- Rule 1110.2 Emissions from Gaseous- and Liquid-Fueled Internal Combustion Engines
- Rule 1113 Architectural Coatings
- Rule 1121 Control of Nitrogen Oxides from Residential Type, Natural-Gas-Fired Water Heaters
- Rule 1146 Emissions of Oxides of Nitrogen from Industrial, Institutional and Commercial Boilers, Steam Generators, and Process Heaters
- Rule 1155 Particulate Matter Control Devices

REGULATION XIV - TOXICS

- Rule 1415.1 Reduction of Refrigerant Emissions from Stationary Refrigeration Systems.
- Rule 1430 Control of Emissions from Metal Grinding Operations at Metal Forging Facilities

REGULATION XX - REGIONAL CLEAN AIR INCENTIVES MARKET (RECLAIM)

Rule 2004 RECLAIM Program Requirements

Rule 2012 Requirements for Monitoring, Reporting, and Recordkeeping for Oxides of Nitrogen (NO_X) Emissions

REGULATION XXII ON-ROAD MOTOR VEHICLE MITIGATION

Rule 2202 On-Road Motor Vehicle Mitigation Options

REGULATION XXX - TITLE V PERMITS

- Rule 3002 Requirements for Title V Permits
- Rule 3003 Applications

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT General Counsel's Office

February 2019 Settlement Penalty Report

	<u>Total Penalties</u> Civil Settlements: Self-Reported Settlements: MSPAP Settlements:	nts: \$223,150 nts: \$198,054				
	Total Cash Settlements: Total SEP Value:	. ,				
	Fiscal Year through 2 / 2019 Cash Total: Fiscal Year through 2 / 2019 SEP Value Only Total:	\$5,395,316.50 \$265,000.00				
Fac ID	Company Name	Rule Number	Settled Date	Init	Notice Nbr	Total Settlement
Civil Sett	lements					
166073	BETA OFFSHORE	203(b) 1110.2 2004(f)(1) 3002(c)(1)		DH	P61739	\$15,000.00
163553	CHAMPION HOME BUILDERS, INC	3002 3003		VKT	P62755	\$500.00
175129	Date Palm Country Club Re: Equity Lifestyle Properties, Inc., Monterey County Superior Court, Case No. 18CV004924 - Penalty amount received from the District Attorney's Office as part of the settlement share.	1430	2/20/2019	NAS		\$18,000.00

Fac ID	Company Name	Rule Number	Settled Date	Init	Notice Nbr	Total Settlement
132299	JACCK OIL INC. Penalties payment pursuant to Order for Abatement Case #6119-2 for non-compliance.	461	2/19/2019	NAS	P66374	\$5,000.00
115563	NCI GROUP INC., DBA, METAL COATERS OF CA	2004(f)(1) 2012 3002(c)(1)		КСМ	P57881 P57888	\$5,500.00
141473	NONG SHIM AMERICA, INC	203(b) 1110.2 1146		ML	P63957 P63960	\$130,000.00
185405	PAPA CANTELLA'S INC	222 1415.1	2/6/2019	SH	P64831	\$10,500.00
97081	THE TERMO COMPANY	2004	2/20/2019	NAS	P67303	\$13,650.00
142417	TOYON LANDFILL GAS CONVERSION LLC	218 431.1 3002 3003 1110.2		КСМ	P52409 P66252	\$8,500.00
800150	US GOVT, AF DEPT, MARCH AIR RESERVE BASE	2004	2/27/2019	BST	P64385	\$1,500.00
187008	WATER HEATER WAREHOUSE, LLC	1121	2/5/2019	BST	P66957	\$15,000.00

Total Civil Settlements: \$223,150.00

Fac ID	Company Name	Rule Number	Settled Date In	it Notice Nbr	Total Settlement
Self-Repo	orted Settlements				
166033	CARLISLE SYNTEC Self-Reported Violation# SRV2019-1	1113	2/6/2019 WB	W	\$198,054.55

Total Self-Reported Settlements: \$198,054.55

Fac ID	Company Name	Rule Number	Settled Date	Init	Notice Nbr	Total Settlement
MSPAP S	Settlements					
173025	ALLIED FEATHER AND DOWN CORP	203(b)	2/21/2019	GC	P60698	\$1,800.00
180902	BMB OIL, INC	461	2/21/2019	GC	P64996	\$900.00
117114	CARSON CITY OF	461(c)(3)(Q)	2/6/2019	GC	P71242	\$1,000.00
55343	CEMEX CONSTRUCTION MATERIALS PACIFIC, LLC	403	2/6/2019	GC	P66303	\$1,900.00
172417	HOLLIDAY ROCK CO., INC.	403	2/8/2019	GC	P67451	\$1,150.00
183804	MERICAL LLC	201 203 1155	2/6/2019	TF	P65779	\$3,200.00
175272	NEWHOPE PETROLEUM, INC	461	2/6/2019	TF	P68107	\$400.00
800328	NMB TECHNOLOGIES CORPORATION	203(b)	2/8/2019	TF	P65580	\$800.00
164999	PILOT TRAVEL CENTERS LLC	461	2/6/2019	TF	P64937	\$250.00
128753	RAFFI'S CHEVRON	203(a)	2/6/2019	GC	P65262	\$500.00
187604	RJ GENERAL CONTRACTORS, INC	403	2/21/2019	TF	P65583	\$800.00
107320	SANTA ANITA GOLF COURSE	461(e)(2)	2/6/2019	TF	P63921	\$800.00
181223	SIERRA ALLOYS COMPANY	1430	2/6/2019	TF	P65215	\$1,600.00

Fac ID	Company Name	Rule Number	Settled Date	Init	Notice Nbr	Total Settlement
92324	SUPERIOR ENGINEERED PRODUCTS CORP	2202	2/8/2019	GC	P32412	\$1,275.00
126247	TANK-TEK ENVIRONMENTAL CORPORATION	461	2/6/2019	GC	P64992	\$360.00

Total MSPAP Settlements: \$16,735.00

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BOARD MEETING DATE: April 5, 2019

AGENDA NO. 12

 REPORT:
 Lead Agency Projects and Environmental Documents Received By SCAQMD

 SYNOPSIS:
 This report provides, for the Board's consideration, a listing of CEOA documents and the second provides of the secon

CEQA documents received by the SCAQMD between February 1, 2019 and February 28, 2019, and those projects for which the SCAQMD is acting as lead agency pursuant to CEQA.

COMMITTEE: Mobile Source, March 15, 2019, Reviewed

RECOMMENDED ACTION: Receive and file.

	Wayne Nastri
	Executive Officer
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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 February 1, 2019 through February 28, 2019 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 54 CEQA documents were received during this reporting period and 31 comment letters were sent. A notable project in this report is the Bob Hope Airport Replacement Terminal Project.

The Intergovernmental Review function, which consists of reviewing and commenting on the adequacy of the air quality analysis in CEQA documents prepared by other lead agencies, is consistent with the Board's 1997 Environmental Justice Guiding Principles and Environmental Justice Initiative #4. As required by the Environmental Justice Program Enhancements for FY 2002-03 approved by the Board in October 2002, each of the attachments notes those proposed projects where the SCAQMD has been contacted regarding potential air quality-related environmental justice concerns. The SCAQMD has established an internal central contact to receive information on projects with potential air quality-related environmental justice concerns. The public may contact the SCAQMD about projects of concern by the following means: in writing via fax, email, or standard letters; through telephone communication; as part of oral comments at SCAQMD meetings or other meetings where SCAQMD staff is present; or by submitting newspaper articles. The attachments also identify, for each project, the dates of the public comment period and the public hearing date, if applicable. Interested parties should rely on the lead agencies themselves for definitive information regarding public comment periods and hearings as these dates are occasionally modified by the lead agency.

At the January 6, 2006 Board meeting, the Board approved the Workplan for the Chairman's Clean Port Initiatives. One action item of the Chairman's Initiatives was to prepare a monthly report describing CEQA documents for projects related to goods movement and to make full use of the process to ensure the air quality impacts of such projects are thoroughly mitigated. In response to describing goods movement, CEQA documents (Attachments A and B) are organized to group projects of interest into the following categories: goods movement projects; schools; landfills and wastewater projects; airports; general land use projects, etc. In response to the mitigation component, guidance information on mitigation measures was compiled into a series of tables relative to: off-road engines; on-road engines; harbor craft; ocean-going vessels; locomotives; fugitive dust; and greenhouse gases. These mitigation measure tables are on the CEQA webpages portion of the SCAQMD's website at: http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/mitigationmeasures-and-control-efficiencies. Staff will continue compiling tables of mitigation measures for other emission sources, including airport ground support equipment and other sources.

As resources permit, staff focuses on reviewing and preparing comments for projects: where the SCAQMD is a responsible agency; that may have significant adverse regional air quality impacts (e.g., special event centers, landfills, goods movement); that may have localized or toxic air quality impacts (e.g., warehouse and distribution centers); where environmental justice concerns have been raised; and those projects for which a lead or responsible agency has specifically requested SCAQMD review. If staff provided written comments to the lead agency as noted in the column "Comment Status," there is a link to the "SCAQMD Letter" under the Project Description. In addition, if staff testified at a hearing for the proposed project, a notation is provided under the "Comment Status." If there is no notation, then staff did not provide testimony at a hearing for the proposed project. During the period February 1, 2019 through February 28, 2019, the SCAQMD received 54 CEQA documents. Of the total of 67 documents* listed in Attachments A and B:

- 31 comment letters were sent;
- 16 documents were reviewed, but no comments were made;
- 16 documents are currently under review;
- 0 documents did not require comments (e.g., public notices);
- 0 documents were not reviewed; and
- 4 documents were screened without additional review.

* These statistics are from February 1, 2019 to February 28, 2019 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: <u>http://www.aqmd.gov/home/regulations/ceqa/commenting-agency</u>.

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 February.

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

SCAOND LOC IN NUMBER	PROJECT DESCRIPTION	TYPE OF	LEAD AGENCY	COMMENT
SCAQMD LOG-IN NUMBER	FROJECT DESCRIPTION	DOC.	LEAD AGENC I	STATUS
PROJECT TITLE				
Warehouse & Distribution Centers LAC190212-03 Cambridge Distribution Building Project at 13215 Cambridge Street	The proposed project consists of demolition of existing 92,930-square-foot warehouse and construction of a 146,068-square-foot warehouse on 7.17 acres. The project is located on the northwest corner of Carmenita Road and Rosecrans Avenue.	Notice of Intent to Adopt a Mitigated Negative Declaration	City of Santa Fe Springs	SCAQMD staff commented on 2/19/2019
	http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/february/LAC190212-03.pdf			
	Comment Period: 2/8/2019 - 2/28/2019 Public Hearing: 3/11/2019			
Warehouse & Distribution Centers LAC190215-01 ENV-2016-4975: 10965 W. Penrose St.	The proposed project consists of demolition of existing structures and construction of a 5,042- square-foot warehouse on 11,674 square feet. The project is located on the northwest corner of West Penrose Street and Claybeck Avenue in the community of Sun Valley-La Tuna Canyon.	Mitigated Negative Declaration	City of Los Angeles	SCAQMD staff commented on
	http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/february/LAC190215-01.pdf Comment Period: 2/14/2019 - 3/6/2019 Public Hearing: N/A			2/19/2019
Warehouse & Distribution Centers	The proposed project consists of approval of conditional use permit to conduct interior	Mitigated	City of Carson	SCAQMD
LAC190222-03 Inland Star Distribution Centers, Inc. Warehouse Conditional Use Permit Application	renovations and installation of a secondary water service line on 188,495 square feet. The project is located on the southwest corner of South Wilmington Avenue and East Dominquez Street.	Negative Declaration		staff commented on 3/5/2019
	http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/march/LAC190222-03.pdf Comment Period: 2/22/2019 - 3/26/2019 Public Hearing: N/A			
Warehouse & Distribution Centers	Comment Period: 2/22/2019 - 3/26/2019 Public Hearing: N/A The proposed project consists of construction of 650 semi-trailer storage containers, a 900-square-	Site Plan	City of Grand	SCAQMD
SBC190201-12 Conditional Use Permit 19-01	foot office, and a 4,800-square-foot maintenance building on 22 acres. The project is located on the northeast corner of Terrace Avenue and Railroad Access Road.		Terrace	staff commented on 2/5/2019
	http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/february/SBC190201-12.pdf			
	Comment Period: 2/1/2019 - 2/11/2019 Public Hearing: N/A			

*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.

	rebruary 1, 2017 to rebruary 20, 2017	_	-	-
SCAQMD LOG-IN NUMBER	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
PROJECT TITLE		DOC.		STATUS
Warehouse & Distribution Centers	The proposed project consists of demolition of 20,000 square feet of existing buildings and	Mitigated	City of Rancho	SCAQMD
SBC190207-02 Overton Moore Warehouse (Design Review DRC2018-00119)	construction of a 174,745-square-foot warehouse on 8.09 acres. The project is located at 9000 Hellman Avenue on the southwest corner of Hellman Avenue and East Eighth Street.	Negative Declaration	Cucamonga	staff commented on 3/5/2019
	http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/march/SBC190207-02.pdf			
	Comment Period: 2/6/2019 - 3/13/2019 Public Hearing: N/A			
Warehouse & Distribution Centers	The proposed project consists of construction of a 1,192,671-square-foot warehouse on 54.8	Notice of	County of San	SCAQMD
SBC190212-05 Duke Realty Alabama and Palmetto Warehouse Project	acres. The project is located on the northwest corner of Alabama Street and Palmetto Avenue.	Preparation	Bernardino	staff commented on 3/5/2019
	http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/march/SBC190212-05.pdf			
	Comment Period: 2/7/2019 - 3/11/2019 Public Hearing: 2/21/2019			
Warehouse & Distribution Centers	The proposed project consists of construction of a 117,293-square-foot warehouse on 5.09 acres.	Mitigated	City of Rancho	SCAQMD
SBC190212-06 Patriot Partners Warehouse - Design Review DRC2018-00553	The project is located on the northeast corner of 6th Street and Center Avenue.	Negative Declaration	Cucamonga	staff commented on 3/6/2019
	http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/march/SBC190212-06.pdf			
	Comment Period: 2/9/2019 - 3/13/2019 Public Hearing: 3/13/2019			
Airports	The proposed project consists of demolition of existing passenger terminal and construction of a	Notice of Intent	United States	SCAQMD
LAC190205-01 Bob Hope Airport Replacement Terminal Project	14-gate passenger terminal with ancillary and roadway improvements, including a 413,000- square-foot aircraft ramp, replacement airline cargo building, replacement Aircraft Rescue and Firefighting station, a ground-service equipment and passenger terminal maintenance building, a central utility plant, and ground access vehicle storage and staging. The project also includes an extensions of two taxiways. The project is located in the southeast quadrant of the Bob Hope Burbank Airport. Reference LAC160628-07 and LAC160504-03 http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/march/LAC190205-01.pdf	to Prepare an Environmental Impact Statement	Federal Aviation Administration	staff commented on 3/1/2019
	Comment Period: 1/10/2019 - 3/1/2019 Public Hearing: N/A			

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

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

	February 1, 2017 to February 20, 2017		-	
SCAQMD LOG-IN NUMBER	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT
PROJECT TITLE		DOC.		STATUS
Industrial and Commercial	The proposed project consists of construction of five commercial and office buildings totaling	Draft	City of San Juan	SCAQMD
ORC190201-08	64,900 square feet on 5.86 acres. The project is located on the southeast corner of Paseo Adelanto and River Street.	Environmental Impact Report	Capistrano	staff commented
River Street Marketplace	Reference ORC180118-04	impact Report		on 3/13/2019
	http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/march/ORC190201-08.pdf			
	Comment Period: 1/30/2019 - 3/18/2019 Public Hearing: N/A			
Industrial and Commercial	The proposed project consists of construction of seven buildings totaling 123,940 square feet	Mitigated	City of Coachella	SCAQMD
RVC190201-07 Luxtor Luxury RV Storage	with 149 recreational vehicle parking storages on 6.09 acres. The project is located at 49-751 Oates Lane on the northwest corner of Avenue 50 and Oates Lane.	Negative Declaration		staff commented on
				2/14/2019
	http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/february/RVC190201-07.pdf			
	Comment Period: 1/23/2019 - 2/20/2019 Public Hearing: 3/6/2019			
Industrial and Commercial	The proposed project consists of construction of a compressed natural gas fueling station with	Site Plan	City of Jurupa	SCAQMD
RVC190208-04	five pumps on 16.8 acres. The project is located at 9670 Galena Street on the southwest corner of Galena Street and Troy Court.		Valley	staff commented
MA19015 (CUP19001)				on
	http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/february/RVC190208-04.pdf			2/19/2019
	Comment Period: 2/8/2019 - 2/20/2019 Public Hearing: N/A			
Waste and Water-related	The proposed project consists of reduction of discharges of recycled water from five water	Notice of	Los Angeles	SCAQMD
LAC190205-02	reclamation plants. The project is located along the San Jose Creek, San Gabriel River, and	Preparation	County Sanitation Districts	staff
San Gabriel River Watershed Project	Coyote Creek within the cities of Pomona, Whitter, South El Monte, Cerritos, and Long Beach.		Districts	commented on 2/21/2019
	http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/february/LAC190205-02.pdf			2,21,2017
	Comment Period: 2/6/2019 - 3/9/2019 Public Hearing: 2/20/2019			

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

PROJECT DESCRIPTION	TYPE OF	LEAD ACENCY	
	DOC.	LEAD AGENCY	COMMENT STATUS
The proposed project consists of evaluation of existing soil and bedrock conditions for future reservoir enlargement and dam expansion on 1.43 acres. The project is located on the northeast corner of Bee Canyon Access Road and Portola Parkway within the boundaries of the Syphon Reservoir. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/march/ORC190208-03.pdf Comment Period: 2/8/2019 - 3/11/2019 Public Hearing: N/A	Mitigated Negative Declaration	Irvine Ranch Water District	SCAQMD staff commented on 3/6/2019
The proposed project consists of development of feasible alternatives to increase current allowable temporary storage for water conservation and reduce flow release from Prado Dam during flood seasons. The project will also include development of management measures to restore quality and function of aquatic, riparian, and transitional habitats. The project is located within a portion of the Santa Ana River downstream of the Prado Basin reservoir encompassing portions of counties of Riverside, San Bernardino, and Orange.	Notice of Availability of Draft Environmental Impact Report/ Environmental Impact Statement	United States Army Corps of Engineers	Under review, may submit written comments
Comment Period: 2/11/2019 - 3/27/2019Public Hearing: 3/7/2019The proposed project consists of construction of two potable water wells and 4,500 linear feet of pipelines on 0.89 acres. The project is located at 4011 West Chandler Avenue and 3120 South Croddy Way on the northwest corner of West MacArthur Boulevard and South Harbor Boulevard within the City of Santa Ana.	Mitigated Negative Declaration	Mesa Water District	Under review, may submit written comments
The proposed project consists of construction of a sedimentation tank, three sequencing batch reactors, two filters, and two aerobic digesters on 0.85 acres. The project will also include removal of grit facilities. The project is located on the southeast corner of Temescal Canyon Road and Pulsar Court in the community of Temescal Valley. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/february/RVC190201-01.pdf	Notice of Intent to Adopt a Mitigated Negative Declaration	Temescal Valley Water District	SCAQMD staff commented on 2/19/2019
	reservoir enlargement and dam expansion on 1.43 acres. The project is located on the northeast corner of Bee Canyon Access Road and Portola Parkway within the boundaries of the Syphon Reservoir. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/march/ORC190208-03.pdf Comment Period: 2/8/2019 - 3/11/2019 Public Hearing: N/A The proposed project consists of development of feasible alternatives to increase current allowable temporary storage for water conservation and reduce flow release from Prado Dam during flood seasons. The project will also include development of management measures to restore quality and function of aquatic, riparian, and transitional habitats. The project is located within a portion of the Santa Ana River downstream of the Prado Basin reservoir encompassing portions of counties of Riverside, San Bernardino, and Orange. Comment Period: 2/11/2019 - 3/27/2019 Public Hearing: 3/7/2019 The proposed project consists of construction of two potable water wells and 4,500 linear feet of pipelines on 0.89 acres. The project is located at 4011 West Chandler Avenue and 3120 South Croddy Way on the northwest corner of West MacArthur Boulevard and South Harbor Boulevard within the City of Santa Ana.	reservoir enlargement and dam expansion on 1.43 acres. The project is located on the northeast corner of Bee Canyon Access Road and Portola Parkway within the boundaries of the Syphon Reservoir. Negative Declaration http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/march/ORC190208-03.pdf Declaration Comment Period: 2/8/2019 - 3/11/2019 Public Hearing: N/A The proposed project consists of development of feasible alternatives to increase current allowable temporary storage for water conservation and reduce flow release from Prado Dam during flood seasons. The project will also include development of management measures to restore quality and function of aquatic, riparian, and transitional habitats. The project is located within a portion of the Santa Ana River downstream of the Prado Basin reservoir encompassing portions of counties of Riverside, San Bernardino, and Orange. Notice of Availability of Draft Comment Period: 2/11/2019 - 3/27/2019 Public Hearing: 3/7/2019 Mitigated Negative Declaration Negative Declaration The proposed project consists of construction of two potable water wells and 4.500 linear feet of pipelines on 0.89 acres. The project is located at 4011 West Chandler Avenue and 3120 South Croddy Way on the northwest corner of West MacArthur Boulevard and South Harbor Boulevard within the City of Santa Ana. Notice of Intent to Adopt a meriod and your and two aerobic digesters on 0.85 acres. The project will also include removal of grit facilities. The project is located on the southeast corner of Temescal Canyon Road and Pulsar Court in the community of Temescal Valley. Notice of Intent to Adopt a Mitigated Negative Declaration http:/	reservoir enlargement and dam expansion on 1.43 acres. The project is located on the northeast corner of Bee Canyon Access Road and Portola Parkway within the boundaries of the Syphon Reservoir. Negative Declaration District http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/march/ORC190208-03.pdf District District Comment Period: 2/8/2019 - 3/11/2019 Public Hearing: N/A Notice of Availability of Corps of Engineers of development of feasible alternatives to increase current restore quality and function of aquatic, riparian, and transitional habitats. The project is located minima portion of the Santa Ana River downstream of the Prado Basin reservoir encompassing portions of counties of Riverside, San Bernardino, and Orange. Notice of Impact Report Environmental Impact Statement Comment Period: 2/11/2019 - 3/27/2019 Public Hearing: 3/7/2019 Mitigated Negative Declaration The proposed project consists of construction of two potable water wells and 4,500 linear feet of pipelines on 0.89 acres. The project is located at 4011 West Chandler Avenue and 3120 South Croddy Way on the northwest corner of West MacArthur Boulevard and South Harbor Boulevard within the City of Santa Ana. Mesa Water District to Adopt a Mitigated Negative Declaration The proposed project consists of construction of a sedimentation tank, three sequencing batch reactors, two filters, and two aerobic digesters on 0.85 acres. The project will also include removal of grit facilities. The project is located on the southeast corner of Temescal Canyon Road and Pulsar Court in the community of Temescal Valley. Notice of Intent to Adopt a Mitigated Negative Declaration

- 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.

	rebluary 1, 2017 to rebluary 20, 2017			
<u>SCAQMD LOG-IN NUMBER</u> PROJECT TITLE	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
Waste and Water-related RVC190201-06 Meridian Trunk Sewer Improvement Project	The proposed project consists of installation of 8,600 linear feet of pipelines of 24 to 36 inches in diameter. The project is located parallel to and west of Interstate 215 between the sewer lift station at the Meridian Business Park and the Western Municipal Water District treatment plant. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/february/RVC190201-06.pdf Comment Period: 1/30/2019 - 3/1/2019 Public Hearing: 3/27/2019	Notice of Intent to Adopt a Mitigated Negative Declaration	March Joint Powers Authority	SCAQMD staff commented on 2/21/2019
Waste and Water-related RVC190208-02	Comment Period: 1/30/2019 - 3/1/2019 Public Hearing: 3/27/2019 The proposed project consists of provision of up to 70,439 acre-feet per year of new local dry- year water supply, construction of groundwater production and extraction wells, pipelines, pump	Final Environmental	Inland Empire Utilities Agency	Document reviewed -
Santa Ana River Conservation and Conjunctive Use Program	stations, and ancillary facilities, and installation of groundwater treatment systems. The project is located within the Santa Ana River Watershed along the cities of Corona, Eastvale, Norco, Jurupa Valley, and Riverside. Reference RVC181107-01, RVC161216-05, and RVC161101-07	Impact Report		No comments sent
	Comment Period: N/A Public Hearing: 2/20/2019			
Waste and Water-related RVC190220-03 West Valley Water Reclamation Program	The proposed project consists of construction of 61,836 linear feet of pipelines and water reclamation facility. The project is located on the northeast corner of Elm Street and Carmen Avenue within 135 square miles of service area encompassing the City of Desert Hot Springs and the villages of Palm Springs Crest and West Palm Springs in the northwest portion of the Coachella Valley in Riverside County. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/march/RVC190220-03.pdf Comment Period: 2/18/2019 - 3/18/2019 Public Hearing: 3/6/2019	Notice of Preparation	Mission Springs Water District	SCAQMD staff commented on 3/5/2019
Waste and Water-related	The proposed project consists of removal of a 60,000-gallon reservoir tank and construction of two, 120,000-gallon reservoir tanks on 8,100 square feet. The project is located on the northwest	Mitigated	State Water	SCAQMD staff
SBC190201-02 Holly Drive Reservoir Replacement Project	corner of Holly Drive and 26th Street within the City of Upland.	Negative Declaration	Resources Control Board	on 2/14/2019
	http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/february/SBC190201-02.pdf			
	Comment Period: 1/23/2019 - 2/22/2019 Public Hearing: N/A			

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

	rebruary 1, 2017 to rebruary 20, 2017			
<u>SCAQMD LOG-IN NUMBER</u> PROJECT TITLE	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
Utilities ODP190215-06 Southern California Edison Company: San Onofre Nuclear Generating Station, Units 2 and 3	The proposed project consists of decontamination and dismantlement of onshore facilities on 99 acres. The project will also include disposition of two offshore conduits and removal of navigational and environmental monitoring buoys and anchors on 21 acres of submerged lands. The onshore project is located at Marine Corps Base Camp Pendleton and the offshore portion extends into State sovereign submerged lands within the Pacific Ocean. Reference ODP151222-02	Final Environmental Impact Report	California State Lands Commission	Document reviewed - No comments sent
	Comment Period: N/A Public Hearing: N/A			
Transportation LAC190201-09 Deep Draft Navigation Feasibility Study and Channel Deepening	The proposed project consists of improvements to existing navigation channels for liquid bulk vessels, construction of anchorage area and a turning basin, and structural modifications with installation of pilings, steel bulkheads, and rock toes. The project is located on the southeast corner of Seaside Freeway and Navy Way within the City of Long Beach. Reference LAC161103-03 and LAC160105-02 http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/february/LAC190201-09.pdf	Amended Notice of Preparation	Port of Long Beach	SCAQMD staff commented on 2/21/2019
T	Comment Period: 1/30/2019 - 3/1/2019 Public Hearing: N/A	Dana ana ta	Oren en Courtes	Demment
Transportation ORC190206-01 Transit Security and Operations Project	The proposed project consists of construction of 30,000-square-foot operations center with a 2,000-gallon aboveground storage tank and associated fueling station. The project is located on the northwest corner of Manchester Avenue and Lincoln Avenue within the City of Anaheim. Reference ORC181030-16	Response to Comments	Orange County Transportation Authority	Document reviewed - No comments sent
	Comment Period: N/A Public Hearing: N/A			
Institutional (schools, government, etc.)	The proposed project consists of construction of a 14,000-square-foot cafeteria, a 13,600-square-	Mitigated	City of Los Angeles	SCAQMD
LAC190207-01 The Norte Dame High School Facilities Master Plan (ENV-2018-4524: 13500 West Houston Street)	foot gymnasium, a 5,200-square-foot classroom building, and 9,700 square feet to be added to existing structures on 727,485 square feet. The project is located on the southeast corner of West Huston Street and Sunnyslope Avenue in the community of Van-Nuys-North Sherman Oaks.	Negative Declaration		staff commented on 2/19/2019
	http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/february/LAC190207-01.pdf			
	Comment Period: 2/7/2019 - 2/27/2019 Public Hearing: N/A			

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

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

	rebluary 1, 2017 to rebluary 20, 2017	-	-	-
<u>SCAQMD LOG-IN NUMBER</u> PROJECT TITLE	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
Institutional (schools, government, etc.) ORC190221-01 California State University, Fullerton Eastside 2 Parking Structure Project	The proposed project consists of construction of a 586,700-square-foot parking structure on 2.2 acres. The project is located at 800 North State College Boulevard on the northwest corner of Nutwood Avenue and State College Boulevard.	Notice of Intent to Adopt a Mitigated Negative Declaration	California State University, Fullerton	Under review, may submit written comments
	Comment Period: 2/21/2019 - 3/22/2019 Public Hearing: N/A			
Institutional (schools, government, etc.) RVC190219-02 Plant Growth Environments Facility	The proposed project consists of demolition of 13,106 square feet of existing structures and construction of a 38,000-square-foot structure on 1.25 acres. The project is located on the northeast corner of Eucalyptus Drive and East Campus Drive in Riverside County.	Notice of Intent to Adopt a Mitigated Negative Declaration	Regents of the University of California	SCAQMD staff commented on 2/20/2019
	Comment Period: 2/15/2019 - 3/18/2019 Public Hearing: N/A			
Institutional (schools, government, etc.) RVC190219-04 Desert Learning Academy 500 Building	The proposed project consists of demolition of 14,350 square feet of existing structures and construction of an 8,000-square-foot building on 0.5 acres. The project is located at 2248 East Ramon Road on the northwest corner of South Farrell Drive and East Ramon Road. Comment Period: 2/19/2019 - 3/21/2019 Public Hearing: 4/9/2019	Notice of Intent to Adopt a Mitigated Negative Declaration	Palm Springs Unified School District	Document reviewed - No comments sent
Retail	Comment Period: 2/19/2019 - 3/21/2019Public Hearing: 4/9/2019The proposed project consists of construction of a gasoline service station with six pumps, a	Site Plan	Riverside County	SCAQMD
RVC190201-05 Conditional Use Permit No. 180008	5,138-square-foot convenience store, and a 5,400-square-foot restaurant on 2.15 acres. The project is located on the northwest corner of Elmwood Street and Clark Street in the community of Mead Valley.		Planning Department	staff commented on 2/5/2019
	http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/february/RVC190201-05.pdf			
	Comment Period: 1/28/2019 - 2/7/2019 Public Hearing: N/A			

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

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

February 1, 2017 to February 20, 2017				
SCAQMD LOG-IN NUMBER PROJECT TITLE	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
Retail RVC190212-01 Tower Market Rancho Mirage	The proposed project consists of construction of a gasoline service station with 12 pumps and a 5,300-square-foot convenience store on 3.25 acres. The project is located on the northeast corner of Monterey Avenue and Frank Sinatra Drive.	Response to Comments	City of Rancho Mirage	Document reviewed - No comments sent
	Comment Period: N/A Public Hearing: N/A			
Retail RVC190220-04 Kassab Travel Center Project	The proposed project consists of construction of an 8,360-square-foot convenience store, 6,092 square feet of gasoline dispensing area with 18 pumps, and a 2,543-square-foot restaurant on 2.84 acres. The project is located near the southwest corner of Riverside Drive and Collier Avenue.	Notice of Intent to Adopt a Mitigated Negative Declaration	City of Lake Elsinore	SCAQMD staff commented on 3/5/2019
	http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/march/RVC190220-04.pdf Comment Period: 2/8/2019 - 3/11/2019 Public Hearing: N/A			
Retail SBC190208-01 Alder Plaza Project (CUP Nos. 810- 812, PPD No. 2452, EA Review NO. 16-26)	The proposed project consists of construction of a 4,100-square-foot commercial building, a 3,200-square-foot restaurant, a 1,262-square-foot canopy, and a diesel fuel station with four dispensers on 6.05 acres. The project is located on the southeast corner of Alder Avenue and Casmalia Street. Reference SBC181219-06	Response to Comments	City of Rialto	Document reviewed - No comments sent
	Comment Period: N/A Public Hearing: N/A			
Retail SBC190213-01 Haven + Arrow Multi-Use Retail Office Development Project (Design Review DRC2018-00889)	The proposed project consists of construction of 200,175 square feet of retail and office uses on 9.37 acres. The project is located on the southwest corner of Haven Avenue and Arrow Route.	Notice of Preparation	City of Rancho Cucamonga	SCAQMD staff commented on 2/21/2019
	http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/february/SBC190213-01.pdf			
	Comment Period: 2/7/2019 - 3/8/2019 Public Hearing: 2/27/2019			

- 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.

SCAQMD LOG-IN NUMBER	PROJECT DESCRIPTION	TYPE OF	LEAD AGENCY	COMMENT
PROJECT TITLE		DOC.		STATUS
Retail SBC190220-01 Gateway Sign/Station 215 (Mobil)	The proposed project consists of construction of a 1,344-square-foot billboard sign and a gasoline service station on 22,215 square feet. The project is located at 2680 South La Cadena Drive on the northeast corner of South La Cadena Drive and South Iowa Avenue. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/march/SBC190220-01.pdf Comment Period: 2/15/2019 - 3/16/2019 Public Hearing: 3/26/2019	Mitigated Negative Declaration	City of Colton	SCAQMD staff commented on 3/6/2019
General Land Use (residential, etc.) LAC190201-03 ENV-2018-1651: 8000-8014 West 3rd Street	The proposed project consists of demolition of existing buildings and surface parking, and construction of a 54,435-square-foot building with 50 residential units and 7,065 square feet of commercial uses on 0.4 acres. The project is located on the southwest corner of West 3rd Street and South Edinburgh in the community of Wilshire.	Mitigated Negative Declaration	City of Los Angeles	Document reviewed - No comments sent
	Comment Period: 1/30/2019 - 2/20/2019 Public Hearing: N/A			
General Land Use (residential, etc.) LAC190215-02 ENV-2017-2051: 1525 W. Colorado Blvd.	The proposed project consists of demolition of a 2,254-square-foot building and construction of six residential units, offices, and retail uses totaling 10,379 square feet on 9,461.4 square feet. The project is located on the southwest corner of West Colorado Boulevard and Avenue 64 in the community of Northeast Los Angeles. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/february/LAC190215-02.pdf Comment Period: 2/14/2019 - 2/27/2019	Negative Declaration	City of Los Angeles	SCAQMD staff commented on 2/19/2019
General Land Use (residential, etc.) LAC190221-02 3rd and Fairfax Mixed-Use Project	The proposed project consists of demolition of 151,048 square feet of existing structures and construction of a 490,682-square-foot building with 331 residential units on 327,121 square feet. The project is located at 300-370 South Fairfax Avenue on the southwest corner of Fairfax Avenue and West 3rd Street in the community of Wilshire. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/march/LAC190221-02.pdf Comment Period: 2/20/2019 - 3/22/2019	Notice of Preparation	City of Los Angeles	SCAQMD staff commented on 3/5/2019

^{# -} 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.

				COMPANY
SCAQMD LOG-IN NUMBER	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
PROJECT TITLE				
General Land Use (residential, etc.) LAC190222-01 California Grand Village Project	The proposed project consists of construction of 253 residential units on a 4.48- 19.36 acres. The project is located on the northeast corner of East 10th Street an Avenue. Reference LAC181204-04 and LAC180627-01		City of Azusa	Document reviewed - No comments sent
	Comment Period: N/A Public Hea	aring: 3/4/2019		
General Land Use (residential, etc.) ORC190205-03 Protea Memory Care Facility	The proposed project consists of construction of a 35,349-square-foot building v 2.06 acres. The project is located near the northeast corner of Interstate 5 and St		City of San Juan Capistrano	SCAQMD staff commented on 2/6/2019
General Land Use (residential, etc.)	http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/february/ORC19020 Comment Period: 1/24/2019 - 2/13/2019 Public Hea The proposed project consists of demolition of a 58,277-square-foot shopping co	aring: 2/26/2019	City of Newport	Document
ORC190212-02 Newport Crossings Mixed-Use Project	construction of 350 residential units with subterranean parking, a 2,000-square-t5,500 square feet of commercial uses, and a 0.5-acre public park on 5.7 acres. T located on the southeast corner of Corinthian Way and Scott Drive. Reference ORC181205-10 and ORC171103-02.	foot restaurant, Comments	Beach	reviewed - No comments sent
	Comment Period: N/A Public Hea	aring: 2/21/2019		
General Land Use (residential, etc.)	The proposed project consists of construction of a 35,349-square-foot building w		City of San Juan	Document
ORC190221-04 Protea Memory Care Facility	2.06 acres. The project is located near the northeast corner of Interstate 5 and St Reference ORC190205-03	ate Route 74. Comments	Capistrano	reviewed - No comments sent
	Comment Period: N/A Public Hea	aring: N/A		

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

rebluary 1, 2017 to rebluary 20, 2017						
SCAQMD LOG-IN NUMBER	PROJECT DESCRIPTION	TYPE OF	LEAD AGENCY	COMMENT		
PROJECT TITLE		DOC.		STATUS		
General Land Use (residential, etc.) ORC190222-02 11752 Beach Boulevard Condominium Project	The proposed project consists of demolition of existing restaurant and construction of 17 residential units on 0.92 acres. The project is located on the southeast corner of Beach Boulevard and Crager Lane. Reference ORC181218-02	Response to Comments	City of Stanton	Document reviewed - No comments sent		
	Comment Period: N/A Public Hearing: N/A					
General Land Use (residential, etc.) RVC190201-10 Tentative Tract Map No. 36841 (MAP No. 15-008)	The proposed project consists of subdivision of 245.07 acres for future construction of 586 residential units and 19.67 acres of commercial uses. The project will also include 64.88 acres of open space. The project is located on the southwest corner of Warren Road and Stetson Avenue. Reference RVC190201-11 http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/february/RVC190201-10.pdf	Site Plan	City of Hemet	SCAQMD staff commented on 2/5/2019		
	Comment Period: 1/30/2019 - 2/14/2019 Public Hearing: N/A					
General Land Use (residential, etc.) RVC190205-04 Tentative Tract Map No. 36890 (MAP19-002)	The proposed project consists of subdivision of 13.60 acres for future construction of 72 residential units. The project is located on the northeast corner of Elk Street and Thornton Avenue. <u>http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/february/RVC190205-04.pdf</u>	Site Plan	City of Hemet	SCAQMD staff commented on 2/6/2019		
	Comment Period: 1/31/2019 - 2/7/2019 Public Hearing: N/A					
General Land Use (residential, etc.) RVC190205-05 Tentative Tract Map No. 36889 (MAP19-001)	The proposed project consists of subdivision of 14.91 acres for future construction of 76 residential units. The project is located on the northwest corner of Elk Street and Thornton Avenue.	Site Plan	City of Hemet	SCAQMD staff commented on 2/6/2019		
	http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/february/RVC190205-05.pdf					
	Comment Period: 1/31/2019 - 2/7/2019 Public Hearing: N/A					

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

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

	rebruary 1, 2017 to rebruary 20, 2017			
<u>SCAQMD LOG-IN NUMBER</u> PROJECT TITLE	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
General Land Use (residential, etc.) RVC190212-07 MA16045 Rio Vista Specific Plan	The proposed project consists of construction of 1,363 residential units, 18.6 acres of recreational uses, and a 13.3-acre school. The project will also include 608.6 acres of open space on 917.3 acres. The project is located on the northeast corner of Muriel Drive and Paramount Drive. Reference RVC181205-06, RVC180605-11, RVC170705-16, and RVC160422-03	Site Plan	City of Jurupa Valley	Document reviewed - No comments sent
General Land Use (residential, etc.) RVC190215-05 KPC Promenade	Comment Period: 2/4/2019 - 2/22/2019Public Hearing: N/AThe proposed project consists of construction of 114 senior residential units, a hotel with 120rooms, medical office building, and commercial and retail uses totaling 155,200 square feet on25.65 acres. The project is located on the northwest corner of Main Street and RamonaExpressway.	Notice of Intent to Adopt a Mitigated Negative Declaration	City of San Jacinto	Document reviewed - No comments sent
<i>General Land Use (residential, etc.)</i> RVC190219-01 MA19029 (TTM No. 37645)	Comment Period: 2/13/2019 - 3/13/2019 Public Hearing: 3/18/2019 The proposed project consists of subdivision of 162.54 acres for future construction of 54 residential units on a 22.95-acre portion. The project will also include 139.59 acres of open space. The project is located on the southeast corner of Pauline Avenue and Philadelphia Street. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/february/RVC190219-01.pdf	Site Plan	City of Jurupa Valley	SCAQMD staff commented on 2/21/2019
General Land Use (residential, etc.) RVC190219-03 The Trails at Corona	Comment Period: 2/19/2019 - 3/8/2019Public Hearing: N/AThe proposed project consists of construction of 426 residential units and 0.78 acres of retail and commercial uses on 104.8 acres. The project will also include 1.82 acres of open space. The project is located near the northwest corner of Avenida Del Vista and West Ontario Avenue in the City of Corona and communities of Green River and Prado Basin. Reference RVC180725-02 and RVC180720-04	Site Plan	County of Riverside	Document reviewed - No comments sent
	Comment Period: 2/19/2019 - 3/14/2019 Public Hearing: N/A			

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

SCAQMD LOG-IN NUMBER PROJECT TITLE	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
General Land Use (residential, etc.) SBC190214-01 Sunflower Residential Project	The proposed project consists of construction of 184 residential units on 15.95 acres. The project is located on the northwest corner of Foothill Boulevard and Spruce Avenue. Reference SBC181218-04	Mitigated Negative Declaration	City of Rialto	Document reviewed - No comments sent
Plans and Regulations RVC190201-11 Specific Plan Amendment (SPA) No. 15-001	Comment Period: N/APublic Hearing: 2/27/2019The proposed project consists of revisions to existing community plan land use boundaries and planning areas to reduce density from 3.42 to 2.64 dwelling units/acre and number of dwelling units from 744 to 586. The project will also include amendment to land use designation from Low Density Residential to Commercial on 19.67 acres. The project is located on the southwest corner of Warren Road and Stetson Avenue. Reference RVC190201-10Comment Period: 1/30/2019 - 2/14/2019Public Hearing: N/A	Site Plan	City of Hemet	Document reviewed - No comments sent

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

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

ATTACHMENT B* ONGOING ACTIVE PROJECTS FOR WHICH SCAQMD HAS OR IS CONTINUING TO CONDUCT A CEQA REVIEW

SCAQMD LOG-IN NUMBER	PROJECT DESCRIPTION	TYPE OF	LEAD AGENCY	COMMENT
PROJECT TITLE	TROJECT DESCRIPTION	DOC.	LEAD AGENCI	STATUS
Warehouse & Distribution Centers RVC190125-01 Conditional Use Permit No. 2019-013	The proposed project consists of construction of a 21,052-square-foot warehouse on 4.26 acres. The project is located at 33325 Bailey Park Boulevard on the southwest corner of Scott Road and Bailey Park Boulevard.	Site Plan	City of Menifee	SCAQMD staff commented on 2/5/2019
	http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/february/RVC190125-01.pdf Comment Period: 1/16/2019 - 2/11/2019 Public Hearing: N/A			
Waste and Water-related LAC190125-03 East West Valley Interceptor Sewer Project	The proposed project consists of construction of 15,785 linear feet of pipeline ranging in diameter from 24 to 48 inches. The project is located along Victoria Boulevard between Vineland Avenue and Haskell Avenue in the communities of North Hollywood - Valley Village and Van Nuys - North Sherman Oaks.	Notice of Preparation	City of Los Angeles	SCAQMD staff commented on 2/19/2019
	http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/february/LAC190125-03.pdf Comment Period: 1/25/2019 - 2/25/2019 Public Hearing: N/A			
Waste and Water-related RVC190122-12 Lake Perris Seepage Recovery Project	The proposed project consists of installation of six water recovery wells and one 24-inch pipeline that would connect to the Colorado River Aqueduct. The project is located on the northeastcorner of Bradley Road and East Rider Street in the City of Perris.	Notice of Preparation	Department of Water Resources	SCAQMD staff commented on 2/12/2019
	http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/february/RVC190122-12.pdf Comment Period: 1/14/2019 - 2/13/2019 Public Hearing: 1/29/2019			
Institutional (schools, government, etc.) RVC190118-03 Polytechnic High School Project	The proposed project consists of construction of two sports fields with 200 seats on 11.19 acres. The project is located on the northwest corner of Gloucester Way and Chatham Drive in the City of Riverside. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/february/RVC190118-03.pdf Comment Period: 1/22/2019 - 2/22/2019	Notice of Preparation	Riverside Unified School District	SCAQMD staff commented on 2/19/2019
Institutional (schools, government, etc.) SBC190115-02 Church of the Woods Project	The proposed project consists of construction of a 68,401-square-foot church, a 1,500-square- foot maintenance building, a 7,838-square-foot water retention basin, and a 54,000-square-foot sports field on 27.12 acres. The project will also include 13.5 acres of open space. The project is located on the northwest corner of State Route 18 and Daley Canyon Road in the community of Rimforest. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/february/SBC190115-02.pdf Comment Period: 1/10/2019 - 2/25/2019 Public Hearing: N/A	Notice of Availability of a Draft Revised Environmental Impact Report	County of San Bernardino	SCAQMD staff commented on 2/20/2019

*Sorted by Comment Status, followed by Land Use, then County, then date received.

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

ATTACHMENT B ONGOING ACTIVE PROJECTS FOR WHICH SCAQMD HAS OR IS CONTINUING TO CONDUCT A CEQA REVIEW

SCAQMD LOG-IN NUMBER	PROJECT DESCRIPTION	TYPE OF	LEAD AGENCY	COMMENT
PROJECT TITLE		DOC.		STATUS
Retail RVC190115-03 The Exchange	The proposed project consists of construction of a mixed-use development with 482 residential units, a gasoline service station with 12 pumps, 49,500 square feet of retail uses, and two hotels with 229 rooms on 35.4 acres. The project is located on the northeast corner of State Route 60 and North Orange Street. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/march/RVC190115-03.pdf Comment Period: 1/15/2019 - 3/1/2019	Notice of Availability of a Draft Environmental Impact Report	City of Riverside	SCAQMD staff commented on 3/1/2019
General Land Use (residential, etc.) LAC181221-10 713 East 5th Street Project	The proposed project consists of demolition of a 14,475-square-foot building and construction of a 33,007-square-foot building with 51 residential units on 0.13 acres. The project is located near the northwest corner of Stanford Avenue and 5th Street in the community of Central City. Reference LAC180601-03 http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/february/LAC181221-10.pdf	Draft Environmental Impact Report	City of Los Angeles	SCAQMD staff commented on 2/1/2019
	Comment Period: 12/20/2018 - 2/4/2019 Public Hearing: N/A			
General Land Use (residential, etc.) LAC190116-01 ENV-2017-628: 15418 Bermuda Street	The proposed project consists of construction of 52 residential units on 2.44 acres. The project is located on the southwest corner of Bermuda Street and Sepulveda Boulevard in the community of Mission Hills.	Mitigated Negative Declaration	City of Los Angeles	SCAQMD staff commented on 2/6/2019
	Comment Period: 1/17/2019 - 2/6/2019 Public Hearing: N/A			
General Land Use (residential, etc.) LAC190122-06 Victoria Greens	The proposed project consists of construction of 175 residential units and 23,665 square feet of recreational uses on eight acres. The project is located on the northeast corner of South Central Avenue and East Victoria Street. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/february/LAC190122-06.pdf Comment Period: 1/17/2019 - 2/15/2019	Mitigated Negative Declaration	City of Carson	SCAQMD staff commented on 2/14/2019
General Land Use (residential, etc.) ORC181219-04 Magnolia Tank Farm	The proposed project consists of construction of a 211,000-square-foot building with 215 guestrooms and 250 residential units on 28.9 acres. The project is located at 21845 Magnolia Street on the southwest corner of Hamilton Avenue and Magnolia Street.	Draft Program Environmental Impact Report	City of Huntington Beach	SCAQMD staff commented on 3/13/2019
	Comment Period: 12/17/2018 - 3/18/2019 Public Hearing: N/A			

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

ATTACHMENT B ONGOING ACTIVE PROJECTS FOR WHICH SCAQMD HAS OR IS CONTINUING TO CONDUCT A CEQA REVIEW

SCAQMD LOG-IN NUMBER	PROJECT DESCRIPTION	TYPE OF	LEAD AGENCY	COMMENT
PROJECT TITLE		DOC.		STATUS
General Land Use (residential, etc.)	The proposed project consists of construction of 88 residential units and a hotel with 350 rooms	Notice of	City of Palm Desert	SCAQMD
RVC190122-05	on a 5.5-acre portion of 17.69 acres. The project is located on northwest corner of Country Club	Preparation		staff
DSRT SURF Specific Plan	Drive and Cook Street.			commented on
				2/19/2019
	http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/february/RVC190122-05.pdf			
	Comment Period: 1/22/2019 - 2/20/2019 Public Hearing: N/A			
General Land Use (residential, etc.)	The proposed project consists of change to zoning ordinance for future construction of 336	Site Plan	City of Menifee	SCAQMD
RVC190125-05	residential units on 31.6 acres and conservation of 37.8 acres of open space. The project is			staff
Menifee Lakes (Village) Specific Plan	located on the northeast corner of Menifee Road and Newport Road.			commented on
Amendment No. 8 (Specific Plan				2/5/2019
Amendment No. 2019-017)				2,0,2012
	http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/february/RVC190125-05.pdf			
	Comment Period: 1/22/2019 - 2/11/2019 Public Hearing: N/A			
Plans and Regulations	The proposed project consists of development of a long-range transportation plan and land use	Notice of	Southern California	SCAQMD
ALL190123-01	policies, strategies, actions, and programs to identify and accommodate current and future mobility goals, policies, and needs for the next 25 years. The project is located on 38,000 square	Preparation	Association of Governments	staff commented
2020-2045 Regional Transportation	miles encompassing six counties including Imperial, Los Angeles, Orange, Riverside, San		Governments	on
Plan/Sustainable Communities Strategy	Bernadine, and Ventura.			2/19/2019
	http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/february/ALL190123-01.pdf			
	Comment Period: 1/23/2019 - 2/22/2019 Public Hearing: 2/13/2019			
Plans and Regulations	The proposed project consists of a plan that will fundamentally to guide future zoo development	Notice of	City of Los Angeles	SCAQMD
LAC190125-02	on 133 acres and operations, including modernization of buildings and infrastructure, animal care	Preparation		staff
Los Angeles Zoo Vision Plan	and guest amenities, exhibit space, and administrative and services facilities. The project will also include construction of support visitor-serving buildings and parking facilities to accommodate			commented on
	increasing visitation over a 20-year period. The project is located at 5333 Zoo Drive on the			3/5/2019
	southwest corner of Zoo Drive and Western Heritage Way in the community of Hollywood.			
	http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/march/LAC190125-02.pdf			
	Comment Period: 1/24/2019 - 3/11/2019 Public Hearing: 2/7/2019			

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

ATTACHMENT C ACTIVE SCAQMD LEAD AGENCY PROJECTS THROUGH FEBRUARY 28, 2019

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PROJECT DESCRIPTION	PROPONENT	TYPE OF DOCUMENT	STATUS	CONSULTANT
The Phillips 66 (formerly ConocoPhillips) Los Angeles Refinery Ultra Low Sulfur Diesel project was originally proposed to comply with federal, state and SCAQMD requirements to limit the sulfur content of diesel fuels. Litigation against the CEQA document was filed. Ultimately, the California Supreme Court concluded that the SCAQMD had used an inappropriate baseline and directed the SCAQMD to prepare an EIR, even though the project has been built and has been in operation since 2006. The purpose of this CEQA document is to comply with the Supreme Court's direction to prepare an EIR.	Phillips 66 (formerly ConocoPhillips), Los Angeles Refinery	Environmental Impact Report (EIR)	The Notice of Preparation/Initial Study (NOP/IS) was circulated for a 30-day public comment period on March 26, 2012 to April 26, 2012. The consultant submitted the administrative Draft EIR to SCAQMD in late July 2013. The Draft EIR was circulated for a 45-day public review and comment period from September 30, 2014 to November 13, 2014. Two comment letters were received and the consultant has prepared responses to comments. SCAQMD staff has reviewed the responses to comments and provided edits.	Environmental Audit, Inc.
Quemetco is proposing to modify existing SCAQMD permits to allow the facility to recycle more batteries and to eliminate the existing daily idle time of the furnaces. The proposed project will increase the rotary feed drying furnace feed rate limit from 600 to 750 tons per day and increase the amount of total coke material allowed to be processed. In addition, the project will allow the use of petroleum coke in lieu of or in addition to calcined coke, and remove one existing emergency diesel-fueled internal combustion engine (ICE) and install two new emergency natural gas-fueled ICEs.	Quemetco	Environmental Impact Report (EIR)	A Notice of Preparation/Initial Study (NOP/IS) was released for a 56-day public review and comment period from August 31, 2018 to October 25, 2018, and 154 comment letters were received. Two CEQA scoping meetings were held on September 13, 2018 and October 11, 2018 in the community. SCAQMD staff is reviewing the comments received.	Trinity Consultants

ATTACHMENT C ACTIVE SCAQMD LEAD AGENCY PROJECTS THROUGH FEBRUARY 28, 2019

	Innocomin	MUARI 20, 201		
PROJECT DESCRIPTION	PROPONENT	TYPE OF	STATUS	CONSULTANT
		DOCUMENT		
Southern California Edison (SCE) is proposing to modify the air	Southern	Addendum to the	SCAQMD staff provided revisions to	Yorke Engineering,
pollution control system for the Mira Loma Peaker unit to repair	California Edison	April 2007 Final	the Draft Addendum for the consultant	LLC
current and prevent future water damage by: 1) decreasing the		Mitigated	to incorporate, and the consultant has	
water-injection rate into the turbine's combustor; 2) replacing the		Negative	submitted a revised Draft Addendum,	
oxidation catalyst and increasing the overall area of catalyst beds		Declaration for	which is undergoing SCAQMD staff	
in the Selective Catalytic Reduction (SCR) unit; 3) replacing the		the Southern	review.	
ammonia injection grid to improve the deliverability of ammonia		California Edison		
to the catalyst; and, 4) increasing the concentration of the		Mira Loma Peaker		
aqueous ammonia that is delivered to the facility, stored on-site,		Project in Ontario		
and injected into the SCR unit from 19% to 29%. In addition,				
SCE is proposing to revise its SCAQMD Title V Operating				
Permit to allow the turbine to generate power over its full				
operating range, from less than one megawatt (MW) to full load				
(e.g., 45 MW net), while continuing to meet the emission limits				
in the current permit.				

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BOARD MEETING DATE: April 5, 2019

AGENDA NO. 13

PROPOSAL: Report of RFPs Scheduled for Release in April

SYNOPSIS: This report summarizes the RFPs for budgeted services over \$75,000 scheduled to be released for advertisement for the month of April.

COMMITTEE: Administrative, March 8, 2019, Reviewed

RECOMMENDED ACTION:

Approve the release of RFPs for the month of April.

Wayne Nastri Executive Officer

SJ:tm

Background

At its January 8, 2010 meeting, the Board approved a revised Procurement Policy and Procedure. Under the revised policy, RFPs for budgeted items over \$75,000, which follow the Procurement Policy and Procedure, no longer require individual Board approval. However, a monthly report of all RFPs over \$75,000 is included as part of the Board agenda package and the Board may, if desired, take individual action on any item. The report provides the title and synopsis of the RFP, the budgeted funds available, and the name of the Deputy Executive Officer/Asst. Deputy Executive Officer responsible for that item. Further detail including closing dates, contact information, and detailed proposal criteria will be available online at http://www.aqmd.gov/grants-bids following Board approval on April 5, 2019.

Outreach

In accordance with SCAQMD's Procurement Policy and Procedure, a public notice advertising the RFPs and inviting bids will be published in the Los Angeles Times, the Orange County Register, the San Bernardino Sun, and Riverside County's Press Enterprise newspapers to leverage the most cost-effective method of outreach to the South Coast Basin. Additionally, potential bidders may be notified utilizing SCAQMD's own electronic listing of certified minority vendors. Notice of the RFPs will be emailed to the Black and Latino Legislative Caucuses and various minority chambers of commerce and business associations, and placed on the Internet at SCAQMD's website (http://www.aqmd.gov) where it can be viewed by making the selection "Grants & Bids."

Proposal Evaluation

Proposals received will be evaluated by applicable diverse panels of technicallyqualified individuals familiar with the subject matter of the project or equipment and may include outside public sector or academic community expertise.

Attachment

Report of RFP Scheduled for Release in April 2019

April 5, 2019 Board Meeting Report on RFP Scheduled for Release on April 5, 2019

(For detailed information visit SCAQMD's website at <u>http://www.aqmd.gov/nav/grants-bids</u> following Board approval on April 5, 2019)

STANDARDIZED SERVICES

RFP#P2019-19	Issue RFP for SCAQMD Elevator	OLVERA/2309
	Modernization Project	

This action is to issue an RFP from interested and qualified contractors for the elevator modernization project. The project is to modernize the elevators with energy efficient gearless technology, digital controls, advanced dispatching and AC-drive system. Funds for this project will come from the Undesignated Fund Balance.

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BOARD MEETING DATE: April 5, 2019

AGENDA NO. 14

REPORT: Rule and Control Measure Forecast

SYNOPSIS: This report highlights SCAQMD rulemaking activities and public hearings scheduled for 2019.

COMMITTEE: No Committee Review

RECOMMENDED ACTION: Receive and file.

Wayne Nastri Executive Officer

PMF:SN:AK

2019 MASTER CALENDAR

The 2019 Master Calendar provides a list of proposed or proposed amended rules for each month, with a brief description, and a notation in the third column indicating if the rulemaking is for the 2016 AQMP, Toxics, AB 617 BARCT, or Other. Projected emission reductions will be determined during rulemaking. The following symbols next to the rule number indicates if the rulemaking will be a potentially significant hearing, reduce criteria pollutants, or part of the RECLAIM transition.

* Potentially significant hearing

⁺ Reduce criteria air contaminants and assist toward attainment of ambient air quality standards

The following table summarizes changes to the schedule since the last month's Rule and Control Measure Forecast Report. Staff will continue to work with all stakeholders as these projects move forward.

113	Monitoring, Reporting, and Recordkeeping (MRR) Requirements for
	NOx and SOx Sources

Proposed Rule 113 has been moved from October to TBD as Proposed Amended Rules 218 and 218.1 will address monitoring requirements.

1407 *	Control of Emi	issions of Arsenic	, Cadmium	and	Nickel	from	Non-
	Ferrous Metal (Operations					

Proposed Amended Rule 1407 has been moved from June to September to allow stakeholders more time to review proposed rule language.

1450	Control of Methylene Chloride Emissions
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Proposed Rule 1450 has been moved from July to TBD as U.S. EPA has promulgated a regulation prohibiting consumer sales.

Reg XIII*#New Source ReviewReg XXRECLAIM

Proposed Amendments to Regulation XIII and Regulation XX have been moved from July to November to continue to work with U.S. EPA and stakeholders.

Reg XX RECLAIM

Regulation XX is being added to July to revise existing provisions for facilities in the RECLAIM program.

Type of Month **Title and Description** Rulemaking May Reg. III Fees Other Proposed amendments to Regulation III will incorporate the Consumer Price Index adjustment to reflect inflation, pursuant to Rule 320 and revise fees for toxic air contaminants. Other proposed amendments may be needed to update fees associated with existing programs and implementation of new or revised programs. Ian MacMillan 909.396.3244; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244 1106^{+} AQMP/ **Marine Coating Operations Pleasure Craft Coating Operations** AB 617 1106.1^{+} Rule 1106 would subsume the requirements of Rule 1106.1, revise VOC BARCT content limits for several categories in order to align limits with U.S. EPA Control Techniques Guidelines and other California air districts, and add new limits for several new categories. Rule 1106.1 is proposed to be rescinded. David DeBoer 909.396.2329; CEQA: Jillian Wong 909.396.3176 and Socio: Ian MacMillan 909.396.3244 June Reg. IX Standards of Performance for New Stationary Sources (NSPS) Other Reg. X National Emission Standards for Hazardous Air Pollutants (NESHAPS) Proposed amendments to Regulations IX and X are periodically made to incorporate by reference new or amended federal standards that have been enacted by U.S. EPA for stationary sources. Regulations IX and X provide stationary sources with a single point of reference for determining which federal and local requirements apply to their specific operations. Carol Gomez 909.396.3264; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244 July 1138^{*+} **Control of Emissions from Restaurant Operations** AQMP/ Proposed Amended Rule 1138 will reduce PM2.5 emissions from AB 617 establishments utilizing commercial cooking ovens, ranges, fryers, and BARCT charbroilers. David DeBoer 909.396.2329; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244

2019 MASTER CALENDAR

* Potentially significant hearing

⁺ Reduce criteria air contaminants and assist toward attainment of ambient air quality standards

2019 MASTER CALENDAR	(Continued)
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Month	Title and Description	Type of Rulemaking
July (Continued)		
Reg XX [#]	RECLAIM Proposed amendments to Regulation XX are needed to modify existing provisions for facilities that are in the RECLAIM program. Michael Morris 909.396.3282; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244	AQMP
September		
1110.2*+#^	Emissions from Stationary Internal Combustion Engines Rule 1110.2 will update the NOx emission standard to reflect Best Available Retrofit Control Technology for RECLAIM and non- RECLAIM facilities. Proposed Rule 1110.2 will also establish an ammonia emission limit for pollution controls with ammonia emissions, and update monitoring, reporting, and recordkeeping requirements.	AQMP/ AB 617 BARCT
1100	Implementation Schedule for NOx Facilities Proposed Rule 1100 will establish the implementation schedule for NOx RECLAIM facilities that are transitioning to command-and-control. <i>Michael Morris</i> 909.396.3282; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244	
1147*+#	NOx Reductions from Miscellaneous Sources	Other/
1147.1	NOx Reductions from Large Miscellaneous Combustion Proposed Rule 1147.1 will establish NOx emission limits to reflect Best Available Retrofit Control Technology for large miscellaneous combustion sources and will apply to RECLAIM and non-RECLAIM facilities. Proposed Amended Rule 1147 will remove equipment that will be regulated under Proposed Rule 1147.1 and evaluate the existing NOx emission limits.	AB 617 BARCT
1100	Implementation Schedule for NOx Facilities Proposed Rule 1100 will establish the implementation schedule for NOx RECLAIM facilities that are transitioning to command-and-control. <i>Michael Krause 909.396.2706; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244</i>	
1407*	Control of Emissions of Arsenic, Cadmium and Nickel from Non- Ferrous Metal Operations Proposed Amended Rule 1407 will establish additional requirements to minimize point source and fugitive toxic air contaminant emissions from non-chromium metal melting operations. Michael Morris 909.396.3282; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244	Toxics

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+ Reduce criteria air contaminants and assist toward attainment of ambient air quality standards

Type of Month **Title and Description** Rulemaking September (Continued) 1480^{*} Toxics **Toxics Monitoring** Proposed Rule 1480 will establish requirements for ambient monitoring of certain metal toxic air contaminants. Proposed rule will establish applicability, on-ramps and off-ramps for ambient monitoring, and provisions to address high ambient levels. Jillian Wong 909.396.3176; CEQA: Jillian Wong 909.396.3176 and Socio: Ian MacMillan 909.396.3244 October 218*# AOMP **Continuous Emission Monitoring Continuous Emission Monitoring Performance Specificiations** 218.1 Proposed Amended Rule 218 will revise provisions for continuous emission monitoring systems for facilities exiting RECLAIM and transitioning to a command-and-control regulatory structure. Michael Krause 909.396.2706; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244 $1109^{*+\#}$ Emissions of Oxides of Nitrogen from Boilers and Process Heaters in AOMP/ BARCT Petroleum Refineries Reduction of Emissions of Oxides of Nitrogen from Refinery (AB 617) 1109.1 Equipment Proposed Rule 1109.1 will establish NOx emission limits to reflect Best Available Retrofit Control Technology for NOx emitting equipment at petroleum refineries and related operations. Proposed Rule 1109.1 is an industry-specific rule, will establish an ammonia emission limit for pollution controls with ammonia emissions, and update monitoring. reporting, and recordkeeping requirements. Proposed Rule 1109.1 will replace Rule 1109. Michael Krause 909.396.2706; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244 Marine Tank Vessel Operations 1142 Other Proposed Amended Rule 1142 will further address VOC emissions from marine tank vessel operations and provide clarifications. David DeBoer 909.396.2329; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244

2019 MASTER CALENDAR (Continued)

* Potentially significant hearing

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Month	Title and Description	Type of Rulemaking
November		
N/A	Airports MOU/Ports MOU/Potential Regulation	AQMP
	The proposed MOUs with the marine ports and commercial airports will	
	implement the facility-based mobile source measures MOB-01 and	
	MOB-04 from the 2016 AQMP. In the event that the MOU approach	
	with the ports or airports is not agreed on, staff will pursue a regulatory	
	approach.	
1147*+#	Zorik Pirveysian 909.396.2431; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244	
-	NOx Reductions from Miscellaneous Sources	AQMP/
1147.2	NOx Reductions from Metal Melting and Heat Treating Furnaces	AB617
	Proposed Rule 1147.2 will establish NOx emission limits to reflect Best	BARCT
	Available Retrofit Control Technology for metal melting and heat	
	treating furnaces and will apply to RECLAIM and non-RECLAIM	
	facilities. Proposed Amended Rule 1147 will remove equipment that	
	will be regulated under Proposed Rule 1147.2. Michael Morris 909.396.3282; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244	
1410*	Hydrogen Fluoride Use at Refineries	Toxics
	Proposed Rule 1410 will establish requirements including mitigation	
	measures, a performance standard, and potential phase-out of hydrogen	
	fluoride or modified hydrogen fluoride for the use and storage of	
	hydrogen fluoride at petroleum refineries.	
1.12.5*	Michael Krause 909.396.2706; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244	·
1435*	Control of Emissions from Metal Heat Treating Processes	Toxics
	Proposed Rule 1435 will establish requirements to reduce point source	
	and fugitive toxic air contaminants including hexavalent chromium	
	emissions from heat treating processes. Proposed Rule 1435 will also	
	include monitoring, reporting, and recordkeeping requirements.	
Reg. XIII ^{*#}	Jillian Wong 909.396.3176; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244 New Source Review	AQMP
Reg. XX	RECLAIM	AQMI
Reg. AA	Proposed Amendments to Regulation XIII will revise New Source	
	Review provisions to address facilities that are transitioning from	
	RECLAIM to command-and-control. Staff may be proposing a new rule	
	within Regulation XIII to address offsets for facilities that transition out	
	of RECLAIM. Proposed Amendments to Regulation XX also are	
	needed to coordinate amendments to Regulation XIII.	
	Michael Morris 909.396.3282; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244	

2019 MASTER CALENDAR (Continued)

* Potentially significant hearing

⁺ Reduce criteria air contaminants and assist toward attainment of ambient air quality standards

Month December	Title and Description	Type of Rulemaking
1117+#	Emissions of Oxides of Nitrogen from Glass Melting Furnaces	AQMP/
1117	Proposed Amended Rule 1117 will establish NOx emission limits to	AB 617
	reflect Best Available Retrofit Control Technology for glass melting	BARCT
	furnaces and will apply to RECLAIM and non-RECLAIM facilities. Michael Morris 909.396.3282; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244	
1147*+#	NOx Reductions from Miscellaneous Sources	AQMP/
1147.3	NOx Reductions for Equipment at Aggregate Facilities	AB 617
	Proposed Rule 1147.3 will establish NOx emission limits to reflect Best	BARCT
	Available Retrofit Control Technology for NOx equipment at aggregate	
	facilities and will apply to RECLAIM and non-RECLAIM facilities.	
	Proposed Amended Rule 1147 will remove equipment that will be	
	regulated under Proposed Rule 1147.3.	
1150.3*+	Michael Krause 909.396.2706; CEQA: Jillian Wong 909.396.3176 and Socio: Ian MacMillan 909.396.3244 NOx Emission Reduction from Combustion Equipment at Landfills	AQMP/
1150.5	Proposed Rule 1150.3 will establish NOx emission limits for boilers,	AB 617
	process heaters, furnaces, and engines to reflect Best Available Retrofit	BARCT
	Control Technology at landfills. The proposed rule will also include	Drifter
	implementation schedules and monitoring, recordkeeping, and reporting	
	requirements.	
	Michael Morris 909.396.3282; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244	
1179.1^{*+}	NOx Emission Reduction from Combustion Equipment at Publicly	AQMP/
	Owned Treatment Work Facilities	AB 617
	Proposed Rule 1179.1 will establish NOx emission limits for boilers,	BARCT
	process heaters, furnaces, and engines to reflect Best Available Retrofit	
	Control Technology at publicly owned treatment works. The proposed	
	rule will also include implementation schedules and monitoring,	
	recordkeeping, and reporting requirements. Michael Morris 909.396.3282; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244	
1426*	Reduction of Toxic Air Contaminants from Metal Finishing	Toxics
1120	Operations	TOMES
	Proposed amendments to Rule 1426 will establish requirements to	
	reduce nickel, cadmium, hexavalent chromium, and other air toxics from	
	plating operations. Proposed Amended Rule 1426 will establish	
	requirements to control point source and fugitive toxic air contaminant	
	emissions.	
	Jillian Wong 909.396.3176; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244	

2019 MASTER CALENDAR (Continued)

* Potentially significant hearing

⁺ Reduce criteria air contaminants and assist toward attainment of ambient air quality standards

2019 MASTER CALENDAR (Continued)

Month	Title and Description	Type of Rulemaking
December		Kulemaking
(continued)		
Reg. XXIII ^{*+}	Facility-Based Mobile Sources	AQMP
	Proposed rules within Regulation XXIII would reduce emissions from	
	indirect sources (e.g., mobile sources that visit facilities). The rule or set	
	of rules that would be brought for Board consideration in this month	
	would reduce emissions from warehouses and distribution centers,	
	consistent with Control Measure MOB-03 from the 2016 AQMP. Ian MacMillan 909.396.3244; CEQA; Jillian Wong 909.396.3176 Socio: Ian MacMillan 909.396.3244	

* Potentially significant hearing

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[#] Part of the transition of RECLAIM to a command-and-control regulatory structure

2019 To-Be-Determined

2019	Title and Description	Type of Rulemaking
102	Definition of Terms	Other
	Staff may propose amendments to Rule 102 to add or revise definitions	
	in order to support amendments to other Regulation XI rules.	
113*#	Carol Gomez 909.396.3264; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244 Monitoring, Reporting, and Recordkeeping (MRR) Requirements	AQMP
115	for NOx and SOx Sources	AQIII
	Proposed Rule 113 will establish MRR requirements for facilities exiting	
	RECLAIM and transitioning to a command-and-control regulatory	
	structure.	
	Michael Krause 909.396.2706; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.2244	
209	Transfer and Voiding of Permits; Permitting and Associated Fees	Other
301	Staff may propose amendments to clarify requirements for change of	
210	ownership and permits and the assessment of associated fees.	
219	Equipment Not Requiring a Written Permit Pursuant to	Other
	Regulation II	
	Proposed Amended Rule 219 will add or revise equipment not requiring	
	a written permit. TBD; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244	
222	Filing Requirements for Specific Emission Sources Not Requiring a	Other
	Written Permit Pursuant to Regulation II	
	Proposed Amended Rule 222 will add or revise equipment subject to	
	filing requirements.	
222	Michael Krause 909.396.2706; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244	
223 1133.3	Emission Reduction Permits for Large Confined Animal Facilities	AQMP
1155.5	Proposed Amended Rules 223 and 1133.3 will seek additional emission	
	reductions from large confined animal facilities by lowering the applicability threshold.	
	TBD; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244	
416	Odors from Kitchen Grease Processing	Other
	Proposed Rule 416 will reduce odors from kitchen grease processing	
	operations. The proposed rule will establish best management practices,	
	and examine enclosure requirements for wastewater treatment operations	
	and filter cake storage.	
425	TBD; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244 Odors from Cannabis Processing	Other
+23	Proposed Rule 425 will establish requirements to control the odors from	Oulei
	cannabis processing.	
	David DeBoer 909.396.2329; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244	

2019 To-Be-Determined (Continued)

2019	Title and Description	Type of Rulemaking
429	Start-Up and Shutdown Exemption Provisions for Oxides of	Other
	Nitrogen	
	Proposed Amendments to Rule 429 to address start-up/shutdown	
	provisions related to the transition of NOx RECLAIM to a command-	
	and-control regulatory program and if U.S. EPA requires updates to such	
	provisions.	
445	Michael Krause 909.396.2706; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244 Wood Burning Devices (PM 2.5 Contingency)	AQMP
773	Proposed Amendments to Rule 445 will include provisions for	AQIMI
	contingency in the event of failure to attain, or make reasonable further	
	progress toward, the PM2.5 federal ambient air quality standards and	
	other provisions.	
	Michael Krause 909.396.2706; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244	
461	Gasoline Transfer and Dispensing	AQMP/
	Proposed Amendments to Rule 461 will reflect information from the	Toxics
	California Air Resources Board, corrections, revisions and additions to	
	improve the effectiveness, enforceability, and clarity of the rule. Michael Morris 909.396.3282; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244	
462	Organic Liquid Loading	Other
	Proposed Amendments to Rule 462 will improve the effectiveness,	
	enforceability, and clarity of the rule. TBD; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244	
463	Organic Liquid Storage	Other
	Proposed Amendments to Rule 463 will address the current test method	
	and improve the effectiveness, enforceability, and clarity of the rule. TBD; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244	
464	Wastewater Separators	Other
	Proposed Amendments to Rule 464 will improve the effectiveness,	
	enforceability, and clarity of the rule.	
1107	TBD; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244 Coating of Metal Parts and Products	AQMP
1107	Proposed Amended Rule 1107 will lower VOC emission limits for	<i>n</i> Qivii
	certain categories of coatings for metal parts and products and improve	
	rule clarity and enforceability.	
	Michael Krause 909.396.2706; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244	
1111.1	Reduction of NOx Emissions from Natural Gas Fired Commercial	AQMP
	Furnaces (CMB-01)	Other
	Proposed Rule 1111.1 will establish equipment-specific NOx emission	
	limits and other requirements for the operation of commercial furnaces. <i>TBD; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244</i>	

2019	Title and Description	Type of Rulemaking
1113	Architectural Coatings	Other
	Proposed Amended Rule 1113 may be needed to remove the tBAc	
	exemption and pCBtF as a VOC exempt compound based on guidance	
	from the Stationary Source Committee.	
1110	Michael Krause 909.396.2706; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244	Other
1118	Refinery Flares	Other
	Proposed Amended Rule 1118 will revise provisions to improve the enforceability of the rule.	
1100	Michael Krause 909.396.2706; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244	
1123	Refinery Process Turnarounds	AQMP
	Proposed Amended Rule 1123 will establish procedures that better	
	quantify emission impacts from start-up, shutdown or turnaround	
	activities.	
1135	Michael Krause 909.396.2706; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244 Emissions of Oxides of Nitrogen from Electricity Generating	Other
1155	Facilities	Other
	Proposed Amended Rule 1135 will revise monitoring, reporting, and	
	recordkeeping provisions to reflect amendments to Proposed Rule 113	
	and possibly other amendments to address comments from U.S. EPA.	
	Michael Morris 909.396.3282; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244	
1136	Wood Products Coatings	AQMP
	Proposed Amended Rule 1136 will revise VOC limits for wood product	
	coatings and other clarifications.	
11160	David DeBoer 909.396.2329; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244	
1146.2	Emissions of Oxides of Nitrogen from Large Water Heaters and	AQMP/
	Small Boilers and Process Heaters	AB617
	Proposed Amended Rule 1146.2 may be revised to lower the NOx	BARCT
	emission limit to reflect a Best Available Retrofit Control Technology	
	assessment.	
1148.1	Michael Morris 909.396.3282; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244 Oil and Gas Production Wells	Other
1148.2	Notification and Reporting Requirements for Oil and Gas Wells and	
1110.2	Chemical Suppliers	
	Proposed Amended Rules 1148.1 and 1148.2 may be revised 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. Possibly other	
	amendments to improve the enforceability. Jillian Wong 909.396.3176; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244	

2019	Title and Description	Type of Rulemaking
1148.3	Requirements for Natural Gas Underground Storage Facilities	Other
	Proposed Rule 1148.3 will establish requirements to address public	
	nuisance and VOC emissions from underground natural gas storage	
1149	Jillian Wong 909.396.3176; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244 Tank Degassing	Other
1117	Proposed Amended Rule 1149 will improve the effectiveness,	Other
	enforceability, and clarity of the rule.	
	Jillian Wong 909.396.3176; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244	
1150.1	Control of Gaseous Emissions from Municipal Solid Waste Landfills	Other
	Proposed Amended Rule 1150.1 will address U.S. EPA revisions to the	
	New Source Performance Standards for Municipal Solid Waste Landfills	
	and Existing Guidelines and Compliance Timelines for Municipal Solid	
	Waste Landfills, as well as CARB GHG requirements.	
1151	Ian MacMillan 909.396.3244; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244	0.1
1151	Motor Vehicle and Mobile Equipment Non-Assembly Line Coating	Other
	Operations	
	Proposed Amended Rule 1151 is considering removing the tBAc	
	exemption and is evaluating the impact from removing pCBtF as a VOC	
	exempt compound based on guidance from the Stationary Source	
	Committee. Jillian Wong 909.396.3176; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244	
1153.1	Emissions of Oxides of Nitrogen from Commercial Food Ovens	AQMP/
1100.1	Proposed Amendments to Rule 1153.1 may be needed to address	AB 617
	applicability and technological feasibility of low-NOx burner	BARCT
	technologies for new commercial food ovens.	Differ
	Michael Krause 909.396.2706 CEQA: Jillian Wong 909.396.3176 and Socio: Ian MacMillan 909.396.3244	
1157	PM10 Emission Reductions from Aggregate Related Operations	Other
	Proposed Amended Rule 1157 will remove outdated language, revise	
	opacity requirements, and improve the effectiveness, enforceability, and	
	clarity of the rule.	
1150 1	TBD; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244	
1159.1	Nitric Acid Units – Oxides of Nitrogen	AQMP
	Proposed Rule 1159.1 will address NOx emissions from processes using	AB 617
	nitric acid and is needed as part of the transition of RECLAIM to	BARCT
	command-and-control. David DeBoer 909.396.2329; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244	
1166	VOC Emissions from Decontamination of Soil	Other
1100	Proposed Amended Rule 1166 will revise notification provisions,	
	improve the effectiveness, enforceability, and clarity of the rule.	
	Michael Morris 909.396.2706; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244	

2019 To-Be-Determined (Continued)

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2019	Title and Description	Type of Rulemaking
1173	Control of Volatile Organic Compound Leaks and Releases from	Other
	Components at Petroleum Facilities and Chemical Plants	
	Proposed revisions to Rule 1173 are being considered based on recent	
	U.S. EPA regulations and CARB oil and gas regulations and revisions to	
	<i>TBD; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244</i>	
1190, 1191,	Fleet Vehicle Requirements	Other
1192, 1193,	Proposed amendments to fleet rules may be necessary to improve rule	
1194,1195,	implementation. In addition, the current fleet rules may be expanded to	
1196, &	achieve criteria pollutant and air toxic emission reductions pending new	
1186.1	legislative authority. Zorik Pirveysian 909.396.2431; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244	
1304.2	California Public Utilities Commission Regulated Electrical Local	Other
	Publicly Owned Electrical Utility Fee for Use of SOx, PM10 and	
	NOx Offsets	
1304.3	Local Publicly Owned Electrical Generating Facility Fee for Use of	Other
	SOx, PM10 and NOx Offsets	
	Proposed Rules 1304.2 and 1304.3 would allow new greenfield facilities	
	and additions to existing electricity generating facilities conditional	
	access to SCAQMD internal offset accounts for a fee, for subsequent	
	funding of qualifying improvement projects consistent with the AQMP. <i>TBD; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244</i>	
1401	New Source Review of Toxic Air Contaminants	Toxics
	Proposed Amended Rule 1401 may be revised to add, remove, or revise	
	toxic air contaminants based on changes from OEHHA. Jillian Wong 909.396.3176; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244	
1402	Control of Toxic Air Contaminant Emissions from Existing Sources	Toxics
	Proposed Amended Rule 1402 may be revised based on implementation	
	of other toxic rules or programs.	
	Jillian Wong 909.396.3176; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244	
1403	Asbestos Emissions from Demolition/Renovation Activities	Toxics
	Proposed Amended Rule 1403 will enhance implementation, improve	
	rule enforceability, and align provisions with the applicable U.S. EPA	
	National Emission Standard for Hazardous Air Pollutants (NESHAP)	
	and other state and local requirements as necessary. David De Boer 909.396.2329; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244	
1407.1	Control of Toxic Air Contaminant Emissions from Chromium Alloy	Toxics
	Melting Operations	
	Proposed Rule 1407.1 will establish requirements to reduce point source	
	and fugitive toxic air contaminant emissions from metal melting	
	operations.	
	Michael Morris 909.396.2706; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244	

2019 To-Be-Determined (Continued)

2019	Title and Description	Type of Rulemaking
1415	Reduction of Refrigerant Emissions from Stationary Air	Other
1415.1	Conditioning Systems, and Reduction of Refrigerant Emissions from	
	Stationary Refrigeration Systems	
	Amendments will align with the proposed CARB Refrigerant	
	Management Program and U.S. EPA's Significant New Alternatives	
	Policy Rule provisions relative to prohibitions on specific	
	hydrofluorocarbons. David DeBoer 909.396.2329; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244	
1430	Control of Emissions from Metal Grinding Operations at Metal	Toxics
	Forging Facilities	
	Proposed Amended Rule 1430 may be needed to establish requirements	
	to reduce toxic air contaminant emissions from metal forging operations. Jillian Wong 909.396.3176; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244	
1445	Control of Toxic Emissions from Laser Arc Cutting	Toxics
	Proposed Rule 1445 will establish requirements to reduce toxic metal	
	particulate emissions from laser arc cutting. David DeBoer 909.396.2329; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244	
1450	Control of Methylene Chloride Emissions	Toxics
	Proposed Rule 1450 will reduce methylene chloride emissions from	
	furniture stripping and establish monitoring, reporting, and	
	recordkeeping requirements. Michael Morris 909.396.3282; CEQA: Jillian Wong 909.396.3176; and Socio: Ian MacMillan 909.396.3244	
1469.1	Spraying Operations Using Coatings Containing Chromium	Toxics
	Proposed Amended Rule 1469.1 will establish additional requirements to	
	address fugitive emissions from facilities that are conducting spraying	
	operations using chromium primers or coatings to further reduce	
	hexavalent chromium emissions. Jillian Wong 909.396.3176; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244	
1470	Requirements for Stationary Diesel-Fueled Internal Combustion	Toxics
1.70	and Other Compression Ignition Engines	1011100
	Proposed Amended Rule 1470 will establish additional provisions to	
	reduce the exposure to diesel particulate from new and existing small	
	$(\leq 50$ brake horsepower) diesel engines located near sensitive receptors.	
1902	David DeBoer 909.396.2329; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244 Transportation Conformity	Other
1902	Proposed Amended Rule 1902 may be necessary to align the rule with	Other
	current U.S. EPA requirements.	
	Ian MacMillan 909.396.3244; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244	
1905	Pollution Controls for Automotive Tunnel Vents	Other
	Proposed Rule 1905 will address emissions from proposed roadway	
	tunnel projects that could have air quality impacts. Ian MacMillan 909.396.3244; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244	

2019 To-Be-Determined (Continued)

2019	Title and Description	Type of Rulemaking
2202	On-Road Motor Vehicle Mitigation Options	Other
	Proposed Rule 2202 may be amended to address program streamlining	
	for regulated entities, as well as reduce review and administration time	
	for SCAQMD staff. Proposed Rule amendment concepts may include	
	program components to facilitate the obtainment of average vehicle	
	ridership (AVR) targets.	
	Carol Gomez 909.396.3264; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244	
Reg. XVI	Mobile Source Offset Programs	AQMP
	Proposed Amendments to Regulation XVI rules will allow generation of	
	criteria pollutant Mobile Source Emission Reduction Credits (MSERCs)	
	from various on-road and off-road sources, such as on-road heavy-duty	
	trucks, off-road equipment, locomotives, and marine vessels. Credits	
	will be generated by retrofitting existing engines or replacing the engines	
	with new lower-emitting or zero-emission engines. Zorik Pirveysian 909.396.2431; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244	
Reg. XVII	Prevention of Significant Deterioration (PSD)	Other
1005.11.11	Proposed Amendments to Regulation XVII are being considered for	other
	possible revisions based on information from U.S. EPA. Carol Gomez 909.396.3264; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244	
Reg. XXVII	Climate Change	Other
	Changes may be needed to Regulation XXVII to add or update protocols	other
	for GHG reductions, and other changes.	
	Zorik Pirveysian 909.396.2431; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244	
Reg. II, IV,	Various rule amendments may be needed to meet the requirements of	Other/
XIV, XI,	state and federal laws, implement OEHHA's 2015 revised risk	AQMP
XXIII, XXIV,	assessment guidance, address variance issues/ technology-forcing limits,	
XXX	to abate a substantial endangerment to public health or additional	
and XXXV	reductions to meet the SIP short-term measure commitment. The	
	associated rule development or amendments include, but are not limited	
	to, SCAQMD existing rules, new or amended rules to implement the	
	2012 or 2016 AQMP measures. This includes measures in the 2010	
	Clean Communities Plan (CCP) or 2016 AQMP to reduce toxic air	
	contaminants or reduce exposure to air toxics from stationary, mobile,	
	and area sources. Rule adoption amendments may include updates to	
	provide consistency with CARB Statewide Air Toxic Control Measures,	
	U.S. EPA's National Emission Standards for Hazardous Air Pollutants,	
	or implementation of AB 617.	



BOARD MEETING DATE: April 5, 2019

AGENDA NO. 15

REPORT: Status Report on Major Ongoing and Upcoming Projects for Information Management

- SYNOPSIS: Information Management is responsible for data systems management services in support of all SCAQMD operations. This action is to provide the monthly status report on major automation contracts and planned projects.
- COMMITTEE: Administrative, March 8, 2019, Reviewed

RECOMMENDED ACTION: Receive and file.

Wayne Nastri Executive Officer

RMM:MAH:XC:agg

Background

Information Management (IM) provides a wide range of information systems and services in support of all SCAQMD operations. IM's primary goal is to provide automated tools and systems to implement Board-approved rules and regulations, and to improve internal efficiencies. The annual Budget specifies projects planned during the fiscal year to develop, acquire, enhance, or maintain mission-critical information systems.

Summary of Report

The attached report identifies each of the major projects/contracts or purchases that are ongoing or expected to be initiated within the next six months. Information provided for each project includes a brief project description and the schedule associated with known major milestones (issue RFP/RFQ, execute contract, etc.).

Attachment

Information Management Status Report on Major Ongoing and Upcoming Projects During the Next Six Months

ATTACHMENT April 5, 2019 Board Meeting Information Management Status Report on Major Ongoing and Upcoming Projects During the Next Six Months

Project	Brief Description	Budget	Completed Actions	Upcoming Milestones
Implementation of Enterprise Geographic Information System (EGIS) Phase II	Continue to support accomplishment of the agency's mission through the effective and cost- efficient implementation of EGIS and related technologies		 Purchased ESRI extensions for OnBase Completed all six prioritized EGIS projects: GIS Data Development System Documentation Portal/Mobile Development Completed OnBase Expansion and GIS Integration Completed CLASS GIS Integration Completed One- click Site Report 	
Telecommunications Services	Select vendor(s) to provide local, long distance, telemetry, internet, cellular services, and phone system maintenance for a three-year period	\$750,000	 Released RFP October 5, 2018 Board Approval January 4, 2019 Executed contracts February 28, 2019 	 Migrate and upgrade services April 2019
Office 365 Implementation	Acquire and implement Office 365 for SCAQMD staff	\$350,000	 Pre-assessment evaluation and planning completed Board action approved funding on October 5, 2018 Developed implementation and migration plan Acquired Office 365 licenses 	 Implement Office 365 email (Exchange) and migrate all users Implement Office 365 file storage (OneDrive for Business) and migrate users Implement Office 365 internal website (SharePoint) and migrate existing content

Project	Brief Description	Budget	Completed Actions	Upcoming Milestones
Permitting System Automation Phase 1	New Web application to automate the filing of all permit applications with immediate processing and issuance of permits for specific application types: Dry Cleaners, Gas Stations and Automotive Spray Booths	\$694,705	 Phase 1 Automated 400A form filing, application processing, and online permit generation for Dry Cleaner module deployed to production completed Facility ID Creation Module deployed to production completed Phase 1.1 Automated 400A form filing, application processing, and online permit generation for Automotive Spray Booth and Gas Station Modules deployed to production completed Enhanced calculations of sensitive receptor distances Enhanced processing of school locations with associated parcels Upgraded GIS Map integration and enhanced sensitive receptor identification and distance measurement work 	 Continue Phase 1.1 project outreach support Enhance calculations of sensitive receptor distances Deploy new version of system to production

Project	Brief Description	Budget	Completed Actions	Upcoming Milestones
Permitting System Automation Phase 2	Enhanced Web application to automate filing process of Permit Applications, Rule 222 equipment, and registration process for IC Engines; implement electronic permit folder and workflow for internal SCAQMD users	\$525,000	 December 2017 Board action approved initial Phase 2 funding May 2018 Phase 2 project startup and detail planning completed Business process model approved Development of Negative Air Machines, Boilers/Water Heaters/Process Heaters, Cooling Towers, Portable Heaters, and Food Ovens filing process completed October 5, 2018 Board action approved remaining Phase 2 funding Code development for Boilers, Heaters, Ovens, Baghouses, and IC Engines completed Application submittals, and form filing of Char Broilers, Small Boilers, and Oil Wells processing completed Wireframes and user stories for Tar Pots/Tar Kettles, Asphalt Day Tankers, and Asphalt Pavement Heaters completed 	 User testing of completed Rule 222 forms including Negative Air Machines, Boilers/Water Heaters/Process Heaters, Cooling Towers, Portable Heaters, and Food Ovens User testing of new set of Rule 222 forms including Tar Pots, Asphalt Tankers, Asphalt Heaters, and Aqueous Urea Storage Deployment of new version of application to Stage Server for user testing Wireframes, user stories, and code development for new set of Rule 222 forms including Agricultural Engines, IC Engines at Radio Tower, Diesel Fuel Boiler, and Fuel Cell with Heater

Project	Brief Description	Budget	Completed Actions	Upcoming Milestones
Permitting System Automation Phase 2 (Continued)	Complete Board requested Information Technology review and initiate work on implementation of key recommendations	\$75,000	 Development of new set of Rule 222 forms including Tar Pots, Asphalt Tankers, Asphalt Tankers, Agricultural Engines, and Diesel Fuel Boilers completed Wireframes, user stories, and code development for Micro Turbines, Storage of Odorants, and Storage of Aqueous Urea Solutions completed Initiated Implementation Planning and Resource Requirements for key recommendations Conducted recruitment process to fill Systems & Programming Supervisor position Completed Microsoft Project Plan training for all IM Managers, Supervisors and Secretaries Established Information Technology Steering Committee, members and charter Configured and deployed Project Management software 	• Office 365 deployment

Project	Brief Description	Budget	Completed Actions	Upcoming Milestones
Permit Application Status and Dashboard Statistics	New Web application to allow engineers to update intermediate status of applications; create dashboard display of status summary with link to FIND for external user review	\$100,000	 December 2017 Board action approved funding April 2018 project startup and detail planning completed June 2018 wireframe and user story approved for Release 1 User story and wireframe approved for application search module User stories approved and coding completed for Dashboard Data Entry screens Code development for Release 1 completed Code development for application search module completed User acceptance testing for data capture module completed User acceptance testing for user reports completed Internal deployment of application related data completed 	• Deployment of External application (and linked to FIND) for regulated community to view application related data

Project	Brief Description	Budget	Completed Actions	Upcoming Milestones
Agenda Tracking System Replacement	Replace aging custom agenda tracking system with state-of-the-art, cost- effective Enterprise Content Management (ECM) system, which is fully integrated with OnBase, SCAQMD's agency- wide ECM system	\$86,600	 Released RFP December 4, 2015 Awarded contract April 1, 2016 Continued parallel testing Conducted survey of stakeholder satisfaction As a result of the survey responses, the decision was made to develop a custom user interface for the application Revised project scope to include custom user interface Developed plan and schedule for revised scope 	Identify funding source
Document Conversion Services	Document Conversion Services to convert paper documents stored at SCAQMD facilities to electronic storage in OnBase	\$83,000	 Released RFQ October 5, 2018 Approved qualified vendors January 4, 2019 Converted over 350,000 rule administrative record documents for Planning and Rules 	 Execute purchase orders for scanning services Convert over 1,000,000 contract documents for Technology Advancement Office (TAO)
Replace Your Ride (RYR)	New Web application to allow residents to apply for incentives to purchase newer, less polluting vehicles	\$301,820	Phase 2 Fund Allocation, Administration and Management Reporting modules deployed and in production	 Phase 3 user approval for production Implementation of Electric Vehicle Service Equipment and alternative mode of transportation in the RYR application

Project	Brief Description	Budget	Completed Actions	Upcoming Milestones
Replace Your Ride (RYR) (continued)			 Final Phase 2 user requested enhancements: VIN Number, Case Manager, Auto e-mail and document library updates deployed to production Phase 3 Data Migration development work completed 	 Approval of data migration Approval of Phase 3 move to production
SCAQMD Mobile Application for iOS devices Phase 2	Enhancement of Mobile application with addition of Enhanced Notifications, Complaint Filing and Facility Information Detail	\$100,000	 Project Charter released Proposal received Task order issued 	• System design
SCAQMD Mobile Application for Android devices Phase 1	New mobile application for Android devices which will have the same functionality as the new iOS application	\$75,000	 Project Charter released Proposal received Task order issued System design completed 	• System development
FIND System Replacement	Update and replace Facility Information Detail (FIND) application	\$148,150	 Task order issued, evaluated and awarded Detail project planning completed Wireframe approved Development completed Automated Testing completed Beta testing completed User outreach and training completed System moved to production 	• Phase 2 requirements gathering

Project	Brief Description	Budget	Completed Actions	Upcoming Milestones
Legal Division New System Development	Develop new web- based case management system for Legal Division to replace existing JWorks System	\$500,000	 Task order issued, evaluated and awarded Project initiated and project charter finalized Business Process Model completed Functional and system design completed Data model received 	 Mock-up and code development for Sprint 1 – NOV tracking and MSPAP case management Data model review
Flare Event Notification – Rule 1118	Develop new web- based application to comply with Rule 1118 to improve current flare notifications to the public and staff	\$100,000	 Vision and Scope issued Charter Document and proposal approved Task order to be issued Requirement gathering for Sprint 1 & 2 completed System Design for Sprint 1 & 2 completed Requirement gathering for Sprint 3 completed System design for Sprint 3 completed Compliance integration design completed 	 Data model approval for Sprint 1, 2, and 3 Begin Sprint 4: Implementation of Sprint 1 and 2

Project	Brief Description	Budget	Completed Actions	Upcoming Milestones
VW Environmental Mitigation Action Plan Project	CARB has assigned SCAQMD to develop web applications for two projects: Zero- Emission Class 8 Freight and Port Drayage Truck Project & Combustion Freight and Marine Project. SCAQMD is responsible for developing a web application for both incentive programs, and maintaining a database that will be queried for reporting perspectives for CARB	\$650,000 (Budget Estimate pending grant approval)	Draft Charter Document issued	 Approve timeline and milestones Approve Charter Budget Transfer Approve qualifying vendor Requirement gathering Functional and system design
AQ-SPEC Cloud Platform	Develop a cloud- based platform to manage and visualize data collected by low- cost sensors		 Task Order Issued Proposals Received Task Order Awarded Business Requirements Gathering Completed System Architecture Approved 	• Sprint 1 Implementation
PeopleSoft Electronic Requisition	SCAQMD is implementing electronic requisition for PeopleSoft Financials. This will allow submittal of requisitions online. Additional benefits include tracking of multiple levels of approval, electronic archival of requisition documents, pre- encumbrance of budget, and streamlined workflow.		 Project Charter Approved Task Order Issued Proposal Received Task Order Awarded Requirement Gathering for Sprint 1 Completed Design for Sprint 1 Completed Code Development for Sprint 1 	 UAT for Sprint 1 Design for Sprint 2

Project	Brief Description	Budget	Completed Actions	Upcoming Milestones
Renewal of HP Server Maintenance & Support	Purchase of maintenance and support services for servers and storage devices	\$120,000	• Board approval March 1, 2019	• Execute contract April 30, 2019

Projects that have been completed are shown below.

Completed Projects	
Project	Date Completed
Website & Evaluation Improvements	January 6, 2018
Information Technology Review	January 31, 2018
Prequalify Vendor List for PCs, Network Hardware, etc.	February 3, 2018
Renewal of HP Server Maintenance & Support	April 6, 2018
Implementation of Enterprise Geographic Information System (EGIS) Phase I	May 30, 2018
Fiber Cable Network Infrastructure Upgrade	May 30, 2018
Air Quality Index Rewrite and Migration	June 29, 2018
AQMD Mobile Application for iOS devices Phase 1	November 2, 2018
CLASS Database Software Licensing and Support	November 30, 2018

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BOARD MEETING DATE: April 5, 2019

AGENDA NO. 17

REPORT: Administrative Committee

SYNOPSIS:The Administrative Committee held a meeting on Friday,
March 8, 2019. The following is a summary of the meeting.

RECOMMENDED ACTION: Receive and file.

Dr. William A. Burke, Chair Administrative Committee

nv

Committee Members

Present: Dr. William A. Burke/Chair (videoconference) Council Member Ben Benoit/Vice Chair (videoconference) Council Member Michael Cacciotti (teleconference) Mayor Judith Mitchell (videoconference) Dr. Clark E. Parker, Sr. (videoconference)

Absent: None

Call to Order

Chair Burke called the meeting to order at 1:00 p.m.

DISCUSSION ITEMS:

- 1. Board Members' Concerns: None to report.
- 2. Chairman's Report of Approved Travel: As noted on the travel report, Mayor Mitchell will attend the monthly CARB Board meeting as the SCAQMD Board representative in Sacramento on March 20-21, 2019.
- 3. **Report of Approved Out-of-Country Travel**: None to report.
- 4. Review April 5, 2019 Governing Board Agenda: None to report.

- 5. Approval of Compensation for Board Member Assistant(s)/Consultant(s): None to report.
- 6. Status Report on Major Ongoing and Upcoming Projects for Information Management: Assistant Deputy Executive Officer/Chief Information Officer Ron Moskowitz reported that the FIND application has become more userfriendly and now mobile-friendly, and it has been integrated with the GIS project and now displays facilities searched on a map. In approximately one month, all SCAQMD mailboxes will be migrated to Microsoft Cloud and the Board will be updated on the continued progress. Recently, Government Technology magazine wrote a positive article highlighting SCAQMD's mobile application. The Android version is scheduled to be released at the end of May. Dr. Burke inquired about the one million email addresses that were purchased a few years ago as they relate to spam rules. Mr. Moskowitz stated that the public has the ability to remove themselves from the email list but added that he would research the specifics. Dr. Burke requested that Mr. Moskowitz work with General Counsel to explore the possibilities of how to inform the public that our mission is to educate them, and to report back at the next Administrative Committee.
- 7. **Report of RFPs Scheduled for Release in April:** Assistant Deputy Executive Officer/Finance Sujata Jain reported that this item is to issue an RFP for the elevator modernization project.

ACTION ITEMS:

8. Execute Contract for Consultant Services for SCAQMD's High School Air Quality Educational Program: Deputy Executive Officer/Legislative, Public Affairs & Media Derrick Alatorre reported that in February 2019, the Board approved the release of an RFP for development and planning of a High School Education Program. Seven proposals were received. Of the seven proposals, four were deemed to be technically qualified: Arellano Associates; Gladstein, Neandross & Associates; Global Inheritance; and the Lee Andrews Group. Each firm provided a presentation and were interviewed by the Committee. The Administrative Committee selected the Lee Andrews Group, based on their qualifications and relationships established with various schools. Mr. Harvey Eder of the Public Solar Power Coalition provided public comment regarding the importance of solar power and the need to include information on solar power in school curriculums. Dr. Burke agreed that solar should be part of this program.

Moved by Parker; seconded by Cacciotti, unanimously approved.

Ayes:	Benoit, Burke, Cacciotti, Mitchell, Parker
Noes:	None
Absent:	None

- 9. Issue RFP to Solicit Proposals and Execute Contract for Media, Advertising and Public Outreach Campaign for 2019/20 Check Before You Burn Program: Dr. Burke expressed concern regarding the effectiveness of this campaign and requested that this item be continued to the April Administrative Committee meeting to allow staff adequate time to compile data on the effectiveness of past campaigns.
- 10. Recommendation to Appoint Member to SCAQMD Local Government & Small Business Assistance Advisory Group: Mr. Alatorre reported that Council Member Benoit, who is chair of the Local Government & Small Business Assistance (LGSBA) Advisory Group, recommends that Marc Ang serve on the LGSBA Advisory Group as a public member representative

Moved by Benoit; seconded by Cacciotti, unanimously approved.

Ayes:	Benoit, Burke, Cacciotti, Mitchell, Parker
Noes:	None
Absent:	None

11. Remove Various Fixed Assets from SCAQMD Inventory: Ms. Jain reported that this item is to remove surplused fixed assets that are obsolete and non-operable in the amount of \$885,845.

Moved by Benoit; seconded by Mitchell, unanimously approved.

Ayes:	Benoit, Burke, Cacciotti, Mitchell, Parker
Noes:	None
Absent:	None

12. Transfer and Appropriate Funds, Issue Solicitations, and Execute Purchase Orders and Contracts for AB 617 Implementation: Atmospheric Measurements Manager Andrea Polidori reported that in January and June 2018, the Board recognized revenue from CARB for implementation of AB 617. Based on the assessment of the program and the input received by steering committee members, there is a need to reallocate funds to purchase additional monitoring analysis equipment and to issue contracts for the implementation of AB 617 in the three Year 1 communities. Mayor Mitchell announced that she does not have a conflict of interest related to this item but is a member of the CARB Board.

Moved by Cacciotti; seconded by Benoit, unanimously approved.

Ayes:	Benoit, Burke, Cacciotti, Mitchell, Parker
Noes:	None
Absent:	None

WRITTEN REPORT:

13. Local Government & Small Business Assistance Advisory Group Minutes for the December 14, 2018 Meeting: Mr. Alatorre reported that this item is a written report.

OTHER MATTERS:

14. Public Comment: There were no public comments.

15. Next Meeting Date

The next regular Administrative Committee meeting is scheduled for April 12, 2019 at 10:00 a.m.

Adjournment

The meeting adjourned at 3:15 p.m.

Attachment

Local Government & Small Business Assistance Advisory Group Minutes for the December 14, 2018 Meeting



LOCAL GOVERNMENT & SMALL BUSINESS ASSISTANCE ADVISORY GROUP FRIDAY, DECEMBER 14, 2018 MEETING MINUTES

MEMBERS PRESENT:

Ben Benoit, Mayor Pro Tem, City of Wildomar and LGSBA Chairman Felipe Aguirre Paul Avila, P.B.A. & Associates Geoffrey Blake, Metal Finishers of Southern California LaVaughn Daniel, DancoEN Bill LaMarr, California Small Business Alliance Rita Loof, RadTech International David Rothbart, Los Angeles County Sanitation District

MEMBERS ABSENT:

Dr. Clark E. Parker, Sr., Senate Rules Committee Appointee V. Manuel Perez, Supervisor Janice Rutherford, Supervisor, Second District, San Bernardino County Rachelle Arizmendi, Mayor Pro Tempore, City of Sierra Madre Todd Campbell, Clean Energy John DeWitt, JE DeWitt, Inc. Eddie Marquez, Roofing Contractors Association Cynthia Moran, Council Member, City of Chino Hills

SCAQMD STAFF:

Fabian Wesson, Asst. Deputy Executive Officer/Public Advisor Nancy Feldman, Principal Deputy District Counsel De Groeneveld, Sr. Information Technology Specialist Elaine-Joy Hills, AQ Inspector II Stacy Garcia, Secretary

Agenda Item #1 - Call to Order/Opening Remarks Chair Ben Benoit called the meeting to order at 12:01 p.m.

Agenda Item #2 – Follow Up/Action Items

Ms. Fabian Wesson updated the LGSBA members regarding the following requests:

- Provide the AB 617 steering committee rosters
 The roster for Wilmington/Carson/West Long Beach were e-mailed on December 5, 2018
 The roster for San Bernardino/Muscoy were emailed on December 11, 2018
 The roster for Boyle Heights/East Los Angeles/West Commerce will be e-mailed once finalized
- Provide the November 28, 2018 AB 617 flyer The flyer was e-mailed on November 14, 2018
- Supervisor Perez requested a map of the locations of air monitors in his district The map and locations were e-mailed to Supervisor Perez's staff on December 13, 2018
- Supervisor Perez requested a meeting to discuss any correlation between nosebleeds and PM₁₀ SCAQMD staff is working on scheduling said meeting

Mr. Bill LaMarr inquired about the remaining steering committee roster and why it has not been finalized. Ms. Wesson responded that there have been some drop offs and other issues. Mr. Paul Avila asked if you have to physically live in a community in order to be on the steering committee to which Ms. Wesson responded yes. Ms. Rita Loof asked if trade organizations representing businesses in the AB 617 communities, who do not reside in the community, be on the steering committee. Ms. Wesson stated that legislation mandated that the business owner has to live in the community, even if the business is in the community.

<u>Agenda Item #3 – Approval of November 9, 2018 Meeting Minutes/Review of Follow-Up/Action</u> <u>Items</u>

Chair Benoit called for approval of the November 9, 2018 meeting minutes. The minutes were approved unanimously.

<u>Agenda Item #4 – Approval of Local Government & Small Business Assistance Advisory Group</u> 2018 Accomplishments and Seek Items for 2019 Goals & Objectives

Ms. Wesson presented and requested approval of the 2018 Accomplishments and for items to be included in the 2019 Goals & Objectives.

Ms. Loof recommended information on Rule 1106, before it goes to the Governing Board in April 2019. Ms. Loof also requested clarification on how subscription services works and gave an example that when you go on the website to sign up for rule updates, it does not correlate to public notices or workshops that go out.

Mr. LaMarr requested information on Rules 212 and 1106.

Mr. Harvey Eder commented that a goal should be working towards solar transformation.

Mr. Avila requested a basic presentation on cap & trade credits.

Mr. LaMarr requested presentations on AB 617 to occur in early 2019.

Mr. Aguirre requested information on alternatives to Southern California Edison, as a Community Choice Aggregation (CCA) or for solar power.

Chair Benoit called for approval of the changes to the 2019 Goals and Objectives. The changes were approved unanimously.

<u>Agenda Item #5 – Monthly Report on Small Business Assistance Activities</u> No comments.

Agenda Item #6 - Other Business

No other business.

Agenda Item #7 - Public Comment

Mr. Harvey Eder commented on solar and Mr. Benoit's involvement.

<u>Agenda Item #8 – Next Meeting Date</u>

The next regular Local Government & Small Business Assistance Advisory Group meeting is scheduled for Friday, January 11, 2019 at 11:30 a.m.

Adjournment

The meeting adjourned at 12:26 p.m.

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BOARD MEETING DATE: April 5, 2019

AGENDA NO. 18

REPORT: Legislative Committee

SYNOPSIS:The Legislative Committee held a meeting on Friday,
March 8, 2019. The following is a summary of the meeting.

Agenda Item – March 8, 2019	Recommendation/Action
SB 210 (Leyva) Heavy-Duty Vehicle Inspections and Maintenance Program	Support
AB 210 (Voepel) Smog Check: exemption	Oppose
AB 285 (Friedman) California Transportation Plan	Work with Author

Agenda Item – February 8, 2019 Legislative Committee Meeting & March 1, 2019 Board Letter	Recommendation/Action
SB 1 (Atkins) California Environmental, Public Health, and Workers Defense Act of 2019.	Support
AB 142 (C. Garcia) Lead-acid batteries.	Support

RECOMMENDED ACTION:

Receive and file this report, and approve agenda items as specified in this letter, including items from the March 1, 2019 Board letter for the February 8, 2019 Legislative Committee meeting.

Judith Mitchell, Chair Legislative Committee

Committee Members

Present: Mayor Judith Mitchell/Chair (videoconference) Council Member Joe Buscaino/Vice Chair (videoconference) Supervisor V. Manuel Perez (videoconference) Supervisor Janice Rutherford (videoconference)

Absent: Dr. William A. Burke Dr. Clark E. Parker, Sr.

Call to Order

Chair Mitchell called the meeting to order at 9:01 a.m.

DISCUSSION ITEMS:

1. Update on Federal Legislative Issues

SCAQMD's federal legislative consultants (Carmen Group, Cassidy & Associates, and Kadesh & Associates) each provided a written report on various key Washington, D.C. issues.

Mr. Gary Hoitsma of Carmen Group reported that SCAQMD's February advocacy trip to Washington, D.C. was successful and that Members of Congress and their staff, business representatives and other stakeholders were supportive of a timely and transparent rulemaking process for the U.S. EPA Ultra-Low NOx Emission Standard for Heavy-Duty Trucks.

Ms. Kaleb Froehlich of Cassidy & Associates stated that Mr. Andrew Wheeler had been confirmed by the U.S. Senate as the Administrator for the U.S. EPA. Mr. Froehlich reported that the House Leadership has signaled that work on an infrastructure bill may begin in the late Spring. Cassidy is working with the House Select Committee on the Climate Crisis on potentially holding a Congressional field hearing at SCAQMD.

Mr. Mark Kadesh of Kadesh & Associates reported that President Trump's budget overview is expected on March 11, 2019 and will be followed with a more detail document a week later. Mr. Kadesh also noted that SCAQMD was working on providing annual appropriations requests to Members of Congress.

Mr. Harvey Eder with the Public Solar Power Coalition provided public comment regarding the Solar New Deal and the Green New Deal. He also voiced support for a federal refundable solar tax credit and low income housing.

2. Update on State Legislative Issues

SCAQMD's state legislative consultants (Quintana, Watts and Hartman, California Advisors, LLC, Joe A. Gonsalves & Son,) provided written reports on various key issues in Sacramento.

Ms. Caity Maple of Quintana, Watts and Hartman informed the Committee that the state bill introduction deadline recently passed, and the California state legislature introduced 2,621 bills.

Mr. Ross Buckley of California Advisors LLC reported that the number of state bills introduced is a new record, and that is about 500 more than were introduced last legislative year. The California Assembly Natural Resources Committee has confirmed that it will have a hearing on March 18 regarding an update on the implementation of AB 617.

Mr. Paul Gonsalves of Joe A. Gonsalves & Son stated that on February 27 the most recent cap and trade revenue auction was held and generated about \$850 million for the state's Greenhouse Gas Reduction Fund, which could potentially provide more clean air funding for the South Coast region. The next auctions are going to be held in May, August, and November of this year and are projected to generate \$800-\$900 million each.

Mr. Eder provided public comment regarding his support for localities to adopt Climate Action Plans. He reiterated support for a refundable solar tax credit.

3. Update on Legislation Regarding Voting District Authorization for Clean Air Mr. Philip Crabbe, Public Affairs Manager, provided an update regarding the SCAQMD-sponsored Voting District Authorization for Clean Air bill. Senator Ben Allen is the author of the bill, and a spot bill (SB 732) was introduced but it currently has no substantive content. Staff recently submitted new bill language to Legislative Counsel in Sacramento. Additionally, staff met with Senator Allen and staff and are continuing to actively communicate with electeds and a wide spectrum of interested stakeholders to educate them and garner support for the bill.

Feedback was received from various stakeholders regarding the tax cap issue. It is important to make clear that any potential future funding measures under this bill would be exempt from the sales tax cap, and would preserve existing tax cap space for cities, counties, transportation agencies, and others.

Supervisor Rutherford requested more information regarding the tax cap issue. Mr. Crabbe responded that staff has received feedback from other cities, counties and public agencies seeking to use or protect existing tax cap space. The exemption will allow for even application of a future funding measure throughout the South Coast region. Ms. Barbara Baird, Chief Deputy Counsel, clarified that this bill would not change the existing tax cap in state law, but would leave existing tax cap space available for others. Supervisor Rutherford asked if staff was aware of other taxes that were similarly exempt. Mr. Crabbe responded in the affirmative and referred to a prior bill, SB 767 (De Leon, 2015) that put a sales tax measure on the ballot in L.A. County for Los Angeles Metro projects. That bill provided for a similar exemption from the sales tax cap.

Supervisor Rutherford asked why the more substantive bill language was not in the bill when it was introduced. Mr. Crabbe stated that it is very common for bills to be introduced in "spot" form without substance, while the actual language of the bill is being refined and finalized. Mr. Nastri further explained that a few legislators did not like the initial draft bill language and requested that staff incorporate a few changes. Staff has been reaching out to some stakeholders, such as councils of governments and cities, and the tax cap was a primary source of concern for many who were interested in moving their own sales tax measures in the future. Staff has worked to continuously modify the bill language in response to feedback staff received as part of the outreach process. Supervisor Rutherford asked if there are any existing co-authors to the bill, and Mr. Nastri responded in the negative.

Supervisor Perez stated that he believes it is important to have an educational campaign to inform interested parties about the tax cap exemption language included within the Voting District Authorization bill to counteract the false belief that this bill will impact their available tax cap space. Supervisor Perez also stated that staff needs to have the sample tax cap exemption language readily available to show to interested localities. Supervisor Perez asked whether SCAQMD staff has received any opposition or suggested amendments regarding the bill from stakeholders, and in particular has there been additional communication with the Riverside County Transportation Commission (RCTC) who previously expressed concerns and requested amendments. Mr. Crabbe stated that RCTC representatives attended a previous Legislative Committee meeting to express opposition to the bill and their requested amendments, and that staff has communicated with RCTC staff multiple times and will continue to do so on this issue.

Supervisor Perez asked about reaction in Sacramento to this bill. Mr. Nastri responded that staff has worked to be responsive to feedback and modify the bill language appropriately, especially with respect to the tax cap issue. There was a general positive response in Sacramento, with a message that more support needs to be generated at the local level.

Mayor Mitchell commented that she has primarily experienced opposition from cities because of the tax cap issue. However, if the South Coast does not meet the federal requirements by 2023, there is the possibility of losing federal transportation funding, and this point should be raised with transportation commissions. Mayor Mitchell also emphasized the need for proper outreach on the bill.

4. Update and Discussion on Potential Congressional Field Hearings

Ms. Lisa Tanaka O'Malley, Senior Public Affairs Manager, provided an update on the advocacy trip to Washington, D.C. on February 25-27, 2019. She reported that the Legislative Committee Chair Mayor Judith Mitchell and Board Members Mayor Pro Tem Larry McCallon and Council Member Dwight Robinson traveled to Washington, D.C. with Executive Council Members and staff to meet with Members of Congress, Committee Staff, the U.S. EPA and business and other stakeholders.

Ms. Tanaka O'Malley further reported that several Congressional Committees mentioned the possibility of holding field hearings in the future on topics of interest to SCAQMD including transportation and infrastructure, climate change and air quality. A field hearing could be an excellent opportunity to highlight the SCAQMD's efforts, accomplishments and future challenges in the South Coast Air Basin. It also would be an opportunity to further position SCAQMD in legislative discussions occurring now in Washington, D.C.

ACTION ITEMS:

*The items below include recommendations from the February and March Legislative Committee meetings. The February items were inadvertently not noticed for action at the March Board meeting.

5. Recommend Position on State Bills:

SB 210 (Leyva) Heavy-Duty Vehicle Inspections and Maintenance Program Mr. Crabbe presented SB 210 to the Committee. This bill would authorize CARB to adopt and implement "smog check" requirements for heavy-duty non-gasoline trucks by modernizing emissions control enforcement through a comprehensive inspection and maintenance program.

This bill would enhance compliance, and ensure a more even playing field for those maintaining their vehicle emission systems properly.

This bill is aligned with SCAQMD's priorities regarding reducing criteria pollutant and toxic emissions and protecting public health within the South Coast. It would promote increased production and use of near-zero and zero-emission heavy-duty vehicles and facilitate attainment of federal air quality standards.

Staff would like to work with the author to suggest a couple of adjustments to the bill:

• clarify that zero emission vehicles are exempt from the new smog check program created by the bill and not included under the bill's term of "non-gasoline heavy-duty on-road motor vehicles"; and

• penalty monies collected by CARB as part of the program be designated as funds meant to assist local air districts in mitigating heavy-duty truck emissions. Penalty monies would be distributed to air districts based on where the penalty originated.

Supervisor Perez asked if staff was aware of any opposition to this bill. Mr. Crabbe indicated that he was not, but is aware that the author is attempting to work in collaboration with multiple stakeholders, including the truckers, on this bill. Supervisor Perez expressed a concern about possibly taking a position too early on this bill and would like to see a cost benefit analysis. Mr. Nastri added that the California Air Pollution Control Officers Association is in support of this bill. Supervisor Perez inquired about opposition to this bill in 2018 and Mr. Nastri stated that staff would look into this issue.

Mayor Mitchell commented that when she receives CARB reports on truck emissions there are consistent problems with enforcement, and that while there are CARB smoke opacity rules regarding trucks, there are no current tailpipe emission rules. This bill would help with enforcing truck rules.

Staff recommended a position of SUPPORT on this item.

Moved by Perez; seconded by Buscaino; unanimously approved Ayes: Buscaino, Mitchell, Perez, Rutherford Noes: None Abstain: None Absent: Burke, Parker

6. AB 210 (Voepel) Smog Check: exemption

Mr. Crabbe presented AB 210 to the Committee. The bill would exempt from the smog check program all motor vehicles manufactured prior to the 1983 model-year. This would be a change from current law that exempts vehicles prior to model-year 1976.

In the South Coast Air Basin, motor vehicles are a large source of emissions, with almost 11 million cars in the region. Initial estimates identify nearly 40,000 vehicles within the South Coast region that would fall under the new smog check exemption proposed by this bill.

Older vehicles are some of the largest polluters as compared to newer cleaner lightduty vehicles on the road today. The estimated impact of this bill for the current year is a potential emissions increase equal to about two tons of VOCs per day and one ton of NOx per day within the South Coast. This bill is in contrast to SCAQMD's policy priorities related to reducing criteria pollutant and air toxic emissions within the South Coast from mobile sources, and would be contrary to SCAQMD's efforts to attain federal air quality standards and reduce GHG emissions through deployment of clean technology.

Supervisors Rutherford and Perez inquired about the intentions of the author. Mr. Crabbe responded that older vehicles may be more expensive and difficult to repair and pass smog check and this would likely be a benefit to various constituents, however a negative impact on air quality would result.

Dr. Matt Miyasato, Deputy Executive Officer of the Science & Technology Advancement Office, added that pre-1976 vehicles did not have the type of technology that worked well with smog check inspections.

Staff recommended a position of OPPOSE on this item.

Moved by Perez; seconded by Buscaino; unanimously approved Ayes: Buscaino, Mitchell, Perez, Rutherford Noes: None Abstain: None Absent: Burke, Parker

7. AB 285 (Friedman) California Transportation Plan

Ms. Denise Peralta Gailey, Public Affairs Managers, presented information on AB 285. This bill would require the Department of Transportation (CalTrans) to address in the California Transportation Plan (Plan) how the state will achieve maximum feasible emissions reductions in order to attain a statewide reduction of GHG emissions of 40% below 1990 levels by the end of 2030.

The bill would also require CalTrans to complete an interim report by January 2022 that considers additional subject areas including environmental justice in the movement of people and freight.

The addition of environmental justice to the subject areas of the Plan is consistent with the SCAQMD's environmental justice priorities and would help reduce toxic exposure to disadvantaged communities in the South Coast region.

Staff would like to work with the author so that the bill would require CalTrans to address how the state will achieve maximum feasible criteria pollutant emissions reductions to attain state and federal ambient air quality standards by the upcoming federal deadlines.

Supervisor Perez expressed concern about how the terms "environmental justice" and "disadvantaged communities" are defined and stressed how this can lead to an unfair allocation of cap and trade funds. Mayor Mitchell expressed that staff can work with the author on how these terms are defined with regards to this bill.

Staff recommended a position of Work with Author on this item.

Moved by Buscaino; seconded by Perez; unanimously approved Ayes: Buscaino, Mitchell, Perez, Rutherford Noes: None Abstain: None Absent: Burke, Parker

Mr. Eder provided public comment and expressed support for the promotion of electric class 8 trucks. The Plan should include these trucks and solar equity.

The following action items are from the February 8, 2019 Legislative Committee meeting.

8. Recommend Position on State Bills: SB 1 (Atkins) California Environmental, Public Health, and Workers Defense Act of 2019.

Mr. Crabbe presented SB 1 to the committee. This bill would require various agencies, including the California Air Resources Board (CARB), to regularly assess changes to federal standards regarding air quality, water, protected species, and workers' rights, to ensure that existing protections remain intact in California, even if federal laws are weakened or repealed.

If CARB determines that a change to federal law is less stringent than existing standards, it shall consider whether to adopt state protections that at least preserve baseline federal standards in effect as of January 2017.

SCAQMD would like to work with the author regarding a few issues identified in the bill analysis, including determining the appropriate interplay between CARB and local air districts regarding the adoption of regulations for stationary source emissions when backsliding in federal law is identified.

Staff recommended a position of SUPPORT on this item.

Moved by Buscaino; seconded by Burke; unanimously approved Ayes: Burke, Buscaino, Mitchell, Rutherford Noes: None Abstain: None Absent: Parker, Perez

9. AB 142 (C. Garcia) Lead-acid batteries

Ms. Denise Peralta Gailey, Public Affairs Manager, presented on AB 142 to the Committee. The bill would increase the consumer and manufacturer lead-acid battery fee from \$1 to \$2 and would provide that the fee continue indefinitely.

Monies generated by the fee would be deposited into the "Lead Acid Battery Cleanup Fund" and used for activities relating to the clean-up of contamination caused by lead-acid batteries throughout the state. Further, the funds generated by the fee would be required to be used for such contamination cleanup before any repayment of previous loans from the General Fund for toxic cleanup is made. Ms. Gailey informed the Committee that the bill is consistent with SCAQMD's environmental justice policy priorities and focus on protection of public health.

Staff recommended a position of SUPPORT on this item.

Moved by Buscaino; seconded by Mitchell; approved as recommended by the following vote: Ayes: Burke, Buscaino, Mitchell Noes: Rutherford Abstain: None Absent: Parker, Perez

WRITTEN REPORT:

10. Report from SCAQMD Home Rule Advisory Group

Please refer to Attachment 4 for the written report

OTHER MATTERS:

11. Other Business

Supervisor Rutherford discussed her trip to Washington D.C. and her meetings with the U.S. EPA regarding Corporate Average Fuel Economy (CAFE) standards.

Supervisor Perez inquired about an upcoming informational hearing in Sacramento regarding the implementation of AB 617. Mr. Nastri responded and provided details regarding the legislative hearing on March 18, 2019.

12. Public Comment Period

Mr. Eder provided public comment and expressed support for, and encouraged SCAQMD to promote, the Solar and Green New Deals.

13. Next Meeting Date

The next regular Legislative Committee meeting is scheduled for Friday, April 12, 2019 at 9:00 a.m.

Adjournment

The meeting adjourned at 9:58 a.m.

Attachments

- 1. Attendance Record
- 2. Update on Federal Legislative Issues Written Reports
- 3. Update on State Legislative Issues Written Reports
- 4. Recommend Position on State Bills
- 5. Report from the SCAQMD Home Rule Advisory Group

ATTACHMENT 1

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT LEGISLATIVE COMMITTEE MEETING ATTENDANCE RECORD – March 8, 2019

Council Member Joe Buscaino (videoconference) Mayor Judith Mitchell (videoconference) Supervisor V. Manuel Perez (videoconference) Supervisor Janice Rutherford (videoconference)	SCAQMD Board Member SCAQMD Board Member
Mark Abramowitz Guillermo Gonzalez Ron Ketcham	Board Consultant (Perez)
Gary Hoitsma (teleconference) Kaleb Froehlich (teleconference) Mark Kadesh (teleconference) Caity Maple (teleconference) Ross Buckley (teleconference) Paul Gonsalves (teleconference)	Cassidy & Associates Kadesh & Associates Quintana, Watts and Hartman California Advisors, LLC
Harvey Eder Bill LaMarr Rita Loof Erick Martell David Rothbart Susan Stark Tammy Yamasaki	California Small Business Alliance RadTech Port of Los Angeles Los Angeles County Sanitation Districts Marathon Petroleum
Derrick Alatorre Leeor Alpern Barbara Baird Philip Crabbe Amir Dejbakhsh Philip Fine Denise Peralta Gailey Stacy Garcia Bayron Gilchrist	SCAQMD Staff SCAQMD Staff SCAQMD Staff SCAQMD Staff SCAQMD Staff SCAQMD Staff SCAQMD Staff SCAQMD Staff
Kathryn Higgins Monika Kim Matt Miyasato Nahal Mogharabi Ron Moskowitz Wayne Nastri Robert Paud Sarah Rees	SCAQMD Staff SCAQMD Staff SCAQMD Staff SCAQMD Staff SCAQMD Staff SCAQMD Staff SCAQMD Staff SCAQMD Staff SCAQMD Staff
Mary Reichert Jeanette Short Lisa Tanaka O'Malley Todd Warden Kim White. Jill Whynot. William Wong. Paul Wright	SCAQMD Staff SCAQMD Staff SCAQMD Staff SCAQMD Staff SCAQMD Staff SCAQMD Staff SCAQMD Staff



ATTACHMENT 2

MEMORANDUM

То:	South Coast AQMD Legislative Committee
From:	Carmen Group
Date:	February 21, 2019
Re:	Federal Update Executive Branch

Federal Officials End Talks with California on Fuel Economy Rulemaking: On February 21, the White House released the following statement: "Today, officials from the White House, Department of Transportation and Environmental Protection Agency announced that the Trump Administration has decided to discontinue discussions with the California Air Resources Board (CARB) regarding the proposed Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule. Despite the Administration's best efforts to reach a common-sense solution, it is time to acknowledge that CARB has failed to put forward a productive alternative since the SAFE Vehicles rule was proposed. Accordingly, the Administration is moving to finalize a rule later this year with the goal of promoting safer, cleaner, and more affordable vehicles." CARB Chair Mary Nichols responded, saying it is "unfortunate that the Trump Administration has chosen to put an end to any effort to find common ground – but it is a signal to stand our ground and resolutely defend standards that clean the air we breathe, fight climate change and provide certainty to carmakers in a global market moving inexorably toward cleaner, more efficient cars." The Administration's proposed SAFE rule would undo the standards as finalized by the Obama Administration which will set a 54-mpg standard for cars and light trucks by 2026 and in the process revoke California's waiver under the Clean Air Act to set standards more stringent than those set at the federal level. By moving now to finish its own rule -likely by early April -- the Trump Administration appears to be paving a path toward certain litigation, as California and other states have pledged to file suit if and when the rule is finalized.

Infrastructure Tea Leaves Signal More Uncertainty: In his State of the Union Address on February 5, President Trump had this to say about infrastructure: "Both parties should be able to unite for a great rebuilding of America's crumbling infrastructure. I know that Congress is eager to pass an infrastructure bill – and I am eager to work with you on legislation to deliver new and important infrastructure investment, including investments in the cutting-edge industries of the future. This is not an option. This is a necessity." Beyond that, the President offered no specific plan, no legislative proposal and no guidance on the funding question. As a result, the path to success in the current legislative session remains murky at best. Clearly, the President has abandoned his specific infrastructure proposal of a year ago, which was dead on arrival in Congress as it sought to put heavy burdens on states and local governments to come up with the bulk of the proposed \$1.5 trillion in funding over ten years. Now the

Proven Process. Proven Results."

President appears to be directly deferring to Congress to take the lead, something that a divided Congress would not – at first glance -- appear to be prepared to do in the current presidential election cycle. Yet it is still too early to say for sure, as multiple House and Senate hearings on the topic are just beginning.

FHWA Awards Grants to Test New Transportation Funding Options: On February 12, the Federal Highway Administration (FHWA) announced \$10.2 million in Surface Transportation System Funding Alternatives (STSFA) grants to seven states to test new ways to finance highway and bridge projects. The program's goal is to allow states to test user-based alternatives to support the Highway Trust Fund, which is currently teetering on insolvency with its reliance on the static 18.4 cents per gallon federal gas tax. Among the states receiving grants is California. It was awarded \$2,030,000 for "exploration of California's Road Usage Charge (RUC) Program with emerging technologies and services, such as User-Based Insurance (UBI), Transportation Network Companies (TNCs), and Autonomous Vehicles (AVs)."

FRA Issues Notice of Intent to Cancel Federal HSR Funding for California: On February 19, the Federal Railroad Administration (FRA) officially gave notice that the Trump Administration was preparing to rescind federal approval of \$928,620,000 which had previously been obligated for the high-speed rail project designed to connect Los Angeles and San Francisco. In a letter to the California High-Speed Rail Authority, the agency said it intends to terminate the agreement under which federal funds were approved, citing the California governor's recent announcement that the project was being scaled back to a point the FRA says "represents a significant retreat from the State's initial commitment and frustrates the purpose for which Federal funding was awarded (i.e., an initial investment in the larger high-speed rail system." The letter asks for information to justify why such a cancellation of federal funds might not be warranted under the present circumstances. The letter said the funding cancellation would otherwise take effect on March 5, 2019.

Trump Justice Department Nominee Backs Administration's Emissions Regs:

President Trump's nominee to replace Rod Rosenstein as Deputy Attorney General is Jeffrey Rosen, who currently serves as Deputy Secretary of Transportation. At DOT, Rosen has been a significant player in implementing the Trump Administration's deregulatory agenda in the transportation sphere. Over the last two years, for example, he has worked closely with the Environmental Protection Agency and the National Highway Traffic Safety Administration (NHTSA) to develop the proposed Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule on CAFÉ standards, which is expected to be finalized soon and then headed for major litigation. If confirmed to his new role at the Department of Justice, he will be working with the EPA on important environmental compliance matters. Rosen previously worked as general counsel at DOT under Secretary Norman Mineta from 2003 to 2006, before serving as a senior advisor at the Office of Management & Budget from 2006 to 2009.

<u>Committee Approves Nominees</u>: On Feb. 5, the Senate Environment & Public Works Committee approved Andrew Wheeler to be EPA Administrator on a party line vote of 11-10 and also approved Nicole Nason to be Federal Highway Administrator on a unanimous voice vote. Nason previously served as head of NHTSA from 2006 to 2008. 733 Tenth Street, N.W., Suite 400 Washington, DC 20001-4886

> (202) 347-0773 www.cassidy.com

To: South Coast Air Quality Management District

From: Cassidy & Associates

Date: February 21, 2019

Re: Federal Update

Issues of Interest to SCAQMD

Andrew Wheeler Nomination Update

The US Senate has advanced the nomination of Andrew Wheeler to be administration of the EPA by a 52-46 vote and the final confirmation will take place and likely pass on Thursday, February 28. All Republican Senators voted to advance the nomination without support from any Democratic Senators.

Mr. Wheeler became Deputy EPA administration in April 2018 after Senate confirmation and transitioned to Acting Administrator in July 2018 following the resignation of Scott Pruitt.

House Science Committee Update

The House Science Committee's Subcommittee on Environment held a hearing on, "The Impacts of Climate Change on our Oceans and Coasts" on February 27, primarily to discuss impacts and adaptation strategies.

The Committee also held a hearing on, "The State of Climate Science and Why It Matters" at the Full Committee on February 13. Notably the new senior most Republican on the Committee, Representative Frank Lucas (R-OK), expressed his sincere concern about the impacts of a changing climate and his interest in pursuing climate solutions.

Legislation: On January 24, Reps. Rooney (R-FL), Deutch (D-FL) and a handful of other Members (all Democrats) reintroduced a bill to apply a \$15/ton carbon tax, increasing by \$10 year, as H.R. 763.

House Energy and Commerce Committee Update

House Energy and Commerce Committee held a hearing on the effects of climate change on February 19th. In advance of the hearing, the Ranking Member of the Committee, Representative Greg Walden (R-OR), acknowledged that climate change was a reality and needed to be addressed on a bipartisan basis. During the committee hearing, there was bipartisan support for market-based solutions such as carbon pricing. Again, the deployment of electric vehicles and infrastructure was pointed to as a key part of the addressing the climate crisis.

House Transportation and Infrastructure Committee Update

The Full Committee held two hearings in February on infrastructure --

- February 7th To discuss the cost of inaction for not providing adequate funding towards our nation's crumbling infrastructure. Chairman DeFazio (D-OR) proposed three bills that he believes will provide real investment as a starting point in the discussion:
 - "A Penny for Progress" provides approximately \$500 billion for infrastructure investment to put our Nation's highways, bridges, and public transit systems on a path to good repair. This bill would index the gas and diesel tax and bond off the indexation revenues.
 - "Unlocking the Harbor Maintenance Trust Fund" by amending current budgetary controls to allow the Army Corps of Engineers to spend the funds collected in the Trust Fund each year, thereby providing more than \$18 billion for our Nation's coastal and inland harbors over the next decade without raising taxes or increasing the deficit.
 - "Rebuilding America's Airport Infrastructure" will generate billions of dollars each year to help our airports rebuild and rehabilitate aging terminals, runways, and taxiways and keep pace with increasing demand in the 21st century without raising taxes by eliminating or raising the cap on the passenger facility charge (PFC).
- February 26th To examine how federal infrastructure policy could help mitigate and adapt to climate change. This was a discussion hearing with no specific legislation being proposed.

Senate Environment and Public Works Committee Update

Chairman Barrasso (R-WY) and Senator Whitehouse (D-RI) reintroduced S. 383, the Utilizing Significant Emissions with Innovative Technologies (USE IT) Act. The legislation is cosponsored by Sens. Shelley Moore Capito (R-WV), EPW Committee Ranking Member Tom Carper (D-DE), Tammy Duckworth (D-IL), Kevin Cramer (R-ND), Tina Smith (D-MN), Joe Manchin (D-WV), and Mike Enzi (R-WY).

The USE IT Act would support carbon utilization and direct air capture research. The bill would also support federal, state, and non-governmental collaboration in the construction and development of carbon capture, utilization, and sequestration (CCUS) facilities and carbon dioxide (CO2) pipelines.

The USE IT Act would:

- Narrowly amend the Clean Air Act to direct the Environmental Protection Agency (EPA) to use its existing authority to support carbon utilization and direct air capture research;
- Clarify that CCUS projects and CO2 pipelines are eligible for the permitting review process established by the FAST Act;
- Direct the Council on Environmental Quality (CEQ) to establish guidance to assist project developers and operators of CCUS facilities and CO2 pipelines;

- Establish task forces to hear input from affected stakeholders for updating and improving guidance over time; and,
- Build on the FUTURE Act, bipartisan legislation now signed into law introduced by Barrasso, Whitehouse, and Capito to extend and expand the 45Q tax credit to provide certainty to utilities and other industrial sources and incentivize the build-out of CCUS projects.

Administration Rumors

The Administration is planning to introduce an infrastructure package aimed at reducing Federal regulations and providing more Federal funding. The last infrastructure "plan" introduced by the Administration was not acted upon last year by Congress, as it neither provided funding nor legislative language. Congress is hopeful something of substance will be provided rather than words on paper or talking points.

Senate Democrats Introduce Climate Resolution

All 47 members of the Senate Democratic caucus have introduced a resolution urging Congress to act immediately on climate change. The resolution does not include firm targets for emissions reductions, but it offers a unifying point for Democrats who have been divided over the Green New Deal resolution introduced earlier in February. The new resolution is led by Minority Leader Chuck Schumer (D-NY) and EPW Ranking Democrat Tom Carper (D-Del) and is the latest pressure from Democrats on Republicans to acknowledge the scientific consensus behind climate change and outline concrete plans for addressing it.

SCAQMD Report for March 2019 Legislative Meeting Kadesh & Associates

Overview-

February was consumed with the full funding of the federal government, the 2019 State of the Union address and the trip to Washington by members of the SCAQMD Board and senior staff.

Government Shutdown-

Congress passed and the President signed into law the remaining seven of the annual appropriations bills: *Ag, Commerce-Justice, Financial Services, Foreign Operations, Homeland Security, Interior, and Transportation-HUD*. The contentious issue was funding for the President's proposed border wall and a compromise was reached.

State of the Union-

The 2019 State of the Union Address was given by the 45th President of the United States, Donald Trump, on Tuesday, February 5, 2019, at 9 p.m. EST in the chamber of the United States House of Representatives to the 116th United States Congress.

Washington, DC Advocacy Trip-

Three days of successful meetings both on and off Capitol Hill were carried out by three members of the SCAQMD Board, the Executive Officer and leadership staff.

FY19 Funding-

Three accounts of most interest to SCAQMD --- *DERA, Targeted Airshed Grants and Sec. 103/105 planning grants* received their final FY19 Funding numbers of: DERA - \$87m; TAG - \$52m; and Section 103/105 - \$228.2

	FY 2016 Enacted	Final FY17 Omni	FY18 (Omnibus)	FY19 Final
DERA	\$50m	\$60m	\$75m	\$87m
Targeted Airshed	\$20m	\$30m	\$40m	\$52m
Section 103/105 –	\$228m	\$228m	\$228m	\$228.2

FY20 Budget-

The Trump Administration is expected to release its Fiscal Year 2020 Budget for the Federal government on March 12, a six-week delay from the planned original release date.

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ATTACHMENT 3

OW QUINTANA, WATTS, SH & HARTMANN

February 20, 2019

TO: South Coast Air Quality Management District

FROM: Quintana, Watts & Hartmann

RE: February 2019 Report

GENERAL UPDATE:

- Friday, February 21st is the bill introduction deadline
- 1,847 bills introduced to date (not including resolutions and rules)
 - o 1,294 Assembly Bills
 - 10 Assembly Constitutional Amendments
 - o 540 Senate Bills
 - o 3 Senate Constitutional Amendments
- Hundreds more are expected to be introduced before the deadline
- Legislation of Interest:
 - AB 40 (Ting) Zero-emission vehicles: comprehensive strategy
 - o AB 126 (Cooper) Air Quality Improvement Program
 - AB 176 (Cervantes) California Alternative Energy and Advanced Transportation Financing Authority
 - SB 1 (Atkins) California Environmental, Public Health, and Workers Defense Act of 2019
 - o AB 293 (E. Garcia) Greenhouse gases: offset protocols.
 - AB 296 (Cooley) Climate change: Climate Innovation Commission.
 - AB 315 (C. Garcia) Stationary sources: emissions reporting.
 - AB 343 (Patterson) Forestry: fuels transportation program: biomass energy facility: grant program.
 - o AB 345 (Muratsuchi) State Air Resources Board.
 - AB 352 (E. Garcia) California Global Warming Solutions Act of 2006: Greenhouse Gas Reduction Fund: investment plan: Transformative Climate Communities Program.
 - AB 383 (Mayes) Clean Energy Financing Clearinghouse.

- AB 464 (C. Garcia) California Global Warming Solutions Act of 2006.
- o AB 639 (Cervantes) Financing Lower Carbon Emissions: seaports.
- AB 661 (McCarty) Best available control technology: lowest achievable emission rate requirements.
- AB 735 (Melendez) Air Quality Improvement Program: Clean Vehicle Rebate Project.
- AB 753 (E. Garcia) Alternative and Renewable Fuel and Vehicle Technology Program: fuels: fueling infrastructure.
- o AB 939 (Frazier) California Environmental Protection Agency: regulations.
- SB 162 (Galgiani) California Alternative Energy and Advanced Transportation Financing Authority: sales and use taxes: exclusions
- SB 216 (Galgiani) Carl Moyer Memorial Air Quality Standards Attainment Program: used heavy-duty truck exchange.
- SB 236 (Wilk) Greenhouse Gas Reduction Fund.



CALIFORNIA ADVISORS, LLC

SCAQMD Report California Advisors, LLC March 8, 2019 Legislative Committee Hearing

General Update

On February 12th, Governor Gavin Newsom delivered his first State of the State address to a joint session of the Legislature. In contrast to former governors Jerry Brown and Arnold Schwarzenegger whose addresses averaged just over 20 minutes, Newsom spoke for nearly 45 minutes. More so, his statements on high-speed rail and the Delta water project also marked a clear departure from the Brown era. During his speech, Newsom also offered comments about federal immigration policies, the state's housing crisis, health care, and privacy. Overall, his message was well received by policymakers, and at times, his pronouncements garnered applause from both Democrats and Republicans.

One of the issues that garnered the most headlines was the High-Speed Rail. Newsom said he had to "be real" about the project. He added right now "there simply isn't a path to get from Sacramento to San Diego, let alone from San Francisco to LA." Instead, his plan is to focus on completing a high-speed rail link between Merced and Bakersfield. Newsom stated that the central valley faces the worst air pollution in America and some of the longest commutes.

Lastly, we have received notification from the Assembly Natural Resources committee that they are planning on holding an informational hearing on March 18th or 25th to get an update from the Air Resources Board and districts on implementation of the AB 617 programs.

New appointments

<u>Nathan Fletcher (D-San Diego)</u>: Was appointed to the California Air Resources Board. Mr. Fletcher has been a member of the San Diego County Board of Supervisors and the San Diego County Air Pollution Control District since 2019.

2019 Legislative Update

Voter District Authorization for Clean Air Legislation

California Advisors continues to work on SCAQMD's priority legislation in 2019 related to voter district authorization. We have been able to secure Senator Ben Allen as the author for the bill and will work with the Senator on the next steps in the legislative process. We will continue to assist SCAQMD staff in reaching out to key staff in the Governor's office, Assembly and

Senate leadership, and legislators to start having productive conversations on moving this legislation forward in 2019.

<u>AB 40 (Ting)</u> would require by January 1, 2021 the Air Resources Board to develop a comprehensive strategy to ensure that the sale of new motor vehicles and new light-duty trucks in the state have transitioned fully to zero-emission vehicles by 2040.

<u>AB 142 (Garcia, C)</u> would increase the amount of the manufacturer battery fee from \$1 to \$2 and would provide that the fee would continue indefinitely.

<u>AB 210 (Voepel)</u> would exempt from the smog check program all motor vehicles manufactured prior to the 1983.

<u>AB 254 (Quirk-Silva)</u> would authorize the Joint Legislative Committee on Climate Change Policies to recommend that the Air Resources Board provide education and support to local government regarding their local government climate action plans, such as ensuring the use of E85 in flexible fuel vehicles, expanding infrastructure for zero-emission vehicles, and enabling active transportation. The bill would also require the Air Resources Board to develop a simple, factual summary on the distribution of E85 and flexible fuel vehicle registration by April 1, 2020 and would require them to post that summary on their website. The bill also requires the state board to develop policy recommendations to maximize the use of E85 in flexible fuel vehicles.

<u>AB 293 (Garcia, E)</u> would require the Compliance Offsets Protocol Task Force to consider the development and adoption of additional offset protocols, including, but not limited to, protocols for the enhanced management or conservation of agricultural and natural lands, and for the enhancement and restoration of wetlands.

<u>AB 296 (Cooley)</u> would establish the Climate Innovation Grant Program which would award grants in the form of matching funds for the development and research of new innovations and technologies to address issues related to emissions of greenhouse gases and impacts caused by climate change.

<u>AB 315 (Garcia, C)</u> would require the State Air Resources Board, as appropriate, to require a stationary source to verify or certify the accuracy of its annual emissions reports by a 3rd-party verifier or certifier that is accredited by the state board.

<u>AB 352 (Garcia, E)</u> would require state agencies administering competitive grant programs that allocate moneys from the Greenhouse Gas Reduction Fund to give specified communities preferential points during application scoring for programs intended to improve air quality, to allow applicants from Counties of Imperial and San Diego to include daytime population numbers in their grant applications.

<u>AB 409 (Limon)</u> would establish a competitive grant program to include planning tools for adapting to climate change in the agricultural section for three pilot programs in the state.

<u>AB 423 (Gloria)</u> would require the San Diego County Air Pollution Control District to expand their membership to include members from various city councils and the public.

<u>AB 464 (Garcia, C)</u> would indefinitely define district to mean an air pollution control or air quality management district under The California Global Warming Solutions Act of 2006.

<u>AB 470 (Limon)</u> would establish the California Green Business Program within the California Environmental Protection Agency. The bill would require sector specific environmental standards for programs operated by local governments. The bill would also certify small and medium sized businesses and public agencies for voluntarily adopting environmentally preferable business practices.

<u>AB 639 (Cervantes)</u> would authorize the Infrastructure and Economic Development Bank to develop criteria and guidelines for harbor agencies to purchase and install equipment that would reduce carbon emissions at seaports.

<u>AB 735 (Melendez)</u> would require the Air Resources Board to require a manufacturer of a vehicle eligible under the Clean Vehicle Rebate Projects to certify in writing that the vehicle's supply chain is free of materials acquired using child labor.

<u>AB 745 (Petrie-Norris)</u> would exempt from sales and use taxes the gross receipts for the storage, use, or other consumption of retail hydrogen vehicle fuel.

<u>AB 753 (Garcia, E)</u> would require the state board to allocate at least 30% of the moneys available for allocation as part of the Alternative and Renewable Fuel and Vehicle Technology Program for projects to produce alternative and renewable low-carbon fuels in the state and to projects to develop stand-alone alternative and renewable fuel infrastructure, fueling stations, and equipment.

<u>AB 836 (Wicks)</u> would establish the Bay Area Clean Air Incentive Program to be administered by the Bay Area Air Quality Management District to provide funding through a grant program to retrofit ventilation systems to create a network of clean air centers.

<u>SB 1 (Atkins)</u> would require specified agencies to take prescribed actions regarding certain federal requirements and standards pertaining to air, water, and protected species

<u>SB 43 (Allen)</u> would require the Air Resources Board to submit a report to the Legislature on the results of a study, to propose, and to determine the feasibility and practicality of a system to replace the tax imposed pursuant to the Sales and Use Tax Law with an assessment on retail products sold or used in the state based on the carbon intensity of the product. The bill would

require the state board to revise their 2017 scoping plan to reflect the carbon emission reduction benefits that may be realized through this assessment based on carbon intensities of products.

<u>SB 210 (Leyva)</u> would authorize the state board to develop and implement a Heavy-Duty Vehicle Inspection and Maintenance Program for nongasoline heavy-duty onroad motor vehicles.

<u>SB 216 (Galgiani)</u> would add as an eligible project under the Carl Moyer Memorial Air Quality Standards Attainment Program a used heavy-duty truck exchange.



TO:	South Coast Air Quality Management District
FROM:	Anthony, Jason & Paul Gonsalves
SUBJECT:	Legislative Update – February 2019
DATE:	Tuesday, February 26, 2019

As we start our second month of the legislative session, the legislature has hit the ground running. The Assembly introduced 1876 bills and the Senate introduce 824 bills by the February 22, 2019 introduction deadline. A majority of these bills are intent bills (spot bills) that have little to no legislative changes. All bills must be in print for 30-days before they can be heard in a Legislative Committee. Many of the intent bills will be substantially amended between now and the 30-day mark.

We will continue to monitor all bills and amendments of interest to the District and keep you apprised as they progress.

GOVERNOR STATE OF THE STATE

On February 12, 2019, Governor Gavin Newsom gave his first State of the State speech, with his 3-year old son stealing the spotlight!

Governor Newsom began the 43-minute speech pushing back against the Presidents emergency at our border and pledging to stand up for those who are "maligned, marginalized and scapegoated."

But after just a few minutes talking about the White House, Governor Newsom focused on how he proposes to address the challenges facing California, such as housing and homelessness, the lack of clean drinking water, education funding, health care costs and the state's changing workforce.

The Governor announced that his administration will change course on 2 of the State's most controversial and expensive public works projects; one, not two, water tunnels under the Delta and scaling back the high-speed rail line.

Governor Newsom made clear in the speech that he will not abandon high-speed rail altogether, but wants his administration to focus on completing the Central Valley portion of the line for now. He promised to continue to push for more federal funding and federal dollars and appointed his economic development director, Lenny Mendonca, as the next chair of the California High-Speed Rail Authority.

It's not entirely clear what the Delta tunnel decision means for the future of the water project. The \$19 billion project has already undergone a decade-long permitting process that might have to start from square one if it's changed that dramatically.

The Governor also mentioned other issues, such as finding a solution to water contamination, dealing with PG&E's bankruptcy within 60 days, more education spending and accountability in schools, create a new commission on homelessness, chaired by Sacramento Mayor Darrell Steinberg, and put \$500 million into emergency shelters around the state.

Governor Newsom called for exemptions to the state's CEQA laws to help spur more housing development, and also urged the Legislature to pass laws that will help renters stay in their homes.

Additionally, Governor Newsom announced several appointments to key boards, including the appointment of Joaquin Esquivel as chair of the State Water Resources Control Board, ousting longtime chair Felicia Marcus.

ALISO CANYON

On February 19, 2019, the California Air Resources Board (CARB) announced that the Los Angeles Superior Court approved the settlement in the lawsuit against SoCalGas as a result of the Aliso Canyon natural gas leak.

SoCalGas will pay a total of \$119.5 million, including at least \$26.5 million for full mitigation by directly addressing the largest source of California's methane emissions: dairies. The mitigation will be achieved by providing loans to construct methane digesters at 12 San Joaquin Valley dairies, grouped into three clusters, and constructing conditioning facilities and pipelines to allow the natural gas pipeline system to receive biomethane generated by cattle in the valley's dairies. The digesters, the conditioning facilities, and parts of the pipeline will be built, owned, and operated by California Bioenergy.

The loan will be paid back over time by proceeds from sales of the generation of the renewable methane which will not return to SoCalGas. As mitigation progresses, repayments will be directed to two funds that will fund additional beneficial projects in the South Coast Air Basin.

The remaining \$93 million of the total settlement will be directed as follows:

- \$45.4 million to the Aliso Canyon Supplemental Environmental Project Fund run by the City of Los Angeles (City), Los Angeles County (County) and the California Attorney General's Office.
- \$21 million in penalties for the City, the County, and the Attorney General's Office.

- \$19 million for CARB, the City, the County, and the Attorney General's Office to cover their leak response and litigation costs.
- \$7.6 million held in reserve for mitigation, if needed.

The mitigation portion of the settlement will provide for new investment in the San Joaquin Valley and its disadvantaged communities, as well as the jobs and business opportunities that come with this type of investment. By putting the methane into a pipeline instead of burning it on-site for electrification, as is now done with some dairy methane, the settlement will also avoid localized NO_x emissions generated by using the biomethane for electrical generation.

This settlement will fully mitigate the 109,000 metric tons of methane released into the atmosphere over the approximately 5-month duration of that leak. Full mitigation will be complete by 2031.

2019 LEGISLATIVE CALENDAR

- Feb. 22 Last day for bills to be introduced
- Apr. 11 Spring Recess begins upon adjournment
- Apr. 22 Legislature reconvenes from Spring Recess
- Apr. 26 Last day for policy committees to meet and report to fiscal committees fiscal bills introduced in their house
- May 3 Last day for policy committees to meet and report to the floor non-fiscal bills introduced in their house
- May 10 Last day for policy committees to meet prior to June 3
- May 17 Last day for fiscal committees to meet and report to the floor bills introduced in their house. Last day for fiscal committees to meet prior to June 3
- May 28-31 Floor session only. No committee may meet for any purpose except Rules Committee, bills referred pursuant to A.R. 77.2, and Conference Committees
- May 31 Last day for each house to pass bills introduced in that house
- June 3 Committee meetings may resume
- June 15 Budget Bill must be passed by midnight
- July 10 Last day for policy committees to hear and report fiscal bills to fiscal committees
- July 12 Last day for policy committees to meet and report bills. Summer Recess begins upon adjournment
- Aug. 12 Legislature reconvenes from Summer Recess
- Aug. 30 Last day for fiscal committees to meet and report bills
- Sept. 3-13 Floor session only. No committees may meet for any purpose, except Rules Committee, bills referred pursuant to A.R. 77.2, and Conference Committees
- Sept. 6 Last day to amend bills on the floor
- Sept. 13 Last day for any bill to be passed. Interim Recess begins upon adjournment

ATTACHMENT 4

South Coast Air Quality Management District Legislative Analysis Summary – SB 210 (Leyva) Version: As Introduced – 2/4/2019 Analyst: PC

SB 210 (Leyva) Heavy-Duty Vehicle Inspections and Maintenance Program.

Summary: The bill would authorize the California Air Resources Board (CARB) to adopt and implement "smog check" requirements for heavy-duty non-gasoline trucks by modernizing emissions control enforcement through a comprehensive inspection and maintenance program.

Background: Heavy-duty trucks operating in California account for nearly 60 percent of the oxides of nitrogen (NOx) emissions from mobile sources. Heavy-duty trucks are also the largest source of diesel particulate matter in California, a carcinogenic and toxic air contaminant.

CARB currently administers two inspection programs for heavy-duty diesel trucks. However, these programs were originally designed in the early 1990s before the use of advanced engine combustion technologies and exhaust emission controls. Current CARB heavy-duty inspection programs only require control of excessive smoke emissions and lack measures to curb NOx and greenhouse gases (GHGs).

Recent state legislative and regulatory actions have stimulated the operation of newer model year trucks with modernized engine and emission control standards. The author contends that to continue reducing harmful emissions and adapting programs to industry standards, a more comprehensive and streamlined emissions control program is needed that is both efficient for truck operators and ensures an even playing field for those maintaining their vehicle emissions systems properly.

Status: 2/15/2019 - Set for hearing March 20 in Sen. Comm. on EQ.

Specific Provisions: Specifically, this bill would:

- Authorize CARB, in consultation with Bureau of Automotive Repair (BAR) and the Department of Motor Vehicles (DMV), to adopt and implement a Heavy-Duty Vehicle Inspection and Maintenance Program (Program) for nongasoline heavy-duty onroad motor vehicles with a gross vehicle weight rating of more than 14,000 pounds, including, but not limited to, single-vehicle fleets and other vehicles that are registered in another state and operate on California roads.
- 2) Allow CARB, in implementing the Program, to:
 - a) Establish test procedures for different motor vehicle model years and emissions control technologies that measure the effectiveness of the control of NOx emissions, and PM. The procedures may include, but are not limited to, the use of onboard diagnostics systems and test procedures that measure the effectiveness of the control of GHG emissions.

- b) Require a motor vehicle to pass the test procedures in order to register or operate in the state. CARB may establish full or partial exemptions for categories of vehicles it determines that the economic costs of compliance substantially outweigh the benefits of compliance, including public health benefits.
- c) Allow a streamlined process for the owner or operator of a vehicle fleet who has an established compliance history.
- d) Establish program validation methods for evaluating program effectiveness, fraud investigation, and research purposes.
- e) Develop an information technology database to collect and track vehicle test data, assess the data to determine compliance, and regularly generate lists of compliant vehicle identification numbers and transmit them to the DMV in order for annual vehicle registration notices to be issued.
- 3) CARB shall assess a fee to fund the reasonable costs of implementing the Program.
- 4) All fees collected by CARB shall be deposited in the Truck Emission Check (TEC) Fund, which is hereby created in the State Treasury. All moneys in the fund shall be available upon appropriation by the Legislature to CARB for the regulator purposes of the program.
- 5) All penalty moneys collected by CARB shall be deposited in the Air Pollution Control Fund (APCF).
- 6) Prior to implementing the program, CARB, in consultation with the bureau, the Department of Transportation, the Department of Motor Vehicles, the Department of the California Highway Patrol, other interested state agencies, and stakeholders as part of a public process, shall implement a pilot program that develops and demonstrates technologies that show potential for readily bringing vehicles into the program. The state board shall report the findings of the pilot program on its internet website.
- 7) No later than one year after the effective date of a regulation, the DMV shall confirm, prior to the initial registration, the transfer of ownership, or the renewal of registration, that a heavy-duty vehicle is compliant with, or exempt from, the Program.
- 8) This bill, commencing one year after a regulation implementing the Program, would require an owner of the heavy-duty vehicle to maintain a certificate of compliance with the vehicle and would make a violation of this provision subject to a notice issued by an officer to correct the violation.
- 9) Provide that the Program be developed in partnership between affected state agencies, the public, industry, and other stakeholders to address the inspection of, tampering with, and maintenance of emissions control systems.

Impacts on SCAQMD's Mission, Operations or Initiatives: Personal passenger vehicles have been required to undergo regular smog checks and emission control inspections for over four decades that have significantly reduced air pollution in California. Unlike personal vehicles, current law does not require heavy-duty diesel vehicles to have regular smog inspections to ensure that their emission control systems are working properly throughout their operating life.

South Coast Air Quality Management District Legislative Analysis Summary – SB 210 (Leyva) Version: As Introduced – 2/4/2019 Analyst: PC

With the implementation of SB 210, significant reductions of harmful emissions will be achieved. According to CARB estimates, between the years 2023 and 2031, a Heavy-Duty Inspection and Maintenance program will remove 93,000 tons of NOx and 1,600 tons of PM 2.5, equivalent to taking 145,000 and 375,000 trucks off the roads in California, respectively.

This bill is aligned with SCAQMD's priorities regarding reducing criteria pollutant and toxic emissions and protecting public health within the South Coast region, especially by reducing mobile sources of pollution. This bill would result in cleaner air by promoting the increased production and use of near-zero and zero-emission heavy-duty vehicles within the South Coast region, which would support the 2016 AQMP and facilitate attainment of federal air quality standards.

Staff Suggestions:

- To better establish which vehicles are regulated under the bill's terminology of "nongasoline heavy-duty onroad motor vehicles", staff recommends an amendment clarifying that zero emission vehicles are exempt from the new smog check program created by the bill; and
- 2) Staff recommends that penalty monies collected by CARB as part of the Program and deposited into the Air Pollution Control Fund be designated as funds meant to assist local air districts in mitigating heavy-duty truck emissions.

Recommended Position: SUPPORT

Introduced by Senator Leyva

February 4, 2019

An act to add Chapter 5.5 (commencing with Section 44150) to Part 5 of Division 26 of the Health and Safety Code, and to amend Section 27153 of, and to add Sections 4000.17, 4156.5, 24019, 27158.1, and 27158.2 to, the Vehicle Code, relating to vehicular air pollution.

LEGISLATIVE COUNSEL'S DIGEST

SB 210, as introduced, Leyva. Heavy-Duty Vehicle Inspections and Maintenance Program.

(1) Existing law requires the State Air Resources Board, in consultation with the Bureau of Automotive Repair and a specified review committee, to adopt regulations requiring owners or operators of heavy-duty diesel motor vehicles to perform regular inspections of their vehicles for excessive emissions of smoke. Existing law requires the state board, in consultation with the State Energy Resources Conservation and Development Commission, to adopt regulations requiring heavy-duty diesel motor vehicles to use emission control equipment and alternative fuels.

This bill would authorize the state board to develop and implement a Heavy-Duty Vehicle Inspection and Maintenance Program for nongasoline heavy-duty onroad motor vehicles, as specified. The bill would authorize the state board to assess a fee and penalties as part of the program. The bill would create the Truck Emission Check (TEC) Fund, with all the moneys deposited in the fund to be available upon appropriation.

(2) Existing law generally requires the registration of vehicles by the Department of Motor Vehicles. Under existing law, a violation of the Vehicle Code is an infraction, unless otherwise specified.

This bill, no later than one year after the effective date of a regulation implementing the Heavy-Duty Vehicle Inspection and Maintenance Program, would require the department to confirm that a heavy-duty vehicle, as specified, is compliant with, or exempt from, the program prior to the initial registration, the transfer of ownership, or the renewal of registration, except as specified. The bill would require the state board to notify the department of the vehicles allowed to be registered pursuant to these provisions.

This bill would authorize the department to issue a temporary permit, valid for a specified period and subject to certain conditions, to operate a vehicle for which registration may be refused pursuant to the above-described provisions, as specified. The bill would require the payment of a \$50 fee for the temporary permit, to be deposited in the Truck Emission Check (TEC) Fund.

This bill, commencing one year after the effective date of a regulation implementing the Heavy-Duty Vehicle Inspection and Maintenance Program, would require a legal owner or registered owner of the heavy-duty vehicle to maintain a certificate of compliance with the vehicle, with exceptions, and would make a violation of this provision subject to a notice issued by an officer to correct the violation, as specified. The bill would require the driver of the vehicle to present the certificate of compliance for examination upon demand by a peace officer.

This bill would prohibit the operation of a heavy-duty vehicle on a public road in this state if that vehicle has an illuminated malfunction indicator light displaying a specified engine symbol, and would make a violation of this provision subject to a notice issued by an officer to correct the violation on the basis of its designation as a mechanical violation.

This bill would prohibit the operation of a heavy-duty vehicle in a manner resulting in the escape of visible smoke, except during active regeneration.

By creating new crimes, this bill would impose a state-mandated local program.

The California Constitution requires the state to reimburse local agencies and school districts for certain costs mandated by the state. Statutory provisions establish procedures for making that reimbursement.

This bill would provide that no reimbursement is required by this act for a specified reason.

Vote: majority. Appropriation: no. Fiscal committee: yes. State-mandated local program: yes.

The people of the State of California do enact as follows:

1 SECTION 1. The Legislature finds and declares all of the 2 following:

3 (a) Communities in the state are too often exposed to unhealthy 4 air. Communities near hubs of activity, such as warehouses and 5 distribution centers, ports, highways, and roads with high levels 6 of truck traffic, bear the burden of heavy-duty trucks that are not 7 maintained.

8 (b) Trade corridors, such as those in the Inland Empire and 9 Central Valley, consist of some of the most environmentally 10 disadvantaged cities in the state.

11 (c) As of 2016, heavy-duty trucks operating in the state emitted 12 nearly 60 percent of all oxides of nitrogen emissions from onroad 13 mobile sources, which are the most significant contributor to both 14 federal ozone and fine particulate matter (PM2.5) air quality standard violations across the sate. Heavy-duty diesel trucks are 15 16 also the largest source of diesel particulate matter emissions in the 17 state. Diesel particulate matter is a carcinogen and toxic air 18 contaminant. Risks are particularly high in urban areas and along 19 busy roadways where trucks operate. 20 (d) Statewide, about 12 million residents live in communities

that exceed the federal ozone and PM2.5 standards. The health and economic impacts of exposure to elevated levels of ozone and PM2.5 in the state are considerable. Meeting air quality standards will pay substantial dividends in terms of reducing costs associated with emergency room visits and hospitalizations, lost work and school days, and, most importantly, premature mortality.

27 (e) While the state has made significant progress in improving 28 air quality through existing programs by the state and air pollution 29 control and air quality management districts, further action must 30 be taken to achieve our public health, air quality, and climate goals 31 (f) The Heavy-Duty Vehicle Inspection and Maintenance Program established by Section 44152 of the Health and Safety 32 33 Code is a key step in achieving the state's goals to improve public 34 health and meeting our environmental imperatives.

1 (g) It is the intent of the Legislature that the Heavy-Duty Vehicle 2 Inspection and Maintenance Program be developed in partnership 3 between affected state agencies, the public, industry, and other 4 stakeholders to address the inspection of, tampering with, and maintenance of emissions control systems. It is further the intent 5 of the Legislature that the State Air Resources Board work with 6 7 other relevant agencies in conducting a pilot program prior to the 8 full-scale implementation of the Heavy-Duty Vehicle Inspection 9 and Maintenance Program in order for this program to be developed in a way that minimizes costs to truck owners and fleets; provides 10 a level playing field for industry through effective enforcement; 11 and provides flexibility for the program to adapt as truck 12 13 technology and industry evolves. (h) It is the intent of the Legislature that the State Air Resources 14 15 Board minimize the duplication of programs and program requirements related to heavy-duty vehicle inspection and 16 17 maintenance. It is further the intent of the Legislature that, to the 18 extent feasible, the creation and implementation of the Heavy-Duty 19 Vehicle Inspection and Maintenance Program established by 20 Section 44152 of the Health and Safety Code minimizes duplicative 21 programs and program requirements in a way that reduces 22 compliance requirements and costs to truck owners and fleets. 23 SEC. 2. Chapter 5.5 (commencing with Section 44150) is added 24 to Part 5 of Division 26 of the Health and Safety Code, to read: 25 Chapter 5.5. Heavy-Duty Vehicle Inspection and 26 27 MAINTENANCE PROGRAM 28 29 44150. For purposes of this chapter, "program" means the 30 Heavy-Duty Vehicle Inspection and Maintenance Program 31 established pursuant to Section 44152. 32 44152. (a) No later than and to the extent authorized by 33 federal law, the state board, in consultation with the bureau and 34 the Department of Motor Vehicles, shall adopt and implement a 35 regulation for a Heavy-Duty Vehicle Inspection and Maintenance Program for nongasoline heavy-duty onroad motor vehicles with 36 37 a gross vehicle weight rating of more than 14,000 pounds, as defined by the state board, including, but not limited to, 38 39 single-vehicle fleets and other vehicles that are registered in another 40 state but operate on California roads. In adopting a regulation

1 implementing the program, the state board shall do all of the 2 following:

3 (1) Establish test procedures for different motor vehicle model 4 years and emissions control technologies that measure the 5 effectiveness of the control of emissions of oxides of nitrogen and 6 particulate matter. The procedures may include, but are not limited 7 to, procedures for the use of onboard diagnostics system data and 8 test procedures that measure the effectiveness of the control of 9 emissions of greenhouse gases.

10 (2) Require a motor vehicle to pass the test procedures in order 11 to register or operate in the state. The state board may establish in 12 the regulation full or partial exemptions from the requirements of 13 this section for categories of vehicles it determines on the basis of 14 substantial evidence that the economic costs of compliance 15 substantially outweigh the benefits of compliance, including public 16 health benefits.

(3) Allow a streamlined process for the owner or operator of a
vehicle fleet who has an established compliance history with the
program.

- 20 (4) Establish program validation methods for evaluating program21 effectiveness, fraud investigation, and research purposes.
- (5) Develop and implement enforcement methods to ensure
 continuing compliance with this section and Section 27153 of the
 Vehicle Code. The enforcement methods may include, but are not
- 25 limited to, all of the following:
- 26 (A) Visual inspections.
- 27 (B) Functional inspections.
- 28 (C) Requiring emissions testing of vehicles.
- 29 (6) Develop, in coordination with the Department of Motor
- 30 Vehicles, an information technology database to collect and track

31 vehicle test data, assess the data to determine compliance, and

- 32 regularly generate lists of compliant vehicle identification numbers
- 33 and transmit them to the Department of Motor Vehicles in order
- 34 for annual vehicle registration notices to be issued.
- 35 (b) The state board may establish licensing standards for persons
- 36 engaged in the business of the inspection, diagnosis, and repair of
- 37 heavy-duty motor vehicles. The board also may establish
- 38 qualification standards or approval, operational, or licensure
- 39 standards for testing equipment, including protocols, hardware,

1 and software used for the submission of vehicle test data to the2 state board or its contractors.

3 (c) (1) As part of the program, the state board shall develop a 4 Heavy-Duty Vehicle Inspection and Maintenance Compliance

4 Heavy-Duty Vehicle Inspection and Maintenance Compliance5 Certificate. The state board shall issue the certificate to the legal

6 owner, registered owner, or designee of a vehicle that, at the

7 discretion of the state board, meets the requirements of the program

8 so that vehicle owners and operators may easily demonstrate proof

9 of compliance, as required pursuant to Sections 27158.1 and

10 27158.2 of the Vehicle Code.

- (2) The certificate of compliance shall contain information
 determined to be necessary by the state board that includes, but
 need not be limited to, all of the following:
- 14 (A) Date issued.
- 15 (B) Date of expiration.
- 16 (C) Name and residence or business address or mailing address 17 of the legal owner or registered owner.

18 (D) Vehicle identification number assigned to the vehicle.

19 (E) Description of the vehicle that includes the year, make, and 20 model of the vehicle.

21 (d) The Department of Transportation, the Department of Food

and Agriculture, and the Department of the California HighwayPatrol may provide any necessary information to help facilitate

- the installation of equipment necessary to implement the program.
 (e) The state board, the Department of Motor Vehicles, and the
- (e) The state board, the Department of Motor Vehicles, and the
 Department of Food and Agriculture may develop initiatives for
 outreach and education to help ensure compliance with the
 program.
- 29 (f) The state board shall request a permit to deploy equipment

on the state highway system, as defined in Article 3 (commencingwith Section 300) of Chapter 2 of Division 1 of the Streets and

32 Highway Code, in accordance with Chapter 3 (commencing with

33 Section 660) of Division 1 of the Streets and Highways Code, and

34 in cooperation with the Department of the California Highway

35 Patrol.

36 (g) The state board may inspect vehicles subject to this section

37 in conjunction with the safety and weight enforcement activities

38 of the Department of the California Highway Patrol or at other 39 locations selected by the state board in consultation with the

40 Department of the California Highway Patrol. Inspection locations

may include instate private facilities where fleet vehicles are
serviced or maintained. The state board and the Department of the
California Highway Patrol may conduct these inspections
cooperatively or independently, and the state board may contract
for assistance in the conduct of these inspections.

6 (h) (1) The state board may issue a citation to the owner of a 7 vehicle in violation of this section or a regulation promulgated 8 pursuant to this section. The state board may require the operator 9 of a vehicle to submit to a test procedure and may specify that 10 refusal to submit is an admission constituting proof of a violation. 11 The state board may require that, when a citation has been issued 12 pursuant to this section, the owner of a vehicle in violation of the 13 regulation shall be required to correct every deficiency specified 14 in the citation within a timeframe determined by the state board. 15 (2) When deciding whether to issue a citation, the state board

16 may take into account whether the owner of the vehicle has17 obtained a temporary permit to operate the vehicle pursuant to18 Section 4156.5 of the Vehicle Code.

19 (i) The state board shall provide an owner cited as violating this 20 section an opportunity for an administrative hearing consistent 21 with the process established pursuant to Article 3 (commencing 22 with Section 60065.1) and Article 4 (commencing with Section 23 60075.1) of Subchapter 1.25 of Chapter 1 of Division 3 of Title 24 17 of the California Code of Regulations. Following notice and 25 an opportunity for an administrative hearing, the state board, at its 26 discretion, may use the procedure set forth in subdivision (j) of 27 Section 44011.6 for a vehicle owner cited pursuant to this section. 28 (i) After an order imposing an administrative penalty becomes 29 final pursuant to the hearing procedures identified in subdivision 30 (i) and no petition for a writ of mandate has been filed within the 31 time allotted for seeking judicial review of the order, the state

board may apply to the Superior Court for the County of

33 Sacramento for a judgment in the amount of the administrative 34 penalty. The application, which shall include a certified copy of

35 the final order of the administrative hearing officer, shall constitute

36 a sufficient showing to warrant the issuance of the judgment.

37 44154. (a) The state board shall assess a fee to fund the

reasonable costs of implementing the program established pursuantto this chapter.

1 (b) All fees collected by the state board pursuant to this chapter

2 shall be deposited in the Truck Emission Check (TEC) Fund, which

3 is hereby created in the State Treasury. All moneys in the fund

4 shall be available upon appropriation by the Legislature to the state

5 board for the regulatory purposes of the program.

6 (c) All penalty moneys collected by the state board pursuant to 7 this chapter shall be deposited in the Air Pollution Control Fund.

8 44156. Prior to fully implementing the program, the state board,9 in consultation with the bureau, the Department of Transportation,

10 the Department of Motor Vehicles, the Department of the 11 California Highway Patrol, other interested state agencies, and

12 stakeholders as part of a public process, shall implement a pilot

13 program that develops and demonstrates technologies that show

14 potential for readily bringing vehicles into the program. The state

15 board shall report the findings of the pilot program on its internet

16 website.

17 SEC. 3. Section 4000.17 is added to the Vehicle Code,18 immediately following Section 4000.15, to read:

19 4000.17. (a) No later than one year after the effective date of

a regulation implementing the Heavy-Duty Vehicle Inspection and
Maintenance Program described in Section 44152 of the Health

and Safety Code, the department shall confirm, prior to the initial

23 registration, the transfer of ownership, or the renewal of

24 registration, that a heavy-duty vehicle is compliant with, or exempt

25 from, the Heavy-Duty Vehicle Inspection and Maintenance

26 Program.

(b) For purposes of this section, "heavy-duty vehicle" means a
nongasoline heavy-duty onroad motor vehicle with a gross vehicle
weight rating of more than 14,000 pounds, as defined by the State
Air Resources Board pursuant to Section 44152 of the Health and
Safety Code.

32 (c) Subdivision (a) does not apply to a transfer of ownership 33 and registration under any of the following circumstances:

34 (1) A motor vehicle registered to a sole proprietorship is35 transferred to the proprietor as owner.

36 (2) The transfer is between companies the principal business of
37 which is leasing motor vehicles, if there is no change in the lessee
38 or operator of the motor vehicle or between the lessor and the

39 person who has been, for at least one year, the lessee's operator

40 of the motor vehicle.

1 (3) The transfer is between the lessor and lessee of the motor 2 vehicle, if there is no change in the lessee or operator of the motor 3 vehicle.

4 (4) An additional individual is added as a registered owner of 5 the motor vehicle.

6 (d) The State Air Resources Board shall notify the department 7 of the motor vehicles allowed to be registered pursuant to this 8 section.

9 SEC. 4. Section 4156.5 is added to the Vehicle Code, to read: 4156.5. 10 (a) Except as provided in subdivision (b), the 11 department in its discretion may issue a temporary permit to operate 12 a vehicle when a payment of fees has been accepted in an amount 13 to be determined by, and paid to, the department, by the owner or other person in lawful possession of the vehicle, for a vehicle for 14 15 which registration may be refused pursuant to Section 4000.17. The permit shall be subject to the terms and conditions that the 16 17 department shall deem appropriate under the circumstances.

18 (b) The department shall not issue a temporary permit pursuant 19 to subdivision (a) to operate a vehicle for which a certificate of 20 compliance is required pursuant to Section 4000.17, and for which 21 that certificate of compliance has not been issued, unless the 22 department is presented with sufficient evidence, as determined 23 by the department, that the vehicle has failed its most recent 24 inspection pursuant to the Heavy-Duty Vehicle Inspection and 25 Maintenance Program described in Section 44152 of the Health 26 and Safety Code.

(c) Only one temporary permit may be issued pursuant to this
section for any vehicle, unless otherwise approved by the State
Air Resources Board.

30 (d) A temporary permit issued pursuant to this section is valid
31 for either 60 days after the expiration of the registration of the
32 vehicle or 60 days after the date that vehicle is removed from
33 nonoperation, whichever is applicable at the time the temporary
34 permit is issued.

(e) (1) A fee of fifty dollars (\$50) shall be paid for a temporary
permit issued pursuant to this section.

37 (2) After deducting its administrative costs, the department shall

38 deposit fees collected pursuant to paragraph (1) in the Truck 39 Emission Check (TEC) Fund described in subdivision (b) of

- 40 Section 44151 of the Health and Safety Code, to be used for
 - Section 44151 of the Health and Safety Code, to be used to
 - 99

1 regulatory activities under the Heavy-Duty Vehicle Inspection and

2 Maintenance Program.

3 SEC. 5. Section 24019 is added to the Vehicle Code, to read:

4 24019. (a) A nongasoline heavy-duty onroad motor vehicle

5 with a gross vehicle weight rating of more than 14,000 pounds

6 shall not be operated on a public road in this state if that vehicle

7 has an illuminated malfunction indicator light (MIL) displaying

8 the International Standards Organization (ISO) 2575 engine symbol

9 F01, consistent with subdivision (d) of Section 1971.1 of Title 13

10 of the California Code of Regulations.

(b) A violation of this section shall be considered a mechanicalviolation under Section 40610 of the Vehicle Code. A peace officer

shall not stop a vehicle solely on suspicion of a violation of thissection.

SEC. 6. Section 27153 of the Vehicle Code is amended to read:
27153. No-(a) A motor vehicle shall *not* be operated in a
manner resulting in the escape of excessive smoke, flame, gas, oil,
or fuel residue.

19 The provisions of this section apply

(b) A nongasoline heavy-duty onroad motor vehicle with a gross
vehicle weight rating of more than 14,000 pounds shall not be
operated in a manner resulting in the escape of visible smoke,
except during active regeneration.

(c) This section applies to motor vehicles of the United States
or its agencies, to the extent authorized by federal law.

SEC. 7. Section 27158.1 is added to the Vehicle Code, to read: 27158.1. (a) Commencing one year after the effective date of a regulation implementing the Heavy-Duty Vehicle Inspection and Maintenance Program described in Section 44152 of the Health and Safety Code, a legal owner or registered owner of a nongasoline heavy-duty onroad motor vehicle with a gross vehicle weight rating of more than 14,000 pounds shall maintain a

33 certificate of compliance, as described in Section 44152 of the

34 Health and Safety Code, or a facsimile or electronic copy thereof,

35 with the vehicle for which the certificate is issued.

36 (b) Subdivision (a) does not apply when a certificate of37 compliance is necessarily removed from the vehicle for the purpose38 of renewal or when the vehicle is left unattended.

39 (c) A violation of this section shall be cited in accordance with40 Section 40610.

1 SEC. 8. Section 27158.2 is added to the Vehicle Code, to read: 2 27158.2. (a) The driver of a nongasoline heavy-duty onroad 3 motor vehicle with a gross vehicle weight rating of more than 4 14,000 pounds shall present the certificate of compliance, as 5 described in Section 44152 of the Health and Safety Code, or other evidence of the certificate of compliance, of the vehicle under the 6 7 driver's immediate control for examination upon demand by any 8 peace officer.

9 (b) The driver of the vehicle described in subdivision (a) shall 10 not present to any peace officer a certificate of compliance not 11 issued for that vehicle.

SEC. 9. No reimbursement is required by this act pursuant to Section 6 of Article XIIIB of the California Constitution because the only costs that may be incurred by a local agency or school district will be incurred because this act creates a new crime or infraction, eliminates a crime or infraction, or changes the penalty for a crime or infraction, within the meaning of Section 17556 of

18 the Government Code, or changes the definition of a crime within

19 the meaning of Section 6 of Article XIII B of the California

20 Constitution.

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South Coast Air Quality Management District Legislative Analysis Summary – AB 210 (Voepel) Version: Amended – 2/12/19 Analyst: PC

AB 210 (Voepel) Smog check: exemption.

Summary: This bill would exempt from the smog check program all motor vehicles manufactured prior to the 1983 model-year.

Background: Existing law establishes a motor vehicle inspection and maintenance (smog check) program that is administered by the Department of Consumer Affairs. The smog check program requires inspection of motor vehicles upon initial registration, biennially upon renewal of registration, upon transfer of ownership, and in certain other circumstances. Existing law exempts specified vehicles from being inspected biennially upon renewal of registration, including, among others, all motor vehicles manufactured prior to the 1976 model-year.

Status: 2/13/2019 - Re-referred to Assembly Comm. on TRANS.

Specific Provisions: This bill would exempt from the smog check program all motor vehicles manufactured prior to the 1983 model-year.

Impacts on SCAQMD's Mission, Operations or Initiatives: In the South Coast Air Basin, motor vehicles are a large source of emissions, with almost 11 million cars in the region. Some of the major air pollutants from motor vehicles include particulate matter, nitrogen oxides (NOx), volatile organic compounds (VOCs), toxic air contaminants and greenhouse gases (GHGs). Initial current estimates identify nearly 40,000 vehicles within the South Coast region would fall under the new smog check exemption proposed by this bill. Older vehicles are some of the largest polluters as compared to newer cleaner light-duty vehicles on the road today. The estimated impact of this bill for the current year is a potential emissions increase equal to about two tons of VOC emissions per day and one ton of NOx emissions per day within the South Coast region.

This bill is in contrast to SCAQMD's policy priorities related to reducing criteria pollutant and air toxic emissions within the South Coast region from mobile sources and would be contrary to SCAQMD's efforts to attain federal air quality standards and reduce GHG emissions through the deployment of clean technology.

Recommended Position: OPPOSE

AMENDED IN ASSEMBLY FEBRUARY 12, 2019

CALIFORNIA LEGISLATURE-2019-20 REGULAR SESSION

ASSEMBLY BILL

No. 210

Introduced by Assembly Member Voepel

January 14, 2019

An act to amend Section 44011 of the Health and Safety Code, relating to vehicular air pollution.

LEGISLATIVE COUNSEL'S DIGEST

AB 210, as amended, Voepel. Smog check: exemption.

Existing law establishes a motor vehicle inspection and maintenance (smog check) program that is administered by the Department of Consumer Affairs. The smog check program requires inspection of motor vehicles upon initial registration, biennially upon renewal of registration, upon transfer of ownership, and in certain other circumstances. Existing law exempts specified vehicles from being inspected biennially upon renewal of registration, including, among others, all motor vehicles manufactured prior to the 1976-model-year and all diesel-powered vehicles with a gross vehicle weight rating of 14,001 pounds or greater. *model-year*.

This bill instead would exempt from the smog check program all motor vehicles manufactured prior to the 1983-model-year and all diesel-powered vehicles manufactured prior to the 1983 model-year with a gross vehicle weight rating of 14,001 pounds or greater. *model-year*.

Vote: majority. Appropriation: no. Fiscal committee: yes. State-mandated local program: no.

The people of the State of California do enact as follows:

SECTION 1. Section 44011 of the Health and Safety Code is
 amended to read:

3 44011. (a) All motor vehicles powered by internal combustion

4 engines that are registered within an area designated for program
5 coverage shall be required biennially to obtain a certificate of
6 compliance or noncompliance, except for the following:

7 (1) All motorcycles until the department, pursuant to Section
8 44012, implements test procedures applicable to motorcycles.

9 (2) All motor vehicles that have been issued a certificate of

10 compliance or noncompliance or a repair cost waiver upon a change

of ownership or initial registration in this state during the precedingsix months.

13 (3) All motor vehicles manufactured prior to the 198314 model-year.

15 (4) (A) Except as provided in subparagraph (B), all motor 16 vehicles four or less model-years old.

17 (B) (i) Beginning January 1, 2005, all motor vehicles six or 18 less model-years old, unless the state board finds that providing

19 an exception for these vehicles will prohibit the state from meeting

20 the requirements of Section 176(c) of the federal Clean Air Act

21 (42 U.S.C. Sec. 7401 et seq.) or the state's commitments with

respect to the state implementation plan required by the federalClean Air Act.

(ii) Notwithstanding clause (i), beginning January 1, 2019, all
motor vehicles eight or less model-years old, unless the state board
finds that providing an exception for these vehicles will prohibit
the state from meeting the requirements of Section 176(c) of the
federal Clean Air Act (42 U.S.C. Sec. 7401 et seq.) or the state's
commitments with respect to the state implementation plan required
by the federal Clean Air Act.

(iii) Clause (ii) does not apply to a motor vehicle that is seven
model-years old in year 2018 for which a certificate of compliance
has been obtained.

34 (C) All motor vehicles excepted by this paragraph shall be35 subject to testing and to certification requirements as determined36 by the department, if any of the following apply:

(i) The department determines through remote sensing activitiesor other means that there is a substantial probability that the vehicle

1 has a tampered emission control system or would fail for other2 cause a smog check test as specified in Section 44012.

3 (ii) The vehicle was previously registered outside this state and4 is undergoing initial registration in this state.

5 (iii) The vehicle is being registered as a specially constructed 6 vehicle.

7 (iv) The vehicle has been selected for testing pursuant to Section
8 44014.7 or any other provision of this chapter authorizing
9 out-of-cycle testing.

10 (D) This paragraph does not apply to diesel-powered vehicles.

11 (5) In addition to the vehicles exempted pursuant to paragraph

(4), any motor vehicle or class of motor vehicles exempted pursuantto subdivision (c) of Section 44024.5. It is the intent of the

14 Legislature that the department, pursuant to the authority granted

15 by this paragraph, exempt at least 15 percent of the lowest emitting

16 motor vehicles from the biennial smog check inspection.

(6) All motor vehicles that the department determines wouldpresent prohibitive inspection or repair problems.

(7) Any vehicle registered to the owner of a fleet licensed
pursuant to Section 44020 if the vehicle is garaged exclusively
outside the area included in program coverage, and is not primarily

22 operated inside the area included in program coverage.

23 (8) (A) All diesel-powered vehicles manufactured prior to the
24 1998 model-year.

25 (B) All diesel-powered vehicles that have a gross vehicle weight

rating of 8,501 to 10,000 pounds, inclusive, until the department,

in consultation with the state board, pursuant to Section 44012,implements test procedures applicable to these vehicles.

29 (C) All diesel-powered vehicles that have a gross vehicle weight

30 rating from 10,001 pounds to 14,000 pounds, inclusive, until the

31 state board and the Department of Motor Vehicles determine the

best method for identifying these vehicles, and until the department,in consultation with the state board, pursuant to Section 44012,

in consultation with the state board, pursuant to Section 44012,implements test procedures applicable to these vehicles.

35 (D) All diesel-powered vehicles manufactured prior to the 1983

36 model-year and that have a gross vehicle weight rating of 14,001
37 pounds or greater.

38 (b) Vehicles designated for program coverage in enhanced areas

39 shall be required to obtain inspections from appropriate smog

40 check stations operating in enhanced areas.

1 (c) For purposes of subdivision (a), a collector motor vehicle,

as defined in Section 259 of the Vehicle Code, is exempt from
those portions of the test required by subdivision (f) of Section
44012 if the collector motor vehicle meets all of the following

5 criteria:

6 (1) Submission of proof that the motor vehicle is insured as a 7 collector motor vehicle, as shall be required by regulation of the 8 bureau.

9 (2) The motor vehicle is at least 35 model-years old.

10 (3) The motor vehicle complies with the exhaust emissions

- 11 standards for that motor vehicle's class and model-year as
- 12 prescribed by the department, and the motor vehicle passes a
- 13 functional inspection of the fuel cap and a visual inspection for
- 14 liquid fuel leaks.

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South Coast Air Quality Management District Legislative Analysis Summary – AB 285 (Friedman) Version: As introduced – 1/28/19 Analyst: LA

Assembly Bill 285 (Friedman)

California Transportation Plan

Summary: This bill would require the California Department of Transportation (Caltrans) to address in the California Transportation Plan how the state will achieve maximum feasible emission reductions in order to attain a statewide reduction of greenhouse gas emissions (GHG) of 40% below 1990 levels by the end of 2030 and carbon neutrality by 2045. The bill would add environmental justice to the subject areas that the plan is required to consider for the movement of people and freight.

Background: Existing law requires Caltrans to prepare the California Transportation Plan to provide a long range policy framework to meet the state future mobility needs and reduce GHG. In June 2016 Caltrans released its last California Transportation Plan. Direct emissions from the tailpipe of cars, trucks, off-road transportation sources, intrastate aviation, and more, accounted for 39% of the inventory in 2016 (a 2% increase from 2015).

In their 2018 report, Assessing California's Climate Policies-Transportation, the Legislative Analyst Office highlighted how the large number of disparate state agency programs targeting transportation emissions created challenges in achieving state-wide goals. These challenges included: (1) interactions whereby emission reductions from one policy are offset by increases from another policy, (2) challenges in evaluating the net effects of each policy, (3) a potential lack of coordination among policies, and (4) increased administrative costs. This bill addresses the above challenges by requiring Caltrans and other granting state agencies to review the six different programs highlighted in the LAO report and increase their policy coordination and evaluation, thereby improving the effectiveness of California's transportation emission reduction programs.

Status: 2/11/19 - Referred to Committees on Transportation and Natural Resources.

Specific Provisions: Specifically this bill would:

- 1. Require Caltrans to address in future updates to the California Transportation Plan how the state will achieve its GHG emission reductions goals consistent with recently passed SB 32 (Pavley, 2016) and Governor Brown's Executive Order (B-55-18) on carbon neutrality;
- 2. Add environmental justice to the subject areas that the plan is required to consider for the movement of people and freight;
- 3. Require a forecast of the impacts of advanced and emerging technologies over a 20-year horizon on infrastructure, access, and transportation systems;
- 4. Require in an interim report and in the third update to the California Transportation Plan that Caltrans and the Strategic Growth Council (SGC) review and make recommendations on how to improve the coordination and impact of various grants programs that support Sustainable Communality Strategy (SCS) implementation plans with each other and with other transportation funding programs; and
- 5. Require the California Transportation Commission to discuss its recommendations related to the California Transportation Plan at a specified joint meeting with CARB.

Impacts on SCAQMD's Mission, Operations or Initiatives:

South Coast Air Quality Management District Legislative Analysis Summary – AB 285 (Friedman) Version: As introduced – 1/28/19 Analyst: LA

The addition of environmental justice to the subject areas that the California Transportation Plan is required to consider for the movement of people and freight, is consistent with SCAQMD's environmental justice policy priorities and would help reduce toxic exposure to disadvantaged communities within the South Coast region, thereby helping to protect public health.

Staff would like to work with the author to discuss the possibility of having the bill also require Caltrans to address in the California Transportation Plan how the state will achieve maximum feasible criteria pollutant emissions reductions to attain state and federal ambient air quality requirements, i.e. ozone and PM2.5 standards, by the upcoming federal deadlines. In many cases, certain strategies and approaches can achieve simultaneous reductions of both GHG and criteria pollutant emissions. A coordinated approach could potentially provide even more cost effective cobenefits for transportation, and attainment of GHG reduction goals and state and federal air quality requirements.

Recommended Position: WORK WITH AUTHOR

ASSEMBLY BILL

No. 285

Introduced by Assembly Member Friedman

January 28, 2019

An act to amend Sections 14000.6, 65071, 65072.1, 65072.2, and 65073.1 of the Government Code, relating to transportation planning.

LEGISLATIVE COUNSEL'S DIGEST

AB 285, as introduced, Friedman. California Transportation Plan.

Existing law requires the Department of Transportation to prepare the California Transportation Plan for submission to the Governor and the Legislature, to complete the first update to the plan by December 31, 2015, and to update the plan every 5 years thereafter. Existing law requires the plan to consider various subject areas for the movement of people and freight, including environmental protection and quality of life. Existing law also requires the plan to address how the state will achieve maximum feasible emissions reductions in order to attain a statewide reduction of greenhouse gas emissions to 1990 levels by 2020 and 80% below 1990 levels by 2050 and to identify the statewide integrated multimodal transportation system needed to achieve greenhouse gas emission reductions. Existing law also requires the California Transportation Commission to review the plan and make certain recommendations for transportation system improvements, and to submit a report in that regard to the Legislature and the Governor by December 31, 2016, and every 5 years thereafter.

This bill would require the department to address in the California Transportation Plan how the state will achieve maximum feasible emissions reductions in order to attain a statewide reduction of greenhouse gas emissions of 40% below 1990 levels by the end of 2030

and carbon neutrality by 2045. Commencing with the 3rd update to the plan to be completed by December 31, 2025, the bill would require the department to include specified information in the plan, including, among other things, a review, conducted in consultation with the Strategic Growth Council, of the potential impacts and opportunities for coordination of specified grant programs and recommendations for the improvement of the grant programs to better align them to meet long-term common goals. The bill would require the department to complete an interim report by January 31, 2022, that contains the new information required to be included in the 3rd and subsequent updates to the plan. The bill would add environmental justice to the subject areas that the plan is required to consider for the movement of people and freight. The bill would require the California Transportation Commission to discuss its recommendations for transportation system improvements at a specified joint meeting with the State Air Resources Board before submitting those recommendations in the required report to the Legislature and the Governor.

Vote: majority. Appropriation: no. Fiscal committee: yes. State-mandated local program: no.

The people of the State of California do enact as follows:

- 1 SECTION 1. Section 14000.6 of the Government Code is 2 amended to read:
- 3 14000.6. The Legislature further finds and declares all of the4 following:
- 5 (a) California has established *a* statewide greenhouse gas 6 emissions targets and requirements *limit* to be achieved by 2020 7 pursuant to the California Global Warming Solutions Act of 2006
- 8 (Division 25.5 (commencing with Section 38500) of the Health
- 9 and Safety Code), which are is equivalent to 1990 greenhouse gas
- 10 emissions in the state. These targets and requirements entail
- 11 approximately a 25-percent reduction in greenhouse gas emissions
- 12 from current levels. Senate Bill 32 (Chapter 249 of the Statutes of
- 13 2016) extended the statewide greenhouse gas emissions limit to
- 14 *40 percent below 1990 levels by 2030.*
- 15 (b) Executive Order S-3-05 further identifies a greenhouse gas
- 16 emissions limit of 80 percent below 1990 levels to be achieved by
- 17 2050. *B-55-18 established a new statewide goal to achieve carbon*
- 18 *neutrality as soon as possible, and no later than 2045.*
- 99

1 (c) Emissions from the transportation sector account for 38 39 2 percent of California's greenhouse gas emissions.

3 (d) The state lacks a comprehensive, statewide, multimodal 4 planning process that details the transportation system needed in 5 the state In June 2016, the state released its transportation plan 6 called California Transportation Plan 2040, which represented 7 an important step toward integrating statewide long-range modal 8 plans, key programs, and analysis tools that build on regional 9 transportation plans, sustainable communities strategies, and rural 10 land use visions. Yet more must be done to meet objectives of 11 mobility and congestion management consistent with the state's 12 greenhouse gas emission limits limit and air pollution standards. 13 (c) Recent increases in gasoline prices resulted in historie 14 increases in ridership on public transportation, including transit, 15 commuter rail, and intercity rail, and in historic reductions in 16 vehicle miles traveled by private vehicles. Increased demand for 17 public transportation included a 16-percent increase in light rail 18 ridership in Sacramento, a 15.3-percent increase in rail transit 19 ridership in Los Angeles, a 23-percent increase in bus ridership in 20 Orange County, a 14.4-percent increase in transit ridership in San 21 Diego, a 6.3-percent increase in rail transit ridership in Oakland, 22

and a 22.5-percent increase in transit ridership in Stockton. Current
 public transportation services and facilities are inadequate to meet

24 current and expected future increases in demand.

25 (e) The Legislature intends that subsequent transportation plans

26 *improve transparency, interagency coordination, and the impact*

of California's transportation investments and planning to meetthe objectives set forth in this section.

29 SEC. 2. Section 65071 of the Government Code is amended 30 to read:

31 65071. The department shall update the California
32 Transportation Plan *every five years* consistent with this chapter.

33 The first *second* update shall be completed by December 31, 2015.

34 The plan shall be updated every five years thereafter. 2020.

35 SEC. 3. Section 65072.1 of the Government Code is amended 36 to read:

37 65072.1. The California Transportation Plan shall consider all

38 of the following subject areas for the movement of people and

39 freight:

40 (a) Mobility and accessibility.

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- 1 (b) Integration and connectivity.
- 2 (c) Efficient system management and operation.
- 3 (d) Existing system preservation.
- 4 (e) Safety and security.
- 5 (f) Economic development, including productivity and 6 efficiency.
- 7 (g) Environmental protection and quality of life.
- 8 *(h) Environmental justice.*

9 SEC. 4. Section 65072.2 of the Government Code is amended 10 to read:

65072.2. In developing the California Transportation Plan 11 12 pursuant to Sections 65072 and 65072.1, the (a) The department 13 shall address in the California Transportation Plan how the state 14 will achieve maximum feasible emissions reductions in order to 15 attain a statewide reduction of greenhouse gas emissions to 1990 levels by 2020 as required by the California Global Warming 16 17 Solutions Act of 2006 (Division 25.5 (commencing with Section 18 38500) of the Health and Safety Code), and 80 percent below 1990 19 levels by 2050, the requirements of Section 38566 of the Health 20 and Safety Code, and carbon neutrality by 2045, taking into 21 consideration the use of alternative fuels, new vehicle technology, 22 tailpipe emissions reductions, and expansion of public transit, commuter rail, intercity rail, bicycling, and walking. The plan shall 23 identify the statewide integrated multimodal transportation system 24 25 needed to achieve these results. The department shall complete an 26 interim report by December 31, 2012, which shall include a list 27 and provide an 28 (b) Commencing with the third update to the California 29 Transportation Plan, the department shall include the following 30 information in the plan: 31 (1) An overview of all sustainable communities strategies and

32 alternative planning strategies prepared pursuant to paragraph (2) 33 of subdivision (b) of Section 65080, and shall assess an assessment 34 of how implementation of the sustainable communities strategies 35 and alternative planning strategies will influence the configuration 36 of the statewide integrated multimodal transportation system. The 37 department shall submit the interim report to the California 38 Transportation Commission and to the Chairs of the Senate 39 Committee on Transportation and Housing, the Senate Committee

40 on Environmental Quality, the Senate Committee on Local

1 Government, the Assembly Committee on Transportation, the

Assembly Committee on Natural Resources, and the Assembly
 Committee on Local Government.

4 (2) A review, conducted in consultation with the Strategic

5 Growth Council, of the potential impacts and opportunities for

6 coordination of the following grant programs: the Affordable

7 Housing and Sustainable Communities Program, the Transit and

8 Intercity Rail Capital Program, the Low Carbon Transit Operators

9 Program, the Transformative Climate Communities Program, and

10 the Sustainable Transportation Planning Grant Program. The

11 review shall include recommendations for the improvement of 12 these programs or other transportation funding programs to better

12 these programs or other transportation funding programs to better 13 align the programs to most long term common goals

13 align the programs to meet long-term common goals.

14 (3) A forecast of the impacts of advanced and emerging

15 technologies over a 20-year horizon of infrastructure, access, and

16 transportation systems. For purposes of this paragraph, "advanced

17 and emerging technologies" includes, but is not limited to, shared,

18 *autonomous, connected, and electric transportation options.*

19 (c) The department shall complete an interim report by January

20 31, 2022, that contains the information described in paragraphs

21 (1), (2), and (3) of subdivision (b) and shall submit this report to

22 the relevant policy and fiscal committees of the Legislature.

23 SEC. 5. Section 65073.1 of the Government Code is amended 24 to read:

25 65073.1. (a) The California Transportation Commission shall 26 review recommendations in the update to the California Transportation Plan prepared by the department in 2015, 2020. 27 28 and every five years thereafter, and prepare specific, action-oriented, and pragmatic recommendations for transportation 29 30 system improvements. A report containing the specific 31 recommendations shall be submitted to the Legislature and the 32 Governor by December 31, 2016, 2021, and every five years

thereafter, and in compliance with Section 9795.

34 (b) Before submitting the specific recommendations to the

35 Legislature and the Governor pursuant to subdivision (a), the

36 commission shall discuss its recommendations at a joint meeting

37 *held pursuant to Section 14516.*

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South Coast Air Quality Management District Legislative Analysis Summary – SB 1 (Atkins) Version: Introduced – 12/3/18 Analyst: PC

SB 1 (Atkins) California Environmental, Public Health, and Workers Defense Act of 2019.

Summary: This bill would require various agencies, including the California Air Resources Board (CARB), to take certain actions regarding federal requirements and standards pertaining to air, water, protected species, and workers' rights and safety, respectively, with the focus of ensuring that continued protections exist for the environment, including air quality, natural resources, and public health in the state even if applicable federal laws are undermined, amended, or repealed.

Background: The federal Clean Air Act regulates the discharge of air pollutants into the atmosphere. The federal Clean Water Act regulates the discharge of pollutants into water. The federal Safe Drinking Water Act establishes drinking water standards for drinking water systems. The federal Endangered Species Act of 1973 generally prohibits activities affecting threatened and endangered species listed pursuant to that act unless authorized by a permit from the United States Fish and Wildlife Service or the National Marine Fisheries Service, as appropriate.

Existing state law regulates the discharge of air pollutants into the atmosphere. The Porter-Cologne Water Quality Control Act regulates the discharge of pollutants into the waters of the state. The California Safe Drinking Water Act establishes standards for drinking water and regulates drinking water systems. The California Endangered Species Act requires the Fish and Game Commission to establish a list of endangered species and a list of threatened species, and generally prohibits the taking of those species.

Existing law provides for the enforcement of laws regulating the discharge of pollutants into the atmosphere and waters of the state. Existing law provides for the enforcement of drinking water standards. Existing law provides for the enforcement of the California Endangered Species Act. Existing federal and state law generally establishes standards for workers' rights and worker safety.

Status: 1/16/2019 -- Referred to Sen. Comms. on EQ., N.R. & W., and JUD.

Specific Provisions: Specifically, this bill would:

- 1) Require CARB to regularly assess proposed and final changes to federal standards.
- 2) Require that at least quarterly, CARB shall publish a list of changes made to the federal standards and provide an assessment on whether a change made to the federal standards is more or less stringent than the baseline federal standards.
- 3) Provide that "Baseline federal standards" means federal standards in effect as of January 19, 2017;
- 4) Provide that if CARB determines that a change to the federal standards is less stringent than the baseline federal standards, it shall consider whether it should adopt

the baseline federal standards as a measure in order to maintain the state's protections to be at least as stringent as the baseline federal standards;

- 5) Require CARB to publish its list, assessment, and consideration for adoption at least 30 days prior to a vote on adoption on its internet Web site for public comment.
- 6) Provide that if CARB decides to adopt a measure, it shall adopt the measure either:(a) As an emergency regulation; or
 - (b) By promulgation or amendment of a state policy, plan, or regulation.
- 7) Authorize a person acting in the public interest to bring an action to enforce certain federal standards and requirements incorporated into the herein-mentioned state laws;
- 8) Make its provisions inoperative as of January 20, 2025, and would repeal them as of January 1, 2026;
- 9) Allow a state agency to adopt standards or requirements pursuant to this title, including, but not limited to, by emergency regulations;
- 10)Determine that the adoption of emergency regulations in furtherance of this title shall be deemed an emergency and necessary for the immediate preservation of the public peace, health, and safety, or general welfare; and
- 11)Determine that emergency regulations adopted by a state agency under this title shall not be subject to review by the Office of Administrative Law and shall remain in effect until revised or repealed by the state agency, or January 20, 2021, whichever comes first.

Impacts on SCAQMD's Mission, Operations or Initiatives: The bill states that for over four decades, California and its residents have relied on federal laws, including the federal Clean Air Act, the Federal Water Pollution Control Act (Clean Water Act), the federal Safe Drinking Water Act, and the federal Endangered Species Act of 1973, along with their implementing regulations and remedies, to protect our state's public health, environment, and natural resources.

The bill further explains that these federal laws establish standards that serve as the baseline level of public health and environmental protection, while expressly authorizing states like California to adopt more protective measures. The bill continues, that beginning in 2017, a new presidential administration and United States Congress have signaled a series of direct challenges to these federal laws and the protections they provide, as well as to the underlying science that makes these protections necessary, and to the rights of the states to protect their own environment, natural resources, and public health as they see fit. The bill concludes that it is therefore necessary for the Legislature to enact legislation that will ensure continued protections for the environment, natural resources, and public health in the state even if the federal laws mentioned above are undermined, amended, or repealed.

This bill is aligned with SCAQMD's priorities to protect public health by reducing criteria pollutant and toxic emissions, as well as GHG emissions within the South Coast region. A weakening of air quality improvement and protection standards is contrary to the District's

South Coast Air Quality Management District Legislative Analysis Summary – SB 1 (Atkins) Version: Introduced – 12/3/18 Analyst: PC

goal to ensure that public health is not negatively impacted by air pollution and climate change.

SCAQMD would like to work with the author regarding the following issues relating to the bill:

- 1) Determining the appropriate roles of and interplay between CARB and local air districts that preserve existing local air district authority, with regard to adopting air quality regulations relating to stationary sources and their emissions when there is backsliding in relevant federal laws identified by CARB;
- 2) Identifying what is the best course of action when a new federal action both strengthens and weakens different parts of a new regulation, as it relates to CARB's duty to assess whether a change in federal standards is more or less stringent than the baseline federal standards; and
- 3) Clarifying the intent behind the sunset date year of 2021 for emergency regulations adopted by a state agency under this bill.

Recommended Position: SUPPORT

Introduced by Senators Atkins, Portantino, and Stern

December 3, 2018

An act to add and repeal Title 24 (commencing with Section 120000) of the Government Code, relating to state prerogative.

LEGISLATIVE COUNSEL'S DIGEST

SB 1, as introduced, Atkins. California Environmental, Public Health, and Workers Defense Act of 2019.

(1) The federal Clean Air Act regulates the discharge of air pollutants into the atmosphere. The federal Clean Water Act regulates the discharge of pollutants into water. The federal Safe Drinking Water Act establishes drinking water standards for drinking water systems. The federal Endangered Species Act of 1973 generally prohibits activities affecting threatened and endangered species listed pursuant to that act unless authorized by a permit from the United States Fish and Wildlife Service or the National Marine Fisheries Service, as appropriate.

Existing state law regulates the discharge of air pollutants into the atmosphere. The Porter-Cologne Water Quality Control Act regulates the discharge of pollutants into the waters of the state. The California Safe Drinking Water Act establishes standards for drinking water and regulates drinking water systems. The California Endangered Species Act requires the Fish and Game Commission to establish a list of endangered species and a list of threatened species, and generally prohibits the taking of those species.

This bill would require specified agencies to take prescribed actions regarding certain federal requirements and standards pertaining to air, water, and protected species, as specified. By imposing new duties on local agencies, this bill would impose a state-mandated local program.

(2) Existing law provides for the enforcement of laws regulating the discharge of pollutants into the atmosphere and waters of the state. Existing law provides for the enforcement of drinking water standards. Existing law provides for the enforcement of the California Endangered Species Act.

This bill would authorize a person acting in the public interest to bring an action to enforce certain federal standards and requirements incorporated into certain of the above-mentioned state laws if specified conditions are satisfied.

(3) Existing federal law generally establishes standards for workers' rights and worker safety.

Existing state law generally establishes standards for workers' rights and worker safety.

This bill would require specified agencies to take prescribed actions regarding certain requirements and standards pertaining to worker's rights and worker safety. The bill would authorize a person acting in the public interest to enforce standards and requirements related to worker's rights and worker safety, as provided.

(5) This bill would make its provisions inoperative as of January 20, 2025, and would repeal them as of January 1, 2026.

(6) The California Constitution requires the state to reimburse local agencies and school districts for certain costs mandated by the state. Statutory provisions establish procedures for making that reimbursement.

This bill would provide that with regard to certain mandates no reimbursement is required by this act for a specified reason.

With regard to any other mandates, this bill would provide that, if the Commission on State Mandates determines that the bill contains costs so mandated by the state, reimbursement for those costs shall be made pursuant to the statutory provisions noted above.

Vote: majority. Appropriation: no. Fiscal committee: yes. State-mandated local program: yes.

The people of the State of California do enact as follows:

1 SECTION 1. Title 24 (commencing with Section 120000) is

2 added to the Government Code, to read:

1	TITLE 24. CALIFORNIA ENVIRONMENTAL, PUBLIC
2	HEALTH, AND WORKERS DEFENSE ACT OF 2019
3	,
4	DIVISION 1. GENERAL PROVISION
4 5	
6	120000. This title shall be known, and may be cited, as the
7	California Environmental, Public Health, and Workers Defense
8	Act of 2019.
9	Act 01 2019.
10	DIVISION 2. ENVIRONMENT, NATURAL RESOURCES,
	AND PUBLIC HEALTH
11	AND PUBLIC HEALTH
12	
13	Chapter 1. Findings and Declarations
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15	120010. The Legislature finds and declares all of the following:
16	(a) For over four decades, California and its residents have relied
17	on federal laws, including the federal Clean Air Act (42 U.S.C.
18	Sec. 7401 et seq.), the Federal Water Pollution Control Act (Clean
19	Water Act) (33 U.S.C. Sec. 1251 et seq.), the federal Safe Drinking
20	Water Act (42 U.S.C. Sec. 300f et seq.), and the federal Endangered
21	Species Act of 1973 (16 U.S.C. Sec. 1531 et seq.), along with their
22	implementing regulations and remedies, to protect our state's public
23	health, environment, and natural resources.
24	(b) These federal laws establish standards that serve as the
25	baseline level of public health and environmental protection, while
26	expressly authorizing states like California to adopt more protective
27	measures.
28	(c) Beginning in 2017, a new presidential administration and
29	United States Congress have signaled a series of direct challenges
30	to these federal laws and the protections they provide, as well as
31	to the underlying science that makes these protections necessary,
32	and to the rights of the states to protect their own environment,
33	natural resources, and public health as they see fit.
34	(d) It is therefore necessary for the Legislature to enact
35	legislation that will ensure continued protections for the
36	environment, natural resources, and public health in the state even
37	if the federal laws specified in subdivision (a) are undermined,
38	amended, or repealed.
<u>39</u>	120011. The purposes of this division are to do all of the
40	following:
υF	ionowing.

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1 (a) Retain protections afforded under the federal laws specified 2 in subdivision (a) of Section 120010 and regulations implementing

3 those federal laws in existence as of January 19, 2017, regardless4 of actions taken at the federal level.

5 (b) Protect public health and welfare from any actual or potential 6 adverse effect that reasonably may be anticipated to occur from 7 pollution, including the effects of climate change.

(c) Preserve, protect, and enhance the environment and natural
resources in California, including, but not limited to, the state's
national parks, national wilderness areas, national monuments,
national seashores, and other areas with special national or regional
natural, recreational, scenic, or historic value.

(d) Ensure that economic growth will occur in a manner
consistent with the protection of public health and the environment
and preservation of existing natural resources.

16 (e) Ensure that any decision made by a public agency that may 17 adversely impact public health, the environment, or natural 18 resources is made only after careful evaluation of all the 19 consequences of that decision and after adequate procedural 20 opportunities for informed public participation in the 21 decisionmaking process.

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CHAPTER 2. GENERAL PROVISIONS

120030. (a) A state agency may adopt standards or
requirements pursuant to this title, including, but not limited to,
by emergency regulations in accordance with Chapter 3.5
(commencing with Section 11340) of Part 1 of Division 3 of Title
2.

30 (b) The adoption of emergency regulations in furtherance of
31 this title shall be deemed an emergency and necessary for the
32 immediate preservation of the public peace, health, and safety, or
33 general welfare.

(c) Notwithstanding Chapter 3.5 (commencing with Section
11340) of Part 1 of Division 3 of Title 2, emergency regulations
adopted by a state agency under this title shall not be subject to
review by the Office of Administrative Law and shall remain in
effect until revised or repealed by the state agency, or January 20,
2021, whichever comes first.

CHAPTER 3. OPERATIVE PROVISIONS 1 2 3 Article 1. Air 4 5 120040. For purposes of this article, the following definitions 6 apply: 7 (a) "Air district" means an air quality management or air 8 pollution control district. (b) "Baseline federal standards" means federal standards in 9 effect as of January 19, 2017. 10 (c) "Federal standards" means federal laws or federal regulations 11 implementing the federal Clean Air Act (42 U.S.C. Sec. 7401 et 12 seq.) including federal requirements for a state implementation 13 plan, federal requirements for the transportation conformity 14 15 program, and federal requirements for the prevention of significant deterioration. 16 (d) "State analogue statute" means the California Global 17 Warming Solutions Act of 2006 (Division 25.5 (commencing with 18 19 Section 38500) of the Health and Safety Code) or Division 26 20 (commencing with Section 39000) of the Health and Safety Code. 21 (e) "State board" means the State Air Resources Board. 22 120041. Except as otherwise authorized by state law, all of the following apply: 23 (a) The state board shall regularly assess proposed and final 24 25 changes to the federal standards. (b) (1) At least quarterly, the state board shall publish a list of 26 changes made to the federal standards and provide an assessment 27 28 on whether a change made to the federal standards is more or less 29 stringent than the baseline federal standards. 30 (2) If the state board determines that a change to the federal standards is less stringent than the baseline federal standards, the 31 32 state board shall consider whether it should adopt the baseline 33 federal standards as a measure in order to maintain the state's 34 protections to be at least as stringent as the baseline federal 35 standards. 36 (3) The state board shall publish its list, assessment, and 37 consideration for adoption at least 30 days prior to a vote on 38 adoption on its internet Web site for public comment.

1 (c) If the state board decides to adopt a measure pursuant to 2 subdivision (b), the state board shall adopt the measure by either 3 of the following procedures:

4 (1) As an emergency regulation in accordance with Section 5 120030.

6 (2) By promulgation or amendment of a state policy, plan, or 7 regulation.

8 (d) Notwithstanding any other law, the state board, when 9 adopting a measure under paragraph (2) of subdivision (c) may adopt those measures in accordance with Section 100 of Title 1 of 10 the California Code of Regulations and the measures shall be 11 12 deemed to be a change without regulatory effect pursuant to paragraph (6) of subdivision (a) of that section and not subject to 13 14 additional notice, procedural, or other considerations contained in 15 state analogue statutes identified in this article. Nothing in this chapter shall affect the imposition of sanctions under the federal 16 17 Clean Air Act (42 U.S.C. Sec. 7401 et seq.). (e) In the event that the citizen suit provision set forth in Section 18

(e) In the event that the cluzen suit provision set forth in Section 10 - 7(04 - 67)

19 7604 of Title 42 of the United States Code is amended to restrict,20 condition, abridge, or repeal the citizen suit provision, the state

board may consider the amendment as a change to the federal

standards and may adopt the baseline federal standards pursuant

23 to subdivision (c).

(f) This article does not prohibit the state board or air districts
from establishing rules and regulations for California that are more
stringent than the baseline federal standards.

120042. (a) An action may be brought by a person in the public
interest exclusively to enforce baseline federal standards adopted
as a measure pursuant to subdivision (c) of Section 120041 if all
of the following requirements are met:

(1) At least 60 days prior to initiating the action, a complainant
provides a written notice to the Attorney General and the counsel
for the state board, a district attorney, county counsel, counsel of
the air district, and prosecutor in whose jurisdiction the violation
is alleged to have occurred, and the defendant identifying the

36 specific provisions of the measure alleged to be violated.

37 (2) The Attorney General, a district attorney, a city attorney,

county counsel, counsel of the state board, counsel of an air district,or a prosecutor has not commenced an action or has not been

40 diligently prosecuting the action.

1 (b) Upon filing the action, the complainant shall notify the 2 Attorney General that the action has been filed. 3 (c) The court may award attorney's fees pursuant to Section 4 1021.5 of the Code of Civil Procedure, and expert fees and court 5 costs pursuant to Section 1032 of the Code of Civil Procedure, as 6 appropriate, for an action brought pursuant to this section. 7 (d) This section does not limit other remedies and protections 8 available under state or federal law. 9 Article 2. Water 120050. For purposes of this article, the following definitions apply: (a) "Baseline federal standards" means federal standards in effect as of January 19, 2017, including water quality standards, effluent limitations, and drinking water standards. 17 (b) "Board" means the State Water Resources Control Board. (c) "Federal standards" means federal laws or federal regulations implementing the federal Safe Drinking Water Act (42 U.S.C. Sec. 300f et seq.) and the Federal Water Pollution Control Act (33 U.S.C. Sec. 1251 et seq.) in effect as of January 19, 2017, including water quality standards, effluent limitations, and drinking water standards. (d) "Regional board" means a regional water quality control board. (e) "State analogue statute" mean the Porter-Cologne Water Quality Control Act (Division 7 (commencing with Section 13000) of the Water Code) or the California Safe Drinking Water Act (Chapter 4 (commencing with Section 116270) of Part 12 of Division 103 of the Health and Safety Code). 120051. Except as otherwise authorized by state law, all of the following apply: (a) The board shall regularly assess proposed and final changes to the federal standards. (b) (1) At least quarterly, the board shall publish a list of changes made to the federal standards and provide an assessment on whether a change made to the federal standards is more or less stringent than the baseline federal standards. (2) If the board determines that a change to the federal standards

40 is less stringent than the baseline federal standards, the board shall

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1 consider whether it should adopt the baseline federal standards as

2 a measure in order to maintain the state's protections to be at least3 as stringent as the baseline federal standards.

4 (3) The state board shall publish its list, assessment, and 5 consideration for adoption at least 30 days prior to a vote on 6 adoption on its Internet Web site for public comment.

7 (c) If the board decides to adopt a measure pursuant to 8 subdivision (b), the board shall adopt the measure by either of the 9 following procedures:

10 (1) As an emergency regulation in accordance with Section 11 120030.

(2) By promulgation or amendment of a state policy for waterquality control, a water quality control plan, or regulation.

14 (d) Notwithstanding any other law, the board, when adopting a measure under paragraph (2) of subdivision (c) may adopt those 15 measures in accordance with Section 100 of Title 1 of the 16 17 California Code of Regulations and the measures shall be deemed 18 to be a change without regulatory effect pursuant to paragraph (6) 19 of subdivision (a) of that section and not subject to additional 20 notice, procedural, or other considerations contained in state 21 analogue statutes identified in this article. Nothing in this chapter 22 shall affect the imposition of sanctions under the federal Clean Air Act (42 U.S.C. Sec. 7401 et seq.). 23

(g) (1) In the event that the citizen suit provision set forth in
Section 1365 of Title 33 of the United States Code is amended to
restrict, condition, abridge, or repeal the citizen suit provision, the
board may consider the amendment as a change to the federal
standards and may adopt the baseline federal standards pursuant
to subdivision (c).
(2) In the event that the citizen suit provision set forth in Section

300j-8 of Title 42 of the United States Code is amended to restrict,
 condition, abridge, or repeal the citizen suit provision, the board
 may consider the amendment as a change to the federal standards
 and may adopt the baseline federal standards pursuant to
 subdivision (c).

(h) This article does not prohibit the board or the regional boards
from establishing rules and regulations for California that are more
stringent than the baseline federal standards.

39 120052. (a) An action may be brought by a person in the public40 interest exclusively to enforce baseline federal standards adopted

1 as a measure pursuant to subdivision (c) of Section 120051 if all 2 of the following requirements are met: 3 (1) At least 60 days prior to initiating the action, a complainant 4 provides a written notice to the Attorney General and the counsel 5 for the board, a district attorney, county counsel, counsel of the 6 regional board, and prosecutor in whose jurisdiction the violation 7 is alleged to have occurred, and the defendant identifying the 8 specific provisions of the measure alleged to be violated. 9 (2) The Attorney General, a district attorney, a city attorney, 10 county counsel, counsel of the board, counsel of a regional board, 11 or a prosecutor has not commenced an action or has not been 12 diligently prosecuting the action. 13 (b) Upon filing the action, the complainant shall notify the 14 Attorney General that the action has been filed. 15 (c) The court may award attorney's fees pursuant to Section 1021.5 of the Code of Civil Procedure, and expert fees and court 16 17 costs pursuant to Section 1032 of the Code of Civil Procedure, as 18 appropriate, for an action brought pursuant to this section. 19 (d) This section does not limit other remedies and protections 20 available under state or federal law. 21 22 Article 3. Endangered and Threatened Species 23 24 120060. For purposes of this article, "baseline federal 25 standards" means the federal Endangered Species Act of 1973 (16 26 U.S.C. Sec. 1531 et seq.) in effect as of January 19, 2017, its implementing regulations, and any incidental take permits, 27 28 incidental take statements, or biological opinions in effect as of 29 January 19, 2017. 30 120061. Except as otherwise authorized by state law, the 31 following apply: 32 (a) To ensure no backsliding as a result of any change to the 33 federal Endangered Species Act of 1973 (16 U.S.C. Sec. 1531 et 34 seq.) or its implementing regulations, in the event of the federal 35 delisting of a species that is eligible for protection under the 36 California Endangered Species Act and which is listed as 37 endangered or threatened pursuant to the federal Endangered 38 Species Act of 1973 as of January 1, 2017, or a change in the 39 legally protected status of such a species, including through a

40 change in listing from endangered to threatened, the adoption of

1 a rule pursuant to Section 4(d) of the federal Endangered Species

Act, or any amendment to the federal Endangered Species Act of
1973 or its implementing regulations, or any exemption from the

4 application of the federal Endangered Species Act of 1973 to a

5 federally listed species as of January 1, 2017, the Fish and Game

6 Commission shall determine whether to list, in accordance with

7 subdivision (b), that species under the California Endangered

8 Species Act pursuant to this section.

9 (b) The Fish and Game Commission shall list the affected species identified in subdivision (a), pursuant to subdivision (c) 10 and without following the regular listing process set forth in Article 11 12 2 (commencing with Section 2070) of Chapter 1.5 of Division 3 13 of the Fish and Game Code, no later than the conclusion of its 14 second regularly scheduled meeting or within three months, 15 whichever is shorter, after the occurrence of the event described in subdivision (a) unless either the Fish and Game Commission 16 17 determines that listing of the species is not warranted because it 18 does not meet the criteria in Chapter 1.5 (commencing with Section 19 2050) of Division 3 of the Fish and Game Code or its implementing regulations or the Department of Fish and Wildlife recommends 20 21 that the species undergo the regular listing process. If the 22 Department of Fish and Wildlife makes a recommendation that 23 the species undergo the regular listing process, the Fish and Game Commission shall either accept the recommendation, in which 24 25 event the Fish and Game Commission shall be deemed to have 26 accepted a petition for listing the species pursuant to paragraph 27 (2) of subdivision (e) of Section 2074.2 of the Fish and Game 28 Code, or reject the recommendation and immediately list the 29 species pursuant to this subdivision.

30 (c) Notwithstanding any other law or regulation, because a 31 decision by the Fish and Game Commission to list a species 32 without following the regular listing process becomes effective immediately, the Fish and Game Commission shall add that species 33 34 to the list of endangered or threatened species pursuant to Section 35 100 of Title 1 of the California Code of Regulations, and the 36 addition of that species to the list shall be deemed to be a change 37 without regulatory effect pursuant to paragraph (6) of subdivision 38 (a) of that section.

39 (d) (1) Upon the listing of any species under this section, the40 Fish and Game Commission or the Department of Fish and Wildlife

1 may authorize the taking of such species as otherwise provided

2 for in the Fish and Game Code. In lieu of authorizing take under 3 the provisions of Chapter 1.5 (commencing with Section 2050) of

4 Division 3 of the Fish and Game Code, the Fish and Game

5 Commission or the Department of Fish and Wildlife may adopt

6 the terms and conditions of any rule promulgated under Section

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4(d) of the federal Endangered Species Act, federal incidental take 8 statement, incidental take permit, or biological opinion in effect

9 at the time of the event described in subdivision (a).

10 (2) The Department of Fish and Wildlife shall ensure that 11 protections remain in place pursuant to regulation, incidental take 12 permit, or consistency determination that are at least as stringent

13 as required by the baseline federal standards, as determined by the 14 Department of Fish and Wildlife.

15 (3) This subdivision does not prohibit the Department of Fish 16 and Wildlife from establishing conditions that are more stringent 17 than the baseline federal standards.

18 (e) Any species listed pursuant to this section shall be subject 19 to the provisions in the California Endangered Species Act in the 20 same manner as any other listed species, including those provisions 21 related to a change in listing status or delisting.

22 (f) For those species that the Fish and Game Commission lists 23 pursuant to subdivision (b), or for which baseline federal standards 24 are retained pursuant to subdivision (d), the California 25 Environmental Quality Act (Division 13 (commencing with Section 26 21000) of the Public Resources Code) shall not apply.

27 (g) The provisions of the California Endangered Species Act 28 are measures "relating to the control, appropriation, use, or 29 distribution of water" within the meaning of Section 8 of the federal 30 Reclamation Act of 1902 (43 U.S.C. Section 383) and shall apply 31 to the United States Bureau of Reclamation's operation of the 32 federal Central Valley Project.

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34	DIVISION 3. LABOR STANDARDS
35	
36	Chapter 1. Definitions
37	
38	120100. For purposes of this division, the following definitions
39	apply:

1	(a) "Baseline federal standards" means federal standards in						
2 3	effect as of January 1, 2017. (b) "Board" means the Occupational Safety and Health						
3 4	Standards Board.						
5	(c) "Department" means the Department of Industrial Relations.						
6	(d) "Federal standards" means the federal Fair Labor Standards						
7	Act of 1938, as amended (29 U.S.C. Sec. 201 et seq.), the federal						
8	Occupational Safety and Health Act of 1970, as amended (29						
9	U.S.C. Sec. 651 et seq.), the Federal Coal Mine Health and Safety						
10	Act of 1969, as amended (30 U.S.C. Sec. 801 et seq.), or						
11	regulations established pursuant to those federal statutes.						
12	8						
13	Chapter 2. Operative Provisions						
14							
15	120110. Except as otherwise authorized by state law, all of the						
16	following apply:						
17	(a) The board and the department shall regularly assess proposed						
18	and final changes to the federal standards.						
19	(b) (1) At least quarterly, the board and the department shall						
20	publish a list of changes made to the federal standards and provide						
21	an assessment on whether a change made to the federal standards						
22	is more or less stringent than the baseline federal standards.						
23	(2) If the board or the department, as appropriate, determines						
24	that a change to the federal standards is less stringent than the						
25	baseline federal standards, the board shall consider whether it						
26	should adopt the baseline federal standards as a measure in order						
27	to maintain the state's protections to be at least as stringent as the						
28	baseline federal standards.						
29	(3) The board and the department shall publish its list,						
30	assessment, and consideration for adoption at least 30 days prior						
31 32	to a vote on adoption on its Internet Web site for public comment.						
32 33	(c) If the board or the department, as appropriate, decides to adopt a measure pursuant to subdivision (b), the board or the						
33 34	department shall adopt the measure by an emergency regulation						
35	in accordance with Section 120030.						
36	(d) Notwithstanding any other law, the board or department,						
37	when adopting a measure under subdivision (c) may adopt those						
38	measures in accordance with Section 100 of Title 1 of the						
39	California Code of Regulations and the measures shall be deemed						
40	to be a change without regulatory effect pursuant to paragraph (6)						
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of subdivision (a) of that section and not subject to additional
 notice, procedural, or other considerations contained in state
 analogue statutes.

4 (e) This division does not prohibit the board or the department 5 from establishing rules and regulations for California that are more 6 stringent than the baseline federal standards.

120111. (a) An action may be brought by a person in the public
interest exclusively to enforce a measure adopted pursuant to
subdivision (c) of Section 120110 if all of the following
requirements are met:

(1) At least 60 days prior to initiating the action, a complainant
provides a written notice to the Attorney General and the counsels
for the board or department, as appropriate, a district attorney, a
city attorney, county counsel, and a prosecutor in whose
jurisdiction the violation is alleged to have occurred, and the
defendant identifying the specific provisions of the measure alleged
to be violated.

(2) The Attorney General, a district attorney, a city attorney,
county counsel, the counsel for the board or department, as
appropriate, or a prosecutor has not commenced an action or has
not been diligently prosecuting the action.

(b) Upon filing the action, the complainant shall notify theAttorney General that the action has been filed.

(c) The court may award attorney's fees pursuant to Section
1021.5 of the Code of Civil Procedure, and expert fees and court
costs pursuant to Section 1032 of the Code of Civil Procedure, as
appropriate, for an action brought pursuant to this section.

28 (d) This section does not limit other remedies and protections29 available under state or federal law.

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DIVISION 4. MISCELLANEOUS

120200. The provisions of this title are severable. If any
provision of this title or its application is held invalid, that
invalidity shall not affect other provisions or applications that can
be given effect without the invalid provision or application.

37 120202. (a) This title shall become inoperative on January

38 20, 2025, and, as of January 1, 2026, is repealed.

- 1 (b) Notwithstanding subdivision (a), any action brought pursuant
- 2 to this title on or before January 20, 2025, may proceed to a final3 judgment.
- 4 SEC. 2. No reimbursement is required by this act pursuant to
- 5 Section 6 of Article XIIIB of the California Constitution because
- 6 a local agency or school district has the authority to levy service
- 7 charges, fees, or assessments sufficient to pay for the program or
- 8 level of service mandated by certain mandates in this act, within
- 9 the meaning of Section 17556 of the Government Code.
- 10 However, if the Commission on State Mandates determines that
- 11 this act contains other costs mandated by the state, reimbursement
- 12 to local agencies and school districts for those costs shall be made
- 13 pursuant to Part 7 (commencing with Section 17500) of Division
- 14 4 of Title 2 of the Government Code.

South Coast Air Quality Management District Legislative Analysis Summary – AB 142 (Garcia) Version: December 13, 2018 Analyst: LA/PC

Assembly Bill 142 (Garcia)

Lead-acid batteries

Summary: This bill would double a current manufacturer battery fee from \$1 to \$2 imposed by the Lead-Acid Battery Recycling Act of 2016 (Act) on a manufacturer of lead-acid batteries for each lead-acid battery it sells at retail to a person in California, or that it sells to a dealer, wholesaler, distributor, or other person for retail sale in California. This bill also removes a sunset date related to this fee.

Background: The Act prohibits a person from disposing, or attempting to dispose, of a lead-acid battery at a solid waste facility or on or in any land, surface waters, watercourses, or marine waters, but authorizes a person to dispose of a lead-acid battery at certain locations. The Act requires, until March 31, 2022, a manufacturer battery fee of \$1 to be imposed on a manufacturer of lead-acid batteries for each lead-acid battery it sells at retail to a person in California, or that it sells to a dealer, wholesaler, distributor, or other person for retail sale in California. The Act requires the manufacturer battery fee to be paid to the California Department of Tax and Fee Administration and requires dealers and manufacturers of lead-acid batteries to register with the department.

The Act requires manufacturer battery fees to be credited against amounts owed by the manufacturer to the state under a judgment or determination of liability under specific hazardous materials provisions or any other law for removal, remediation, or other response costs relating to a release of a hazardous substance from a lead-acid battery recycling facility.

The Act requires a portion of moneys from the manufacturer battery fee to be deposited into the Lead-Acid Battery Cleanup Fund and provides that moneys in the Fund are available upon appropriation by the Legislature to the Department of Toxic Substances Control for specified activities, including cleanup of contamination caused by lead acid batteries throughout the state and the repayment of loans from the General Fund to the Toxic Substances Control Account for the cleanup of lead contamination in the state.

Status: 1/24/2019 - Referred to Com. on E.S. & T.M.

Specific Provisions: Specifically, this bill would:

- 1) As of April 1, 2022, double the current manufacturer battery fee from \$1 to \$2 imposed by the Lead-Acid Battery Recycling Act of 2016 on a manufacturer of lead-acid batteries for each lead-acid battery it sells at retail to a person in California, or that it sells to a dealer, wholesaler, distributor, or other person for retail sale in California;
- 2) Remove the sunset date that applies to this manufacturer battery fee and provide that the fee would continue indefinitely;
- 3) Authorize a person who manufactures a lead-acid battery and is not subject to the jurisdiction of the state to agree in writing with the importer of that lead-acid battery to pay the manufacturer battery fee on behalf of the importer;
- 4) Require that manufacturer battery fees be credited to the account of the manufacturer remitting those fees;
- 5) Authorize expenditure of moneys from the Lead-Acid Battery Cleanup Fund for the repayment of specified loans only after specified activities have been fully funded, including cleanup or

other response actions at any area contaminated by operation of a lead-acid battery recycling facility in the state, and related administration and implementation costs;

- 6) Clarify that the existing consumer battery fee shall not apply to any person when a replacement lead-acid battery is included in any used vehicle sold or leased by a new motor vehicle dealer; and
- 7) Take effect immediately as an urgency statute.

Impacts on SCAQMD's Mission, Operations or Initiatives:

This bill would not impact SCAQMD's authority or jurisdiction over lead-acid battery recycling operations, or the monitoring of the forthcoming deconstruction of the closed Exide Technologies battery recycling plant in Vernon, California. From the funds generated by this bill's fees and existing related fees, the bill would only allow repayment of the \$176.6 million loan from the state, meant to help with clean-up of soil contamination from the Exide facility, until the clean-up of the Exide contamination and of other areas in the state that may be contaminated by lead acid batteries has been completed.

The bill is consistent with SCAQMD's environmental justice policy priorities and would help reduce toxic exposure to disadvantaged communities within the South Coast region, thereby helping to protect public health.

Recommended Position: SUPPORT

ASSEMBLY BILL

No. 142

Introduced by Assembly Member Cristina Garcia (Coauthors: Assembly Members Carrillo and Santiago)

December 13, 2018

An act to amend Sections 25215.1, 25215.2, 25215.25, 25215.35, 25215.45, 25215.5, and 25215.56 of, and to add Sections 25215.3 and 25215.48 to, the Health and Safety Code, relating to hazardous waste, and declaring the urgency thereof, to take effect immediately.

LEGISLATIVE COUNSEL'S DIGEST

AB 142, as introduced, Cristina Garcia. Lead-acid batteries.

The Lead-Acid Battery Recycling Act of 2016 prohibits a person from disposing, or attempting to dispose, of a lead-acid battery at a solid waste facility or on or in any land, surface waters, watercourses, or marine waters, but authorizes a person to dispose of a lead-acid battery at certain locations. The act requires, until March 31, 2022, a manufacturer battery fee of \$1 to be imposed on a manufacturer of lead-acid batteries for each lead-acid battery it sells at retail to a person in California, or that it sells to a dealer, wholesaler, distributor, or other person for retail sale in California. The act requires the manufacturer battery fee to be paid to the California Department of Tax and Fee Administration and requires dealers and manufacturers of lead-acid batteries to register with the department. The act defines "manufacturer" for these purposes.

This bill would increase the amount of the manufacturer battery fee to \$2 and would provide that the fee would continue indefinitely. The bill would authorize a person who manufactures a lead-acid battery and is not subject to the jurisdiction of the state to agree in writing with the

importer, as defined, of that lead-acid battery to pay the manufacturer battery fee on behalf of the importer. The bill would exempt an importer who has an agreement of this type with a manufacturer, and who meets other specified requirements, from the requirement to register with the department. The bill would require the department, on or before January 1, 2020, to submit to the Legislature a report that includes, among other things, any regulations or policies adopted by the department for purposes of ensuring compliance with the registration, returns, reporting, payments, audits, refunds, or collection requirements related to the manufacturer battery fee.

The act requires manufacturer battery fees remitted pursuant to these provisions to be credited against amounts owed by the manufacturer to the state under a judgment or determination of liability under specific hazardous materials provisions or any other law for removal, remediation, or other response costs relating to a release of a hazardous substance from a lead-acid battery recycling facility.

This bill would additionally require that manufacturer battery fees remitted pursuant to these provisions be credited to the account of the manufacturer remitting those fees. The bill would require that a person who agrees in writing to pay the manufacturer battery fee on behalf of an importer be credited for a payment of the manufacturer battery fee only if certain conditions are met, including that the person provide to the purchaser of a lead-acid battery a statement that includes specified information on the invoice, contract, or other record documenting the transaction. The bill would relieve a purchaser of a lead-acid battery who receives that statement in a timely manner, and any subsequent purchaser of that battery, from liability for the manufacturer battery fee that would otherwise be imposed on the sale of that battery, provided that the manufacturer remits payment of the manufacturer battery fee to the state for the sale of that battery. The bill would authorize an importer who has paid the manufacturer battery fee and who receives an untimely statement that the fee has been paid for that battery to file a claim for a refund of any overpaid fees.

The bill would authorize the department to disclose the name, address, account number, and account status of a person registered with the department to pay the manufacturer battery fee. The bill would provide that account status does not include the amount of the manufacturer battery fee paid by any person.

The act requires a specified portion of moneys from the manufacturer battery fee to be deposited into the Lead-Acid Battery Cleanup Fund and provides that moneys in the fund are available upon appropriation by the Legislature to the Department of Toxic Substances Control for specified activities, including the repayment of specified loans.

-3-

This bill would authorize expenditure of moneys from the Lead-Acid Battery Cleanup Fund for the repayment of those loans only after the other specified activities have been fully funded.

The act imposes a California battery fee on a person for specified types of replacement lead-acid batteries purchased from a dealer.

This bill would provide, if a new motor vehicle dealer sells or leases to a person a used vehicle into which the new motor vehicle dealer has incorporated a replacement lead-acid battery, that the California battery fee does not apply to the person with regard to that replacement lead-acid battery.

This bill would declare that it is to take effect immediately as an urgency statute.

Vote: $\frac{2}{3}$. Appropriation: no. Fiscal committee: yes. State-mandated local program: no.

The people of the State of California do enact as follows:

1 SECTION 1. Section 25215.1 of the Health and Safety Code 2 is amended to read:

3 25215.1. For purposes of this article, the following definitions4 shall apply:

5 (a) "Board" means-State Board of Equalization. the California
6 Department of Tax and Fee Administration.

7 (b) "Business" means any person, as defined in subdivision (j), 8 (k), except a natural person or a city, county, city and county, 9 district, commission, the state, or any department, agency, or 10 political subdivision of any of those, or an interstate body or, to 11 the extent permitted by law, the United States and its agencies and 12 instrumentalities.

13 (c) "California battery fee" means the fee imposed pursuant to14 Section 25215.25.

(d) "Dealer" means-every *a* person who engages in the retail
sale of replacement lead-acid batteries directly to persons in
California. "Dealer" includes a manufacturer of a new lead-acid
battery that sells at retail that lead-acid battery directly to a person

19 through any means, including, but not limited to, a transaction

- conducted through a sales outlet, catalog, or Internet Web site or 1 2 any other similar electronic means.
- 3 (e) "Importer" means a person described in paragraph (2) of 4 subdivision (h).
- 5

(e)

(f) "Lead-acid battery" means-any a battery weighing over five 6 kilograms that is primarily composed of both lead and sulfuric 7 8 acid, whether sulfuric acid is in liquid, solid, or gel state, with a 9 capacity of six volts or more that is used for any of the following 10 purposes:

(1) As a starting battery that is designed to deliver a high burst 11 12 of energy to an internal combustion engine until it starts.

13 (2) As a motive power battery that is designed to provide the 14 source of power for propulsion or operation of a vehicle, including 15 a watercraft.

(3) As a stationary storage or standby battery that is designed 16 17 to be used in systems where the battery acts as either electrical 18 storage for electricity generation equipment or a source of 19 emergency power, or otherwise serves as a backup in case of failure 20 or interruption in the flow of power from the primary source.

21 (4) As a source of auxiliary power to support the electrical

22 systems in a vehicle, as defined in Section 670 of the Vehicle Code,

including a vehicle as defined in Section 36000 of the Vehicle 23

Code, or an aircraft. 24 25

(f)

26 (g) "Lead-acid battery recycling facility" means-any a site at 27 which lead-acid batteries are or have been disassembled for the 28 purpose of making components available for reclamation to 29 produce elemental lead or lead alloys or at which lead-acid batteries 30 or their components, or both, are or have been reclaimed to produce 31 elemental lead or lead alloys.

32 (g)

33 (*h*) "Manufacturer" means either of the following:

34 (1) The person who manufactures the lead-acid battery and who

35 sells, offers for sale, or distributes the lead-acid battery in the state. 36 (2) (A) If there is no person described in paragraph (1) that is 37 subject to the jurisdiction of the state, the manufacturer is the

38 person who imports the lead-acid battery into the state for sale or

39 distribution.

(B) For purposes of this article, a person is subject to the 1 2 jurisdiction of the state with respect to a lead-acid battery if the 3 person is engaged in business in this state. For purposes of this 4 subparagraph, a person shall be considered to be engaged in 5 business in this state if the person is a "retailer engaged in business 6 in this state," as defined in subdivision (c) of Section 6203 of the 7 *Revenue and Taxation Code, with respect to that lead-acid battery,* 8 or if the person has a substantial nexus with this state for purposes 9 of the commerce clause of the United States Constitution. 10 (h)(i) "Manufacturer battery fee" means the fee imposed pursuant 11 12 to Section 25215.35. 13 (i) 14 (*j*) "Owner or operator" has the same meaning given in Section 15 9601(20) of Title 42 of the United States Code and any person that 16 previously met that definition or is the legal successor to a person 17 that meets the definition or previously met the definition. 18 (i) 19 (k) "Person" means an individual, trust, firm, joint stock 20 company, business concern, corporation, including, but not limited 21 to, a government corporation, partnership, limited liability 22 company, or association. "Person" also includes any city, county, 23 city and county, district, commission, the state, or any department, 24 agency, or political subdivision of any of those, interstate body, 25 and the United States and its agencies and instrumentalities to the 26 extent permitted by law. 27 (\mathbf{k}) 28 (1) "Remedial action" has the same meaning as in Section 29 25322. 30 (H)31 (m) "Removal" has the same meaning as in Section 25323. 32 (m) 33 (n) "Replacement lead-acid battery" means a new lead-acid 34 battery that is sold at retail subsequent to the original sale or lease 35 of the equipment or vehicle in which the lead-acid battery is

intended to be used. "Replacement lead-acid battery" does not

- 37 include a spent, discarded, refurbished, reconditioned, rebuilt, or
- 38 reused lead-acid battery.
- 39 (n)

36

1	(o) "Response	action"	has	the	same	meaning	as	in	Section
2	25323.3.								

3 $(\mathbf{0})$

4 (p) (1) A "retail sale" or a "sale at retail" has the same meaning 5 as defined in Section 6007 of the Revenue and Taxation Code.

6 (2) "Retail The following shall not be considered a "retail sale" does not include any or a "sale at retail" for purposes of the 7 8 following: this article:

9 (A) The sale of a battery for which a California battery fee has 10 previously been paid.

11 (B) The sale of a replacement lead-acid battery that is 12 temporarily stored or used in California for the sole purpose of 13 preparing the replacement lead-acid battery for use thereafter solely 14 outside of the state and that is subsequently transported outside 15 the state and thereafter used solely outside of the state.

16 (C) The sale of a battery for incorporation into new equipment 17 for subsequent resale.

18 (D) The replacement of a lead-acid battery pursuant to a 19 warranty or a vehicle service contract described under Section 20 12800 of the Insurance Code.

21 (E) The sale of any battery intended for use with or contained 22 within a medical device, as defined in the federal Food,

- 23 Drug, and Cosmetic Act (21 U.S.C. Sec. 321(h)) as that definition may be amended.
- 24 25

 (\mathfrak{p})

26 (q) "Used lead-acid battery" means a lead-acid battery no longer 27 fully capable of providing the power for which it was designed or

28 that a person no longer wants for any other reason.

29 (q)

30 (r) "Wholesaler" means any a person who purchases a lead-acid

31 battery from a manufacturer for the purpose of selling the lead-acid

32 battery to a dealer, high-volume customer, or to a person for 33 incorporation into new equipment for resale.

34 SEC. 2. Section 25215.2 of the Health and Safety Code is 35 amended to read:

36 25215.2. (a) A dealer shall accept from persons a person at

37 the point of transfer a used lead-acid battery of a type listed in

- 38 paragraph (1), (2), or (4) of subdivision (e) (f) of Section 25215.1,
- 39 but shall not be required to accept from any person more than six

used lead-acid batteries per day. A dealer shall not charge any *a* fee to receive a used lead-acid battery.
 (b) On and after April 1, 2017, a dealer shall charge to each *a* person who purchases a replacement lead-acid battery of a type

5 listed in paragraph (1), (2), or (4) of subdivision (c) (f) of Section

6 25215.1 and who does not simultaneously provide the dealer with

7 a used lead-acid battery of the same type and size a refundable

8 deposit for each such battery purchased. The dealer shall display9 the amount of the deposit separately on the receipt provided to the

10 purchaser. The dealer shall refund the deposit to that person if,

11 within 45 days of the sale of the replacement lead-acid battery, the

12 person presents to the dealer a used lead-acid battery of the same

13 type and size. A dealer may require the person to provide a receipt 14 documenting the payment of the deposit before refunding any

15 deposit. A dealer may keep any lead-acid battery deposit moneys

16 that are not properly claimed within 45 days after the date of sale

17 of the replacement lead-acid battery, not including any sales tax

18 reimbursement charged to the consumer. Sales tax reimbursement

19 charged to the consumer on the amount of the deposit shall be 20 remitted to the board. *California Department of Tax and Fee*

21 Administration.

(c) A dealer shall post a written notice that is clearly visible in
 the public sales area of the establishment, or include on the
 purchaser's receipt, the following language:

25

26

This dealer is required by law to charge a nonrefundable \$1 California batteryfee and a refundable deposit for each lead-acid battery purchased.

29

30 A credit of the same amount as the refundable deposit will be issued if a used

31 lead-acid battery is returned at the time of purchase or up to 45 days later along

32 with this dealer's receipt.

33

(d) The department shall provide notice of an alleged violation
of subdivision (c) to any person alleged to be in violation of that
subdivision no less than 60 days before the issuance of an order
or filing an action imposing a civil penalty pursuant to subdivision
(b) of Section 25189.2. If the person corrects the alleged violation
before the order is issued or the action is filed the department shall

40 not impose the civil penalty.

1 (e) Subdivision (c) does not apply to any of the following:

2 (1) A person whose ordinary course of business does not include3 the sale of lead-acid batteries.

4 (2) A person that does not sell lead-acid batteries directly to 5 consumers, such as over-the-counter, but instead removes 6 nonfunctional or damaged batteries and installs new lead-acid 7 batteries as a part of an automotive repair dealer service.

8 (3) A business that removes lead-acid batteries and installs new 9 lead-acid batteries as a part of roadside services. "Roadside services," for purposes of this paragraph, means the services 10 performed upon a motor vehicle for the purpose of transporting 11 the vehicle or to permit it to be operated under its own power, by 12 13 or on behalf of a motor club holding a certificate of authority 14 pursuant to Chapter 2 (commencing with Section 12160) of Part 15 5 of Division 2 of the Insurance Code.

(f) Except as authorized by this article, a dealer shall not collect
 a refundable deposit for a lead-acid battery from a person.

18 SEC. 3. Section 25215.25 of the Health and Safety Code is 19 amended to read:

20 25215.25. (a) (1) On and after April 1, 2017, until March 31,

21 2022, a A California battery fee of one dollar (\$1) shall be imposed

22 on a person for each replacement lead-acid battery of a type listed

23 in paragraph (1), (2), or (4) of subdivision (c) (f) of Section 25215.1

24 purchased from a dealer. dealer, except as specified in subdivision

25 (c). On and after April 1, 2017, until March 31, 2022, the amount

26 of the fee shall be one dollar (\$1). On and after April 1, 2022, the

27 *amount of the fee shall be* two dollars (\$2).

(2) Except for sales to businesses, the dealer shall charge a
person the amount of the California battery fee as a charge that is
separate from, and not included in, any other fee, charge, or other

31 amount paid by the person.

(3) The dealer shall collect the California battery fee at the time of sale and may retain $1\frac{1}{2}$ percent of the fee as reimbursement for any costs associated with the collection of the fee. The remainder

35 of the California battery fee collected by the dealer shall be paid

36 to the board California Department of Tax and Fee Administration

37 in a manner and form prescribed by the board *California*

38 Department of Tax Fee Administration and at the time the return

39 is required to be filed, as specified in Section 25215.47.

(4) All moneys collected *or required to be collected* by a dealer
 pursuant to this section that are not properly remitted to the board
 California Department of Tax and Fee Administration pursuant
 to paragraph (3) shall be deemed to be a debt owed to the state by
 the dealer.

6 (5) A person who purchases a replacement lead-acid battery in 7 this state is liable for the California battery fee until that fee has 8 been paid to the board, *California Department of Tax and Fee* 9 *Administration*, except that payment to a dealer registered under 10 this article is sufficient to relieve the person from further liability 11 of the fee.

(6) All moneys remitted to the board California Department of
 Tax and Fee Administration pursuant to this subdivision shall be
 expended in accordance with Section 25215.5.

(b) (1) Except for sales to businesses, the California battery fee
imposed pursuant to subdivision (a) shall be separately stated by
the dealer on the invoice given to a person at the time of sale. Any
other fee charged by the dealer related to the lead-acid battery
purchase, including any deposit charged, credited, or both, pursuant
to Section 25215.2, shall be identified separately from the
California battery fee.

(2) If a person purchases more than one lead-acid battery in a
single transaction, and is therefore imposed more than one
California-lead-acid battery fee in that transaction, the dealer shall
not be required to individually list on the invoice each California
lead-acid battery fee imposed, but may instead condense the fees
to a single-line item.

28 (c) If a new motor vehicle dealer sells or leases to a person a 29 used vehicle into which the new motor vehicle dealer has 30 incorporated a replacement lead-acid battery, the California 31 battery fee imposed by paragraph (1) of subdivision (a) shall not 32 apply to the person with regard to that replacement lead-acid battery. For purposes of this subdivision, "new motor vehicle 33 34 dealer" has the same meaning as is specified in Section 426 of the 35 Vehicle Code, and "used vehicle" has the same meaning as is 36 specified in Section 665 of the Vehicle Code.

37 SEC. 4. Section 25215.3 is added to the Health and Safety 38 Code, to read:

39 25215.3. (a) A person who manufactures a lead-acid battery40 and is not subject to the jurisdiction of the state may agree in

1 writing with the importer of that lead-acid battery to pay the 2 manufacturer battery fee imposed pursuant to Section 25215.35

3 on behalf of the importer.

4 (b) A person who pays the manufacturer battery fee on behalf 5 of an importer pursuant to subdivision (a) shall be credited, 6 pursuant to Section 25215.56, for that payment, if the person does 7 all of the following:

8 (1) The person submits to the jurisdiction of the state for 9 purposes of the fees imposed under this article and registers with 10 the California Department of Tax and Fee Administration to pay 11 and remit the manufacturer battery fee.

(2) The person provides to the purchaser a statement on theinvoice, contract, or other record documenting the transaction thatincludes the following information:

15 (A) The person's manufacturer account number with the 16 California Department of Tax and Fee Administration.

(B) An identification of the lead-acid battery or batteries soldthat will be subject to the manufacturer battery fee.

19 (C) A statement that the person will pay the manufacturer battery 20 fee to the state on behalf of the importer.

21 (3) The person retains records sufficient to document that the 22 lead-acid battery for which the person has agreed to pay the manufacturer battery fee was delivered for retail sale in California, 23 24 the identity of the purchaser of that battery, and that the statement 25 required by paragraph (2) was provided to the purchaser of the 26 battery in a timely manner pursuant to subdivision (c). The person 27 shall retain these records for a period of no less than four years 28 and shall make the records reasonably available to the California 29 Department of Tax and Fee Administration upon request.

30 (c) (1) A purchaser of a lead-acid battery who receives a timely 31 statement from a manufacturer pursuant to paragraph (2) of 32 subdivision (b), and any subsequent purchaser of that battery, shall be relieved from any obligation imposed pursuant to Section 33 34 25215.35 on the sale of that battery, provided that the manufacturer 35 remits payment of the manufacturer battery fee to the state for the 36 sale of that battery. A statement shall be considered timely if it is 37 issued before the manufacturer bills the purchaser for the lead-acid 38 battery, within the manufacturer's normal billing and payment 39 cycle, before delivery of the battery to the purchaser, or before the 40 date on which a return would be due pursuant to Section 25215.47.

(2) An importer who has paid the manufacturer battery fee for
 a lead-acid battery and who subsequently receives an untimely
 statement that the fee has been paid for that battery may file a
 claim for a refund for any overpaid fees as provided in Article 3
 (commencing with Section 55081) of Chapter 3 of, and Article 1
 (commencing with Section 55221) of Chapter 5 of, Part 30 of
 Division 2 of the Revenue and Taxation Code.

8 (d) (1) On or before January 1, 2021, the California Department 9 of Tax and Fee Administration shall submit to the Legislature a 10 report relating to persons who have paid the manufacturer battery 11 fee on behalf of an importer pursuant to subdivision (a). The report 12 shall include, but is not limited to, all of the following information: 13 (A) Any regulations or policies adopted by the California 14 Department of Tax and Fee Administration for purposes of 15 ensuring compliance with the registration, returns, reporting, 16 payments, audits, refunds, or collection requirements related to 17 the manufacturer battery fee. 18 (B) The revenue impact as determined by the revenues paid or 19 collected compared to the estimated revenue amount calculated

by the Senate Committee on Appropriations in its analysis of the fiscal impact of Assembly Bill 2153 (Chapter 666 of the Statutes of 2016), adjusted as deemed appropriate by the California Department of Tax and Fee Administration to account for differences in reporting periods and to account for exemptions or exclusions that were not previously accounted for in that analysis or that were enacted after January 1, 2018.

(C) The fiscal impact of the manufacturer battery fee, including
costs required to ensure compliance, costs related to audits, refunds,
and administering regulations, and estimated cost savings.

30 (2) A report required to be submitted pursuant to this subdivision
31 shall be submitted in compliance with Section 9795 of the
32 Government Code.

(3) Pursuant to Section 10231.5 of the Government Code, therequirement for submitting a report pursuant to this subdivision is

35 inoperative on January 1, 2025.

36 SEC. 5. Section 25215.35 of the Health and Safety Code is 37 amended to read:

38 25215.35. (a) On and after April 1, 2017, a A manufacturer

39 battery fee of one dollar (\$1) two dollars (\$2) shall be imposed on

40 a manufacturer of lead-acid batteries for each lead-acid battery it

sells at retail to a person in California or that it sells to a dealer, 1 2 wholesaler, distributor, or other person for retail sale in California. 3 (b) Manufacturer battery fees shall be paid to the board 4 California Department of Tax and Fee Administration in a manner 5 and form as prescribed by the board California Department of Tax and Fee Administration and at the time the return is required to 6 7 be filed, as specified in Section 25215.47. 8 (c) This section shall become inoperative on April 1, 2022, and, 9 as of January 1, 2023, is repealed, unless a later enacted statute, that becomes operative on or before January 1, 2023, deletes or 10 extends the dates on which it becomes inoperative and is repealed. 11 SEC. 6. Section 25215.45 of the Health and Safety Code is 12 13 amended to read: 14 25215.45. (a) (1) Except as provided in paragraph (2), the 15 lead-acid battery fees imposed pursuant to Sections 25215.25 and 25215.35 shall be collected by the board California Department 16 17 of Tax and Fee Administration in accordance with the Fee Collection Procedures Law (Part 30 (commencing with Section 18 19 55001) of Division 2 of the Revenue and Taxation Code). For the 20 purposes of this section, the reference to "feepayer" shall include 21 a dealer and manufacturer. (2) Notwithstanding the petition for redetermination and claim 22 23 for refund provisions of the Fee Collection Procedures Law (Article 3 (commencing with Section 55081) of Chapter 3 of, and Article 24 25 1 (commencing with Section 55221) of Chapter 5 of, Part 30 of Division 2 of the Revenue and Taxation Code), the-board 26 27 California Department of Tax and Fee Administration shall not do either of the following: 28 29 (A) Accept or consider any petition for redetermination of fees 30 determined under this article if the petition is founded upon the grounds that a battery is or is not a lead-acid battery, as defined in 31 32 Section 25215.1. The board California Department of Tax and 33 Fee Administration shall forward to the department any petition 34 for redetermination that is based on those grounds. 35 (B) Accept or consider a claim for refund of fees paid pursuant to this article, if the claim for refund is founded upon the grounds 36 37 that a battery is or is not a lead-acid battery, as defined in Section 38 25215.1. The board California Department of Tax and Fee 39 Administration shall forward to the department any claim for refund

40 that is based on these grounds.

1 (b) The following persons shall register with the board: 2 *California Department of Tax and Fee Administration:*

3 (1) A dealer of lead-acid batteries.

4 (2) (*A*) A manufacturer of lead-acid-batteries. *batteries, unless* 5 *subparagraph (B) applies.*

6 (B) A person is not required to register with the California

7 Department of Tax and Fee Administration as a manufacturer of

8 lead-acid batteries if the person has an agreement or agreements

9 pursuant to Section 25215.3 with a manufacturer or manufacturers

10 of lead-acid batteries pursuant to which the manufacturer or

11 manufacturers agree to pay the manufacturer battery fee on behalf 12 of the person and the agreement or agreements apply to all

13 lead-acid batteries sold by the person. A person exempt from

registration pursuant to this subparagraph shall comply with any

15 other applicable requirements that may be prescribed by the

16 California Department of Tax and Fee Administration.

17 SEC. 7. Section 25215.48 is added to the Health and Safety

18 Code, to read:

19 25215.48. Notwithstanding subdivision (b) of Section 55381

20 of the Revenue and Taxation Code, the California Department of

21 Tax and Fee Administration may disclose the name, address,

22 account number, and account status of a person registered with

23 the California Department of Tax and Fee Administration to pay

24 the manufacturer battery fee. Account status shall not include the

25 amount of the manufacturer battery fee paid by any person.

26 SEC. 8. Section 25215.5 of the Health and Safety Code is 27 amended to read:

28 25215.5. (a) Lead-acid battery fees collected pursuant to this29 article shall be managed as follows:

30 (1) The board shall retain moneys necessary for the payment of 31 refunds and reimbursement of the board for expenses in the 32 collection of the fees.

33 (2) The remaining moneys shall be deposited into the Lead-Acid

34 Battery Cleanup Fund, which is hereby created in the State

35 Treasury, and is available upon appropriation by the Legislature

36 to the department for the purposes specified in this section.

(b) (1) Moneys in the Lead-Acid Battery Cleanup Fund shallbe expended for the following activities:

39 (A) Investigation, site evaluation, cleanup, remedial action,

40 removal, monitoring, or other response actions at any area of the

1 state that is reasonably suspected to have been contaminated by

2 the operation of a lead-acid battery recycling facility.

3 (B) Administration of the Lead-Acid Battery Cleanup Fund and4 the department's administration and implementation of this article.

5 (C) Repayment of a loan described in Section 25215.59 that 6 was made before the effective date of the act which added this 7 section, or any other loan made for purposes set forth in 8 subparagraph (A). *Moneys shall be expended for purposes of this* 9 *subparagraph only after the activities specified in subparagraphs* 10 (A) and (B) have been fully funded.

(2) Moneys in the Lead-Acid Battery Cleanup Fund shall not
be used to implement Article 14 (commencing with Section 25251)
with respect to lead-acid batteries or to loan moneys to any other

14 program.

15 (c) The department shall report to the Legislature by February 1, 2018, and annually thereafter, on the status of the Lead-Acid 16 17 Battery Cleanup Fund and on the department's progress 18 implementing this article, including, but not limited to, the sites 19 at which actions were performed using moneys from the fund, the 20 status of cleanup at those sites, including total anticipated costs of 21 cleanup at those sites, the balance of the fund, the amount of fees 22 remitted to the fund, the amount spent by the fund and the purposes 23 for which those amounts were spent, the amounts reimbursed to the board pursuant to paragraph (1) of subdivision (a), and any 24 25 other information requested by the Legislature.

26 SEC. 9. Section 25215.56 of the Health and Safety Code is 27 amended to read:

28 25215.56. (a) Any manufacturer battery fees-paid remitted pursuant to this article shall, subject to subdivision (b) of Section 29 30 25215.3, be credited to the account of the manufacturer remitting 31 those fees to the California Department of Tax and Fee 32 Administration and shall be credited against amounts owed by the manufacturer to the state pursuant to a judgment or determination 33 34 of liability under Chapter 6.8 (commencing with Section 25300) 35 or any other law for removal, remediation, or other response costs 36 relating to a release of a hazardous substance from a lead-acid 37 battery recycling facility. A manufacturer shall not seek more than 38 one credit for the same fee amount. This subdivision does not apply

39 to any manufacturer who is also an owner or operator of a lead-acid

40 battery recycling facility in California.

1 (b) The amount paid by a manufacturer for a manufacturer 2 battery fee shall be considered to reduce the manufacturer's share 3 of liability in the allocation or apportionment of costs among potentially responsible parties in a contribution action brought by 4 5 a private party related to a release of hazardous substances from 6 a lead-acid battery recycling facility. This subdivision does not 7 apply to any manufacturer who is also an owner or operator or a 8 former owner or operator of a lead-acid battery recycling facility 9 in California where a release occurred.

(c) This article does not create a private cause of action. Nothing
in this article shall be construed to affect, expand, alter, or limit
any requirements, duties, rights, or remedies under other law, or
limit the state or any other party from bringing any cause of action
that may exist under any law.
SEC. 10. This act is an urgency statute necessary for the

immediate preservation of the public peace, health, or safety within
the meaning of Article IV of the California Constitution and shall
go into immediate effect. The facts constituting the necessity are:
In order to increase the cleanup of toxic materials and to prevent
additional toxic pollution at the earliest possible time, it is

21 necessary that this act take effect immediately.

ATTACHMENT 5



Air Quality Management District

21865 Copley Drive, Diamond Bar, CA 91765-4182 (909) 396-2000 • www.aqmd.gov

HOME RULE ADVISORY GROUP Wednesday, January 9, 2019 MEETING MINUTES

CHAIR: Dr. Joseph Lyou, SCAQMD Governing Board Member

South Coast

MEMBERS PRESENT:

Curt Coleman (Southern California Air Quality Alliance); Martin Hansberger (Holliday Rock Company); Bill LaMarr (California Small Business Alliance); David Rothbart (Los Angeles County Sanitation District); and TyRon Turner (Dakota Communications).

The following members participated by conference call: Marc Carrel (Breathe California of Los Angeles County); Brian Clerico (CARB); Rongsheng Luo (SCAG); Bill Quinn (California Council for Environmental & Economic Balance).

MEMBERS ABSENT:

Ben Benoit (SCAQMD Governing Board Member); Mike Carroll (Regulatory Flexibility Group); Michael Downs (Downs Energy); Bridget McCann (Western States Petroleum Association); Dan McGivney (Southern California Gas); Art Montez (AMA International); Dr. Clark Parker (SCAQMD Governing Board Member); Larry Rubio (Riverside Transit Agency); Larry Smith (Cal Portland Cement); and Amy Zimpfer (EPA).

OTHER ATTENDEES:

Mark Abramowitz (Board Consultant to Dr. Lyou); Bernie Bisham; Rita Loof (RadTech); and Susan Stark (Marathon Petroleum).

SCAQMD STAFF:

Jill Whynot	Chief Operating Officer
Philip Fine	Deputy Executive Officer
William Wong	Principal Deputy District Counsel
Sam Atwood	Media Relations Manager
Lisa Tanaka O'Malley	Senior Public Affairs Manager
Angela Kim	Administrative Secretary

OPENING COMMENTS AND SELF-INTRODUCTIONS

The meeting was called to order at 10:01 a.m. by Dr. Joseph Lyou (Chairman).

APPROVAL OF JULY 2018 MEETING MINUTES

Dr. Lyou asked for comments on the November14, 2018 meeting minutes. Hearing none, the minutes were approved.

EPA AND FEDERAL ACTIVITIES

Due to the federal government shutdown, there was no meeting participation by EPA staff.

Discussion

Curt Coleman reported that the proposed approval for the latest Ozone SIP was published in the Federal Register in December 2018, along with a final approval of the PM2.5 SIP. Dr. Fine clarified that the final approval did not include the contingency measures.

Phil Fine reported on EPA's Cleaner Truck Initiative (CTI) announced in November 2018, which will change the tailpipe standards for new purchases of heavy-duty trucks.

Bill La Marr inquired if SCAQMD has received feedback from the trucking associations. Dr. Fine indicated that feedback was received from the engine manufacturers association and truck manufacturers.

David Rothbart inquired how this will influence the timing on attainment. Dr. Fine indicated that the implementation date for new purchases will be 2023 - 2024, which will not help SCAQMD with the 2023 Standard. Mr. Rothbart further inquired if it is not possible to reach attainment, are the possible consequences being considered. Dr. Fine indicated that SCAQMD is thinking ahead and we are working on this internally. Dr. Lyou added that there are legal liabilities if you do not have a viable plan.

CARB REGULATORY ACTIVITIES

Brian Clerico provided CARB updates on proposed and recent regulatory activities.

Proposed CARB Board and Regulatory Activities

- Consideration of the San Joaquin Valley PM2.5 State Implementation Plans
- Consider Proposed Amendments to the Solid Waste Collection Vehicle Regulation.

Follow-up from November 2018 meeting

Phil Fine provided an update on CARB's emissions inventory regulation for reporting criteria of air pollutants and toxic air contaminants.

Discussion

Dr. Lyou indicated that it seems like CARB is concerned about districts that do not have sufficient emissions data available, or do they look at SCAQMD as the largest district and indicate that more data should be provided. Dr. Fine replied that it is a combination of both.

Bill LaMarr inquired about emission reporting requirements for disadvantaged communities. Dr. Fine indicated that CARB's staff recommendation was to eliminate the "only within community" emissions reporting requirements and have a threshold approach. Mr. LaMarr also inquired about the changes requested by CARB's Board, and if these changes were approved. Mr. Clerico indicated that he would need to follow-up on this. Jill Whynot added that it is her understanding that CARB staff has up to a year to finalize the regulation and they will prepare a revised proposal, which will have a 15-day public review period.

David Rothbart inquired about the air toxic thresholds. Dr. Fine indicated it is still unknown how this will be determined, because many smaller facilities are currently not required to assess their emissions.

Bill Quinn commented on double-jeopardy concerns between the air districts and CARB on the enforcement of annual emission reporting regulations.

LEGISLATIVE UPDATE

Lisa Tanaka O'Malley reported on key legislative updates.

The Legislative Committee held a meeting on December 14, 2018. The federal and state consultants provided written reports for the Committee and reported on the following items.

At the federal level, the consultants reported on the United States Environmental Protection Agency (U.S. EPA) Cleaner Trucks Initiative, which will begin the rulemaking process for an Ultra-Low NOx Emission Standard for Heavy-Duty Trucks.

On the state level, the consultants stated that the Legislative Analyst's office reported that the state has a \$15 billion surplus in revenue for 2019, with about \$14.5 billion in reserve. However, the Legislative Analyst's office also reports that the combined cost of bills introduced in the new year by the state Legislature totals over \$40 billion and there are more to come.

The Legislative Committee also recommended that the Governing Board approve the Federal and State 2019 Goals and Objectives.

Discussion

Dr. Lyou commented that California has a new Governor that was sworn into office on January 7, 2019, and he has begun to make appointments to his cabinet.

UPDATE REGARDING LITIGATION ITEMS AND RELATED EPA ACTIONS

William Wong provided updates to the December 2018 status report.

- Case #3: It was reported that the petitioners had until December 23, 2018 to file an appeal. The update is that the appeal was filed on December 21, 2018.
- Case #4: It was reported that we are in settlement negotiations. The update is that we are still in settlement negotiations and getting close to a settlement.

Discussion

Marc Carrel inquired if there was an update on case #2. Mr. Wong indicated that he did not have an update.

SUBCOMMITTEE STATUS REPORTS

A. Freight Sustainability (Dan McGivney)

No report was provided.

B. Small Business Considerations (*Bill La Marr*)

No report was provided.

Public Comment

Susan Stark indicated that she had heard that EPA is taking comments on whether to postpone the 2020 New Source Performance Standards (NSPS) for wood burning heaters, and inquired if this would impact attainment. Dr. Fine felt that change would not have much impact in South Coast.

C. Environmental Justice and AB 617 Implementation (Curt Coleman)

An update was provided on the following item.

- Wilmington/Carson/West Long Beach AB 617 Steering Committee meeting is scheduled for January 10, 2019 in the Carson Community Center.
- Martin Luther King event is scheduled for January 19, 2019

D. Climate Change (David Rothbart)

A report was provided on the following item.

• Climate change article reported that the United States CO2 emissions in 2018 increased by 3.4 percent, this is the second largest annual gain in more than two decades.

Discussion

Jaclyn Ferlita reported on CARB's December 2018 Cap and Trade Program amendments that addressed the post-2020 program.

REPORT FROM AND TO THE STATIONARY SOURCE COMMITTEE

Dr. Phil Fine provided a summary of items discussed at the December 2018 meeting.

- Proposed Rule 1118.1; and
- Proposed Amended Rule 1403.

The next Stationary Source Committee meeting is January 18, 2019.

Discussion

Bill LaMarr commented that he testified at the December 2018 Governing Board meeting on PR1118.1, for the SCAQMD to advocate to the California Public Utilities Commission (CPUC). Mr. LaMarr indicated that he did not understand the comment made by the SCAQMD Executive Officer on not wanting to advocate to another agency. Dr. Fine indicated that he understood that SCAQMD staff would look into this issue in the next few months and provide a briefing to the Stationary Source Committee for direction. Dr. Lyou commented that he also had questions on the Executive Officer's response, and this is why he asked for a staff briefing.

DISCUSSION ON 2019 MEETING TOPICS

Home Rule Advisory Group and public members provided input on possible future meeting topics for the 2019 calendar year.

- CPUC Regulations and Waste Gas Utilization (biogas and well gas)
- Renewable Energy and Reliability/Storage/Charging Infrastructure
- Enforcement Policy
- Trends in Emissions from Transportation (LDV vs. MDV vs. HDV)
- CARB Emissions Reporting Regulation
- CARB Truck and Bus Rule: Implementation and Enforcement
- Rule 1135 Internal Bank ERC Generation Accounting
- RECLAIM
- Rule 1106/1106.1

OTHER BUSINESS

Bill LaMarr inquired about Quemetco and the need for a battery recycling facility in Southern California. Dr. Lyou indicated that he was not aware of another lead acid secondary smelter west of Texas, and confirmed that the City of Industry facility is assuming the burden for the Western United States.

PUBLIC COMMENT

There were no comments.

ADJOURNMENT

The meeting was adjourned at 11:35 am, to be followed by less than a quorum of the committee participating in a tour of the AQ-SPEC located in the SCAQMD laboratory. The next meeting of the Home Rule Advisory Group is scheduled for 10:00 a.m. on March 13, 2019, and will be held at SCAQMD in Conference Room CC-8.



BOARD MEETING DATE: April 5, 2019

AGENDA NO. 19

REPORT: Mobile Source Committee

SYNOPSIS:The Mobile Source Committee held a meeting on Friday,
March 15, 2019. The following is a summary of the meeting.

RECOMMENDED ACTION: Receive and file.

Dr. Clark E. Parker, Sr., Chair Mobile Source Committee

PMF:SLR:AK

Committee Members

Present: Dr. Clark E. Parker, Sr./Chair (videoconference) Dr. Joseph Lyou/Vice Chair Supervisor Lisa Bartlett (videoconference) Mayor Pro Tem Larry McCallon Mayor Judith Mitchell

Absent: Supervisor V. Manuel Perez

Call to Order

Chair Parker called the meeting to order at 9:01 a.m.

INFORMATIONAL ITEM:

1. Update on Pacific Rim Initiative for Maritime Emission Reductions

Dr. Sarah Rees, Assistant Deputy Executive Officer/Planning, Rule Development and Area Sources, presented background information on Ocean Going Vessel (OGV) emissions and provided an update of recent efforts related to the Pacific Rim Initiative for Maritime Emission Reductions (PRIMER) program. Dr. Parker inquired about the future contribution of OGV emissions relative to other sources. Dr. Rees replied that while emissions from other sources are projected to decrease due to existing and planned regulations, emissions from OGV are projected to be relatively flat which means OGV emissions will represent a larger percentage of total Basin NOx emissions in future years. Dr. Philip Fine, Deputy Executive Officer/Planning, Rule Development and Area Sources, added that OGV and commercial boat emissions are projected to represent approximately 14% of the Basin's total NOx emissions by 2023. Dr. Parker then asked about OGV retrofit costs and Dr. Rees explained that retrofitting to Tier 3 standards is very expensive with one of the technology demonstration projects estimated at approximately two million dollars, but future costs could be reduced. Dr. Rees added that planned incentive programs could help offset those costs and that non-monetary incentives, such as preferential berthing, are being explored as port turnaround time is very important to shipping lines. Dr. Fine commented that OGV retrofit projects appear to be more cost-effective relative to some other incentive programs, such as truck replacements, and noted that the demonstration projects will include costeffectiveness information.

Dr. Lyou encouraged staff to work with International Maritime Organization (IMO) representatives when developing future programs and stressed the importance of costs to shipping operators as a motivating factor in their decision making. Dr. Lyou stated that OGV hoteling and anchoring are a significant source of emissions and asked about effectiveness of the CARB shore power regulations. Dr. Fine stated that the CARB shore power regulations are proposed to require a reduction of 80% or more of emissions at berth and that compliance can be achieved through a variety of options. Dr. Fine added that OGV plug-in technology retrofit projects are also very expensive and staff will be evaluating the overall reductions from retrofitting OGV auxiliary engines, which reduces emissions at berth and also during transit and maneuvering, as part of the demonstration projects. Dr. Lyou thanked staff for participating in industry conferences and suggested participation in conferences by Trans Pacific Maritime Association, the National Retailers Federation and the Retailer Industry Leaders Association as a way to inform cargo owners of the PRIMER program as cargo owners and retailers can influence shipping decisions.

Mayor Pro Tem McCallon asked about the prevalence of Chinese shipping companies and noted the importance of involving the Chinese central government. He also noted that SCAG staff has good working relationships with the Chinese and Korean scientific community and inquired about the number of vessels that come to our ports that are Chinese. Dr. Rees commented that there has been some industry consolidation but Chinese companies, including State-sponsored COSCO, are significantly involved in local shipping. She agreed on the importance of working with the Chinese government. Mayor Mitchell asked if there have been Korean shipping company contacts. Dr. Rees indicated that the initial focus has been with China and to a limited extent with Taiwan. Dr. Lyou suggested working with the Maersk shipping lines due to their sustainability practices.

Dr. Parker asked about air quality regulations at other ports and the percentage of national cargo passing through west coast ports. Dr. Rees stated that there are IMO requirements, but California has the most comprehensive control programs. Dr. Lyou added that competitiveness between ports is strong and he encouraged development of a unified program between all west coast ports to avoid the possibility of cargo diversion.

WRITTEN REPORTS:

- 2. Rule 2202 Activity Report: Rule 2202 Summary Status Report This item was received and filed.
- **3. Monthly Report on Environmental Justice Initiatives: CEQA Document Commenting Update** This item was received and filed.

OTHER MATTERS:

- **4. Other Business** There was no other business.
- **5. Public Comment Period** There were no public comments.

6. Next Meeting Date:

The next regular Mobile Source Committee meeting is scheduled for Friday, April 19, 2019.

Adjournment

The meeting adjourned at 9:56 a.m.

Attachments

- 1. Attendance Record
- 2. Rule 2202 Activity Report Written Report
- 3. Draft Monthly Report on Environmental Justice Initiatives: CEQA Document Commenting Update – Written Report

ATTACHMENT 1

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT MOBILE SOURCE COMMITTEE MEETING Attendance – March 15, 2019

Dr. Clark E. Parker, Sr. (Videoconference) Dr. Joseph Lyou Supervisor Bartlett (Videoconference) Mayor Pro Tem Larry McCallon Mayor Mitchell	SCAQMD Board Member SCAQMD Board Member SCAQMD Board Member
Ron Ketcham	Board Consultant (McCallon)
Curtis Coleman Bill LaMarr Bill Pearce David Rothbart Tammy Yamasaki	California Small Business Alliance Boeing Los Angeles County Sanitation Districts
Barbara Baird Naveen Berry Philip Fine Bayron Gilchrist Carol Gomez Angela Kim Ian MacMillan Matt Miyasato Wayne Nastri Zorik Pirveysian Sarah Rees Angelica Reyes Lijin Sun Laki Tisopulos	SCAQMD Staff SCAQMD Staff
Brian Tomosovic Veera Tyagi Jill Whynot Paul Wright	SCAQMD Staff SCAQMD Staff SCAQMD Staff



South Coast Air Quality Management District

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Rule 2202 Summary Status Report

Activity for January 1, 2019 to February 28, 2019

Employee Commute Reduction Program (ECRP)			
# of Submittals:	28		
Emission Reduction Strategies ((ERS)		
# of Submittals: 116			
Air Quality Investment Program	n (AQIP) Exclusively		
County	# of Facilities	\$	Amount
Los Angeles	24	\$	37,384
Orange	0	\$	0
Riverside	0	\$	0
San Bernardino	0	\$	
TOTAL:	24	\$	37,384

ECRP w/AQIP Combination		
County	<pre># of Facilities</pre>	\$ Amount
Los Angeles	1	\$ 7,383
Orange	0	\$ 0
Riverside	0	\$ 0
San Bernardino	1	\$ 10,140
TOTAL:	2	\$ 17,523

Total Active Sites as of February 28, 2019

EC	RP (AVR Surve	eys)	TOTAL			
ECRP ¹	AQIP ²	ERS ³	Submittals w/Surveys	AQIP	ERS	TOTAL
495	17	12	529	103	734	1,366
36.61%	1.24%	0.88%	38.73%	7.54%	53.73%	100%4

Total Peak Window Employees as of February 28, 2019

ECRP (AVR St		eys)	TOTAL			
ECRP ¹	AQIP ²	ERS ³	Submittals w/Surveys	AQIP	ERS	TOTAL
361,049	5,793	10,514	377,356	15,671	334,210	737,237
49.65%	0.8%	1.45%	51.89%	2.15%	45.96%	100%4
Notes: 1.	ECRP Complian	ce Option.				

1. ECRP Compliance Option.

2. ECRP Offset (combines ECRP w/AQIP). AQIP funds are used to supplement the ECRP AVR survey shortfall.

3. ERS with Employee Survey to get Trip Reduction credits. Emission/Trip Reduction Strategies are used to supplement the ECRP AVR survey shortfall.

4. Totals may vary slightly due to rounding.

G DATE: April 5, 2019	AGENDA NO.
Lead Agency Projects and Environmenta SCAQMD	l Documents Received By
CEQA documents received by the SCAQ 2019 and February 28, 2019, and those pr	MD between February 1, rojects for which the
Mobile Source, March 15, 2019, Review	ed
ACTION:	
	Lead Agency Projects and Environmenta SCAQMD This report provides, for the Board's cons CEQA documents received by the SCAQ 2019 and February 28, 2019, and those pr SCAQMD is acting as lead agency pursu Mobile Source, March 15, 2019, Reviewe

Wayne Nastri Executive Officer

PF:SN:DG:LS:LW

CEQA Document Receipt and Review Logs (Attachments A and B) – Each month, the SCAQMD receives numerous CEQA documents from other public agencies on projects that could adversely affect air quality. A listing of all documents received and reviewed during the reporting period February 1, 2019 through February 28, 2019 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 54 CEQA documents were received during this reporting period and 31 comment letters were sent. A notable project in this report is the Bob Hope Airport Replacement Terminal Project.

The Intergovernmental Review function, which consists of reviewing and commenting on the adequacy of the air quality analysis in CEQA documents prepared by other lead agencies, is consistent with the Board's 1997 Environmental Justice Guiding Principles and Environmental Justice Initiative #4. As required by the Environmental Justice Program Enhancements for FY 2002-03 approved by the Board in October 2002, each of the attachments notes those proposed projects where the SCAQMD has been contacted regarding potential air quality-related environmental justice concerns. The SCAQMD has established an internal central contact to receive information on projects with potential air quality-related environmental justice concerns. The public may contact the SCAQMD about projects of concern by the following means: in writing via fax, email, or standard letters; through telephone communication; as part of oral comments at SCAQMD meetings or other meetings where SCAQMD staff is present; or by submitting newspaper articles. The attachments also identify, for each project, the dates of the public comment period and the public hearing date, if applicable. Interested parties should rely on the lead agencies themselves for definitive information regarding public comment periods and hearings as these dates are occasionally modified by the lead agency.

At the January 6, 2006 Board meeting, the Board approved the Workplan for the Chairman's Clean Port Initiatives. One action item of the Chairman's Initiatives was to prepare a monthly report describing CEQA documents for projects related to goods movement and to make full use of the process to ensure the air quality impacts of such projects are thoroughly mitigated. In response to describing goods movement, CEQA documents (Attachments A and B) are organized to group projects of interest into the following categories: goods movement projects; schools; landfills and wastewater projects; airports; general land use projects, etc. In response to the mitigation component, guidance information on mitigation measures was compiled into a series of tables relative to: off-road engines; on-road engines; harbor craft; ocean-going vessels; locomotives; fugitive dust; and greenhouse gases. These mitigation measure tables are on the CEQA webpages portion of the SCAQMD's website at:

http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/mitigationmeasures-and-control-efficiencies. Staff will continue compiling tables of mitigation measures for other emission sources, including airport ground support equipment and other sources.

As resources permit, staff focuses on reviewing and preparing comments for projects: where the SCAQMD is a responsible agency; that may have significant adverse regional air quality impacts (e.g., special event centers, landfills, goods movement); that may have localized or toxic air quality impacts (e.g., warehouse and distribution centers); where environmental justice concerns have been raised; and those projects for which a lead or responsible agency has specifically requested SCAQMD review. If staff provided written comments to the lead agency as noted in the column "Comment Status," there is a link to the "SCAQMD Letter" under the Project Description. In addition, if staff testified at a hearing for the proposed project, a notation is provided under the "Comment Status." If there is no notation, then staff did not provide testimony at a hearing for the proposed project.

During the period February 1, 2019 through February 28, 2019, the SCAQMD received 54 CEQA documents. Of the total of 67 documents* listed in Attachments A and B:

- 31 comment letters were sent;
- 16 documents were reviewed, but no comments were made;
- 16 documents are currently under review;
- 0 documents did not require comments (e.g., public notices);
- 0 documents were not reviewed; and
- 4 documents were screened without additional review.

* These statistics are from February 1, 2019 to February 28, 2019 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: <u>http://www.aqmd.gov/home/regulations/ceqa/commenting-agency</u>.

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 February.

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

SCAQMD LOG-IN NUMBER	PROJECT DESCRIPTION	TYPE OF	LEAD AGENCY	COMMENT
PROJECT TITLE		DOC.		STATUS
Warehouse & Distribution Centers LAC190212-03 Cambridge Distribution Building Project at 13215 Cambridge Street	The proposed project consists of demolition of existing 92,930-square-foot warehouse and construction of a 146,068-square-foot warehouse on 7.17 acres. The project is located on the northwest corner of Carmenita Road and Rosecrans Avenue.	Notice of Intent to Adopt a Mitigated Negative Declaration	City of Santa Fe Springs	SCAQMD staff commented on 2/19/2019
	http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/february/LAC190212-03.pdf			
Warehouse & Distribution Centers LAC190215-01 ENV-2016-4975: 10965 W. Penrose St.	Comment Period: 2/8/2019 - 2/28/2019Public Hearing: 3/11/2019The proposed project consists of demolition of existing structures and construction of a 5,042- square-foot warehouse on 11,674 square feet. The project is located on the northwest corner of West Penrose Street and Claybeck Avenue in the community of Sun Valley-La Tuna Canyon.	Mitigated Negative Declaration	City of Los Angeles	SCAQMD staff commented on 2/19/2019
	http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/february/LAC190215-01.pdf Comment Period: 2/14/2019 - 3/6/2019 Public Hearing: N/A			
Warehouse & Distribution Centers LAC190222-03 Inland Star Distribution Centers, Inc. Warehouse Conditional Use Permit Application	The proposed project consists of approval of conditional use permit to conduct interior renovations and installation of a secondary water service line on 188,495 square feet. The project is located on the southwest corner of South Wilmington Avenue and East Dominquez Street.	Mitigated Negative Declaration	City of Carson	** Under review, may submit written comments
	Comment Period: 2/22/2019 - 3/26/2019 Public Hearing: N/A			
Warehouse & Distribution Centers	The proposed project consists of construction of 650 semi-trailer storage containers, a 900-square-	Site Plan	City of Grand	SCAQMD
SBC190201-12 Conditional Use Permit 19-01	foot office, and a 4,800-square-foot maintenance building on 22 acres. The project is located on the northeast corner of Terrace Avenue and Railroad Access Road.		Terrace	staff commented on 2/5/2019
	http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/february/SBC190201-12.pdf			2/5/2017
	Comment Period: 2/1/2019 - 2/11/2019 Public Hearing: N/A			

*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.

** Disposition may change prior to Governing Board Meeting

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

	rebruary 01, 2017 to rebruary 20, 2017		-	
SCAQMD LOG-IN NUMBER	PROJECT DESCRIPTION	TYPE OF	LEAD AGENCY	COMMENT
PROJECT TITLE		DOC.		STATUS
Warehouse & Distribution Centers	The proposed project consists of demolition of 20,000 square feet of existing buildings and	Mitigated	City of Rancho	** Under
SBC190207-02 Overton Moore Warehouse (Design Review DRC2018-00119)	construction of a 174,745-square-foot warehouse on 8.09 acres. The project is located at 9000 Hellman Avenue on the southwest corner of Hellman Avenue and East Eighth Street.	Negative Declaration	Cucamonga	review, may submit written comments
	Comment Period: 2/6/2019 - 3/13/2019 Public Hearing: N/A			
Warehouse & Distribution Centers	The proposed project consists of construction of a 1,192,671-square-foot warehouse on 54.8	Notice of	County of San	** Under
SBC190212-05 Duke Realty Alabama and Palmetto Warehouse Project	acres. The project is located on the northwest corner of Alabama Street and Palmetto Avenue.	Preparation	Bernardino	review, may submit written comments
	Comment Period: 2/7/2019 - 3/11/2019 Public Hearing: 2/21/2019			
Warehouse & Distribution Centers SBC190212-06 Patriot Partners Warehouse - Design Review DRC2018-00553	The proposed project consists of construction of a 117,293-square-foot warehouse on 5.09 acres. The project is located on the northeast corner of 6th Street and Center Avenue.	Mitigated Negative Declaration	City of Rancho Cucamonga	** Under review, may submit written comments
	Comment Period: 2/9/2019 - 3/13/2019 Public Hearing: 3/13/2019			
Airports LAC190205-01 Bob Hope Airport Replacement Terminal Project	The proposed project consists of demolition of existing passenger terminal and construction of a 14-gate passenger terminal with ancillary and roadway improvements, including a 413,000- square-foot aircraft ramp, replacement airline cargo building, replacement Aircraft Rescue and Firefighting station, a ground-service equipment and passenger terminal maintenance building, a central utility plant, and ground access vehicle storage and staging. The project also includes an extensions of two taxiways. The project is located in the southeast quadrant of the Bob Hope Burbank Airport. Reference LAC160628-07 and LAC160504-03	Notice of Intent to Prepare an Environmental Impact Statement	United States Federal Aviation Administration	** Under review, may submit written comments
	Comment Period: 1/10/2019 - 3/1/2019 Public Hearing: N/A			

SCAQMD LOG-IN NUMBER	PROJECT DESCRIPTION	TYPE OF	LEAD AGENCY	COMMENT
PROJECT TITLE		DOC.		STATUS
Industrial and Commercial ORC190201-08 River Street Marketplace	The proposed project consists of construction of five commercial and office buildings totaling 64,900 square feet on 5.86 acres. The project is located on the southeast corner of Paseo Adelanto and River Street. Reference ORC180118-04	Draft Environmental Impact Report	City of San Juan Capistrano	** Under review, may submit written comments
	Comment Period: 1/30/2019 - 3/18/2019 Public Hearing: N/A			
Industrial and Commercial RVC190201-07 Luxtor Luxury RV Storage	The proposed project consists of construction of seven buildings totaling 123,940 square feet with 149 recreational vehicle parking storages on 6.09 acres. The project is located at 49-751 Oates Lane on the northwest corner of Avenue 50 and Oates Lane.	Mitigated Negative Declaration	City of Coachella	SCAQMD staff commented on 2/14/2019
	http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/february/RVC190201-07.pdf Comment Period: 1/23/2019 - 2/20/2019 Public Hearing: 3/6/2019			
<i>Industrial and Commercial</i> RVC190208-04 MA19015 (CUP19001)	The proposed project consists of construction of a compressed natural gas fueling station with five pumps on 16.8 acres. The project is located at 9670 Galena Street on the southwest corner o Galena Street and Troy Court.	Site Plan f	City of Jurupa Valley	SCAQMD staff commented on 2/19/2019
	http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/february/RVC190208-04.pdf Comment Period: 2/8/2019 - 2/20/2019 Public Hearing: N/A			
Waste and Water-related	The proposed project consists of reduction of discharges of recycled water from five water	Notice of	Los Angeles	SCAQMD
LAC190205-02 San Gabriel River Watershed Project	reclamation plants. The project is located along the San Jose Creek, San Gabriel River, and Coyote Creek within the cities of Pomona, Whitter, South El Monte, Cerritos, and Long Beach.	Preparation	County Sanitation Districts	staff commented on 2/21/2019
	http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/february/LAC190205-02.pdf			
	Comment Period: 2/6/2019 - 3/9/2019 Public Hearing: 2/20/2019			

	February 01, 2019 to February 20, 2019	-		-
<u>SCAQMD LOG-IN NUMBER</u> PROJECT TITLE	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
Waste and Water-related ORC190208-03 Syphon Reservoir Geotechnical Investigations Project	The proposed project consists of evaluation of existing soil and bedrock conditions for future reservoir enlargement and dam expansion on 1.43 acres. The project is located on the northeast corner of Bee Canyon Access Road and Portola Parkway within the boundaries of the Syphon Reservoir.	Mitigated Negative Declaration	Irvine Ranch Water District	** Under review, may submit written comments
	Comment Period: 2/8/2019 - 3/11/2019 Public Hearing: N/A			
Waste and Water-related ORC190212-04 Prado Basin Ecosystem Restoration and Water Conservation Integrated Feasibility Study	The proposed project consists of development of feasible alternatives to increase current allowable temporary storage for water conservation and reduce flow release from Prado Dam during flood seasons. The project will also include development of management measures to restore quality and function of aquatic, riparian, and transitional habitats. The project is located within a portion of the Santa Ana River downstream of the Prado Basin reservoir encompassing portions of counties of Riverside, San Bernardino, and Orange.	Notice of Availability of Draft Environmental Impact Report/ Environmental Impact Statement	United States Army Corps of Engineers	** Under review, may submit written comments
	Comment Period: 2/11/2019 - 3/27/2019 Public Hearing: 3/7/2019			
Waste and Water-related ORC190221-03 Wells No. 12 and No. 14 and Pipeline Project	The proposed project consists of construction of two potable water wells and 4,500 liner feet of pipelines on 0.89 acres. The project is located at 4011 West Chandler Avenue and 3120 South Croddy Way on the northwest corner of West MacArthur Boulevard and South Harbor Boulevard within the City of Santa Ana.	Mitigated Negative Declaration	Mesa Water District	** Under review, may submit written comments
	Comment Period: 2/20/2019 - 3/22/2019 Public Hearing: 4/11/2019			
Waste and Water-related RVC190201-01 Temescal Valley Water Reclamation Facility Expansion Project	The proposed project consists of construction of a sedimentation tank, three sequencing batch reactors, two filters, and two aerobic digesters on 0.85 acres. The project will also include removal of grit facilities. The project is located on the southeast corner of Temescal Canyon Road and Pulsar Court in the community of Temescal Valley.	Notice of Intent to Adopt a Mitigated Negative Declaration	Temescal Valley Water District	SCAQMD staff commented on 2/19/2019
	http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/february/RVC190201-01.pdf Comment Period: 1/25/2019 - 2/25/2019 Public Hearing: N/A			

	rebruary 01, 2019 to rebruary 28, 2019			
SCAQMD LOG-IN NUMBER	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
PROJECT TITLE		2000.		
Waste and Water-related RVC190201-06 Meridian Trunk Sewer Improvement Project	The proposed project consists of installation of 8,600 linear feet of pipelines of 24 to 36 inches in diameter. The project is located parallel to and west of Interstate 215 between the sewer lift station at the Meridian Business Park and the Western Municipal Water District treatment plant.	Notice of Intent to Adopt a Mitigated Negative Declaration	March Joint Powers Authority	SCAQMD staff commented on 2/21/2019
	http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/february/RVC190201-06.pdf Comment Period: 1/30/2019 - 3/1/2019 Public Hearing: 3/27/2019			
Waste and Water-related	The proposed project consists of provision of up to 70,439 acre-feet per year of new local dry-	Final	Inland Empire	Document
RVC190208-02 Santa Ana River Conservation and Conjunctive Use Program	year water supply, construction of groundwater production and extraction wells, pipelines, pump stations, and ancillary facilities, and installation of groundwater treatment systems. The project is located within the Santa Ana River Watershed along the cities of Corona, Eastvale, Norco, Jurupa Valley, and Riverside. Reference RVC181107-01, RVC161216-05, and RVC161101-07	Environmental Impact Report	Utilities Agency	reviewed - No comments sent
	Comment Period: N/A Public Hearing: 2/20/2019			
Waste and Water-related	The proposed project consists of construction of 61,836 linear feet of pipelines and water	Notice of	Mission Springs	** Under
RVC190220-03 West Valley Water Reclamation Program	reclamation facility. The project is located on the northeast corner of Elm Street and Carmen Avenue within 135 square miles of service area encompassing the City of Desert Hot Springs and the villages of Palm Springs Crest and West Palm Springs in the northwest portion of the Coachella Valley in Riverside County.	Preparation	Water District	review, may submit written comments
	Comment Period: 2/18/2019 - 3/18/2019 Public Hearing: 3/6/2019			
Waste and Water-related	The proposed project consists of removal of a 60,000-gallon reservoir tank and construction of	Mitigated	State Water	SCAQMD
SBC190201-02 Holly Drive Reservoir Replacement Project	two, 120,000-gallon reservoir tanks on 8,100 square feet. The project is located on the northwest corner of Holly Drive and 26th Street within the City of Upland.	Negative Declaration	Resources Control Board	staff commented on 2/14/2019
	http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/february/SBC190201-02.pdf			
	Comment Period: 1/23/2019 - 2/22/2019 Public Hearing: N/A			

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SCAQMD LOG-IN NUMBER	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
PROJECT TITLE Utilities ODP190215-06 Southern California Edison Company: San Onofre Nuclear Generating Station, Units 2 and 3	The proposed project consists of decontamination and dismantlement of onshore facilities on 99 acres. The project will also include disposition of two offshore conduits and removal of navigational and environmental monitoring buoys and anchors on 21 acres of submerged lands. The onshore project is located at Marine Corps Base Camp Pendleton and the offshore portion extends into State sovereign submerged lands within the Pacific Ocean. Reference ODP151222-02	Final Environmental Impact Report	California State Lands Commission	Document reviewed - No comments sent
	Comment Period: N/A Public Hearing: N/A			
Transportation LAC190201-09 Deep Draft Navigation Feasibility Study and Channel Deepening	The proposed project consists of improvements to existing navigation channels for liquid bulk vessels, construction of anchorage area and a turning basin, and structural modifications with installation of pilings, steel bulkheads, and rock toes. The project is located on the southeast corner of Seaside Freeway and Navy Way within the City of Long Beach. Reference LAC161103-03 and LAC160105-02 http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/february/LAC190201-09.pdf Comment Period: 1/30/2019 - 3/1/2019 Public Hearing: N/A	Amended Notice of Preparation	Port of Long Beach	SCAQMD staff commented on 2/21/2019
Transportation ORC190206-01 Transit Security and Operations Project	The proposed project consists of construction of 30,000-square-foot operations center with a 2,000-gallon aboveground storage tank and associated fueling station. The project is located on the northwest corner of Manchester Avenue and Lincoln Avenue within the City of Anaheim. Reference ORC181030-16	Response to Comments	Orange County Transportation Authority	Document reviewed - No comments sent
	Comment Period: N/A Public Hearing: N/A			
Institutional (schools, government, etc.) LAC190207-01 The Norte Dame High School Facilities Master Plan (ENV-2018-4524: 13500 West Houston Street)	The proposed project consists of construction of a 14,000-square-foot cafeteria, a 13,600-square-foot gymnasium, a 5,200-square-foot classroom building, and 9,700 square feet to be added to existing structures on 727,485 square feet. The project is located on the southeast corner of West Huston Street and Sunnyslope Avenue in the community of Van-Nuys-North Sherman Oaks.	Mitigated Negative Declaration	City of Los Angeles	SCAQMD staff commented on 2/19/2019
	http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/february/LAC190207-01.pdf Comment Period: 2/7/2019 - 2/27/2019 Public Hearing: N/A			

	February 01, 2019 to February 20, 2019	-	-	
SCAQMD LOG-IN NUMBER	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
PROJECT TITLE		DOC.		STATUS
Institutional (schools, government, etc.) ORC190221-01 California State University, Fullerton Eastside 2 Parking Structure Project	The proposed project consists of construction of a 586,700-square-foot parking structure on 2.2 acres. The project is located at 800 North State College Boulevard on the northwest corner of Nutwood Avenue and State College Boulevard.	Notice of Intent to Adopt a Mitigated Negative Declaration	California State University, Fullerton	** Under review, may submit written comments
	Comment Period: 2/21/2019 - 3/22/2019 Public Hearing: N/A			
Institutional (schools, government, etc.) RVC190219-02 Plant Growth Environments Facility	The proposed project consists of demolition of 13,106 square feet of existing structures and construction of a 38,000-square-foot structure on 1.25 acres. The project is located on the northeast corner of Eucalyptus Drive and East Campus Drive in Riverside County. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/february/RVC190219-02.pdf	Notice of Intent to Adopt a Mitigated Negative Declaration	Regents of the University of California	SCAQMD staff commented on 2/20/2019
	Comment Period: 2/15/2019 - 3/18/2019 Public Hearing: N/A			
Institutional (schools, government, etc.) RVC190219-04 Desert Learning Academy 500 Building	The proposed project consists of demolition of 14,350 square feet of existing structures and construction of an 8,000-square-foot building on 0.5 acres. The project is located at 2248 East Ramon Road on the northwest corner of South Farrell Drive and East Ramon Road.	Notice of Intent to Adopt a Mitigated Negative Declaration	Palm Springs Unified School District	Document reviewed - No comments sent
	Comment Period: 2/19/2019 - 3/21/2019 Public Hearing: 4/9/2019			
Retail RVC190201-05 Conditional Use Permit No. 180008	The proposed project consists of construction of a gasoline service station with six pumps, a 5,138-square-foot convenience store, and a 5,400-square-foot restaurant on 2.15 acres. The project is located on the northwest corner of Elmwood Street and Clark Street in the community of Mead Valley. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/february/RVC190201-05.pdf	Site Plan	Riverside County Planning Department	SCAQMD staff commented on 2/5/2019
	Comment Period: 1/28/2019 - 2/7/2019 Public Hearing: N/A			

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<u>SCAQMD LOG-IN NUMBER</u> PROJECT TITLE	PROJECT DESCRIPT	ION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
Retail RVC190212-01 Tower Market Rancho Mirage	The proposed project consists of construction of a gasoline 5,300-square-foot convenience store on 3.25 acres. The pr of Monterey Avenue and Frank Sinatra Drive.	oject is located on the northeast corner	Response to Comments	City of Rancho Mirage	Document reviewed - No comments sent
D - 11	Comment Period: N/A	Public Hearing: N/A			** Under
Retail RVC190220-04 Kassab Travel Center Project	The proposed project consists of construction of an 8,360- square feet of gasoline dispensing area with 18 pumps, and acres. The project is located near the southwest corner of I	d a 2,543-square-foot restaurant on 2.84	Notice of Intent to Adopt a Mitigated Negative Declaration	City of Lake Elsinore	review, may submit written comments
	Comment Period: 2/8/2019 - 3/11/2019	Public Hearing: N/A			
Retail SBC190208-01 Alder Plaza Project (CUP Nos. 810- 812, PPD No. 2452, EA Review NO. 16-26)	The proposed project consists of construction of a 4,100-s 3,200-square-foot restaurant, a 1,262-square-foot canopy, dispensers on 6.05 acres. The project is located on the sou Casmalia Street. Reference SBC181219-06	and a diesel fuel station with four	Response to Comments	City of Rialto	Document reviewed - No comments sent
	Comment Period: N/A	Public Hearing: N/A			
Retail	The proposed project consists of construction of 200,175 s		Notice of	City of Rancho	SCAQMD
SBC190213-01 Haven + Arrow Multi-Use Retail Office Development Project (Design Review DRC2018-00889)	9.37 acres. The project is located on the southwest corner	of Haven Avenue and Arrow Route.	Preparation	Cucamonga	staff commented on 2/21/2019
	http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2	2019/february/SBC190213-01.pdf			
	Comment Period: 2/7/2019 - 3/8/2019	Public Hearing: 2/27/2019			

SCAQMD LOG-IN NUMBER	PROJECT DESCRIPTION	TYPE OF	LEAD AGENCY	COMMENT
PROJECT TITLE		DOC.		STATUS
Retail SBC190220-01 Gateway Sign/Station 215 (Mobil)	The proposed project consists of construction of a 1,344-square-foot billboard sign and a gasoline service station on 22,215 square feet. The project is located at 2680 South La Cadena Drive on the northeast corner of South La Cadena Drive and South Iowa Avenue.	Mitigated Negative Declaration	City of Colton	** Under review, may submit written comments
	Comment Period: 2/15/2019 - 3/16/2019 Public Hearing: 3/26/2019			
General Land Use (residential, etc.) LAC190201-03 ENV-2018-1651: 8000-8014 West 3rd Street	The proposed project consists of demolition of existing buildings and surface parking, and construction of a 54,435-square-foot building with 50 residential units and 7,065 square feet of commercial uses on 0.4 acres. The project is located on the southwest corner of West 3rd Street and South Edinburgh in the community of Wilshire.	Mitigated Negative Declaration	City of Los Angeles	Document reviewed - No comments sent
	Comment Period: 1/30/2019 - 2/20/2019 Public Hearing: N/A			
General Land Use (residential, etc.) LAC190215-02 ENV-2017-2051: 1525 W. Colorado Blvd.	The proposed project consists of demolition of a 2,254-square-foot building and construction of six residential units, offices, and retail uses totaling 10,379 square feet on 9,461.4 square feet. The project is located on the southwest corner of West Colorado Boulevard and Avenue 64 in the community of Northeast Los Angeles. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/february/LAC190215-02.pdf	Negative Declaration	City of Los Angeles	SCAQMD staff commented on 2/19/2019
General Land Use (residential, etc.)	Comment Period: 2/14/2019 - 2/27/2019Public Hearing: N/AThe proposed project consists of demolition of 151,048 square feet of existing structures and	Notice of	City of Los Angeles	** Under
LAC190221-02 3rd and Fairfax Mixed-Use Project	construction of a 490,682-square-foot building with 331 residential units on 327,121 square feet. The project is located at 300-370 South Fairfax Avenue on the southwest corner of Fairfax Avenue and West 3rd Street in the community of Wilshire.	Preparation	City of Los Aligetes	review, may submit written comments
	Comment Period: 2/20/2019 - 3/22/2019 Public Hearing: 3/6/2019			

SCAQMD LOG-IN NUMBER	PROJECT DESCRIPTION	TYPE OF	LEAD AGENCY	COMMENT
PROJECT TITLE		DOC.		STATUS
General Land Use (residential, etc.) LAC190222-01 California Grand Village Project	The proposed project consists of construction of 253 residential units on a 4.48-acre portion of 19.36 acres. The project is located on the northeast corner of East 10th Street and North Todd Avenue. Reference LAC181204-04 and LAC180627-01	Response to Comments	City of Azusa	Document reviewed - No comments sent
	Comment Period: N/A Public Hearing: 3/4/2019			
General Land Use (residential, etc.) ORC190205-03 Protea Memory Care Facility	The proposed project consists of construction of a 35,349-square-foot building with 72 beds or 2.06 acres. The project is located near the northeast corner of Interstate 5 and State Route 74.	Notice of Intent to Adopt a Mitigated Negative Declaration	City of San Juan Capistrano	SCAQMD staff commented on 2/6/2019
	http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/february/ORC190205-03.pdf Comment Period: 1/24/2019 - 2/13/2019 Public Hearing: 2/26/201	9		
General Land Use (residential, etc.) ORC190212-02 Newport Crossings Mixed-Use Project	The proposed project consists of demolition of a 58,277-square-foot shopping center, and construction of 350 residential units with subterranean parking, a 2,000-square-foot restaurant, 5,500 square feet of commercial uses, and a 0.5-acre public park on 5.7 acres. The project is located on the southeast corner of Corinthian Way and Scott Drive. Reference ORC181205-10 and ORC171103-02.	Response to Comments	City of Newport Beach	Document reviewed - No comments sent
	Comment Period: N/A Public Hearing: 2/21/201	9		
General Land Use (residential, etc.)	The proposed project consists of construction of a 35,349-square-foot building with 72 beds or	•	City of San Juan	Document
ORC190221-04 Protea Memory Care Facility	2.06 acres. The project is located near the northeast corner of Interstate 5 and State Route 74. Reference ORC190205-03	Comments	Capistrano	reviewed - No comments sent
	Comment Period: N/A Public Hearing: N/A			

SCAQMD LOG-IN NUMBER	PROJECT DESCRIPTION	TYPE OF	LEAD AGENCY	COMMENT
PROJECT TITLE		DOC.		STATUS
General Land Use (residential, etc.) ORC190222-02 11752 Beach Boulevard Condominium Project	The proposed project consists of demolition of existing restaurant and construction of 17 residential units on 0.92 acres. The project is located on the southeast corner of Beach Boulevard and Crager Lane. Reference ORC181218-02	Response to Comments	City of Stanton	Document reviewed - No comments sent
	Comment Period: N/A Public Hearing: N/A			
General Land Use (residential, etc.) RVC190201-10 Tentative Tract Map No. 36841 (MAP No. 15-008)	The proposed project consists of subdivision of 245.07 acres for future construction of 586 residential units and 19.67 acres of commercial uses. The project will also include 64.88 acres of open space. The project is located on the southwest corner of Warren Road and Stetson Avenue. Reference RVC190201-11 http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/february/RVC190201-10.pdf Comment Period: 1/30/2019 - 2/14/2019 Public Hearing: N/A	Site Plan	City of Hemet	SCAQMD staff commented on 2/5/2019
General Land Use (residential, etc.) RVC190205-04 Tentative Tract Map No. 36890 (MAP19-002)	The proposed project consists of subdivision of 13.60 acres for future construction of 72 residential units. The project is located on the northeast corner of Elk Street and Thornton Avenue.	Site Plan	City of Hemet	SCAQMD staff commented on 2/6/2019
	http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/february/RVC190205-04.pdf Comment Period: 1/31/2019 - 2/7/2019 Public Hearing: N/A			
General Land Use (residential, etc.) RVC190205-05 Tentative Tract Map No. 36889 (MAP19-001)	The proposed project consists of subdivision of 14.91 acres for future construction of 76 residential units. The project is located on the northwest corner of Elk Street and Thornton Avenue.	Site Plan	City of Hemet	SCAQMD staff commented on 2/6/2019
	http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/february/RVC190205-05.pdf Comment Period: 1/31/2019 - 2/7/2019 Public Hearing: N/A			

SCAQMD LOG-IN NUMBER	PROJECT DESCRIPTION	TYPE OF	LEAD AGENCY	COMMENT
PROJECT TITLE		DOC.		STATUS
General Land Use (residential, etc.) RVC190212-07 MA16045 Rio Vista Specific Plan	The proposed project consists of construction of 1,363 residential units, 18.6 acres of recreational uses, and a 13.3-acre school. The project will also include 608.6 acres of open space on 917.3 acres. The project is located on the northeast corner of Muriel Drive and Paramount Drive. Reference RVC181205-06, RVC180605-11, RVC170705-16, and RVC160422-03	Site Plan	City of Jurupa Valley	Document reviewed - No comments sent
General Land Use (residential, etc.)	Comment Period: 2/4/2019 - 2/22/2019 Public Hearing: N/A The proposed project consists of construction of 114 senior residential units, a hotel with 120	Notice of Intent	City of San Jacinto	Document
RVC190215-05 KPC Promenade	rooms, medical office building, and commercial and retail uses totaling 155,200 square feet on 25.65 acres. The project is located on the northwest corner of Main Street and Ramona Expressway.	to Adopt a Mitigated Negative Declaration		reviewed - No comments sent
	Comment Period: 2/13/2019 - 3/13/2019 Public Hearing: 3/18/2019			
General Land Use (residential, etc.) RVC190219-01 MA19029 (TTM No. 37645)	The proposed project consists of subdivision of 162.54 acres for future construction of 54 residential units on a 22.95-acre portion. The project will also include 139.59 acres of open space. The project is located on the southeast corner of Pauline Avenue and Philadelphia Street. <u>http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/february/RVC190219-01.pdf</u> Comment Period: 2/19/2019 - 3/8/2019 Public Hearing: N/A	Site Plan	City of Jurupa Valley	SCAQMD staff commented on 2/21/2019
General Land Use (residential, etc.) RVC190219-03 The Trails at Corona	The proposed project consists of construction of 426 residential units and 0.78 acres of retail and commercial uses on 104.8 acres. The project will also include 1.82 acres of open space. The project is located near the northwest corner of Avenida Del Vista and West Ontario Avenue in the City of Corona and communities of Green River and Prado Basin. Reference RVC180725-02 and RVC180720-04	Site Plan	County of Riverside	Document reviewed - No comments sent
	Comment Period: 2/19/2019 - 3/14/2019 Public Hearing: N/A			

SCAQMD LOG-IN NUMBER PROJECT TITLE	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
General Land Use (residential, etc.) SBC190214-01 Sunflower Residential Project	The proposed project consists of construction of 184 residential units on 15.95 acres. The project is located on the northwest corner of Foothill Boulevard and Spruce Avenue. Reference SBC181218-04	Mitigated Negative Declaration	City of Rialto	Document reviewed - No comments sent
Plans and Regulations RVC190201-11 Specific Plan Amendment (SPA) No. 15-001	Comment Period: N/APublic Hearing: 2/27/2019The proposed project consists of revisions to existing community plan land use boundaries and planning areas to reduce density from 3.42 to 2.64 dwelling units/acre and number of dwelling units from 744 to 586. The project will also include amendment to land use designation from Low Density Residential to Commercial on 19.67 acres. The project is located on the southwest corner of Warren Road and Stetson Avenue. Reference RVC190201-10Comment Period: 1/30/2019 - 2/14/2019Public Hearing: N/A	Site Plan	City of Hemet	Document reviewed - No comments sent

ATTACHMENT B* ONGOING ACTIVE PROJECTS FOR WHICH SCAQMD HAS OR IS CONTINUING TO CONDUCT A CEQA REVIEW

SCAOMD LOC IN NUMBER	PROJECT DESCRIPTION	TYPE OF	LEAD AGENCY	COMMENT
<u>SCAQMD LOG-IN NUMBER</u> PROJECT TITLE	r kojeci desekir non	DOC.	LEAD AGEINC I	STATUS
General Land Use (residential, etc.)	The proposed project consists of construction of a 211,000-square-foot building with 215	Draft Program	City of Huntington	**Under
ORC181219-04 Magnolia Tank Farm	guestrooms and 250 residential units on 28.9 acres. The project is located at 21845 Magnolia Street on the southwest corner of Hamilton Avenue and Magnolia Street.	Environmental Impact Report	Beach	review, may submit written comments
	Comment Period: 12/17/2018 - 3/18/2019 Public Hearing: N/A			
Warehouse & Distribution Centers RVC190125-01 Conditional Use Permit No. 2019-013	The proposed project consists of construction of a 21,052-square-foot warehouse on 4.26 acres. The project is located at 33325 Bailey Park Boulevard on the southwest corner of Scott Road and Bailey Park Boulevard.	Site Plan	City of Menifee	SCAQMD staff commented on 2/5/2019
	http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/february/RVC190125-01.pdf			
	Comment Period: 1/16/2019 - 2/11/2019 Public Hearing: N/A			
Waste and Water-related LAC190125-03 East West Valley Interceptor Sewer Project Project	The proposed project consists of construction of 15,785 linear feet of pipeline ranging in diameter from 24 to 48 inches. The project is located along Victoria Boulevard between Vineland Avenue and Haskell Avenue in the communities of North Hollywood - Valley Village and Van Nuys - North Sherman Oaks.	Notice of Preparation	City of Los Angeles	SCAQMD staff commented on 2/19/2019
	http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/february/LAC190125-03.pdf			
	Comment Period: 1/25/2019 - 2/25/2019 Public Hearing: N/A			
Waste and Water-related RVC190122-12 Lake Perris Seepage Recovery Project	The proposed project consists of installation of six water recovery wells and one 24-inch pipeline that would connect to the Colorado River Aqueduct. The project is located on the northeastcorner of Bradley Road and East Rider Street in the City of Perris.	Notice of Preparation	Department of Water Resources	SCAQMD staff commented on 2/12/2019
	Comment Period: 1/14/2019 - 2/13/2019 Public Hearing: 1/29/2019			
Institutional (schools, government, etc.) RVC190118-03 Polytechnic High School Project	The proposed project consists of construction of two sports fields with 200 seats on 11.19 acres. The project is located on the northwest corner of Gloucester Way and Chatham Drive in the City of Riverside.	Notice of Preparation	Riverside Unified School District	SCAQMD staff commented on 2/19/2019
	http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/february/RVC190118-03.pdf			
	Comment Period: 1/22/2019 - 2/22/2019 Public Hearing: 1/30/2019			

*Sorted by Comment Status, followed by Land Use, then County, then date received.

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

** Disposition may change prior to Governing Board Meeting

ATTACHMENT B ONGOING ACTIVE PROJECTS FOR WHICH SCAQMD HAS OR IS CONTINUING TO CONDUCT A CEQA REVIEW

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SCAQMD LOG-IN NUMBER	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
PROJECT TITLE				
Institutional (schools, government, etc.) SBC190115-02 Church of the Woods Project	The proposed project consists of construction of a 68,401-square-foot church, a 1,500-square- foot maintenance building, a 7,838-square-foot water retention basin, and a 54,000-square-foot sports field on 27.12 acres. The project will also include 13.5 acres of open space. The project is located on the northwest corner of State Route 18 and Daley Canyon Road in the community of Rimforest. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/february/SBC190115-02.pdf Comment Period: 1/10/2019 - 2/25/2019 Public Hearing: N/A	Notice of Availability of a Draft Revised Environmental Impact Report	County of San Bernardino	SCAQMD staff commented on 2/20/2019
Retail	The proposed project consists of construction of a mixed-use development with 482 residential	Notice of	City of Riverside	**Under
RVC190115-03 The Exchange	units, a gasoline service station with 12 pumps, 49,500 square feet of retail uses, and two hotels with 229 rooms on 35.4 acres. The project is located on the northeast corner of State Route 60 and North Orange Street.	Availability of a Draft Environmental Impact Report		review, may submit written comments
	Comment Period: 1/15/2019 - 3/1/2019 Public Hearing: 3/21/2019			
General Land Use (residential, etc.) LAC181221-10 713 East 5th Street Project	The proposed project consists of demolition of a 14,475-square-foot building and construction of a 33,007-square-foot building with 51 residential units on 0.13 acres. The project is located near the northwest corner of Stanford Avenue and 5th Street in the community of Central City. Reference LAC180601-03 http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/february/LAC181221-10.pdf	Draft Environmental Impact Report	City of Los Angeles	SCAQMD staff commented on 2/1/2019
General Land Use (residential, etc.)	Comment Period: 12/20/2018 - 2/4/2019Public Hearing: N/AThe proposed project consists of construction of 52 residential units on 2.44 acres. The project is	Mitigated	City of Los Angeles	SCAQMD
LAC190116-01 ENV-2017-628: 15418 Bermuda Street	located on the southwest corner of Bermuda Street and Sepulveda Boulevard in the community of Mission Hills.	Negative Declaration		staff commented on 2/6/2019
	http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/february/LAC190116-01.pdf			
	Comment Period: 1/17/2019 - 2/6/2019 Public Hearing: N/A			
General Land Use (residential, etc.) LAC190122-06 Victoria Greens	The proposed project consists of construction of 175 residential units and 23,665 square feet of recreational uses on eight acres. The project is located on the northeast corner of South Central Avenue and East Victoria Street.	Mitigated Negative Declaration	City of Carson	SCAQMD staff commented on 2/14/2019
	http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/february/LAC190122-06.pdf			
	Comment Period: 1/17/2019 - 2/15/2019 Public Hearing: N/A			

- Project has potential environmental justice concerns due to the nature and/or location of the project.** Disposition may change prior to Governing Board Meeting

ATTACHMENT B ONGOING ACTIVE PROJECTS FOR WHICH SCAQMD HAS OR IS CONTINUING TO CONDUCT A CEOA REVIEW

SCAQMD LOG-IN NUMBER	PROJECT DESCRIPTION	TYPE OF	LEAD AGENCY	COMMENT
PROJECT TITLE		DOC.		STATUS
General Land Use (residential, etc.) RVC190122-05 DSRT SURF Specific Plan	The proposed project consists of construction of 88 residential units and a hotel with 350 rooms on a 5.5-acre portion of 17.69 acres. The project is located on northwest corner of Country Club Drive and Cook Street.	Notice of Preparation	City of Palm Desert	SCAQMD staff commented on 2/19/2019
	http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/february/RVC190122-05.pdf			
	Comment Period: 1/22/2019 - 2/20/2019 Public Hearing: N/A			
General Land Use (residential, etc.) RVC190125-05 Menifee Lakes (Village) Specific Plan Amendment No. 8 (Specific Plan Amendment No. 2019-017)	The proposed project consists of change to zoning ordinance for future construction of 336 residential units on 31.6 acres and conservation of 37.8 acres of open space. The project is located on the northeast corner of Menifee Road and Newport Road.	Site Plan	City of Menifee	SCAQMD staff commented on 2/5/2019
	http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/february/RVC190125-05.pdf			
	Comment Period: 1/22/2019 - 2/11/2019 Public Hearing: N/A			
Plans and Regulations ALL190123-01 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy	The proposed project consists of development of a long-range transportation plan and land use policies, strategies, actions, and programs to identify and accommodate current and future mobility goals, policies, and needs for the next 25 years. The project is located on 38,000 square miles encompassing six counties including Imperial, Los Angeles, Orange, Riverside, San Bernadine, and Ventura. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2019/february/ALL190123-01.pdf Comment Period: 1/23/2019 - 2/22/2019 Public Hearing: 2/13/2019	Notice of Preparation	Southern California Association of Governments	SCAQMD staff commented on 2/19/2019
Plans and Regulations LAC190125-02 Los Angeles Zoo Vision Plan	The proposed project consists of a plan that will fundamentally to guide future zoo development on 133 acres and operations, including modernization of buildings and infrastructure, animal care and guest amenities, exhibit space, and administrative and services facilities. The project will also include construction of support visitor-serving buildings and parking facilities to accommodate increasing visitation over a 20-year period. The project is located at 5333 Zoo Drive on the southwest corner of Zoo Drive and Western Heritage Way in the community of Hollywood.	Notice of Preparation	City of Los Angeles	**Under review, may submit written comments
	Comment Period: 1/24/2019 - 3/11/2019 Public Hearing: 2/7/2019			

- Project has potential environmental justice concerns due to the nature and/or location of the project. ** Disposition may change prior to Governing Board Meeting

ATTACHMENT C ACTIVE SCAQMD LEAD AGENCY PROJECTS THROUGH FEBRUARY 28, 2019

THROUGH FEBRUARY 28, 2019						
PROJECT DESCRIPTION	PROPONENT	TYPE OF	STATUS	CONSULTANT		
		DOCUMENT				
The Phillips 66 (formerly ConocoPhillips) Los Angeles Refinery	Phillips 66	Environmental	The Notice of Preparation/Initial Study	Environmental Audit,		
Ultra Low Sulfur Diesel project was originally proposed to	(formerly	Impact Report	(NOP/IS) was circulated for a 30-day	Inc.		
comply with federal, state and SCAQMD requirements to limit	ConocoPhillips),	(EIR)	public comment period on March 26,			
the sulfur content of diesel fuels. Litigation against the CEQA	Los Angeles		2012 to April 26, 2012. The			
document was filed. Ultimately, the California Supreme Court	Refinery		consultant submitted the			
concluded that the SCAQMD had used an inappropriate baseline			administrative Draft EIR to SCAQMD			
and directed the SCAQMD to prepare an EIR, even though the			in late July 2013. The Draft EIR was			
project has been built and has been in operation since 2006. The			circulated for a 45-day public review			
purpose of this CEQA document is to comply with the Supreme			and comment period from September			
Court's direction to prepare an EIR.			30, 2014 to November 13, 2014. Two			
			comment letters were received and the			
			consultant has prepared responses to			
			comments. SCAQMD staff has			
			reviewed the responses to comments			
			and provided edits.			
Quemetco is proposing to modify existing SCAQMD permits to	Quemetco	Environmental	A Notice of Preparation/Initial Study	Trinity		
allow the facility to recycle more batteries and to eliminate the		Impact Report	(NOP/IS) was released for a 56-day	Consultants		
existing daily idle time of the furnaces. The proposed project		(EIR)	public review and comment period			
will increase the rotary feed drying furnace feed rate limit from			from August 31, 2018 to October 25,			
600 to 750 tons per day and increase the amount of total coke			2018, and 154 comment letters were			
material allowed to be processed. In addition, the project will			received. Two CEQA scoping			
allow the use of petroleum coke in lieu of or in addition to			meetings were held on September 13,			
calcined coke, and remove one existing emergency diesel-fueled			2018 and October 11, 2018 in the			
internal combustion engine (ICE) and install two new emergency			community. SCAQMD staff is			
natural gas-fueled ICEs.			reviewing the comments received.			

ATTACHMENT C ACTIVE SCAQMD LEAD AGENCY PROJECTS THROUGH FEBRUARY 28, 2019

THROUGH FEDRUARI 20, 2017						
PROJECT DESCRIPTION	PROPONENT	TYPE OF	STATUS	CONSULTANT		
		DOCUMENT				
Southern California Edison (SCE) is proposing to modify the air	Southern	Addendum to the	SCAQMD staff provided revisions to	Yorke Engineering,		
pollution control system for the Mira Loma Peaker unit to repair	California Edison	April 2007 Final	the Draft Addendum for the consultant	LLC		
current and prevent future water damage by: 1) decreasing the		Mitigated	to incorporate, and the consultant has			
water-injection rate into the turbine's combustor; 2) replacing the		Negative	submitted a revised Draft Addendum,			
oxidation catalyst and increasing the overall area of catalyst beds		Declaration for	which is undergoing SCAQMD staff			
in the Selective Catalytic Reduction (SCR) unit; 3) replacing the		the Southern	review.			
ammonia injection grid to improve the deliverability of ammonia		California Edison				
to the catalyst; and, 4) increasing the concentration of the		Mira Loma Peaker				
aqueous ammonia that is delivered to the facility, stored on-site,		Project in Ontario				
and injected into the SCR unit from 19% to 29%. In addition,						
SCE is proposing to revise its SCAQMD Title V Operating						
Permit to allow the turbine to generate power over its full						
operating range, from less than one megawatt (MW) to full load						
(e.g., 45 MW net), while continuing to meet the emission limits						
in the current permit.						

1 Back to Agenda

BOARD MEETING DATE: April 5, 2019

AGENDA NO. 20

REPORT: Stationary Source Committee

SYNOPSIS:The Stationary Source Committee held a meeting on Friday,
March 15, 2019. The following is a summary of the meeting.

RECOMMENDED ACTION: Receive and file.

Ben Benoit, Chair Stationary Source Committee

LT:cr

Committee Members

Present:Council Member Ben Benoit/Chair (videoconference)
Dr. Joseph Lyou/Vice Chair
Supervisor Janice Hahn (videoconference)
Mayor Judith Mitchell
Supervisor V. Manuel Perez (videoconference)
Supervisor Janice Rutherford (videoconference)

Absent: None

Call to Order

Chair Benoit called the meeting to order at 10:30 a.m.

INFORMATIONAL ITEMS:

 Proposed Amended Rule 1106 – Marine and Pleasure Craft Coatings and Proposed Rescinding of Rule 1106.1 – Pleasure Craft Coating Operations Dr. Sarah Rees, Assistant Deputy Executive Officer/ Planning, Rule Development and Area Sources, presented a summary of the proposed amendments, which clarify rule requirements, meet U.S. EPA Reasonably Available Control Technology (RACT) requirements, and enhance enforceability. She also explained the previous rulemaking, current rulemaking activities, and key issues regarding energy curable coatings. Ms. Rita Loof, RadTech International, commented that the rule proposals do not achieve emission reductions and do not give incentives for reformulation. She stated that staff has addressed the more troubling aspects of the prior rulemaking proposals, but the proposed amendments would unduly regulate lower VOC materials. She would like an exemption for coatings less than 50 g/L VOC instead of the 10 g/L exemption proposed. She believes providing a 50 g/L exemption would incentivize the use of lower VOC coatings and provide voluntary emission reduction. She also recommended adding a test method for VOC compliance in the rule, ASTM D7767, for thin film energy curable coatings. She disagreed with staff's assessment that this test method is not appropriate for compliance purposes. She expressed concern that there is uncertainty regarding enforcement for thin film energy curable materials if there is no test method for compliance purposes.

Dr. Lyou asked for clarification on UV/EB/LED materials being used in marine applications, as he received a document from Ms. Loof that they have been used on a submarine.

Dr. Rees stated that staff has asked for examples of this technology being used for marine applications but have not received any response. This technology would have a different type of application in the marine industry, and it seemed unlikely that the boatyards and marinas are using this technology. If staff had examples of where these materials are being used and if there are barriers to using them, staff would consider this. She also clarified that no additional VOC reductions would be expected from the proposed amended rule because the VOC limits are already in place here or in the federal regulation and the goal is to enhance compliance.

Mayor Mitchell asked about the consideration for the less than 50 g/L exemption.

Dr. Rees responded that the less than 10 g/L exemption has been used in other rules and there are concerns about having a 50 g/L exemption for all products, not just for energy curable materials.

Dr. Lyou asked whether staff can target exemption for coatings where VOC limits are highest.

Dr. Philip Fine, Deputy Executive Officer/Planning, Rule Development and Area Sources, responded that the exemption would be just from minimal recordkeeping requirements, which would allow staff to verify if a material qualifies for an exemption.

Dr. Lyou expressed concern that the test method issue often comes up and it is not clear how energy curable materials can demonstrate compliance with the proposed rule.

Dr. Fine responded that ASTM D7767 cannot be used as a test method for compliance purposes.

Dr. Lyou asked if a BARCT assessment is required for these types of rules.

Dr. Fine responded that an assessment was conducted in the 2015 rulemaking, but staff did not find any additional technologies or materials at that time. He explained that it is very difficult to have BARCT determinations for energy curable materials because of the high added cost, but staff is open to ideas on the exemption level.

Dr. Lyou commented that the proposed amended rule does not address emission reduction, and that use of energy curable materials could achieve a lot of emission reduction. He advised staff to work with the energy curable industry and have a longer-term plan to address the test method issue.

Dr. Laki Tisopulos, Deputy Executive Officer/Engineering and Permitting, commented that a test method for thin-film energy curable materials is difficult to develop, but use of this technology has never experienced a compliance issue.

Mayor Mitchell commented that it appears that narrowly crafting an exemption would address the compliance concerns for this technology, and that staff should encourage the use of emission reduction technologies.

Executive Officer Wayne Nastri responded that staff will continue with the presented rule schedule but will discuss how to address the compliance issues for this technology.

2. Update on AB 617 Community Plans Implementation

Dr. Jo Kay Ghosh, Health Effects Officer, presented an update on AB 617 community plan development for the three communities designated for Year 1 implementation. The presentation described the progress that the community steering committees have made in the past several months, including identifying and prioritizing air quality issues in these communities. One of the key challenges noted was the tight timelines under which this work must be completed.

Supervisor Hahn asked how she could see who was on the steering committees and was interested in which elected officials and labor unions were represented. Staff responded that the rosters are posted on the SCAQMD webpage, and that labor unions were on the steering committees for Wilmington, Carson, West Long Beach, and for the East Los Angeles, Boyle Heights, and West Commerce. Supervisor Hahn also requested that the meeting summaries for the steering committees be posted sooner. She also nominated Paramount as a community for Year 2. Dr. Fine and Dr. Ghosh indicated that staff will work toward getting the meeting summaries

posted sooner, and acknowledged the nomination for Paramount, noting the importance of community readiness for this program.

Mayor Mitchell asked about the Technical Advisory Group, and staff clarified that it is a single advisory group with representatives from each of the three steering committees.

Dr. Lyou noted that he has heard compliments from many people about our AB 617 meetings, and thanked staff for their hard work. He also noted that at a previous Environmental Justice Advisory Group meeting, Dr. Jill Johnston of the University of Southern California recommended developing "Air Quality 101" material, such as infographics and videos. He encouraged staff to start thinking about communicating what success looks like in this program, to set common expectations of success. He also recommended that representatives from each of the steering committees attend the September Board meeting to present their perspectives. Staff noted that basic information about air quality had been presented during the community meetings but will look to do more Air Quality 101 when additional staff resources are available. Staff also acknowledged the importance of setting expectations of success, and that steering committee members can be invited to the Board meeting.

Susan Stark, Marathon Petroleum, commented that the source apportionment analysis should be done to help prioritize issues and measures, and noted that the data staff presented in previous AB 617 meetings shows that diesel PM is the main risk driver in that community.

WRITTEN REPORTS:

- **3.** Home Rule Advisory Group January 2019 Meeting Minutes The report was acknowledged by the Committee.
- 4. Monthly Update of Staff's Work with U.S. EPA on New Source Review Issues for the Transition of RECLAIM Facilities to a Command and Control Regulatory Program

The report was acknowledged by the Committee.

5. Notice of Violation Penalty Summary The report was acknowledged by the Committee.

OTHER MATTERS:

6. Other Business

There was no other business.

7. Public Comment Period There were no public comments.

8. Next Meeting Date

The next regular Stationary Source Committee meeting is scheduled for Friday, April 19, 2019.

Adjournment

The meeting was adjourned at 11:29 a.m.

Attachments

- 1. Attendance Record
- 2. Home Rule Advisory Group January 2019 Meeting Minutes
- 3. Monthly Update of Staff's Work with U.S. EPA on New Source Review Issues for the Transition of RECLAIM Facilities to a Command and Control Regulatory Program
- 4. Draft Notice of Violation Penalty Summary

ATTACHMENT 1

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT STATIONARY SOURCE COMMITTEE Attendance – March 15, 2019

Council Member Ben Benoit (videoconference)	SCAQMD Governing Board
Dr. Joseph Lyou	SCAQMD Governing Board
Supervisor Janice Hahn (videoconference)	SCAQMD Governing Board
Mayor Judith Mitchell	SCAQMD Governing Board
Supervisor V. Manuel Perez (videoconference)	SCAQMD Governing Board
Supervisor Rutherford (videoconference)	SCAQMD Governing Board
Marisa Perez	Board Consultant (Mitchell)
Curtis Coleman	Southern California Air Quality Alliance
Howard Berman	E4 Strategic Solutions
Kathryn Gleeson	World Energy
Bill LaMarr	California Small Business Alliance
Rita Loof	RadTech
Bridget McCan	Western States Petroleum Association
Bill Pearce	Boeing
David Rothbart	Los Angeles County Sanitation Districts
Susan Stark	Marathon Petroleum
Tammy Yamasaki	Southern California Edison
Barbara Baird	SCAQMD staff
Marian Coleman	SCAQMD staff
Amir Dejbakhsh	SCAQMD staff
Philip Fine	SCAQMD staff
Jo Kay Ghosh	SCAQMD staff
Bayron Gilchrist	SCAQMD staff
Jason Low	SCAQMD staff
Matt Miyasato	SCAQMD staff
Susan Nakamura	SCAQMD staff
Wayne Nastri	SCAQMD staff
Sarah Rees	SCAQMD staff
William Thompson	SCAQMD staff
Laki Tisopulos	SCAQMD staff
Jill Whynot	SCAQMD staff



South Coast Air Quality Management District

21865 Copley Drive, Diamond Bar, CA 91765-4182 (909) 396-2000 • www.aqmd.gov

HOME RULE ADVISORY GROUP Wednesday, January 9, 2019 MEETING MINUTES

CHAIR: Dr. Joseph Lyou, SCAQMD Governing Board Member

MEMBERS PRESENT:

Curt Coleman (Southern California Air Quality Alliance); Martin Hansberger (Holliday Rock Company); Bill LaMarr (California Small Business Alliance); David Rothbart (Los Angeles County Sanitation District); and TyRon Turner (Dakota Communications).

The following members participated by conference call: Marc Carrel (Breathe California of Los Angeles County); Brian Clerico (CARB); Rongsheng Luo (SCAG); Bill Quinn (California Council for Environmental & Economic Balance).

MEMBERS ABSENT:

Ben Benoit (SCAQMD Governing Board Member); Mike Carroll (Regulatory Flexibility Group); Michael Downs (Downs Energy); Bridget McCann (Western States Petroleum Association); Dan McGivney (Southern California Gas); Art Montez (AMA International); Dr. Clark Parker (SCAQMD Governing Board Member); Larry Rubio (Riverside Transit Agency); Larry Smith (Cal Portland Cement); and Amy Zimpfer (EPA).

OTHER ATTENDEES:

Mark Abramowitz (Board Consultant to Dr. Lyou); Bernie Bisham; Rita Loof (RadTech); and Susan Stark (Marathon Petroleum).

SCAQMD STAFF:

Jill Whynot	Chief Operating Officer
Philip Fine	Deputy Executive Officer
William Wong	Principal Deputy District Counsel
Sam Atwood	Media Relations Manager
Lisa Tanaka O'Malley	Senior Public Affairs Manager
Angela Kim	Administrative Secretary

OPENING COMMENTS AND SELF-INTRODUCTIONS

The meeting was called to order at 10:01 a.m. by Dr. Joseph Lyou (Chairman).

APPROVAL OF JULY 2018 MEETING MINUTES

Dr. Lyou asked for comments on the November14, 2018 meeting minutes. Hearing none, the minutes were approved.

EPA AND FEDERAL ACTIVITIES

Due to the federal government shutdown, there was no meeting participation by EPA staff.

Discussion

Curt Coleman reported that the proposed approval for the latest Ozone SIP was published in the Federal Register in December 2018, along with a final approval of the PM2.5 SIP. Dr. Fine clarified that the final approval did not include the contingency measures.

Phil Fine reported on EPA's Cleaner Truck Initiative (CTI) announced in November 2018, which will change the tailpipe standards for new purchases of heavy-duty trucks.

Bill La Marr inquired if SCAQMD has received feedback from the trucking associations. Dr. Fine indicated that feedback was received from the engine manufacturers association and truck manufacturers.

David Rothbart inquired how this will influence the timing on attainment. Dr. Fine indicated that the implementation date for new purchases will be 2023 - 2024, which will not help SCAQMD with the 2023 Standard. Mr. Rothbart further inquired if it is not possible to reach attainment, are the possible consequences being considered. Dr. Fine indicated that SCAQMD is thinking ahead and we are working on this internally. Dr. Lyou added that there are legal liabilities if you do not have a viable plan.

CARB REGULATORY ACTIVITIES

Brian Clerico provided CARB updates on proposed and recent regulatory activities.

Proposed CARB Board and Regulatory Activities

- Consideration of the San Joaquin Valley PM2.5 State Implementation Plans
- Consider Proposed Amendments to the Solid Waste Collection Vehicle Regulation.

Follow-up from November 2018 meeting

Phil Fine provided an update on CARB's emissions inventory regulation for reporting criteria of air pollutants and toxic air contaminants.

Discussion

Dr. Lyou indicated that it seems like CARB is concerned about districts that do not have sufficient emissions data available, or do they look at SCAQMD as the largest district and indicate that more data should be provided. Dr. Fine replied that it is a combination of both.

Bill LaMarr inquired about emission reporting requirements for disadvantaged communities. Dr. Fine indicated that CARB's staff recommendation was to eliminate the "only within community" emissions reporting requirements and have a threshold approach. Mr. LaMarr also inquired about the changes requested by CARB's Board, and if these changes were approved. Mr. Clerico indicated that he would need to follow-up on this. Jill Whynot added that it is her understanding that CARB staff has up to a year to finalize the regulation and they will prepare a revised proposal, which will have a 15-day public review period.

David Rothbart inquired about the air toxic thresholds. Dr. Fine indicated it is still unknown how this will be determined, because many smaller facilities are currently not required to assess their emissions.

Bill Quinn commented on double-jeopardy concerns between the air districts and CARB on the enforcement of annual emission reporting regulations.

LEGISLATIVE UPDATE

Lisa Tanaka O'Malley reported on key legislative updates.

The Legislative Committee held a meeting on December 14, 2018. The federal and state consultants provided written reports for the Committee and reported on the following items.

At the federal level, the consultants reported on the United States Environmental Protection Agency (U.S. EPA) Cleaner Trucks Initiative, which will begin the rulemaking process for an Ultra-Low NOx Emission Standard for Heavy-Duty Trucks.

On the state level, the consultants stated that the Legislative Analyst's office reported that the state has a \$15 billion surplus in revenue for 2019, with about \$14.5 billion in reserve. However, the Legislative Analyst's office also reports that the combined cost of bills introduced in the new year by the state Legislature totals over \$40 billion and there are more to come.

The Legislative Committee also recommended that the Governing Board approve the Federal and State 2019 Goals and Objectives.

Discussion

Dr. Lyou commented that California has a new Governor that was sworn into office on January 7, 2019, and he has begun to make appointments to his cabinet.

UPDATE REGARDING LITIGATION ITEMS AND RELATED EPA ACTIONS

William Wong provided updates to the December 2018 status report.

- Case #3: It was reported that the petitioners had until December 23, 2018 to file an appeal. The update is that the appeal was filed on December 21, 2018.
- Case #4: It was reported that we are in settlement negotiations. The update is that we are still in settlement negotiations and getting close to a settlement.

Discussion

Marc Carrel inquired if there was an update on case #2. Mr. Wong indicated that he did not have an update.

SUBCOMMITTEE STATUS REPORTS

A. Freight Sustainability (Dan McGivney)

No report was provided.

B. Small Business Considerations (*Bill La Marr*)

No report was provided.

Public Comment

Susan Stark indicated that she had heard that EPA is taking comments on whether to postpone the 2020 New Source Performance Standards (NSPS) for wood burning heaters, and inquired if this would impact attainment. Dr. Fine felt that change would not have much impact in South Coast.

C. Environmental Justice and AB 617 Implementation (Curt Coleman)

An update was provided on the following item.

- Wilmington/Carson/West Long Beach AB 617 Steering Committee meeting is scheduled for January 10, 2019 in the Carson Community Center.
- Martin Luther King event is scheduled for January 19, 2019

D. Climate Change (David Rothbart)

A report was provided on the following item.

• Climate change article reported that the United States CO2 emissions in 2018 increased by 3.4 percent, this is the second largest annual gain in more than two decades.

Discussion

Jaclyn Ferlita reported on CARB's December 2018 Cap and Trade Program amendments that addressed the post-2020 program.

REPORT FROM AND TO THE STATIONARY SOURCE COMMITTEE

Dr. Phil Fine provided a summary of items discussed at the December 2018 meeting.

- Proposed Rule 1118.1; and
- Proposed Amended Rule 1403.

The next Stationary Source Committee meeting is January 18, 2019.

Discussion

Bill LaMarr commented that he testified at the December 2018 Governing Board meeting on PR1118.1, for the SCAQMD to advocate to the California Public Utilities Commission (CPUC). Mr. LaMarr indicated that he did not understand the comment made by the SCAQMD Executive Officer on not wanting to advocate to another agency. Dr. Fine indicated that he understood that SCAQMD staff would look into this issue in the next few months and provide a briefing to the Stationary Source Committee for direction. Dr. Lyou commented that he also had questions on the Executive Officer's response, and this is why he asked for a staff briefing.

DISCUSSION ON 2019 MEETING TOPICS

Home Rule Advisory Group and public members provided input on possible future meeting topics for the 2019 calendar year.

- CPUC Regulations and Waste Gas Utilization (biogas and well gas)
- Renewable Energy and Reliability/Storage/Charging Infrastructure
- Enforcement Policy
- Trends in Emissions from Transportation (LDV vs. MDV vs. HDV)
- CARB Emissions Reporting Regulation
- CARB Truck and Bus Rule: Implementation and Enforcement
- Rule 1135 Internal Bank ERC Generation Accounting
- RECLAIM
- Rule 1106/1106.1

OTHER BUSINESS

Bill LaMarr inquired about Quemetco and the need for a battery recycling facility in Southern California. Dr. Lyou indicated that he was not aware of another lead acid secondary smelter west of Texas, and confirmed that the City of Industry facility is assuming the burden for the Western United States.

PUBLIC COMMENT

There were no comments.

ADJOURNMENT

The meeting was adjourned at 11:35 am, to be followed by less than a quorum of the committee participating in a tour of the AQ-SPEC located in the SCAQMD laboratory. The next meeting of the Home Rule Advisory Group is scheduled for 10:00 a.m. on March 13, 2019, and will be held at SCAQMD in Conference Room CC-8.

March 2019 Update on Work with U.S. EPA on New Source Review Issues for the RECLAIM Transition

Staff has been working with U.S. EPA to resolve New Source Review issues as RECLAIM facilities exit to a command and control regulatory structure. At the October 5, 2018 Governing Board Meeting, the Board directed staff to provide the Stationary Source Committee with a monthly update of staff's work with U.S. EPA regarding resolving New Source Review issues for the transition of facilities from RECLAIM to a command and control regulatory structure. The table below summarizes key activities over the past month.

ltem	Discussion
Teleconference with U.S. EPA – February 8, 2019	 Discussed items presented to the RECLAIM Working Group in December 2018 and January 2019 Calculating a pre-modification potential to emit to determine if an emissions increase will occur U.S. EPA raised a concern in approving a future SIP revision, which would be necessary if District NSR rules are amended Difference between SCAQMD and federal calculation methodologies Federal equivalency will need to be demonstrated
RECLAIM Working Group Meeting – February 14, 2019	 Discussed initial thoughts on how SCAQMD will ensure sufficient offsets are available for RECLAIM facilities post-RECLAIM Open market Other possible sources Next Working Group Meeting will provide additional details for other possible sources Insufficient offsets available in the open market
Teleconference with U.S. EPA – February 27, 2019	 Discussed items presented to the RECLAIM Working Group on February 14, 2019 Providing offsets for RECLAIM facilities post- RECLAIM U.S. EPA commented on the federal criteria for offsets Offsets must be real, permanent, enforceable, quantifiable, and surplus
Teleconference with U.S. EPA	 Scheduled for March 7, 2019 Will discuss the federal equivalency requirements raised during the February 8, 2019 teleconference
Face-to-face meeting with U.S. EPA staff	• Scheduled for March 14, 2019

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT General Counsel's Office

February 2019 Settlement Penalty Report

DRAFT

	Total Penalties Civil Settlements: Self-Reported Settlements: MSPAP Settlements: Total Cash Settlements: Total SEP Value:		\$223,150. \$198,054. \$16,735. \$439,214. \$0.	55 00 55		
	Fiscal Year through 2 / 2019 Cash Total: Fiscal Year through 2 / 2019 SEP Value Only Total:		\$5,395,316. \$265,000.			
Fac ID	Company Name	Rule Number	Settled Date	Init	Notice Nbr	Total Settlement
Civil Sett	lements					
166073	BETA OFFSHORE	203(b) 1110.2 2004(f)(1) 3002(c)(1)		DH	P61739	\$15,000.00
163553	CHAMPION HOME BUILDERS, INC	3002 3003		VKT	P62755	\$500.00
175129	Date Palm Country Club Re: Equity Lifestyle Properties, Inc., Monterey County Superior Court, Case No. 18CV004924 - Penalty amount received from the District Attorney's Office as part of the settlement share.	1430	2/20/2019	NAS		\$18,000.00
132299	JACCK OIL INC. Penalties payment pursuant to Order for Abatement Case #6119-2 for non-compliance.	461	2/19/2019	NAS	P66374	\$5,000.00

Fac ID	Company Name	Rule Number	Settled Date	Init	Notice Nbr	Total Settlement
115563	NCI GROUP INC., DBA, METAL COATERS OF CA	2004(f)(1)		KCM	P57881	\$5,500.00
		2012			P57888	
		3002(c)(1)				
141473	NONG SHIM AMERICA, INC	203(b)	2/5/2019	ML	P63957	\$130,000.00
		1110.2			P63960	
		1146				
185405	PAPA CANTELLA'S INC	222	2/6/2019	SH	P64831	\$10,500.00
		1415.1	_, 0, _0 . 0	••••	104001	<i> </i>
97081	THE TERMO COMPANY	2004	2/20/2019	NAS	P67303	\$13,650.00
142417	TOYON LANDFILL GAS CONVERSION LLC	218	2/20/2019	KCM	P52409	\$8,500.00
		431.1			P66252	
		3002				
		3003				
		1110.2				
800150	US GOVT, AF DEPT, MARCH AIR RESERVE BASE	2004	2/27/2019	BST	P64385	\$1,500.00
187008	WATER HEATER WAREHOUSE, LLC	1121	2/5/2019	BST	P66957	\$15,000.00
Total Civ	il Settlements: \$223,150.00					

Company Name	Rule Number	Settled Date	Init	Notice Nbr	Total Settlement
d Settlements					
CARLISLE SYNTEC	1113	2/6/2019	WBW		\$198,054.55
2		ARLISLE SYNTEC 1113	ARLISLE SYNTEC 1113 2/6/2019	ARLISLE SYNTEC 1113 2/6/2019 WBW	ARLISLE SYNTEC 1113 2/6/2019 WBW

Fac ID	Company Name	Rule Number	Settled Date	Init	Notice Nbr	Total Settlement
MSPAP S	Gettlements					
173025	ALLIED FEATHER AND DOWN CORP	203(b)	2/21/2019	GC	P60698	\$1,800.00
180902	BMB OIL, INC	461	2/21/2019	GC	P64996	\$900.00
117114	CARSON CITY OF	461(c)(3)(Q)	2/6/2019	GC	P71242	\$1,000.00
55343	CEMEX CONSTRUCTION MATERIALS PACIFIC,LLC	403	2/6/2019	GC	P66303	\$1,900.00
172417	HOLLIDAY ROCK CO., INC.	403	2/8/2019	GC	P67451	\$1,150.00
183804	MERICAL LLC	201 203 1155		TF	P65779	\$3,200.00
175272	NEWHOPE PETROLEUM, INC	461	2/6/2019	TF	P68107	\$400.00
800328	NMB TECHNOLOGIES CORPORATION	203(b)	2/8/2019	TF	P65580	\$800.00
164999	PILOT TRAVEL CENTERS LLC	461	2/6/2019	TF	P64937	\$250.00
128753	RAFFI'S CHEVRON	203(a)	2/6/2019	GC	P65262	\$500.00
187604	RJ GENERAL CONTRACTORS, INC	403	2/21/2019	TF	P65583	\$800.00
107320	SANTA ANITA GOLF COURSE	461(e)(2)	2/6/2019	TF	P63921	\$800.00
181223	SIERRA ALLOYS COMPANY	1430	2/6/2019	TF	P65215	\$1,600.00
92324	SUPERIOR ENGINEERED PRODUCTS CORP	2202	2/8/2019	GC	P32412	\$1,275.00
126247	TANK-TEK ENVIRONMENTAL CORPORATION	461	2/6/2019	GC	P64992	\$360.00

Total MSPAP Settlements: \$16,735.00

DISTRICT'S RULES AND REGULATIONS INDEX FOR FEBRUARY 2019 PENALTY REPORT

REGULATION II - PERMITS

- Rule 201 Permit to Construct
- Rule 203 Permit to Operate
- Rule 218 Continuous Emission Monitoring
- Rule 222 Filing Requirements for Specific Emission Sources Not Requiring a Written Permit Pursuant to Regulation II

REGULATION III - FEES

Rule 314 Fees for Architectural Coatings

REGULATION IV - PROHIBITIONS

- Rule 403 Fugitive Dust Pertains to solid particulate matter emitted from man-made activities
- Rule 431.1 Sulfur Content of Gaseous Fuels
- Rule 461 Gasoline Transfer and Dispensing

REGULATION XI - SOURCE SPECIFIC STANDARDS

- Rule 1110.2 Emissions from Gaseous- and Liquid-Fueled Internal Combustion Engines
- Rule 1113Architectural Coatings
- Rule 1121 Control of Nitrogen Öxides from Residential Type, Natural-Gas-Fired Water Heaters
- Rule 1146 Emissions of Oxides of Nitrogen from Industrial, Institutional and Commercial Boilers, Steam Generators, and Process Heaters
- Rule 1155 Particulate Matter Control Devices

REGULATION XIV - TOXICS

- Rule 1415.1 Reduction of Refrigerant Emissions from Stationary Refrigeration Systems.
- Rule 1430 Control of Emissions from Metal Grinding Operations at Metal Forging Facilities

REGULATION XX - REGIONAL CLEAN AIR INCENTIVES MARKET (RECLAIM)

- Rule 2004 RECLAIM Program Requirements
- Rule 2012 Requirements for Monitoring, Reporting, and Recordkeeping for Oxides of Nitrogen (NO_X) Emissions

REGULATION XXII ON-ROAD MOTOR VEHICLE MITIGATION

Rule 2202 On-Road Motor Vehicle Mitigation Options

DRAFT

REGULATION XXX - TITLE V PERMITS

Rule 3002Requirements for Title V PermitsRule 3003Applications

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BOARD MEETING DATE: April 5, 2019

AGENDA NO. 21

REPORT: Technology Committee

SYNOPSIS:The Technology Committee held a meeting on Friday,
March 15, 2019. The following is a summary of the meeting.

RECOMMENDED ACTION: Receive and file.

Judith Mitchell, Acting Chair Technology Committee

MMM:av

Committee Members

Present: Supervisor Lisa Bartlett (videoconference) Supervisor Janice Hahn (videoconference) Mayor Judith Mitchell Supervisor V. Manuel Perez (videoconference) Council Member Dwight Robinson

Absent: Council Member Joe Buscaino/Chair

Call to Order

Acting Chair Mitchell called the meeting to order at 12:00 pm as Chair Joe Buscaino was absent.

ACTION ITEMS:

1. Issue RFP to Establish Endowment to Support Graduate Student Scholarship Fund

Staff seeks to issue an RFP to solicit bids to support university graduate student scholarships that will, in part, train students entering the workforce, along with guidance from SCAQMD, on the emerging issues and latest research related to air quality and climate change. Relevant areas of study will include but are not limited to: emissions and air quality impacts, health impacts of air pollution, climate change impacts, sustainable transportation and energy, and improving policy to achieve clean air standards and stabilize GHG emissions. This action is to issue an RFP to solicit bids to establish a university graduate scholarship endowment on air quality and climate change research.

Moved by Robinson; seconded by Bartlett; unanimously approved.

Ayes:Bartlett, Hahn, Mitchell, Perez and RobinsonNoes:NoneAbsent:Buscaino

2. Execute Contracts to Conduct Natural Gas Engine and Vehicle Research Projects

The DOE, National Renewable Energy Laboratory (NREL), CEC and SCAQMD partnered to launch a research effort to increase efficiency of natural gas engines for medium- and heavy-duty engines and vehicles. In September 2018, NREL issued an RFP to solicit proposals to conduct natural gas engine and vehicle research projects to achieve these goals. Staff identified four proposals that align well with AQMP priorities to reduce NOx and PM emissions from transportation sources. This action is to execute contracts in an amount not to exceed \$1,700,000 from the Clean Fuels Program Fund (31) to cost-share these four projects.

Supervisor Janice Hahn indicated her preference for zero emission technologies and expressed concern over funding near-zero CNG technologies that some community members may not support. Staff explained the Clean Fuels Program focuses on all near- and longer-term technologies, and this specific project is leveraging the federal government's interest in deploying this near-zero emission technology on a national scale, which will result in lower costs and support the SCAQMD's goals for a national lower emission heavy-duty engine standard. Staff further explained the project includes plug-in hybrid trucks that are capable of all electric range.

Mayor Mitchell asked if the Cummins engine technologies would achieve 0.02 g/bhp-hr NOx and asked for clarification on the US Hybrid technology. Staff explained that the goal for the Cummins engine project is to achieve the 0.02 g/bhp-hr level, including increased efficiency and possibly lower cost for the after treatment system. The US Plug-in Hybrid Electric truck is similar to the lightduty GM Volt, and is capable of providing all electric range using geofencing to focus on all electric driving when travelling through disadvantaged communities. Council Member Robinson supported the need for low-NOx larger displacement engines necessary for long haul applications.

Moved by Robinson; seconded by Perez; unanimously approved.

Ayes:Bartlett, Hahn, Mitchell, Perez and RobinsonNoes:NoneAbsent:Buscaino

OTHER MATTERS:

3. Other Business

There was no other business.

4. Public Comment Period

There were no public comments.

5. Next Meeting Date

The next regular Technology Committee meeting is scheduled for Friday, April 19, 2019 at noon.

Adjournment

The meeting adjourned at 12:22 p.m.

Attachment Attendance Record

ATTACHMENT

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT TECHNOLOGY COMMITTEE MEETING Attendance Record – March 15, 2019

Supervisor Lisa Bartlett (videoconference)	. SCAQMD Board Member
Supervisor Janice Hahn (videoconference)	. SCAQMD Board Member
Mayor Judith Mitchell	. SCAQMD Board Member
Supervisor V. Manuel Perez (videoconference)	. SCAQMD Board Member
Council Member Dwight Robinson	. SCAQMD Board Member
Jacob Haik	
Diane Moss	· · · · · ·
Marisa Perez	Board Consultant (Mitchell)
Susan Stark	
Tammy Yamasaki	
Bridget McCann	. Western States Petroleum Association
N. D.	
Naveen Berry	
Seungbum Ha	
Drue Hargis	
Joseph Impullitti	
Pat Krayser	
Joseph Lopat	
Matt Miyasato	
Jennifer Nordbak	. SCAQMD Staff
Cynthia Snyder	. SCAQMD Staff
Veera Tyagi	. SCAQMD Staff
Alejandra Vega	. SCAQMD Staff
Vicki White	. SCAQMD Staff
Jill Whynot	. SCAQMD Staff
Paul Wright	

1 Back to Agenda

BOARD MEETING DATE: April 5, 2019

AGENDA NO. 22

REPORT: Mobile Source Air Pollution Reduction Review Committee

SYNOPSIS: Below is a summary of key issues addressed at the MSRC's meeting on March 21, 2019. The next meeting is scheduled for Thursday, April 18, at 2:00 p.m., in Conference Room CC8.

RECOMMENDED ACTION: Receive and file.

Ben Benoit SCAQMD Representative to MSRC

MMM:NB:jdn

Meeting Minutes Approved

The MSRC unanimously approved the minutes of the January 10, 2019 meeting. Those approved minutes are attached for your information (*Attachment 1*).

Proposal

At its March 21, 2019 meeting, the MSRC considered recommendations from its MSRC-TAC and approved the following:

FYs 2016-2018 Work Program

Freeway Service Patrols in Riverside County

In January 2018, the MSRC approved a contract award to Riverside County Transportation Commission (RCTC) to implement new weekend FSP services along designated freeway segments (referred to as beats) to relieve freeway congestion and facilitate the rapid removal of disabled vehicles as well as vehicles involved in minor accidents. Subsequently, higher than normal rainfall has recently resulted in spectacular poppy growth in the Lake Elsinore area, drawing tremendous crowds and traffic on the weekends. RCTC requested to modify their contract to allow weekend FSP service to be provided on segments of Riverside County highways, such as the Interstate 15 near Lake Elsinore, in addition to the previously designated beats. Service on other beats would need to be within SCAQMD jurisdiction, only when there is an urgent need, and would be limited to a maximum of \$50,000. The MSRC considered and approved RCTC's requested contract modification as part of the FYs 2016-18 Work Program. This modification will be considered by the SCAQMD Board at its April 5, 2019 meeting.

FYs 2018-2021 Work Program

Major Event Center Transportation Program

The MSRC approved the release of Program Announcement #PA2019-03 under the FYs 2018-21 Work Program. The PA, with an initial targeted funding amount of \$6,500,000 (inclusive of the \$1,163,485 award to Metro below), solicits applications from qualifying major event centers and/or transportation providers to provide transportation service for venues not currently served by sufficient transportation service. To qualify, an event center must have an occupancy capacity of at least 7,500, and an average event attendance of at least 5,000. The applicant must demonstrate that the center is impacted by traffic to the extent that the design capacity of the surrounding streets is exceeded. Applications may be submitted at any time from April 5, 2019 to March 30, 2021, and projects will be brought to the MSRC for consideration of awards throughout this period. The maximum total funding award to any entity shall not exceed \$3,250,000. The MSRC can waive this funding restriction in the event the MSRC does not receive sufficient meritorious applications from other bidders to utilize the remaining funds, or if the MSRC allocates additional funds to the Program. Applicants are eligible to propose a maximum of two consecutive event seasons in any one application. The PA will be considered by the SCAQMD Board at its April 5, 2019 meeting.

Dodger Stadium Express Service for 2019

The Major League Baseball season begins March 28. In recognition that the Major Event Center Transportation PA cannot be released until April 5 at the earliest, at their February 21, 2019 meeting the MSRC authorized Metro to submit an application for consideration by MSRC at the MSRC's March meeting, under the condition that Metro agrees to abide by all recommendations resulting from the MSRC-TAC process and they agree to potential negotiations to revise their proposed project prior to contract execution. Metro submitted an application seeking \$1,163,485 in MSRC funding assistance to implement special transit service to one preseason game, 81 regular season games, up to two special events, and up to ten post-season playoff games in 2019. Consistent with the proposed Program Announcement, service would be provided between Union Station and Dodger Stadium by vehicles equipped with engines meeting the California Air Resources Board's optional 0.02 g/bhp-hr standard for oxides of nitrogen. Service would be provided from at least 90 minutes prior to each event until at least 45 minutes after the game ends or 20 minutes following a special event, whichever is later. Service would promote the use of public transit, including bus and rail, in lieu of personal automobile. Elimination of traffic congestion, especially reductions in automobile stop and go driving and queuing, has a direct link to reduced vehicle exhaust emissions. Metro and the Los Angeles Dodgers would contribute at least \$1,491,285 in co-funding. The MSRC approved a sole-source contract award to

Metro in an amount not to exceed \$1,163,485 as part of the FYs 2018-21 Work Program to implement the 2019 Dodger Stadium Express service. This award will be considered by the SCAQMD Board at its April 5, 2019 meeting.

Contract Modification Requests

- 1. For the City of Palm Springs, Contract #ML12090, which provides \$21,163 to install an EV charging station, a 47-month term extension;
- 2. For the City of Fontana, Contract #ML16047, which provides \$500,000 to enhance a Class I Bikeway, a two-year term extension;
- 3. For the City of South Pasadena, Contract #ML14068, which provides \$10,183 to install an EV charging station, increase stations from one to two and a 29-month term extension;
- 4. For the City of South Pasadena, Contract #ML16025, which provides \$160,000 towards the purchase of a heavy-duty natural gas vehicle and expansion of a CNG station, a six-month term extension;
- 5. For the City of Fullerton, Contract #ML16010, which provides \$370,500 for the expansion of a CNG station and installation of EV charging stations, remove CNG station expansion, reduce charging stations from eighteen to fourteen, reduce contract value from \$370,500 to \$78,222, and one-year term extension.

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 January 31 through February 27, 2019 is attached (*Attachment 2*) for your information.

Attachment

Attachment 1 – Approved January 17, 2019 Meeting Minutes Attachment 2 – January 31 through February 27, 2019 Contracts Administrator's Report



MOBILE SOURCE AIR POLLUTION REDUCTION REVIEW COMMITTEE THURSDAY, JANUARY 17, 2019 MEETING MINUTES 21865 Coplay Drive Diamond Bar, CA 01765 Conference Boom CC 8

21865 Copley Drive, Diamond, Bar, CA 91765 - Conference Room CC-8

MEMBERS PRESENT:

(Chair) Larry McCallon, representing SBCTA (Vice-Chair) Greg Winterbottom, representing OCTA Ben Benoit, representing SCAQMD Jack Kitowski, representing California Air Resources Board Dolores Roybal Saltarelli (Alt.), representing Regional Rideshare Agency Brian Berkson (Alt.), representing RCTC Mark Yamarone (Alt.), representing Los Angeles County MTA (via v/c)

MEMBERS ABSENT:

Greg Pettis, representing RCTC Steve Veres, representing Los Angeles County MTA

MSRC-TAC MEMBERS PRESENT:

Rongsheng Luo, representing SCAG Kelly Lynn, representing SBCTA Vicki White, representing SCAQMD Dan York, representing Cities of Riverside County

OTHERS PRESENT:

Rubin Aronin, Better World Group Advisors Lauren Dunlap, SoCalGas Sam Emmerson, Better World Group Advisors Ric Teano, OCTA

SCAQMD STAFF & CONTRACTORS

Leah Alfaro, MSRC Contracts Assistant Naveen Berry, Asst. Deputy Executive Officer Ray Gorski, MSRC Technical Advisor-Contractor Daphne Hsu, Senior Deputy District Counsel John Kampa, Financial Analyst Megan Lorenz, Principal Deputy District Counsel Matt Mackenzie, MSRC Contracts Assistant Cynthia Ravenstein, MSRC Contracts Administrator Paul Wright, Information Technology Specialist

CALL TO ORDER

• Call to Order

MSRC Chair Larry McCallon called the meeting to order at 2:06 p.m.

Roll call was taken at the start of the meeting. The following members and alternates were present: BEN BENOIT, BRIAN BERKSON, JACK KITOWSKI, LARRY MCCALLON, DOLORES ROYBAL SALTARELLI, GREG WINTERBOTTOM, MARK YAMARONE.

• Opening Comments

MSRC Chair Larry McCallon announced with great sadness the passing of Greg Pettis. Mr. Pettis has been a member the MSRC Board since 2009, serving as MSRC Chair for five years. MSRC Alternate Brian Berkson asked that today's meeting be closed in remembrance of Greg Pettis.

MSRC Chair Larry McCallon stated for the record that for Agenda Item #12, he doesn't have a financial interest in this item, but he is required to announce that he is a Board Member of the San Bernardino County Transportation Authority, which is involved in this item.

MSRC Vice Chair Greg Winterbottom stated for the record that for Agenda Item #2, he does not have any financial interest, but is required to identify that he is a member of the Board of Directors for the Orange County Transportation Authority, which is involved in this item.

• STATUS REPORT

Cynthia Ravenstein, MSRC Contracts Administrator reported California will receive \$78.4 million of a \$500 million joint settlement between the U.S. Department of Justice and Fiat Chrysler Automobiles. The settlement resolves allegations that the company violated environmental and consumer protection laws by using "defeat device software" to circumvent emissions testing. Fiat Chrysler is accused of installing the defeat device software in 100,000 vehicles nationwide and 13,325 vehicles in California. California's settlement funds include \$45.8 million in penalties for violations of environmental laws and a mitigation payment of \$19.035 million. These payments will be deposited into the Air Pollution Control Fund and managed by ARB through the budget process to fully mitigate the excess NOx emissions from the affected vehicles. MSRC Jack Kitowski added there are similarities, but this is unlike Volkswagen in a couple of different ways. You can tell by the magnitude of the dollar amount, the level of deception as well as their ability to fix the problem is different than Volkswagen. Volkswagen was much more severe, and they never could completely fix the problem, which is why they have the Buy Back Program. The other difference is it is being but into the Air Pollution Control Fund.

CONSENT CALENDAR (Items 1 through 12)

Receive and Approve Item

Agenda Item #1 – Minutes for the August 16 and September 20, 2018 MSRC Meeting

The minutes of the August 16 and September 20, 2018 MSRC meeting were distributed at the meeting.

ON MOTION BY MSRC MEMBER BEN BENOIT, AND SECONDED BY MSRC VICE-CHAIR GREG WINTERBOTTOM, UNDER APPROVAL OF CONSENT CALENDAR ITEMS #1 THROUGH #12, THE MSRC UNANIMOUSLY APPROVED THE AUGUST 16 AND SEPTEMBER 20, 2018 MSRC MEETING MINUTES. AYES: BENOIT, BERKSON, KITOWSKI, MCCALLON, ROYBAL SALTARELLI, WINTERBOTTOM, YAMARONE NOES: NONE.

ACTION: Staff will include the August 16 and September 20, 2018 MSRC meeting minutes in the MSRC Committee Report for the February 1, 2019 SCAQMD Board meeting and will place a copy on the MSRC's website.

Agenda Item #2 – Summary of Final Report by MSRC Contractors

The MSRC received and approved five final report summaries this month, as follows:

- Grand Central Recycling & Transfer Station, Contract #MS14082, which provided \$150,000 to construct a new public access CNG station;
- Burrtec Waste & Recycling Services, LLC, Contract #MS16087, which provided \$100,000 to construct a new limited-access CNG station;
- Orange County Transportation Authority, Contract #MS16093, which provided \$1,553,657 to implement a mobile ticketing system;
- Huntington Beach Union High School District, Contract #MS16105, which provided \$175,000 for expansion of existing CNG infrastructure; and
- Orange County Transportation Authority, Contract #MS18004, which provided \$503,272 to provide special rail service to Angel Stadium.

ON MOTION BY MSRC MEMBER BEN BENOIT, AND SECONDED BY MSRC VICE-CHAIR GREG WINTERBOTTOM, UNDER APPROVAL OF CONSENT CALENDAR ITEMS #1 THROUGH #12, THE MSRC UNANIMOUSLY APPROVED THE FINAL REPORTS LISTED ABOVE. AYES: BENOIT, BERKSON, KITOWSKI, MCCALLON, ROYBAL SALTARELLI, WINTERBOTTOM, YAMARONE. NOES: NONE.

ACTION: MSRC staff will file the final reports and release any retention on the contracts.

Agenda Item #3 – Consider Adoption of 2019 Meeting Schedules

Annually the MSRC considers a proposed meeting schedule for the upcoming year. The schedule continues with meetings on the first and third Thursdays, respectively, for the MSRC-TAC and MSRC, with two exceptions. Staff recommends the MSRC-TAC meetings in January and December be held on the second Thursday of the month to avoid holiday conflicts.

ON MOTION BY MSRC MEMBER BEN BENOIT, AND SECONDED BY MSRC VICE-CHAIR GREG WINTERBOTTOM, UNDER OF APPROVAL OF CONSENT CALENDAR ITEMS #1 THROUGH #12, THE MSRC UNANIMOUSLY VOTED TO ADOPT THE 2019 MSRC AND MSRC-TAC MEETING SCHEDULES. AYES: BENOIT, BERKSON, KITOWSKI, MCCALLON, ROYBAL SALTARELLI, WINTERBOTTOM, YAMARONE. NOES: NONE.

ACTION: No further action is required.

Information Only - Receive and File

Agenda Item #4 – MSRC Contracts Administrator's Report

The MSRC AB 2766 Contracts Administrator's Report for September 27, 2018 through January 3, 2019 was included in the agenda package.

ON MOTION BY MSRC MEMBER BEN BENOIT, AND SECONDED BY MSRC VICE-CHAIR GREG WINTERBOTTOM, UNDER APPROVAL OF CONSENT CALENDAR ITEMS #1 THROUGH #12, THE MSRC UNANIMOUSLY VOTED TO RECEIVE AND FILE THE CONTRACTS ADMINISTRATOR'S REPORT FOR SEPTEMBER 27, 2018 THROUGH JANUARY 3, 2019. AYES: BENOIT, BERKSON, KITOWSKI, MCCALLON, ROYBAL SALTARELLI, WINTERBOTTOM, YAMARONE. NOES: NONE.

ACTION: Staff will include the MSRC Contracts Administrator's Report in the MSRC Committee Report for the February 1, 2019 SCAQMD Board meeting.

Agenda Item #5 – Financial Report on AB 2766 Discretionary Fund

A financial report on the AB 2766 Discretionary Fund for December 2018 was included in the agenda package.

ON MOTION BY MSRC MEMBER BEN BENOIT, AND SECONDED BY MSRC VICE-CHAIR GREG WINTERBOTTOM, UNDER APPROVAL OF

CONSENT CALENDAR ITEMS #1 THROUGH #12, THE MSRC UNANIMOUSLY VOTED TO RECEIVE AND FILE THE FINANCIAL REPORT FOR THE PERIOD ENDING DECEMBER 2018. AYES: BENOIT, BERKSON, KITOWSKI, MCCALLON, ROYBAL SALTARELLI, WINTERBOTTOM, YAMARONE. NOES: NONE.

ACTION: No further action is required.

For Approval – As Recommended

<u>Agenda Item #6 – Consider Seven-Month Term Extension for Waste Resources, Inc.,</u> <u>Contract #MS14079 (\$100,000 – Install New Limited Access CNG Station)</u>

Waste Resources requests a seven-month contract term extension due to longer than anticipated time needed to secure contractors. THE MSRC-TAC UNANIMOUSLY RECOMMENDS APPROVAL.

ON MOTION BY MSRC MEMBER BEN BENOIT, AND SECONDED BY MSRC VICE-CHAIR GREG WINTERBOTTOM, MSRC UNANIMOUSLY VOTED TO APPROVE THE NO-COST TERM EXTENSION FOR RIVERSIDE COUNTY REGIONAL PARK AND OPEN SPACE DISTRICT, CONTRACT #MS14079. AYES: BENOIT, BERKSON, KITOWSKI, MCCALLON, ROYBAL SALTARELLI, WINTERBOTTOM, YAMARONE. NOES: NONE.

ACTION: MSRC Staff will amend the above contract accordingly.

<u>Agenda Item #7 – Consider Term Extension to June 25, 2023, for Rialto Unified School</u> <u>District (RUSD), Contract #MS14076 (\$225,000 – Install Public Access CNG Station)</u>

RUSD requests a contract term extension to June 25, 2023, approximately 16 months, due to the need to expand the electrical infrastructure at the site. THE MSRC-TAC UNANIMOUSLY RECOMMENDS APPROVAL.

ON MOTION BY MSRC MEMBER BEN BENOIT, AND SECONDED BY MSRC VICE-CHAIR GREG WINTERBOTTOM, MSRC UNANIMOUSLY VOTED TO APPROVE THE NO-COST TERM EXTENSION FOR RIALTO UNIFIED SCHOOL DISTRICT, CONTRACT #MS14076. AYES: BENOIT, BERKSON, KITOWSKI, MCCALLON, ROYBAL SALTARELLI, WINTERBOTTOM, YAMARONE. NOES: NONE.

ACTION: MSRC Staff will amend the above contract accordingly.

<u>Agenda Item #8 – Consider Eighteen-Month Term Extension for the City of Pomona,</u> <u>Contract #ML16008 (\$60,000 – Purchase Three Medium-Duty and One Heavy-Duty CNG Vehicles)</u>

The City requests an eighteen-month term extension due to longer than anticipated time for vehicles to receive Air Resources Board certifications. THE MSRC-TAC UNANIMOUSLY RECOMMENDS APPROVAL.

ON MOTION BY MSRC MEMBER BEN BENOIT, AND SECONDED BY MSRC VICE-CHAIR GREG WINTERBOTTOM, MSRC UNANIMOUSLY VOTED TO APPROVE THE NO-COST TERM EXTENSION FOR THE CITY OF POMONA, CONTRACT #ML16008. AYES: BENOIT, BERKSON, KITOWSKI, MCCALLON, ROYBAL SALTARELLI, WINTERBOTTOM, YAMARONE. NOES: NONE.

ACTION: MSRC Staff will amend the above contract accordingly.

<u>Agenda Item #9 – Consider One-Year Term Extension for the City of Monterey Park,</u> <u>Contract #ML16013 (\$90,000 – Purchase Three Heavy-Duty CNG Vehicles)</u>

The City requests a one-year term extension due to longer than anticipated time for vehicles to receive Air Resources Board certifications. THE MSRC-TAC UNANIMOUSLY RECOMMENDS APPROVAL.

ON MOTION BY MSRC MEMBER BEN BENOIT, AND SECONDED BY MSRC VICE-CHAIR GREG WINTERBOTTOM, MSRC UNANIMOUSLY VOTED TO APPROVE THE NO-COST TERM EXTENSION FOR THE CITY OF MONTEREY PARK, CONTRACT #ML16013. AYES: BENOIT, BERKSON, KITOWSKI, MCCALLON, ROYBAL SALTARELLI, WINTERBOTTOM, YAMARONE. NOES: NONE.

ACTION: MSRC Staff will amend the above contract accordingly.

<u>Agenda Item #10 – Consider Eighteen-Month Term Extension for the Los Angeles</u> <u>Department of Water and Power (LADWP), Contract #ML16022 (\$360,000 – Purchase</u> <u>Twelve Heavy-Duty CNG Vehicles)</u>

LADWP requests an eighteen-month term extension due to delays associated with vendor protests. Except for an abstention by Steven Hillman, THE MSRC-TAC UNANIMOUSLY RECOMMENDS APPROVAL.

ON MOTION BY MSRC MEMBER BEN BENOIT, AND SECONDED BY MSRC VICE-CHAIR GREG WINTERBOTTOM, THE MSRC UNANIMOUSLY VOTED TO

APPROVE THE NO-COST TERM EXTENSION FOR THE LOS ANGELES DEPARTMENT OF WATER AND POWER (LADWP), CONTRACT #ML16022. AYES: BENOIT, BERKSON, KITOWSKI, MCCALLON, ROYBAL SALTARELLI, WINTERBOTTOM, YAMARONE. NOES: NONE.

ACTION: MSRC Staff will amend the above contract accordingly.

<u>Agenda Item #11 – Consider Contract Replacement for the City of Palm Springs, Contract</u> #ML16005 (\$40,000 – Install Bike Racks & Implement Bicycle Outreach)

Due to the expiration of the City's prior contract, the City requests a contract replacement to complete the scope of work for this project. THE MSRC-TAC UNANIMOUSLY RECOMMENDS APPROVAL.

ON MOTION BY MSRC MEMBER BEN BENOIT, AND SECONDED BY MSRC VICE-CHAIR GREG WINTERBOTTOM, MSRC UNANIMOUSLY VOTED TO APPROVE THE CONTRACT REPLACEMENT FOR THE CITY OF PALM SPRINGS, CONTRACT #ML16005. AYES: BENOIT, BERKSON, KITOWSKI, MCCALLON, ROYBAL SALTARELLI, WINTERBOTTOM, YAMARONE. NOES: NONE

ACTION: This item will be considered by the SCAQMD Board at its February 1, 2019 meeting.

Agenda Item #12 – Consider Contract Replacement for the San Bernardino County Transportation Authority (SBCTA), Contract #MS16091 (\$1,000,000 – Signal Synchronization Upgrades

Due to the expiration of SBCTA's prior contract, MSRC staff recommends a contract replacement to complete the scope of work for this project. THE MSRC-TAC UNANIMOUSLY RECOMMENDS APPROVAL.

ON MOTION BY MSRC MEMBER BEN BENOIT, AND SECONDED BY MSRC VICE-CHAIR GREG WINTERBOTTOM, MSRC UNANIMOUSLY VOTED TO APPROVE THE CONTRACT REPLACEMENT FOR THE SAN BERNARDINO COUNTY TRANSPORTATION AUTHORITY, CONTRACT #MS16091. AYES: BENOIT, BERKSON, KITOWSKI, MCCALLON, ROYBAL SALTARELLI, WINTERBOTTOM, YAMARONE. NOES: NONE

ACTION: This item will be considered by the SCAQMD Board at its February 1, 2019 meeting.

ACTION CALENDAR (Items 13 through 14) FYs 2016-18 WORK PROGRAM

Agenda Item #13 - Setting the Stage for FYs 2018-20 Work Program Development

Ruben Aronin, Better World Group Advisors, introduced his colleague Sam Emmerson. Mr. Aronin talked about the MSRC's Work Program Development Workshops. We've been really pleased as your Outreach Coordinator, with the help of the members and the TAC members, not only to get key grantees to participate but also to include other potentially interested parties. Since we have been doing these workshops now every other year for over a decade, we thought it would be worth taking a quick snap shot of what continue to be priority items and what is falling away, because perhaps the funding needs have been fulfilled or have been outgrown.

The first couple years, 2011 and 2012, we were still hearing a lot about the need for CNG vehicles and infrastructure, electric vehicles and infrastructure, bicycling programs, mediumduty alternative-fuel vehicles, and zero and near zero emission technologies, especially pilot projects for different types of fleets. There was also interest in traffic signal synchronization as well as education and outreach programs. These interests held steady through our 2014 workshops. In 2016, we heard more about light- and medium-duty electric vehicles along with bicycling programs leading into active transportation.

In this last year, we heard the largest demand for funding for electric vehicles. Ray Gorski spent a lot of time answering questions about the light-duty trucks that so many communities need while in fact there isn't a technology solution for that currently. We also talked a lot about box trucks. Amazon just placed a big order for about 20,000 trucks. They were looking for electric trucks, but they're not there.

Funding for active transportation projects was the second most requested category of funding, especially bicycling programs. We talked a lot about electric bikes and scooters. We are still hearing about the need for funding for CNG vehicles, and the new infrastructure, maintenance and improvements to existing infrastructure to support them but I would say this interest had diminished from past workshops. In several of the workshops, training for the maintenance and operations of electric and advanced technology vehicles was a frequently requested category. Broad funding areas included the elusive first mile/last mile, electric bikes and clean car sharing programs. The question was raised about whether there could be funding for planning documents.

We held five or six meetings in four counties over three weeks. We got really good feedback about the accessibility of the MSRC program and the ease of the program relative to other government funding programs. Staff is responsive, and feedback and creativity is appreciated.

In Cap and Trade investment, a lot of the environmental advocates and environmental justice community advocates have been concerned that while we have been able to increase Clean Vehicle Rebate Program (CVRP) funding, and in fact create a clever mechanism where there are year-over-year renewals, that's at the expense of investment in heavy-duty. There have been fewer incentive dollars for heavy-duty overall from Cap and Trade. The Air Resources Board (ARB) just adopted the Clean Transit Rule that is mandating the electrification of transit buses.

and car share programs.

There are significant incentive dollars helping transit agencies achieve that. ARB is hoping that will help make it easier to explore the electrification of heavy duty more broadly. They are looking at a possible smog check program for trucks and even a ZEV mandate for trucks, possibly to be considered in 2019 or 2020. Getting dirty diesel trucks off the road would be a huge emissions benefit. Governor Newsom had a plan calling for getting beyond diesel by 2030. We are fortunate that there is significant funding in the Low Carbon Transportation Program--a little over \$450 million for this year--to accelerate the transition to advanced technology, low carbon freight and passenger transportation. There's \$200 million for the CVRP, \$75 million for the Enhanced Fleet Modernization Program, \$125 million for the Hybrid and Zero Emission Bus Voucher incentive project, and \$55 million for Freight Equipment and Advanced Demonstration Pilot Commercial Deployment Programs. In AB 617, where 3 of the 10 communities that were chosen statewide are within the MSRC territory, they are initially looking at the emissions sources for underserved disadvantaged communities. They are looking at putting \$250 million in through the Carl Moyer Program this year. The air quality management district allocation of \$107.5 million has been allocated. The Low Carbon Transit Operations Program, via Caltrans, offers \$123 million dollars for operating and capital assistance to transit agencies to reduce greenhouse gas (GHG) emissions. This includes projects such as new faster rail, intermodal transit facilities, equipment acquisition, fuel and maintenance costs. In the Rail Capital Program, \$123 million dollars has been projected to fund transformative capital improvements that will modernize California's bus rail and ferry system. In the Affordable Housing and Sustainable Communities Program, \$395 million has been projected. The Governor is focused on affordable housing and the challenge of how to get housing near transit and reduce vehicle miles traveled. The Transformative Climate Communities Program has \$46.80 million to fund community-led development and infrastructure projects to reduce GHG emissions in disadvantaged communities, including affordable and sustainable housing, transit stations and facilities, bike

There's lots of incentive dollars but insufficient to the costs to meet climate and clean air goals. There's \$28.6 million for the Air Quality Improvement Program. The Carl Moyer Program has \$25 million plus \$107.5 from the Community Air Protection Funds, and \$800 million total from the VW settlement. It is helping to increase investments in the electric vehicle infrastructure. For the Low Carbon Fuel Standard, the utilities and car companies are working on an innovative new funding mechanism that may replace some of the federal tax credit that's going to be going away for GM and Tesla because they hit their 200,000 sales cap. About 64% of utility customers who are currently qualified to get the Low Carbon Fuel Standard credit don't apply for it. They're trying to create a mechanism where that credit would be available at point of purchase to consumers. We expect to be seeing what that plan looks like in the next couple of months. At the Energy Commission, the Alternative and Renewable Fuel and Vehicle Technology Program has \$100 million. The proposed funding split, for action in May, is \$52 million for zero emission vehicle infrastructure (EV charging \$32 million and hydrogen fueling \$20 million), advanced freight and fleet technologies \$17.5 million, low carbon fuel production and supply \$20 million, and manufacturing workforce development \$5 million. For the Greenhouse Gas Reduction Fund, the Governor's budget just was released, and it has a proposed allocation for Cap and Trade dollars which is \$400 million overall less than last year's allocation based on projected allowances. Caltrans has \$440 million for the Active Transportation Program. The California Transportation Commission, via SB1 Transportation Investments, has \$540 million to maintain and rehabilitate the state's transportation infrastructure and expand pedestrian bicycle in transit routes and services. There are incentives via SoCal Edison as well as the Department of Water

and Power for residential and commercial charging infrastructure. Federally out of EPA, the Clean Diesel Program has \$1 million that is available in 2019 to fund regional, state and local agencies and nonprofit projects that achieve significant reductions in diesel emissions such as emission control technologies, vehicles, engines, and equipment. Applications are due in March. Under the Federal Transit Administration's Lower Emission Vehicle Program, \$84 million was awarded in 2018 to state and local government authorities. The Federal Highway Administration has the Congestion Mitigation/Air Quality Improvement Program that provides California with approximately \$455 million to fund state and local government transportation projects and programs. There's also the federal tax credit which is phasing out.

State Senator Ting has introduced AB 40 which would be a study bill for ARB to look at what it would take to get to 100% ZEV sales by 2040. Electric vehicle sales are up 70%, largely led by Tesla. There's an initiative that is beginning to pump some more dollars into the marketing of EVs and we have the infrastructure investments coming from Southern California Edison. We will see where Governor Newsom's administration chooses to prioritize some of their transportation related programs. The policies and rhetoric that we've heard thus far are a strong defense of California's clean car standards and moving forward in both the light- and heavy-duty spaces. The defeat of Prop 6, that would have repealed the gas tax, is worth noting. If that had gone the other way that could have been a challenge in short-term dollars, but also many kinds of political will in the state as well. This morning Colorado's Governor issued an executive order to adopt the ZEV component of California's Clean Car Standard; they adopted the Low Emission Vehicle standard last December. There are a lot of players and incentive dollars in the light duty space, but in the medium- and heavy-duty arena, we keep hearing we need to get beyond ones and twos. Whether it is economic studies of how do we get this technology accelerated into fleets so we can get hundreds and thousands of trucks on the road, or whether it is thinking about aggregated purchasing power, looking at pilot projects in this space around the Ports and the traffic between the Ports and the warehouses, there is a huge need in this area where we are not bending the emissions curve. This is part of figuring out where the MSRC can leverage its dollars and put its fingerprints on efforts. We certainly think this is one strong priority. The Skinner bill, 1014, is ultimately mandating ARB to set an emissions target and then an emissions reduction strategy for ride sharing programs. Originally that bill started as an electrification mandate for the ride sharing companies but it couldn't pass muster. Other states are looking at taking that and going further. While they're still a small segment of traffic, as a patron of LAX, it is hard to get into the airport because Uber and Lyfts have clogged the upper level. The MSRC's bread and butter has been providing capacity for your cities, counties and the private sector to be able to do more in clean transportation. But I always am looking for where can the MSRC say, this is where we're putting our dollars in or partnering with other agencies to make happen. It's helpful to have showcase MSRC projects. We all know about the Dodgers shuttle for example; it has been a useful project to allow people to understand what the MSRC is trying to do with its investments.

MSRC Member Jack Kitowski asked can you expand a little more on demonstration? You mentioned the Dodger shuttle. Are you thinking from a technical standpoint or from an innovative mobility standpoint? Mr. Aronin responded for example, off-road vehicles are a real problem and those vehicles last for 20-25 years. If there is a space where there's a technology improvement that's not receiving dollars from any other source, the MSRC could help prove out the technology. When we think about the value that the MSRC provides to the region, it is useful to have a couple of key investment programs that help raise the visibility of what the MSRC

does. Mr. Kitowski responded you're talking about areas where you could be uniquely positioned versus similar to all the other incentive programs. Mr. Aronin added it's very important to be complementary to what the state investments are. Why does the MSRC exist? Where can we push the envelope further? That may be in a unique pilot technology program--it could be the Rideshare Thursday Program that we invested in a couple of years ago, or the OCTA's mobile technology platform that was recently supported. I don't know that it's obvious what it is, but it's worth thinking about not just following but leading in some area. MSRC Alternate Dolores Roybal Saltarelli commented one of the examples that we were also thinking about is the Cummins near zero engine. MSRC was one of the first agencies to fund that engine. If the MSRC can get out in front of technology like that, that would be useful.

ACTION: No further action is required.

<u>Agenda Item #14 – Consider Recommendation from MSRC-TAC to Adopt Three-Year</u> <u>FYs 2018-21 Work Program</u>

MSRC-TAC Chair Dan York reported your TAC has been busy. Beginning two meetings before the Retreat, we already started talking about what we could bring to you. What could we learn? We started studying lessons learned as far as the programs that we had worked on and their effectiveness. We looked at the Local Program Partnership Program, Infrastructure and also the Major Event Center Program. We also heard from many of the groups at the Retreat and we've been kind of brainstorming on what we could bring as a recommendation. Should we continue as we have year after year with the same committees, where we carve so much up, we throw some at the local agencies, and they try to put in electrical vehicle charging stations for the smaller vehicles? Do we continue with the Major Event Center Program? We touched on all of those and what we're bringing to you today was unanimously agreed upon. We recommend a three-year work plan that brings \$64 million to the table. The proposal is that we spend 2019 working on a marquee, large-scale regional project where we leverage a significant amount of that money, around \$50 million, and in return get \$100 million. We think that we have an opportunity, especially right now with all the competitive programs that we have at the state level, to leverage our monies in a big fashion. We will put together a scope. It could be something like a pilot project or it could start at the Port. It could be an Electrification Study Program, picking up where AQMD has studied quite significantly, but actually put something together that ultimately would get us from the Port to the desert. It could be looking at the existing truck stops--is the right infrastructure there to be able to incentivize these large vehicles to be able to use those kinds of technologies? We haven't drilled down on what kind of program it would be. But we think with what we've heard at our Retreat, and what we've heard from the Better World Group, in this current climate we may have a wonderful opportunity to leverage our dollars on a large scale. The second recommendation is to continue to work with our stakeholders. We think that by partnering with AQMD, ARB, and CEC, there's a lot of resources and knowledge and with our participation we can continue to support the South Coast AQMD and ARB goals. The third recommendation is to review previous programs and decide whether they should be continued. This was the toughest part of our discussion because a lot of TAC representatives and the agencies are still very comfortable with the programs that we have enjoyed for the last decade. As we went through, we were trying to identify are we really having great reductions in air pollutants? And the answer really is, we have it with some of these programs but not others. They've been great programs, even programs that people continually ask for because they're a

good source of funds, but when we've analyzed the results, we probably haven't made as much progress towards our overall air quality goals as we thought we would like to. Hence we'd like to really start focusing more on the heavy-duty vehicles.

MSRC Member Ben Benoit commented we've been looking at the catenary system at AQMD and other similar options. We see plenty of little pilot projects; I've seen probably four or five different electric trucks other than Tesla's. My only concern is that we don't pick a technology that we island ourselves on, like paddle chargers and end up with a bunch of chargers across the region that we can't use. It's great to see we're taking bold steps. We have been sort of stuck in the same routine for a little while.

MSRC Chair Larry McCallon commented the state is mandating that school systems buy electric vehicles. The biggest problem with the school districts accomplishing that that the school districts are not going to be able to afford to put in the infrastructure to support electrification. They just got the CNG infrastructure and now they are being mandated to go to something else. I understand what's being said about trucks, but we need to consider this too. MSRC-TAC Chair Dan York responded we have set up a local programs committee, and that kind of assistance could still be part of local programs. You're asking agency staff to put together procurement packages that they're not savvy about. Another idea that the MSRC-TAC talked about is if we keep that Local Programs Partnership, maybe part of that is we also employ the MSRC or the AQMD staff actually to help administer the projects. So we wouldn't be wasting money on administration, but we'd actually be spending our money directly on delivering a product. In the program we're bringing, there is still a window for local programs, but the bulk would be the bigger program. MSRC Member Jack Kitowski commented for clarification that CARB isn't mandating schools to go to zero-emission buses. With our incentive programs, we provide encouragement. You're ranked higher if you choose zero-emission electric buses but there's no mandate.

MSRC Vice-Chair Greg Winterbottom asked if we are aiming for a \$100 million program for 2020, where do we see that going? What can we do to make it happen? MSRC-TAC Chair Dan York replied this could probably open some exciting opportunities, even for this Committee to work at the state level and work with some of the private industry. Our first point of contact is the AQMD. We can put our resources together and identify opportunities and then in the coming months, we'll be presenting those opportunities to you and then how the board can start leveraging and going up to the state level and talking to some of the private industry.

MSRC Member Jack Kitowski commented we have a fair amount of funding at the state level. If you're a proactive fleet member or manager, you can go out and talk to the utility, talk to infrastructure providers and you can talk to the community college about workforce training and all of that and you can get that done. But if you're not somebody who has a lot of time to do that, those pieces aren't there very easily so some ability to bring this project together as other than just the vehicle buy down is something we just don't do well at the state level. If this is an opportunity for MSRC this would be good. MSRC-TAC Chair Dan York replied that was something that we were echoing in August and September, as a TAC. We're shooting out a bunch of money, but we don't really have a logical plan. AQMD has studied a lot of great logical plans, but it's a matter of bringing them to the next step. We could grab a program that's already been vetted and then we can incentivize it and deliver something. 13

MSRC Member Dolores Roybal Saltarelli commented this is a good opportunity to look at doing things differently, but it's also important to look at the successes we've had. Are we going to go through an effort to look at what has been successful and make a determination after that analysis? Ray Gorski, MSRC Technical Advisor commented absolutely. That was one of the essential elements of the unanimous TAC recommendation, was to have a program which the MSRC could implement on a regional basis that would truly not only fulfill the MSRC's mission but also be in sync with the goals and objectives of the South Coast Air Quality Management District as well as the Air Resources Board. We're looking for a win-win solution using a substantial amount of money that's going to be available in this region. \$64 million of MSRC money hopefully will leverage at least \$15 million of Subvention Funds and hopefully we'll be able to pull in at least \$20 million from the state. I hope it's more but we're envisioning a minimum of \$100 million dollars. It also gives us the opportunity to do exactly what has just been suggested. Go through, do a thorough and fair assessment of prior investments as to what works and what does not. It's my opinion that with some judicious modification often times you can take a program that hasn't been successful and make it successful. I also see opportunities for taking programs which the MSRC has historically funded and maybe presenting those to the state for continued funding through programs like Transit and Intercity Rail Capital Program (TIRCP). That would be a wonderful opportunity and we could put together a great application on behalf of some of our sister agencies, including SCRRA, and get funding to continue some of the programs that they've initiated. There are a lot of opportunities here, there's a lot of work to do and we are committed to in the very short term putting together a strategic and tactical plan. This would include setting out those options for infrastructure for electric school buses, and infrastructure to help a clean corridor between the Ports and the distribution centers in the Inland Empire. Those are options that we can look at but also the tactical element, how are we really going to make this happen. We've had some really long MSRC-TAC meetings. One of the things that we talked about was that the MSRC cannot do this by themselves. We demonstrated during the first iteration of the Local Partnership Program that we can work very closely with the South Coast AQMD. Their legislative, public affairs, and transportation staff were very helpful. We'll need to use those folks again. We will need to walk into Sacramento jointly and say look we're putting in \$50 million, what can we do to further your goals by having us as your partner? There's a lot of opportunity and work to do but your staff and your TAC made a commitment that they're willing to move with your concurrence.

MSRC Alternate Brian Berkson commented how are we going to monitor this as we go along? Colleagues on Metrolink board know that we get quick monthly updates on our advertising dollars and how those are working out, pluses and minuses. Things are modified continually to make sure that we're not throwing away money there. I want to make sure that with a longer program, we have some kind of ability to modify the program structure during the administration period, so that we can minimize any things that we find are not really working or bring something new in if possible. If a new technology comes out a year and a half into our program, we want to capitalize on that, I don't want it to be excluded. I want there to be a way to monitor those outside forces and see if there's something that could be brought in that would be better than the we have. Ray Gorski, MSRC Technical Advisor replied as you know, every month we put together a Contract Administrator's Report, we can include monitoring information in the report.

MSRC Member Jack Kitowski commented in the presentation, the point was made about the results not always having the emission benefits we thought we would achieve, this board should

keep in mind that in some of those areas, it's the co-benefits you're really going for. It's the public awareness, the Dodger Stadium being a perfect example. Those kinds of projects are important because we're trying to change people's behavior and it doesn't happen overnight. It's not simply a matter of the number of grams and dollars. In that particular case, we have to apply our common sense of policy oversight. MSRC-TAC Chair Dan York replied that's a fair point because we talked about that as a well. There's a handful of programs that have become very successful, so maybe they don't need as much incentivization. In other words, if we are to stop our monies today will they still succeed? And the answer is, for some of the programs they probably would. Some of them are still struggling. So we would have to look at that.

ON MOTION BY MSRC MEMBER BEN BENOIT, AND SECONDED BY MSRC VICE-CHAIR GREG WINTERBOTTOM, MSRC UNANIMOUSLY VOTED TO APPROVE TO ADOPT A THREE-YEAR FYS 2018-21 WORK PROGRAM. AYES: BENOIT, BERKSON, KITOWSKI, MCCALLON, ROYBAL SALTARELLI, WINTERBOTTOM, YAMARONE. NOES: NONE.

ACTION: Staff will include the adoption of the Three-Year FYs 2018-21 Work Program in the MSRC Committee Report for the February 1, 2019 SCAQMD Board meeting.

Agenda Item #15 – Other Business

No other business was introduced.

PUBLIC COMMENT PERIOD

Public comments were allowed during the discussion of each agenda item. No comments were made on non-agenda items.

ADJOURNMENT

There being no further business, the MSRC meeting adjourned at 3:07 p.m. in memory of Greg Pettis.

NEXTMEETING

Thursday, February 21, 2019 at 2:00 p.m., Room CC8.

[Prepared by Penny Shaw Cedillo]



MSRC Agenda Item No. 2

DATE:	March 21, 2019
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 January 31 to February 27, 2019.
RECOMMENDATION:	Receive and file report
WORK PROGRAM IMPACT:	None

Contract Execution Status

2016-18 Work Program

On July 8, 2016, the SCAQMD Governing Board approved an award under the Event Center Transportation Program. This contract is executed.

On October 7, 2016, the SCAQMD Governing Board approved three awards under the Event Center Transportation Program and one award for a Regional Active Transportation Partnership Program. These contracts are executed.

On January 6, 2017, the SCAQMD Governing Board approved an award for development, hosting and maintenance of a new MSRC website. This contract is executed.

On April 7, 2017, the SCAQMD Governing Board approved an award under the Event Center Transportation Program. This contract is executed.

On June 2, 2017, the SCAQMD Governing Board approved an award under the Event Center Transportation Program. This contract is executed.

On July 7, 2017, the SCAQMD Governing Board approved an award under the Event Center Transportation Program. This contract is executed.

On September 1, 2017, the SCAQMD Governing Board approved one award under the Event Center Transportation Program and one award under the Natural Gas Infrastructure Program. These contracts are executed.

On October 6, 2017, the SCAQMD Governing Board approved two awards under the Event Center Transportation Program and one award under the Natural Gas Infrastructure Program. These contracts are executed.

On December 1, 2017, the SCAQMD Governing Board approved sole source awards for a Hydrogen Infrastructure Partnership Program, for a Southern California Future Communities Partnership Program, and for electric vehicle charging infrastructure planning analysis. These contracts are executed. The MSRC has replaced the award to the California Energy Commission with a Program Opportunity Notice for the Hydrogen Infrastructure Partnership Program.

On February 2, 2018, the SCAQMD Governing Board approved one award under the Event Center Transportation Program, two awards under the Natural Gas Infrastructure Program, four awards under the Local Government Partnership Program, and two awards under the County Transportation Commission Partnership Program. These contracts are executed.

On March 2, 2018, the SCAQMD Governing Board approved one award under the Major Event Center Transportation Program, two awards under the Natural Gas Infrastructure Program, and one award under the Local Government Partnership Program. These contracts are executed.

On April 6, 2018, the SCAQMD Governing Board approved one award under the Natural Gas Infrastructure Program and eight awards under the Local Government Partnership Program. These contracts are executed.

On May 4, 2018, the SCAQMD Governing Board approved twenty-seven awards under the Local Government Partnership Program and one award under the County Transportation Commission Partnership Program. These contracts are with the prospective contractor for signature, with the SCAQMD Board Chair for signature, or executed.

On June 1, 2018, the SCAQMD Governing Board approved six awards under the Local Government Partnership Program, one award under the Natural Gas Infrastructure Program, and one award under the County Transportation Commission Partnership Program. These contracts are with the prospective contractor for signature or executed.

On July 6, 2018, the SCAQMD Governing Board approved nine awards under the Local Government Partnership Program. These contracts are with the prospective contractor for signature or executed.

On September 7, 2018, the SCAQMD Governing Board approved nineteen awards under the Local Government Partnership Program, three awards under the County Transportation Commission Partnership Program, one award under the Major Event Center Transportation Program, and twenty awards under the Natural Gas Infrastructure Program. These contracts are under development, with the prospective contractor for signature, with the SCAQMD Board Chair for signature, or executed.

On October 5, 2018, the SCAQMD Governing Board approved forty-eight awards under the Local Government Partnership Program and one award under the Hydrogen Infrastructure Program. These contracts are under development, undergoing internal review, with the prospective contractor for signature, or with the SCAQMD Board Chair for signature.

On November 2, 2018, the SCAQMD Governing Board approved two awards under the Local Government Partnership Program. These contracts are with the prospective contractor for signature or with the SCAQMD Board Chair for signature.

Work Program Status

Contract Status Reports for work program years with open and/or pending contracts are attached.

FY 2004-05 Work Program Contracts

No contracts from this work program year are open. One contract closed during this period: County of Los Angeles, Department of Public Works, Contract #ML05014 – Traffic Signal Synchronization.

FY 2004-05 Invoices Paid

One invoice in the amount of \$204,221.00 was paid during this period.

FY 2007-08 Work Program Contracts

3 contracts from this work program year are open; and 2 are in "Open/Complete" status.

FY 2007-08 Invoices Paid

No invoices were paid during this period.

FY 2010-11 Work Program Contracts

2 contracts from this work program year are open; and 24 are in "Open/Complete" status. Two contracts closed during this period: Temecula Valley Unified School District, Contract #MS11065 – Expand Existing CNG Station; and City of Hemet, Contract #ML11043 – Purchase 2 Heavy-Duty Natural Gas Vehicles.

FY 2010-11 Invoices Paid

No invoices were paid during this period.

FY 2011-12 Work Program Contracts

8 contracts from this work program year are open, and 25 are in "Open/Complete" status. One contract closed during this period: City of Orange, Contract #ML12047 – Purchase One Heavy-Duty Natural Gas Vehicle.

FY 2011-12 Invoices Paid

No invoices were paid during this period.

FYs 2012-14 Work Program Contracts

27 contracts from this work program year are open, and 27 are in "Open/Complete" status. 2 contracts passed into "Open/Complete" status during this period: City of Highland, Contract #ML14055 – Implement Bicycle Lanes and Outreach; and Grand.

FYs 2012-14 Invoices Paid

2 invoices totaling \$230,230.75 were paid during this period.

FYs 2014-16 Work Program Contracts

57 contracts from this work program year are open, and 21 are in "Open/Complete" status. One replacement contract is pending execution. One original contract is still pending execution: the City of Lawndale contract for expansion of existing CNG infrastructure is currently with the SCAQMD Board Chair for signature. 4 contracts closed during this period: City of Palm Springs, Contract #ML16005 – Install Bicycle Racks & Implement Bicycle Outreach (replacement contract under development); City of Cudahy, Contract #ML16060 – Implement an "Open Streets" Event; San Bernardino County Transportation Authority, Contract #MS16091 – Traffic Signal Synchronization Projects (replacement contract pending), San Bernardino County Transportation Authority, Contract #MS16092 – Implement "Open Streets" Events. 2 contracts moved into "Open/Complete" status during this period: Burrtec Waste & Recycling Services, Contract #MS16087 – Construct Limited-Access CNG Station; and MS16105 – Huntington Beach Union High School District – Expand Existing CNG Station.

FYs 2014-16 Invoices Paid

3 invoices totaling \$1,098,664.69 were paid during this period.

FYs 2016-18 Work Program Contracts

90 contracts from this work program year are open.

FYs 2016-18 Invoices Paid

6 invoices totaling \$249,445.76 were paid during this period.

Administrative Scope Changes

One administrative scope change was initiated during the period of January 31 to February 27, 2019:

 City of San Fernando, Contract #ML16076 (Install EV Charging Stations) – Decrease value from \$100,000 to \$43,993.89.

Attachments

• FY 2004-05 through FYs 2016-18 (except FY 2005-06, 2006-07 and FY 2009-10) Contract Status Reports



AB2766 Discretionary Fund Program Invoices

January 31 to February 21, 2019

Contract Admin.	MSRC Chair	MSRC Liaison	Finance	Contract #	Contractor	Invoice #	Amount			
2004-	2005 Work Prog	ram								
2/13/2019	2/14/2019	2/14/2019	2/19/2019	ML05014	Los Angeles County Department of Public Work	90000238/FI	\$204,221.00			
Total: \$204,221.00										
2012-	2014 Work Prog	ram								
2/12/2019	2/14/2019	2/14/2019	2/19/2019	ML14019	City of Corona Public Works	2-FINAL	\$96,048.66			
2/19/2019	2/21/2019	2/21/2019	2/27/2019	ML14095	City of South Pasadena	FINAL	\$134,182.09			
Total: \$230,2	Total: \$230,230.75									

2014-	2016 Work Prog	ıram					
2/5/2019	2/14/2019	2/14/2019	2/19/2019	MS16030	Better World Group Advisors	2004	\$6,146.25
2/5/2019	2/14/2019	2/14/2019	2/19/2019	MS16113	Los Angeles County MTA	79453	\$1,068,750.00
2/13/2019	2/14/2019	2/14/2019	2/19/2019	ML16018	City of Hermosa Beach	18943	\$23,768.44

Total: \$1,098,664.69

2016-2	2016-2018 Work Program									
2/12/2019	2/14/2019	2/14/2019	2/19/2019	ML18021	City of Signal Hill	FINAL	\$46,079.31			
2/8/2019	2/14/2019	2/14/2019	2/19/2019	MS18023	Riverside County Transportation Commission	1904	\$60,720.54			
2/5/2019	2/14/2019	2/14/2019	2/19/2019	MS18003	Geographics	21333/21334	\$931.00			
2/5/2019	2/14/2019	2/14/2019	2/19/2019	MS18014	Regents of the University of California	112679-7765	\$58,574.02			
2/5/2019	2/14/2019	2/14/2019	2/19/2019	ML18042	City of San Fernando	1-FINAL	\$10,000.00			
2/21/2019	2/21/2019	2/21/2019	2/27/2019	MS18016	Southern California Regional Rail Authority (Metr	005430-FINA	\$73,140.89			

Total: \$249,445.76

Total This Period: \$1,782,562.20



3/14/2019

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
FY 2004	4-2005 Contracts								
Declined/C	ancelled Contracts								
ML05005	City of Highland				\$20,000.00	\$0.00	2 Medium Duty CNG Vehicles	\$20,000.00	No
ML05008	Los Angeles County Department of P				\$140,000.00	\$0.00	7 Heavy Duty LPG Street Sweepers	\$140,000.00	No
ML05010	Los Angeles County Department of P				\$20,000.00	\$0.00	1 Heavy Duty CNG Bus	\$20,000.00	No
MS05030	City of Inglewood				\$31,662.00	\$0.00	2 CNG Street Sweepers	\$31,662.00	No
MS05032	H&C Disposal				\$34,068.00	\$0.00	2 CNG Waste Haulers	\$34,068.00	No
MS05044	City of Colton				\$78,720.00	\$0.00	CNG Station Upgrade	\$78,720.00	No
Total: 6					1		<u>.</u>		
Closed Co	ntracts								
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
ML05014	Los Angeles County Department of P	5/21/2007	11/20/2008	12/20/2018	\$204,221.00	\$204,221.00	Traffic Signal Synchronization	\$0.00	Yes
ML05015	City of Lawndale	7/27/2005	7/26/2006		\$10,000.00	\$10,000.00	1 Medium Duty CNG Vehicle	\$0.00	Yes
ML05016	City of Santa Monica	9/23/2005	9/22/2006	9/22/2007	\$350,000.00	\$350,000.00	6 MD CNG Vehicles, 1 LPG Sweep, 13 CNG	\$0.00	Yes
ML05017	City of Signal Hill	1/16/2006	7/15/2007		\$126,000.00	\$126,000.00	Traffic Signal Synchronization	\$0.00	Yes
ML05018	City of San Bernardino	4/19/2005	4/18/2006		\$40,000.00	\$40,000.00	4 M.D. CNG Vehicles	\$0.00	Yes
ML05019	City of Lakewood	5/6/2005	5/5/2006		\$10,000.00	\$10,000.00	1 M.D. CNG Vehicle	\$0.00	Yes
ML05020	City of Pomona	6/24/2005	6/23/2006		\$10,000.00	\$10,000.00	1 M.D. CNG Vehicle	\$0.00	Yes
ML05021	City of Whittier	7/7/2005	7/6/2006	4/6/2008	\$100,000.00	\$80,000.00	Sweeper, Aerial Truck, & 3 Refuse Trucks	\$20,000.00	Yes
ML05022	City of Claremont	9/23/2005	9/22/2006		\$20,000.00	\$20,000.00	2 M.D. CNG Vehicles	\$0.00	Yes
ML05024	City of Cerritos	4/18/2005	3/17/2006		\$10,000.00	\$10,000.00	1 M.D. CNG Vehicle	\$0.00	Yes
ML05025	City of Malibu	5/6/2005	3/5/2006		\$10,000.00	\$10,000.00	1 Medium-Duty CNG Vehicle	\$0.00	Yes
ML05026	City of Inglewood	1/6/2006	1/5/2007	2/5/2009	\$60,000.00	\$60,000.00	2 CNG Transit Buses, 1 CNG Pothole Patch	\$0.00	Yes
ML05027	City of Beaumont	2/23/2006	4/22/2007	6/22/2010	\$20,000.00	\$20,000.00	1 H.D. CNG Bus	\$0.00	Yes
ML05028	City of Anaheim	9/8/2006	9/7/2007	5/7/2008	\$85,331.00	\$85,331.00	Traffic signal coordination & synchronization	\$0.00	Yes
ML05029	Los Angeles World Airports	5/5/2006	9/4/2007		\$140,000.00	\$140,000.00	Seven CNG Buses	\$0.00	Yes
ML05071	City of La Canada Flintridge	1/30/2009	1/29/2011		\$20,000.00	\$20,000.00	1 CNG Bus	\$0.00	Yes
ML05072	Los Angeles County Department of P	8/24/2009	5/23/2010	1/23/2011	\$349,000.00	\$349,000.00	Traffic Signal Synchronization (LADOT)	\$0.00	Yes
MS05001	A-Z Bus Sales, Inc.	2/4/2005	12/31/2005	12/31/2006	\$1,385,000.00	\$1,385,000.00	CNG School Bus Buydown	\$0.00	Yes
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

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
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: 45				·					÷

Closed/Inco	omplete 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

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
FY 2000	6-2007 Contracts								
Declined/C	ancelled 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

Closed Col	ntracts								
ML07023	City of Riverside	6/20/2008	10/19/2014	7/19/2016	\$462,500.00	\$461,476.42	CNG Station Expansion/Purch. 14 H.D. Vehi	\$1,023.58	Yes
ML07024	City of Garden Grove	3/7/2008	9/6/2014	7/6/2016	\$75,000.00	\$75,000.00	Three H.D. CNG Vehicles	\$0.00	Yes
ML07025	City of San Bernardino	8/12/2008	7/11/2010		\$350,000.00	\$350,000.00	Maintenance Facility Modifications	\$0.00	Yes
ML07026	City of South Pasadena	6/13/2008	6/12/2014		\$25,000.00	\$25,000.00	One H.D. CNG Vehicle	\$0.00	Yes
ML07027	Los Angeles World Airports	6/3/2008	7/2/2014		\$25,000.00	\$25,000.00	One H.D. LNG Vehicle	\$0.00	Yes

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
ML07028	City of Los Angeles, General Service	3/13/2009	3/12/2014		\$350,000.00	\$350,000.00	New CNG Refueling Station/Hollywood Yard	\$0.00	Yes
ML07029	City of Los Angeles, General Service	3/13/2009	3/12/2014		\$350,000.00	\$350,000.00	New CNG Refueling Station/Venice Yard	\$0.00	Yes
ML07030	County of San Bernardino Public Wo	7/11/2008	9/10/2015		\$200,000.00	\$200,000.00	8 Natural Gas H.D. Vehicles	\$0.00	Yes
ML07033	City of La Habra	5/21/2008	6/20/2014	11/30/2013	\$25,000.00	\$25,000.00	One H.D. Nat Gas Vehicle	\$0.00	Yes
ML07034	City of Los Angeles, General Service	3/13/2009	3/12/2014		\$350,000.00	\$350,000.00	New CNG Refueling Station/Van Nuys Yard	\$0.00	Yes
ML07036	City of Alhambra	1/23/2009	2/22/2015		\$50,000.00	\$50,000.00	2 H.D. CNG Vehicles	\$0.00	Yes
ML07037	City of Los Angeles, General Service	10/8/2008	10/7/2015		\$255,222.00	\$255,222.00	Upgrade LNG/LCNG Station/East Valley Yar	\$0.00	Yes
ML07039	City of Baldwin Park	6/6/2008	6/5/2014	8/5/2015	\$50,000.00	\$50,000.00	Two N.G. H.D. Vehicles	\$0.00	Yes
ML07040	City of Moreno Valley	6/3/2008	9/2/2014		\$25,000.00	\$25,000.00	One Heavy-Duty CNG Vehicle	\$0.00	Yes
ML07041	City of La Quinta	6/6/2008	6/5/2014		\$25,000.00	\$25,000.00	One CNG Street Sweeper	\$0.00	Yes
ML07042	City of La Quinta	8/15/2008	9/14/2010		\$100,000.00	\$100,000.00	Street Sweeping Operations	\$0.00	Yes
ML07043	City of Redondo Beach	9/28/2008	7/27/2014	10/27/2016	\$125,000.00	\$125,000.00	Five H.D. CNG Transit Vehicles	\$0.00	Yes
ML07044	City of Santa Monica	9/8/2008	3/7/2015	3/7/2017	\$600,000.00	\$600,000.00	24 H.D. Nat. Gas Vehicles	\$0.00	Yes
ML07046	City of Culver City Transportation De	5/2/2008	5/1/2014		\$25,000.00	\$25,000.00	One H.D. Nat. Gas Vehicle	\$0.00	Yes
ML07047	City of Cathedral City	6/16/2008	9/15/2014	3/15/2015	\$225,000.00	\$225,000.00	Two H.D. Nat. Gas Vehicles/New CNG Fueli	\$0.00	Yes
ML07048	City of Cathedral City	9/19/2008	10/18/2010		\$100,000.00	\$84,972.45	Street Sweeping Operations	\$15,027.55	Yes
MS07001	A-Z Bus Sales, Inc.	12/28/2006	12/31/2007	2/29/2008	\$1,920,000.00	\$1,380,000.00	CNG School Bus Buydown	\$540,000.00	Yes
MS07002	BusWest	1/19/2007	12/31/2007	3/31/2008	\$840,000.00	\$840,000.00	CNG School Bus Buydown	\$0.00	Yes
MS07003	Westport Fuel Systems, Inc.	11/2/2007	12/31/2011	6/30/2013	\$1,500,000.00	\$1,499,990.00	Advanced Nat. Gas Engine Incentive Progra	\$10.00	Yes
MS07005	S-W Compressors	3/17/2008	3/16/2010		\$60,000.00	\$7,500.00	Mountain CNG School Bus Demo Program-	\$52,500.00	Yes
MS07006	Coachella Valley Association of Gov	2/28/2008	10/27/2008		\$400,000.00	\$400,000.00	Coachella Valley PM10 Reduction Street Sw	\$0.00	Yes
MS07007	Los Angeles World Airports	5/2/2008	11/1/2014		\$420,000.00	\$420,000.00	Purchase CNG 21 Transit Buses	\$0.00	Yes
MS07008	City of Los Angeles, Department of T	9/18/2009	5/17/2020	9/17/2017	\$1,900,000.00	\$1,900,000.00	Purchase 95 Transit Buses	\$0.00	Yes
MS07009	Orange County Transportation Autho	5/14/2008	4/13/2016		\$800,000.00	\$800,000.00	Purchase 40 Transit Buses	\$0.00	Yes
MS07011	L A Service Authority for Freeway E	3/12/2010	5/31/2011	9/30/2011	\$700,000.00	\$700,000.00	"511" Commuter Services Campaign	\$0.00	Yes
MS07012	City of Los Angeles, General Service	6/13/2008	6/12/2009	6/12/2010	\$50,000.00	\$50,000.00	Maintenance Facility Modifications	\$0.00	Yes
MS07013	Rainbow Disposal Company, Inc.	1/25/2008	3/24/2014	9/24/2014	\$350,000.00	\$350,000.00	New High-Volume CNG Station	\$0.00	Yes
MS07019	City of Cathedral City	1/9/2009	6/8/2010		\$32,500.00	\$32,500.00	Maintenance Facility Modifications	\$0.00	Yes
MS07020	Avery Petroleum	5/20/2009	7/19/2015		\$250,000.00	\$250,000.00	New CNG Station	\$0.00	Yes
MS07049	Palm Springs Disposal Services	10/23/2008	11/22/2014	9/22/2016	\$96,000.00	\$96,000.00	Three Nat. Gas Refuse Trucks	\$0.00	Yes
MS07051	City of San Bernardino	8/12/2008	12/11/2014		\$480,000.00	\$480,000.00	15 Nat. Gas Refuse Trucks	\$0.00	Yes
MS07052	City of Redlands	7/30/2008	11/29/2014		\$160,000.00	\$160,000.00	Five Nat. Gas Refuse Trucks	\$0.00	Yes
MS07053	City of Claremont	7/31/2008	12/30/2014		\$96,000.00	\$96,000.00	Three Nat. Gas Refuse Trucks	\$0.00	Yes
MS07054	Republic Services, Inc.	3/7/2008	9/6/2014	9/6/2016	\$1,280,000.00	\$1,280,000.00	40 Nat. Gas Refuse Trucks	\$0.00	Yes
MS07055	City of Culver City Transportation De	7/8/2008	9/7/2014		\$192,000.00	\$192,000.00	Six Nat. Gas Refuse Trucks	\$0.00	Yes
MS07056	City of Whittier	9/5/2008	3/4/2015		\$32,000.00	\$32,000.00	One Nat. Gas Refuse Trucks	\$0.00	Yes
MS07057	CR&R, Inc.	7/31/2008	8/30/2014	6/30/2015	\$896,000.00	\$896,000.00	28 Nat. Gas Refuse Trucks	\$0.00	Yes

			Original	Amended	Contract			Award	Billing
Cont.#	Contractor	Start Date	End Date	End Date	Value	Remitted	Project Description	Balance	Complete?
MS07058	Better World Group Advisors	11/17/2007	11/16/2009	11/16/2011	\$247,690.00	\$201,946.21	MSRC Programmatic Outreach Services	\$45,743.79	Yes
MS07059	County Sanitation Districts of L.A. Co	9/5/2008	9/4/2010	7/14/2012	\$231,500.00	\$231,500.00	Off-Road Diesel Equipment Retrofit Program	\$0.00	Yes
MS07060	Community Recycling & Resource R	3/7/2008	1/6/2010	7/6/2011	\$177,460.00	\$98,471.00	Off-Road Diesel Equipment Retrofit Program	\$78,989.00	Yes
MS07061	City of Los Angeles, Department of	10/31/2008	8/30/2010	2/28/2013	\$40,626.00	\$40,626.00	Off-Road Diesel Equipment Retrofit Program	\$0.00	Yes
MS07063	Shimmick Construction Company, In	4/26/2008	2/25/2010	8/25/2011	\$80,800.00	\$11,956.37	Off-Road Diesel Equipment Retrofit Program	\$68,843.63	Yes
MS07064	Altfillisch Contractors, Inc.	9/19/2008	7/18/2010	1/18/2011	\$160,000.00	\$155,667.14	Off-Road Diesel Equipment Retrofit Program	\$4,332.86	Yes
MS07068	Sukut Equipment Inc.	1/23/2009	11/22/2010	5/22/2012	\$26,900.00	\$26,900.00	Off-Road Diesel Equipment Retrofit Program	\$0.00	Yes
MS07070	Griffith Company	4/30/2008	2/28/2010	8/28/2012	\$168,434.00	\$125,504.00	Off-Road Diesel Equipment Retrofit Program	\$42,930.00	Yes
MS07071	Tiger 4 Equipment Leasing	9/19/2008	7/18/2010	1/18/2013	\$210,937.00	\$108,808.97	Off-Road Diesel Equipment Retrofit Program	\$102,128.03	Yes
MS07072	City of Culver City Transportation De	4/4/2008	2/3/2010	8/3/2011	\$72,865.00	\$72,865.00	Off-Road Diesel Equipment Retrofit Program	\$0.00	Yes
MS07075	Dan Copp Crushing	9/17/2008	7/16/2010	1/16/2012	\$73,600.00	\$40,200.00	Off-Road Diesel Equipment Retrofit Program	\$33,400.00	Yes
MS07076	Reed Thomas Company, Inc.	8/15/2008	6/14/2010	3/14/2012	\$339,073.00	\$100,540.00	Off-Road Diesel Equipment Retrofit Program	\$238,533.00	Yes
MS07077	USA Waste of California, Inc.	5/1/2009	12/31/2014		\$160,000.00	\$160,000.00	Five Nat. Gas Refuse Trucks (Santa Ana)	\$0.00	Yes
MS07078	USA Waste of California, Inc.	5/1/2009	12/31/2014	12/31/2015	\$256,000.00	\$256,000.00	Eight Nat. Gas Refuse Trucks (Dewey's)	\$0.00	Yes
MS07079	Riverside County Transportation Co	1/30/2009	7/29/2013	12/31/2011	\$20,000.00	\$15,165.45	BikeMetro Website Migration	\$4,834.55	Yes
MS07080	City of Los Angeles Bureau of Sanita	10/31/2008	8/30/2010	8/28/2016	\$63,192.00	\$62,692.00	Off-Road Diesel Equipment Retrofit Program	\$500.00	No
MS07091	BusWest	10/16/2009	3/15/2010		\$33,660.00	\$33,660.00	Provide Lease for 2 CNG School Buses	\$0.00	Yes
MS07092	Riverside County Transportation Co	9/1/2010	10/31/2011		\$350,000.00	\$350,000.00	"511" Commuter Services Campaign	\$0.00	Yes
Total: 60				11			· · · · · · · · · · · · · · · · · · ·		
Closed/Inco	omplete 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				r I		1			1
Open/Com	olete Contracts								

open#comp									
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									

MS08007 United Parcel Service West Region 12/10/2008 10/9/2014 4/9/2019 \$300,000.00 \$270,000.00 10 H.D. Nat. Gas Variles \$30,000.00 MS08013 United Parcel Service West Region 12/10/2008 10/9/2014 3/9/2019 \$440,000.00 \$432,000.00 12 H.D. Nat. Gas Vari Tractors \$440,000.00 Declined/Cancelled Contracts ML08032 City of Irvine 5/1/2009 8/31/2010 \$9,000.00 \$0.00 36 Vehicles (Diagnostic) \$8,800.00 ML08041 City of Los Angeles, Dept of Transpo 8/8/2010 7/5/2011 12/5/2011 \$25,000.00 \$0.00 1 CNS Heavy-Duty Vehicle \$25,000.00 ML08041 City of Colton 5/1/2005 \$53,000.00 \$0.00 Two Heavy-Duty Vehicles \$57,000.00 MS08000 Orange County Transportation Autho S1,000.00.00 \$0.00 Two Heavy-Duty Nat. Gas Vehicles \$10,000.00 MS08001 Orange County Transportation Autho S10,000.00 \$0.00 10 H.D. Nat. Gas Vehicles \$10,000.00 MS08050 Derree Mest Industries, Inc. 12/24/2008 11/23/2014 \$10,000.00	Billing Complete?	Award Balance	Project Description	Remitted	Contract Value	Amended End Date	Original End Date	Start Date	Contractor	Cont.#
ML0802 City of Santa Monica 91/10/2016 51/10/2019 \$500,000.0 \$2.000 24.2 KG Heavy-Duty Vehicles \$500,000.0 MS08007 United Parcel Service West Region 12/10/2008 10/9/2014 4/9/2019 \$300,000.00 \$270,000.00 10 H.D. Nat. Gas Vehicles \$30,000.00 Tota: - - - - S480,000.00 \$432,000.00 \$432,000.00 \$442,000.00 \$442,000.00 \$442,000.00 \$442,000.00 \$442,000.00 \$442,000.00 \$442,000.00 \$442,000.00 \$442,000.00 \$442,000.00 \$442,000.00 \$442,000.00 \$442,000.00 \$442,000.00 \$442,000.00 \$442,000.00 \$442,000.00 \$440,000.00									7-2008 Contracts	FY 2007
MS08007 United Parcel Service West Region 12/10/2008 10/9/2014 4/9/2019 \$300,000.00 \$270,000.00 10 H.D. Nat. Gas Vehicles \$30,000.00 MS08013 United Parcel Service West Region 12/10/2008 10/9/2014 3/9/2019 \$480,000.00 \$432,000.00 12 H.D. Nat. Gas Vari Tractors \$48,000.00 Declined/Cancelled Contracts 5/1/2009 8/31/2010 \$9,000.00 \$0.00 36 Vehicles (Diagnostic) \$8,800.00 ML08032 City of Los Angeles, Dept of Transpo 8/6/2010 7/5/2011 12/5/2011 \$8,800.00 \$0.00 13 Vehicles (Diagnostic) \$8,800.00 ML08041 City of Los Angeles, Dept of Transpo 8/6/2010 7/5/2011 2/5/2011 \$25,000.00 \$0.00 1 CMS Heavy-Duty Vehicle \$27,000.00 ML08005 City of Colton 5/1/2005 \$31/2015 \$50,000.00 \$0.00 Two Heavy-Duty Vehicles \$15,000.000.00 MS08000 Diversified Truck Mental & Leasing \$11/202015 \$10,000.00 \$0.00 Two Heavy-Duty Net. Gas Vehicles \$10,000.00 MS08010 Orange County Transportation Autho									racts	Open Contr
MS08013 United Parcel Service West Region 12/10/2008 10/19/2014 3/89/2019 \$480,00.00 \$432,000.00 12 H.D. Nat. Gas Vard Tractors \$480,00.0 Total: J <t< td=""><td>0 No</td><td>\$600,000.00</td><td>24 CNG Heavy-Duty Vehicles</td><td>\$0.00</td><td>\$600,000.00</td><td>5/10/2019</td><td>9/10/2016</td><td>9/11/2009</td><td>City of Santa Monica</td><td>ML08028</td></t<>	0 No	\$600,000.00	24 CNG Heavy-Duty Vehicles	\$0.00	\$600,000.00	5/10/2019	9/10/2016	9/11/2009	City of Santa Monica	ML08028
Total: 3 Declined/Cancelled Contracts Declined/Cancelled Contracts ML08032 City of Lorine \$1/1200 \$1,900.00 \$0.00 36 Vehicles (Diagnostic) \$9,900.0 ML08041 City of Los Angeles, Dept of Transpo 8/6/2010 7/5/2011 12/5/2011 \$25,000.00 \$0.00 1 CNG Heavy-Duty Vehicle \$25,000.00 ML08091 City of Coton 10 \$75,000.00 \$0.00 1 CNG Heavy-Duty Vehicle \$25,000.00 ML08080 City of Irvine \$1/12009 \$31/2015 \$50,000.00 \$0.00 I CNG Heavy-Duty Vehicles \$57,000.00 MS08000 Dirverified Truck Rental & Leasing \$1,500,000.00 \$0.00 I No Ne. Cass Vehicles \$30,000.00 MS08010 Orange County Transportation Autho \$10,000.00 \$0.00 30.00 New CNG Station - Fontana \$10,000.00 MS08051 Gean Energy Fuels Corp. 11/2/2/2018 \$100,000.00 \$0.00 New LNG Station - Contana \$400,000.00 MS08056 Gean Energy Fuels Corp. 11/2/2/2018 \$100,000.0	0 Yes	\$30,000.00	10 H.D. Nat. Gas Vehicles	\$270,000.00	\$300,000.00	4/9/2019	10/9/2014	12/10/2008	United Parcel Service West Region	MS08007
Decined/Cancelled Contracts ML08032 City of Irvine \$1/12009 \$31,2010 \$9,000.0 \$0.00 36 Vehicles (Diagnostic) \$9,000.0 ML08041 City of Los Angeles, Dept of Transpo \$8/82010 7/5/2011 \$25,200.0 \$0.00 73 Vehicles (Diagnostic) \$8,800.0 ML08043 City of Cerritos 320/2008 1/19/2015 219/2017 \$25,000.00 \$0.00 1 CNG Heavy-Duty Vehicle \$25,000.00 ML08080 City of Coritos 51/12009 5/31/2015 \$50,000.00 \$0.00 Two Heavy-Duty Vehicles \$57,500.00 ML08080 City of Irvine 51/12009 5/31/2015 \$50,000.00 \$0.00 Two Heavy-Duty Vehicles \$51,500,000.0 MS08000 Diversified Truck Rental & Leasing \$310,000.00 \$0.00 10 H.D. Nat. Gas Vehicles \$300,000.0 MS08010 Grange County Transportation Autho \$10,000.00 \$0.00 New LNG Station - Fontana \$100,000.0 MS08052 Burrice Waste Industries, Inc. 11/24/2008 11/23/2014 \$100,000.0 \$0.00 New LNG Stati	0 No	\$48,000.00	12 H.D. Nat. Gas Yard Tractors	\$432,000.00	\$480,000.00	3/9/2019	10/9/2014	12/10/2008	United Parcel Service West Region	MS08013
ML08032 City of Irvine 5/1/2009 8/31/2010 \$9,000.0 \$0.00 36 Vehicles (Diagnostic) \$9,000.0 ML08041 City of Lox Angeles, Dept of Transpo 8/6/2010 7/5/2011 12/5/2011 \$25,000.00 \$0.00 73 Vehicles (Diagnostic) \$8,800.0 ML08049 City of Carritos 3/20/2009 1/19/2015 2/19/2017 \$25,000.00 \$0.00 3 CNG Heavy-Duty Vehicles \$7,000.00 ML08040 City of Carritos 5/1/2009 5/31/2015 \$\$50,000.00 \$0.00 Two Heavy-Duty Vehicles \$50,000.00 ML08080 Diversified Truck Rental & Leasing \$300,000.00 \$0.00 Two Heavy-Duty Nat. Gas Vehicles \$300,000.00 MS08010 Drange County Transportation Autho \$10,000.00 \$0.00 20 H.D. Nat. Gas Vehicles \$10,000.00 MS08011 Green Fleet Systems, LLC \$10,000.00 \$0.00 New CNG Station - Fontana \$100,000.00 MS08055 Clean Energy Fuels Corp. 11/26/2008 32/2/2/16 \$12/24/200 \$100,000.00 \$0.00 New CNG Station - Asua S <		<u> </u>			1					Total: 3
ML08041 City of Los Angeles, Dept of Transpo 8/8/2010 7/5/2011 12/5/2011 \$8,800.00 \$0.00 73 Vehicles (Diagnostic) \$8,800.0 ML08040 City of Cerritos 3/20/2009 1/19/2016 2/19/2017 \$25,000.00 \$0.00 1 CNG Heavy-Duty Vehicle \$25,000.00 ML08080 City of Loriton \$75,000.00 \$0.00 1 CNG Heavy-Duty Vehicles \$55,000.00 ML080800 Oity of Colino \$1/2009 \$71/2015 \$50,000.00 \$0.00 Big Rig Freeway Service Patrol \$1,500,000.00 MS08000 Orange County Transportation Autho \$10,000.00 \$0.00 10 H.D. Nat: Gas Vehicles \$10,000.00 MS08010 Green Fleet Systems, LLC \$10,000.00 \$0.00 New CNG Station - Fontana \$10,000.00 MS08055 Clean Energy Fuels Corp. 11/23/2014 \$1/23/2014 \$100,000.00 \$0.00 New LNG Station - Fontana \$400,000.00 MS08056 Clean Energy Fuels Corp. 11/26/2008 3/25/2017 \$400,000.00 \$0.00 New LNG Station - Azusa \$400,000.00 MS080660 Burrite Wa									ancelled Contracts	Declined/Ca
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 ML08051 City of Cotton 5/17/2009 5/31/2015 \$50,000.00 \$0.00 Two Heavy-Duty Vehicles \$\$75,000.00 ML08051 City of Ivine 5/17/2009 5/31/2015 \$50,000.00 \$0.00 Two Heavy-Duty Nat. Gas Vehicles \$\$50,000.00 MK08002 Orange County Transportation Autho \$15,000.00.00 \$0.00 10 H.D. Nat. Gas Vehicles \$\$300,000.00 MS080010 Orange County Transportation Autho \$10,000.00 \$0.00 \$0.00 10 H.D. Nat. Gas Vehicles \$\$10,000.00 MS08012 Burrtec Waste Industries, Inc. 12/24/2008 11/23/2014 \$100,000.00 \$0.00 New LNG Station - Fontana \$400,000.00 MS08055 Clean Energy Fuels Corp. 1/22/4/2008 11/23/2014 \$100,000.00 \$0.00 New LNG Station - San Bernardino \$400,000.00 MS08056 Burrtec Waste Industries, Inc. 12/24/2008 11/23/2014 \$100,000.00 \$0.00 New CNG Station - Azusa <td< td=""><td>0 No</td><td>\$9,000.00</td><td>36 Vehicles (Diagnostic)</td><td>\$0.00</td><td>\$9,000.00</td><td></td><td>8/31/2010</td><td>5/1/2009</td><td>City of Irvine</td><td>ML08032</td></td<>	0 No	\$9,000.00	36 Vehicles (Diagnostic)	\$0.00	\$9,000.00		8/31/2010	5/1/2009	City of Irvine	ML08032
ML08051 City of Colton S75,000.00 \$0.00 3 CNG Heavy-Duty Vehicles \$75,000.00 ML08080 City of Irvine 5/1/2009 5/31/2015 \$50,000.00 \$0.00 Two Heavy-Duty Nat. Cas Vehicles \$50,000.00 MS08002 Orange County Transportation Autho \$10,000.00 \$0.00 Big Rig Freeway Service Patrol \$11,500,000.00 MS08001 Orange County Transportation Autho \$10,000.00 \$0.00 10 H.D. Nat. Gas Vehicles \$10,000.00 MS08010 Orange County Transportation Autho \$10,000.00 \$0.00 20 H.D. Nat. Gas Vehicles \$10,000.00 MS08052 Burrtec Waste Industries, Inc. 12/24/2008 11/23/2014 \$100,000.00 \$0.00 New LNG Station - Fontana \$400,000.00 MS08055 Clean Energy Fuels Corp. 11/22/2014 \$100,000.00 \$0.00 New LNG Station - Fontana \$400,000.00 MS080506 Burrtec Waste Industries, Inc. 12/24/2008 11/23/2014 \$100,000.00 \$0.00 New CNG Station - Azusa \$100,000.00 MS080506 Burrtec Waste Industries, Inc. 12/24/2008 11/24/2014	0 No	\$8,800.00	73 Vehicles (Diagnostic)	\$0.00	\$8,800.00	12/5/2011	7/5/2011	8/6/2010	City of Los Angeles, Dept of Transpo	ML08041
ML08080 City of Irvine 5/1/2009 5/31/2015 \$50,000.00 \$0.00 Two Heavy-Duty Nat. Gas Vehicles \$50,000.00 MS08002 Orange County Transportation Autho \$1,500,000.00 \$0.00 10 H.D. Nat. Gas Vehicles \$300,000.00 MS08013 Diversified Truck Rental & Leasing \$10,000.00 \$0.00 10 H.D. Nat. Gas Vehicles \$300,000.00 MS08010 Grange County Transportation Autho \$10,000.00 \$0.00 20 H.D. Nat. Gas Vehicles \$300,000.00 MS08011 Grane Fleet Systems, LLC \$10,000.00 \$0.00 20 H.D. Nat. Gas Vehicles \$10,000.00 MS08052 Burrtec Waste Industries, Inc. 12/24/2008 11/23/2011 \$10,000.00 \$0.00 New CNG Station - Fontana \$400,000.00 MS08059 Burrtec Waste Industries, Inc. 12/24/2008 11/23/2014 \$100,000.00 \$0.00 New CNG Station - San Bernardino \$100,000.00 MS08050 Burrtec Waste Industries, Inc. 12/24/2008 11/23/2014 \$100,000.00 \$0.00 New CNG Station - Raito \$400,000.00 MS080507 Fontana Unified School District 11	0 No	\$25,000.00	1 CNG Heavy-Duty Vehicle	\$0.00	\$25,000.00	2/19/2017	1/19/2015	3/20/2009	City of Cerritos	ML08049
MS08002 Orange County Transportation Autho Image: County Transportation Autho S1,500,000.00 S0.00 Big Rig Freeway Service Patrol \$1,500,000.00 MS08008 Diversified Truck Rental & Leasing S300,000.00 \$0.00 10 H.D. Nat. Gas Vehicles \$300,000.00 MS08010 Orange County Transportation Autho S10,000.00 \$0.00 20 H.D. Nat. Gas Vehicles \$10,000.00 MS08012 Green Fleet Systems, LLC S10,000.00 \$0.00 New CNG Station - Fontana \$10,000.00 MS08054 Clean Energy Fuels Corp. 11/26/2009 3/25/2016 3/25/2017 \$400,000.00 \$0.00 New LNG Station - Fontana \$400,000.00 MS08055 Clean Energy Fuels Corp. 11/26/2008 11/23/2014 \$100,000.00 \$0.00 New CNG Station - Son Bernardino \$100,000.00 MS08056 Burrtec Waste Industries, Inc. 12/24/2008 11/23/2014 \$100,000.00 \$0.00 New CNG Station - San Bernardino \$100,000.00 MS08057 Fontana Unified School District 11/14/2008 12/13/2014 \$200,000.00 \$0.00 New CNG Station - Azusa \$200,000.00	0 No	\$75,000.00	3 CNG Heavy-Duty Vehicles	\$0.00	\$75,000.00				City of Colton	ML08051
MS08008 Diversified Truck Rental & Leasing \$300,000.0 \$0.00 10 H.D. Nat. Gas Vehicles \$300,000.0 MS08010 Orange County Transportation Autho \$10,000.0 \$0.00 20 H.D. Nat. Gas Vehicles \$10,000.0 MS08011 Green Fleet Systems, LLC \$10,000.00 \$0.00 30 H.D. Nat. Gas Vehicles \$10,000.00 MS08052 Burrtec Waste Industries, Inc. 12/24/2008 11/23/2014 \$11/23/2015 \$100,000.00 \$0.00 New CNG Station - Fontana \$400,000.00 MS08055 Clean Energy Fuels Corp. 11/26/2009 3/25/2016 3/25/2017 \$400,000.00 \$0.00 New LNG Station - Fontana \$400,000.00 MS08056 Burrtec Waste Industries, Inc. 12/24/2008 11/23/2014 \$100,000.00 \$0.00 New LNG Station - San Bernardino \$100,000.00 MS08060 Burrtec Waste Industries, Inc. 12/24/2008 11/23/2014 \$100,000.00 \$0.00 New CNG Station - San Bernardino \$400,000.00 MS08060 Burrtec Waste Industries, Inc. 12/24/2008 11/24/2017 \$400,000.00 \$0.00 New CNG Station - Raito \$400,000	0 No	\$50,000.00	Two Heavy-Duty Nat. Gas Vehicles	\$0.00	\$50,000.00		5/31/2015	5/1/2009	City of Irvine	ML08080
MS08010 Orange County Transportation Autho \$10,000.00 \$0.00 20 H.D. Nat. Gas Vehicles \$10,000.00 MS08011 Green Fleet Systems, LLC \$10,000.00 \$0.00 30 H.D. Nat. Gas Vehicles \$10,000.00 MS08052 Burttec Waste Industries, Inc. 12/24/2008 11/23/2014 11/23/2015 \$100,000.00 \$0.00 New CNG Station - Fontana \$100,000.00 MS08052 Clean Energy Fuels Corp. 11/26/2009 3/25/2017 \$400,000.00 \$0.00 New LNG Station - Fontana \$400,000.00 MS08059 Burttec Waste Industries, Inc. 12/24/2008 11/23/2014 \$100,000.00 \$0.00 New LNG Station - Long Beach-Pier S \$400,000.00 MS08050 Burttec Waste Industries, Inc. 12/24/2008 11/23/2014 \$100,000.00 \$0.00 New CNG Station - San Bernardino \$100,000.00 MS08060 Burttec Waste Industries, Inc. 12/24/2008 11/23/2014 \$100,000.00 \$0.00 New CNG Station - Azusa \$100,000.00 MS08060 Burter Waste Industries, Inc. 12/24/2008 11/23/2014 \$100,000.00 \$0.00 New CNG Station - Azu	0 No	\$1,500,000.00	Big Rig Freeway Service Patrol	\$0.00	\$1,500,000.00				Orange County Transportation Autho	MS08002
MS08011 Green Fleet Systems, LLC \$10,000.0 \$0.00 30 H.D. Nat. Gas Vehicles \$10,000.0 MS08052 Burrtec Waste Industries, Inc. 12/24/2008 11/23/2014 \$10,000.00 \$0.00 New CNG Station - Fontana \$100,000.00 MS08055 Clean Energy Fuels Corp. 11/26/2009 3/25/2016 \$2/20/17 \$400,000.00 \$0.00 New LNG Station - Fontana \$400,000.00 MS08055 Clean Energy Fuels Corp. 11/26/2008 11/23/2014 \$100,000.00 \$0.00 New LNG Station - Fontana \$400,000.00 MS08056 Burrtec Waste Industries, Inc. 12/24/2008 11/23/2014 \$100,000.00 \$0.00 New CNG Station - Azusa \$100,000.00 MS08052 Go Natural Gas 9/25/2008 11/24/2017 \$400,000.00 \$0.00 New CNG Station - Azusa \$100,000.00 MS08074 Fontana Unified School District 11/14/2008 12/13/2014 \$200,000.00 \$0.00 Expansion of Existing CNG station \$200,000.00 ML08024 City of Naheim 7/9/2010 7/8/2017 1/8/2018 \$425,000.00 \$255,002.50	0 No	\$300,000.00	10 H.D. Nat. Gas Vehicles	\$0.00	\$300,000.00				Diversified Truck Rental & Leasing	MS08008
MS08052 Burrtec Waste Industries, Inc. 12/24/2008 11/23/2014 11/23/2015 \$100,000.0 \$0.00 New CNG Station - Fontana \$100,000.00 MS08055 Clean Energy Fuels Corp. 11/26/2009 3/25/2016 3/25/2017 \$400,000.00 \$0.00 New LNG Station - Fontana \$400,000.00 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 MS08059 Burrtec Waste Industries, Inc. 12/24/2008 11/23/2014 \$100,000.00 \$0.00 New CNG Station - San Bernardino \$100,000.00 MS08060 Burrtec Waste Industries, Inc. 12/24/2008 11/23/2014 \$100,000.00 \$0.00 New CNG Station - Azusa \$100,000.00 MS08067 Go Natural Gas 9/25/2009 1/24/2017 \$400,000.00 \$0.00 New CNG Station - Azusa \$200,000.00 MS08077 Hythane Company, LLC 11/14/2008 12/21/2014 \$200,000.00 \$0.00 Upgrade of Existing Refueling Facility \$134,900.00 ML08023 City of Anaheim	0 No	\$10,000.00	20 H.D. Nat. Gas Vehicles	\$0.00	\$10,000.00				Orange County Transportation Autho	MS08010
MS08054 Clean Energy Fuels Corp. Image: Constraint of the synthesis of the synthesynthesis of the synthesynthesynthesis of the synthesyn	0 No	\$10,000.00	30 H.D. Nat. Gas Vehicles	\$0.00	\$10,000.00				Green Fleet Systems, LLC	MS08011
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 MS08059 Burrtec Waste Industries, Inc. 12/24/2008 11/23/2014 \$100,000.00 \$0.00 New CNG Station - San Bernardino \$100,000.00 MS08060 Burrtec Waste Industries, Inc. 12/24/2008 11/23/2014 \$100,000.00 \$0.00 New CNG Station - Azusa \$100,000.00 MS08062 Go Natural Gas 9/25/2009 1/24/2016 1/24/2017 \$400,000.00 \$0.00 New CNG Station - Azusa \$100,000.00 MS08077 Fontana Unified School District 11/14/2008 12/13/2014 \$200,000.00 \$0.00 Expansion of Existing CNG station \$200,000.00 MS08077 Hythane Company, LLC 11/14/2008 12/13/2014 \$200,000.00 \$0.00 Upgrade of Existing Refueling Facility \$1137.00 Total: 17 11/7/2008 10/6/2012 \$6,500.00 \$5,102.50 Upgrade of Existing Refueling Facility \$1,397.5 ML08023 City of Villa Park 11/7/2008 <td< td=""><td>0 No</td><td>\$100,000.00</td><td>New CNG Station - Fontana</td><td>\$0.00</td><td>\$100,000.00</td><td>11/23/2015</td><td>11/23/2014</td><td>12/24/2008</td><td>Burrtec Waste Industries, Inc.</td><td>MS08052</td></td<>	0 No	\$100,000.00	New CNG Station - Fontana	\$0.00	\$100,000.00	11/23/2015	11/23/2014	12/24/2008	Burrtec Waste Industries, Inc.	MS08052
MS08059 Burtec Waste Industries, Inc. 12/24/2008 11/23/2014 \$100,000.00 \$0.00 New CNG Station - San Bernardino \$100,000.00 MS08060 Burtec Waste Industries, Inc. 12/24/2008 11/23/2014 \$100,000.00 \$0.00 New CNG Station - Azusa \$100,000.00 MS08062 Go Natural Gas 9/25/2009 1/24/2016 1/24/2017 \$400,000.00 \$0.00 New CNG Station - Azusa \$400,000.00 MS08074 Fontana Unified School District 11/14/2008 12/13/2014 \$200,000.00 \$0.00 Expansion of Existing CNG station \$200,000.00 MS08077 Hythane Company, LLC 11/14/2008 12/13/2014 \$200,000.00 \$0.00 Upgrade Station to Hythane \$144,000.00 Totat: 17 11/14/2008 10/6/2012 \$6,500.00 \$5,102.50 Upgrade of Existing Refueling Facility \$1,397.5 ML08023 City of Villa Park 11/7/2008 10/6/2017 1/8/2018 \$425,000.00 \$425,000.00 9 LPG Buses and 8 CNG Buses \$0.00 ML08024 City of Anaheim 7/9/2010 7/18/2017 1/	0 No	\$400,000.00	New LNG Station - Fontana	\$0.00	\$400,000.00				Clean Energy Fuels Corp.	MS08054
MS08060 Burrtec Waste Industries, Inc. 12/24/2008 11/23/2014 \$100,000.00 \$0.00 New CNG Station - Azusa \$100,000.00 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 MS08074 Fontana Unified School District 11/14/2008 12/13/2014 \$200,000.00 \$0.00 Expansion of Existing CNG station \$200,000.00 MS08077 Hythane Company, LLC 11/14/2008 12/13/2014 \$200,000.00 \$0.00 Upgrade Station to Hythane \$144,000.00 Total: 17 Total: 11/7/2008 10/6/2012 \$6,500.00 \$5,102.50 Upgrade of Existing Refueling Facility \$1,397.5 ML08023 City of Villa Park 11/7/2008 10/6/2012 \$6,500.00 \$425,000.00 9 LPG Buses and 8 CNG Buses \$0.00 ML08024 City of Anaheim 7/9/2010 7/8/2017 1/8/2018 \$425,000.00 \$250,000.00 10 LPG Heavy-Duty Vehicles \$0.00 ML08026 Los Angeles County Department of P 7/20/2009 7/19/2016<	0 No	\$400,000.00	New LNG Station - Long Beach-Pier S	\$0.00	\$400,000.00	3/25/2017	3/25/2016	11/26/2009	Clean Energy Fuels Corp.	MS08055
MS08062 Go Natural Gas 9/25/2009 1/24/2016 1/24/2017 \$400,000.0 \$0.00 New CNG Station - Rialto \$400,000.0 MS08074 Fontana Unified School District 11/14/2008 12/13/2014 \$200,000.00 \$0.00 Expansion of Existing CNG station \$200,000.00 MS08077 Hythane Company, LLC 11/14/2008 12/13/2014 \$200,000.00 \$0.00 Upgrade Station to Hythane \$144,000.00 Total: 17 11/1/2008 10/6/2012 \$6,500.00 \$5,102.50 Upgrade of Existing Refueling Facility \$1,397.55 ML08023 City of Villa Park 11/7/2008 10/6/2012 \$6,500.00 \$425,000.00 9 LPG Buses and 8 CNG Buses \$0.00 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 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 ML08027 Los Angeles County Department of P 7/20/2009 1/19/2011 1/	0 No	\$100,000.00	New CNG Station - San Bernardino	\$0.00	\$100,000.00		11/23/2014	12/24/2008	Burrtec Waste Industries, Inc.	MS08059
MS08074 Fontana Unified School District 11/14/2008 12/13/2014 \$200,000.00 \$0.00 Expansion of Existing CNG station \$200,000.00 MS08077 Hythane Company, LLC 1 11/14/2008 12/13/2014 \$200,000.00 \$0.00 Upgrade Station of Existing CNG station \$200,000.00 Total: 17 Total: 17 11/14/2008 10/6/2012 \$6,500.00 \$5,102.50 Upgrade of Existing Refueling Facility \$1,397.5 ML08023 City of Villa Park 11/7/2008 10/6/2012 \$6,500.00 \$425,000.00 9 LPG Buses and 8 CNG Buses \$0.00 ML08024 City of Anaheim 7/9/2010 7/8/2017 1/8/2018 \$425,000.00 \$250,000.00 9 LPG Buses and 8 CNG Buses \$0.00 ML08026 Los Angeles County Department of P 7/20/2009 7/19/2016 \$250,000.00 \$25,000.00 10 LPG Heavy-Duty Vehicles \$0.00 ML08027 Los Angeles County Department of P 7/20/2009 1/18/2015 \$25,000.00 \$25,000.00 10 LPG Heavy-Duty Vehicles \$0.00 ML08029 City of Gardena 3/1	0 No	\$100,000.00	New CNG Station - Azusa	\$0.00	\$100,000.00		11/23/2014	12/24/2008	Burrtec Waste Industries, Inc.	MS08060
MS08077 Hythane Company, LLC Image: Company, LLC <th< td=""><td>0 No</td><td>\$400,000.00</td><td>New CNG Station - Rialto</td><td>\$0.00</td><td>\$400,000.00</td><td>1/24/2017</td><td>1/24/2016</td><td>9/25/2009</td><td>Go Natural Gas</td><td>MS08062</td></th<>	0 No	\$400,000.00	New CNG Station - Rialto	\$0.00	\$400,000.00	1/24/2017	1/24/2016	9/25/2009	Go Natural Gas	MS08062
Total: 17 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 \$1,397.55 ML08024 City of Anaheim 7/9/2010 7/8/2017 1/8/2018 \$425,000.00 \$LPG Buses and 8 CNG Buses \$0.0 ML08026 Los Angeles County Department of P 7/20/2009 7/19/2016 \$250,000.00 \$250,000.00 10 LPG Heavy-Duty Vehicles \$0.0 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 ML08029 City of Gardena 3/19/2009 1/18/2015 \$25,000.00 \$25,000.00 1 Propane Heavy-Duty Vehicle \$0.0 ML08030 City of Azusa 5/14/2010 3/13/2016 \$25,000.00 \$25,000.00 1 CNG Heavy-Duty Vehicle \$0.0 ML08031 City of Claremont 3/27/2009 3/26/2013 3/26/2015 \$97,500.00 1 CNG Heavy-Duty Vehicle \$0.0 ML08033 County of San Bernardino Public Wo	0 No	\$200,000.00	Expansion of Existing CNG station	\$0.00	\$200,000.00		12/13/2014	11/14/2008	Fontana Unified School District	MS08074
Closed Contracts ML08023 City of Villa Park 11/7/2008 10/6/2012 \$6,500.00 \$5,102.50 Upgrade of Existing Refueling Facility \$1,397.55 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 \$0.0 ML08026 Los Angeles County Department of P 7/20/2009 7/19/2016 \$250,000.00 \$250,000.00 10 LPG Heavy-Duty Vehicles \$0.0 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 ML08029 City of Gardena 3/19/2009 1/18/2015 \$25,000.00 \$25,000.00 1 Propane Heavy-Duty Vehicle \$0.00 ML08030 City of Azusa 5/14/2010 3/13/2016 \$25,000.00 \$25,000.00 1 CNG Heavy-Duty Vehicle \$0.00 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 ML08033 Coun	0 No	\$144,000.00	Upgrade Station to Hythane	\$0.00	\$144,000.00				Hythane Company, LLC	MS08077
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 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 \$0.0 ML08026 Los Angeles County Department of P 7/20/2009 7/19/2016 \$250,000.00 \$250,000.00 10 LPG Heavy-Duty Vehicles \$0.0 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 ML08029 City of Gardena 3/19/2009 1/18/2015 \$25,000.00 \$25,000.00 1 Propane Heavy-Duty Vehicle \$0.00 ML08030 City of Azusa 5/14/2010 3/13/2016 \$25,000.00 \$25,000.00 1 CNG Heavy-Duty Vehicle \$0.00 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 ML08033 County of San Bernardino Public Wo 4/3/2009										Total: 17
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 \$0.0 ML08026 Los Angeles County Department of P 7/20/2009 7/19/2016 \$250,000.00 \$250,000.00 10 LPG Heavy-Duty Vehicles \$0.0 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 ML08029 City of Gardena 3/19/2009 1/18/2015 \$25,000.00 \$25,000.00 1 Propane Heavy-Duty Vehicle \$0.0 ML08030 City of Azusa 5/14/2010 3/13/2016 \$25,000.00 \$25,000.00 1 CNG Heavy-Duty Vehicle \$0.0 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 \$0.0 ML08033 County of San Bernardino Public Wo 4/3/2009 2/2/2010 \$14,875.00 \$14,875.00 70 Vehicles (Diagnostic) \$0.0									ntracts	Closed Con
ML08026 Los Angeles County Department of P 7/20/2009 7/19/2016 \$250,000.00 \$250,000.00 10 LPG Heavy-Duty Vehicles \$0.0 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 ML08029 City of Gardena 3/19/2009 1/18/2015 \$25,000.00 \$25,000.00 1 Propane Heavy-Duty Vehicle \$0.00 ML08030 City of Azusa 5/14/2010 3/13/2016 \$25,000.00 \$25,000.00 1 CNG Heavy-Duty Vehicle \$0.00 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 ML08033 County of San Bernardino Public Wo 4/3/2009 2/2/2010 \$14,875.00 \$14,875.00 70 Vehicles (Diagnostic) \$0.00	0 Yes	\$1,397.50	Upgrade of Existing Refueling Facility	\$5,102.50	\$6,500.00		10/6/2012	11/7/2008	City of Villa Park	ML08023
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) \$1,777.0 ML08029 City of Gardena 3/19/2009 1/18/2015 \$25,000.00 \$25,000.00 1 Propane Heavy-Duty Vehicle \$0.0 ML08030 City of Azusa 5/14/2010 3/13/2016 \$25,000.00 \$25,000.00 1 CNG Heavy-Duty Vehicle \$0.0 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 \$0.0 ML08033 County of San Bernardino Public Wo 4/3/2009 2/2/2010 \$14,875.00 \$14,875.00 70 Vehicles (Diagnostic) \$0.0	0 Yes	\$0.00	9 LPG Buses and 8 CNG Buses	\$425,000.00	\$425,000.00	1/8/2018	7/8/2017	7/9/2010	City of Anaheim	ML08024
ML08029 City of Gardena 3/19/2009 1/18/2015 \$25,000.00 \$25,000.00 1 Propane Heavy-Duty Vehicle \$0.0 ML08030 City of Azusa 5/14/2010 3/13/2016 \$25,000.00 \$25,000.00 1 CNG Heavy-Duty Vehicle \$0.0 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 \$0.0 ML08033 County of San Bernardino Public Wo 4/3/2009 2/2/2010 \$14,875.00 \$14,875.00 70 Vehicles (Diagnostic) \$0.0	0 Yes	\$0.00	10 LPG Heavy-Duty Vehicles	\$250,000.00	\$250,000.00		7/19/2016	7/20/2009	Los Angeles County Department of P	ML08026
ML08030 City of Azusa 5/14/2010 3/13/2016 \$25,000.00 \$25,000.00 1 CNG Heavy-Duty Vehicle \$0.0 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 \$0.0 ML08033 County of San Bernardino Public Wo 4/3/2009 2/2/2010 \$14,875.00 \$14,875.00 70 Vehicles (Diagnostic) \$0.0	0 Yes	\$1,777.00	34 Vehicles (Diagnostic)	\$5,124.00	\$6,901.00	1/19/2012	1/19/2011	7/20/2009	Los Angeles County Department of P	ML08027
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 \$0.0 ML08033 County of San Bernardino Public Wo 4/3/2009 2/2/2010 \$14,875.00 \$14,875.00 70 Vehicles (Diagnostic) \$0.0	0 Yes	\$0.00	1 Propane Heavy-Duty Vehicle	\$25,000.00	\$25,000.00		1/18/2015	3/19/2009	City of Gardena	ML08029
ML08033 County of San Bernardino Public Wo 4/3/2009 2/2/2010 \$14,875.00 \$14,875.00 70 Vehicles (Diagnostic) \$0.0	0 No	\$0.00	1 CNG Heavy-Duty Vehicle	\$25,000.00	\$25,000.00		3/13/2016	5/14/2010	City of Azusa	ML08030
	0 Yes	\$0.00	Upgrade of Existing CNG Station, Purchase	\$97,500.00	\$97,500.00	3/26/2015	3/26/2013	3/27/2009	City of Claremont	ML08031
	0 Yes	\$0.00	70 Vehicles (Diagnostic)	\$14,875.00	\$14,875.00		2/2/2010	4/3/2009	County of San Bernardino Public Wo	ML08033
ML08034 County of San Bernardino Public Wo 3/27/2009 7/26/2015 \$150,000.00 \$150,000.00 8 CNG Heavy-Duty Vehicles \$0.0	0 Yes	\$0.00	8 CNG Heavy-Duty Vehicles	\$150,000.00	\$150,000.00		7/26/2015	3/27/2009	County of San Bernardino Public Wo	ML08034
ML08035 City of La Verne 3/6/2009 11/5/2009 \$11,925.00 \$11,925.00 53 Vehicles (Diagnostic) \$0.0	0 Yes	\$0.00	53 Vehicles (Diagnostic)	\$11,925.00	\$11,925.00		11/5/2009	3/6/2009	City of La Verne	ML08035

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
ML08036	City of South Pasadena	5/12/2009	7/11/2013		\$169,421.00	\$169,421.00	New CNG Station	\$0.00	Yes
ML08030	City of Glendale	5/20/2009	5/19/2015		\$325,000.00	\$325,000.00	13 CNG Heavy-Duty Vehicles	\$0.00	Yes
ML08037	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
ML08038	City of Rancho Palos Verdes	6/5/2009	8/4/2015		\$50,000.00	\$50,000.00	2 LPG Transit Buses	\$0.00	Yes
ML08039 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
ML08040 ML08042	City of Ontario, Housing & Municipal	5/1/2009	1/31/2016	3/10/2019	\$175,000.00	\$175,000.00	7 CNG Heavy-Duty Vehicles	\$0.00	Yes
ML08042	, , ,	3/19/2009	3/18/2015					\$0.00	Yes
	City of Chino		6/19/2015		\$25,000.00	\$25,000.00	1 CNG Heavy-Duty Vehicle		Yes
ML08045	City of Santa Clarita	2/20/2009	2/19/2010		\$3,213.00	\$3,150.00	14 Vehicles (Diagnostic)	\$63.00	Yes
ML08046	City of Paramount	2/20/2009			\$25,000.00	\$25,000.00	1 CNG Heavy-Duty Vehicle	\$0.00	
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	40/44/2040	\$25,000.00	\$25,000.00	1 CNG Heavy-Duty Vehicle	\$0.00	Yes
ML08050	City of Laguna Beach Public Works	8/12/2009	4/11/2016	10/11/2016	\$75,000.00	\$75,000.00	3 LPG Trolleys	\$0.00	Yes
MS08001	Los Angeles County MTA	12/10/2010	6/9/2014	0/00/0000	\$1,500,000.00	\$1,499,999.66	Big Rig Freeway Service Patrol	\$0.34	Yes
MS08003	A-Z Bus Sales, Inc.	5/2/2008	12/31/2008	2/28/2009	\$1,480,000.00	\$1,400,000.00	Alternative Fuel School Bus Incentive Progra	\$80,000.00	Yes
MS08004	BusWest	5/2/2008	12/31/2008		\$1,440,000.00	\$1,440,000.00	Alternative Fuel School Bus Incentive Progra	\$0.00	Yes
MS08005	Burrtec Waste Industries, Inc.	10/23/2008	11/22/2014	10/22/2015	\$450,000.00	\$450,000.00	15 H.D. Nat. Gas Vehicles - Azusa	\$0.00	Yes
MS08006	Burrtec Waste Industries, Inc.	10/23/2008	11/22/2014	10/22/2015	\$450,000.00	\$450,000.00	15 H.D. Nat. Gas Vehicles - Saugus	\$0.00	Yes
MS08009	Los Angeles World Airports	12/24/2008	12/23/2014		\$870,000.00	\$870,000.00	29 H.D. Nat. Gas Vehicles	\$0.00	Yes
MS08012	California Cartage Company, LLC	12/21/2009	10/20/2015	4/20/2016	\$480,000.00	\$480,000.00	12 H.D. Nat. Gas Yard Tractors	\$0.00	Yes
MS08014	City of San Bernardino	12/5/2008	6/4/2015		\$390,000.00	\$360,000.00	13 H.D. Nat. Gas Vehicles	\$30,000.00	Yes
MS08015	Yosemite Waters	5/12/2009	5/11/2015		\$180,000.00	\$117,813.60	11 H.D. Propane Vehicles	\$62,186.40	Yes
MS08016	TransVironmental Solutions, Inc.	1/23/2009	12/31/2010	9/30/2011	\$227,198.00	\$80,351.34	Rideshare 2 School Program	\$146,846.66	Yes
MS08017	Omnitrans	12/13/2008	12/12/2015	12/12/2016	\$900,000.00	\$900,000.00	30 CNG Buses	\$0.00	Yes
MS08018	Los Angeles County Department of P	8/7/2009	10/6/2016	4/6/2018	\$60,000.00	\$60,000.00	2 CNG Vehicles	\$0.00	Yes
MS08019	Enterprise Rent-A-Car Company of L	2/12/2010	7/11/2016		\$300,000.00	\$300,000.00	10 CNG Vehicles	\$0.00	Yes
MS08020	Ware Disposal Company, Inc.	11/25/2008	2/24/2016		\$900,000.00	\$900,000.00	30 CNG Vehicles	\$0.00	Yes
MS08021	CalMet Services, Inc.	1/9/2009	1/8/2016	7/8/2016	\$900,000.00	\$900,000.00	30 CNG Vehicles	\$0.00	Yes
MS08022	SunLine Transit Agency	12/18/2008	3/17/2015		\$311,625.00	\$311,625.00	15 CNG Buses	\$0.00	Yes
MS08053	City of Los Angeles, Bureau of Sanit	2/18/2009	12/17/2015		\$400,000.00	\$400,000.00	New LNG/CNG Station	\$0.00	Yes
MS08056	Clean Energy Fuels Corp.	11/26/2009	2/25/2015		\$400,000.00	\$400,000.00	New LNG Station - POLB-Anah. & I	\$0.00	Yes
MS08057	Orange County Transportation Autho	5/14/2009	7/13/2015		\$400,000.00	\$400,000.00	New CNG Station - Garden Grove	\$0.00	Yes
MS08058	Clean Energy Fuels Corp.	11/26/2009	3/25/2016	3/25/2017	\$400,000.00	\$400,000.00	New CNG Station - Ontario Airport	\$0.00	Yes
MS08061	Clean Energy Fuels Corp.	12/4/2009	3/3/2015		\$400,000.00	\$400,000.00	New CNG Station - L.ALa Cienega	\$0.00	Yes
MS08063	Go Natural Gas	9/25/2009	1/24/2016	1/24/2017	\$400,000.00	\$400,000.00	New CNG Station - Moreno Valley	\$0.00	Yes
MS08064	Hemet Unified School District	1/9/2009	3/8/2015		\$75,000.00	\$75,000.00	Expansion of Existing Infrastructure	\$0.00	Yes
MS08065	Pupil Transportation Cooperative	11/20/2008	7/19/2014		\$10,500.00	\$10,500.00	Existing CNG Station Modifications	\$0.00	Yes
MS08066	Clean Energy Fuels Corp.	11/26/2009	2/25/2015		\$400,000.00	\$400,000.00	New CNG Station - Palm Spring Airport	\$0.00	Yes

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
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
MS08075	Disneyland Resort	12/10/2008	2/1/2015		\$200,000.00	\$200,000.00	Expansion of Existing CNG Infrastructure	\$0.00	Yes
MS08076	Azusa Unified School District	10/17/2008	11/16/2014	1/31/2017	\$172,500.00	\$172,500.00	New CNG station and maint. Fac. Modificati	\$0.00	Yes
MS08078	SunLine Transit Agency	12/10/2008	6/9/2015	2/9/2016	\$189,000.00	\$189,000.00	CNG Station Upgrade	\$0.00	Yes
MS09002	A-Z Bus Sales, Inc.	11/7/2008	12/31/2009	12/31/2010	\$2,520,000.00	\$2,460,000.00	Alternative Fuel School Bus Incentive Progra	\$60,000.00	Yes
MS09004	A-Z Bus Sales, Inc.	1/30/2009	3/31/2009		\$156,000.00	\$156,000.00	Alternative Fuel School Bus Incentive Progra	\$0.00	Yes
MS09047	BusWest	7/9/2010	12/31/2010	4/30/2011	\$480,000.00	\$480,000.00	Alternative Fuel School Bus Incentive Progra	\$0.00	Yes

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Closed/Inco	Closed/Incomplete Contracts												
ML08025	Los Angeles County Department of P	10/30/2009	3/29/2011		\$75,000.00	\$0.00	150 Vehicles (Diagnostic)	\$75,000.00	No				
MS08068	Regents of the University of Californi	11/5/2010	11/4/2017	11/4/2019	\$400,000.00	\$0.00	Hydrogen Station	\$400,000.00	No				
MS08079	ABC Unified School District	1/16/2009	12/15/2009	12/15/2010	\$50,000.00	\$0.00	Maintenance Facility Modifications	\$50,000.00	No				
		•	*	*				· · · · ·					

Open/Complete Contracts										
ML08043	City of Desert Hot Springs	9/25/2009	3/24/2016	3/24/2021	\$25,000.00	\$25,000.00	1 CNG Heavy-Duty Vehicle	\$0.00	Yes	
Tatal										

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
FY 2008	3-2009 Contracts								
Declined/C	ancelled Contracts								
ML09017	County of San Bernardino Public Wo	1/28/2010	7/27/2016		\$200,000.00	\$0.00	8 Nat. Gas Heavy-Duty Vehicles	\$200,000.00	No
ML09018	Los Angeles Department of Water an	7/16/2010	9/15/2012		\$850,000.00	\$0.00	Retrofit 85 Off-Road Vehicles w/DECS	\$850,000.00	No
ML09019	City of San Juan Capistrano Public	12/4/2009	11/3/2010		\$10,125.00	\$0.00	Remote Vehicle Diagnostics/45 Vehicles	\$10,125.00	No
ML09022	Los Angeles County Department of P				\$8,250.00	\$0.00	Remote Vehicle Diagnostics/15 Vehicles	\$8,250.00	No
ML09025	Los Angeles County Department of P	10/15/2010	12/14/2012	6/14/2013	\$50,000.00	\$0.00	Remote Vehicle Diagnostics/85 Vehicles	\$50,000.00	No
ML09028	Riverside County Waste Manageme				\$140,000.00	\$0.00	Retrofit 7 Off-Road Vehicles w/DECS	\$140,000.00	No
ML09039	City of Inglewood				\$310,000.00	\$0.00	Purchase 12 H.D. CNG Vehicles and Remot	\$310,000.00	No
ML09040	City of Cathedral City				\$83,125.00	\$0.00	Purchase 3 H.D. CNG Vehicles and Remote	\$83,125.00	No
ML09044	City of San Dimas				\$425,000.00	\$0.00	Install CNG Station and Purchase 1 CNG S	\$425,000.00	No
ML09045	City of Orange				\$125,000.00	\$0.00	Purchase 5 CNG Sweepers	\$125,000.00	No
MS09003	FuelMaker Corporation				\$296,000.00	\$0.00	Home Refueling Apparatus Incentives	\$296,000.00	No
Total: 11	!	L	I	1	L				4
Closed Col	ntracts								
ML09007	City of Rancho Cucamonga	2/26/2010	4/25/2012		\$117,500.00	\$62,452.57	Maintenance Facility Modification	\$55,047.43	Yes
ML09008	City of Culver City Transportation De	1/19/2010	7/18/2016	7/18/2017	\$175,000.00	\$175,000.00	8 Nat. Gas Heavy-Duty Vehicles	\$0.00	Yes
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
ML09010	City of Palm Springs	1/8/2010	2/7/2016		\$25,000.00	\$25,000.00	1 Nat. Gas Heavy-Duty Vehicle	\$0.00	Yes
ML09011	City of San Bernardino	2/19/2010	5/18/2016		\$250,000.00	\$250,000.00	10 Nat. Gas Heavy-Duty Vehicles	\$0.00	Yes
ML09012	City of Gardena	3/12/2010	11/11/2015		\$25,000.00	\$25,000.00	1 Nat. Gas Heavy-Duty Vehicle	\$0.00	Yes
ML09013	City of Riverside Public Works	9/10/2010	12/9/2011	7/31/2013	\$144,470.00	\$128,116.75	Traffic Signal Synchr./Moreno Valley	\$16,353.25	Yes
ML09014	City of Riverside Public Works	9/10/2010	12/9/2011	7/31/2013	\$113,030.00	\$108,495.94	Traffic Signal Synchr./Corona	\$4,534.06	Yes
ML09015	City of Riverside Public Works	9/10/2010	12/9/2011	7/31/2013	\$80,060.00	\$79,778.52	Traffic Signal Synchr./Co. of Riverside	\$281.48	Yes
ML09016	County of San Bernardino Public Wo	1/28/2010	3/27/2014		\$50,000.00	\$50,000.00	Install New CNG Station	\$0.00	Yes
ML09020	County of San Bernardino	8/16/2010	2/15/2012		\$49,770.00	\$49,770.00	Remote Vehicle Diagnostics/252 Vehicles	\$0.00	Yes
ML09021	City of Palm Desert	7/9/2010	3/8/2012		\$39,450.00	\$38,248.87	Traffic Signal Synchr./Rancho Mirage	\$1,201.13	Yes
ML09023	Los Angeles County Department of P	12/10/2010	12/9/2017		\$50,000.00	\$50,000.00	2 Heavy-Duty Alternative Fuel Transit Vehicl	\$0.00	Yes
ML09024	Los Angeles County Department of P	10/15/2010	12/14/2012	6/14/2013	\$400,000.00	\$0.00	Maintenance Facility Modifications	\$400,000.00	No
ML09027	Los Angeles County Department of P	7/23/2010	3/22/2012	6/22/2012	\$150,000.00	\$150,000.00	Freeway Detector Map Interface	\$0.00	Yes
ML09029	City of Whittier	11/6/2009	4/5/2016		\$25,000.00	\$25,000.00	1 Nat. Gas Heavy-Duty Vehicle	\$0.00	Yes
ML09030	City of Los Angeles GSD/Fleet Servi	6/18/2010	6/17/2011		\$22,310.00	\$22,310.00	Remote Vehicle Diagnostics/107 Vehicles	\$0.00	Yes
ML09031	City of Los Angeles, Department of	10/29/2010	10/28/2017		\$825,000.00	\$825,000.00	33 Nat. Gas Heavy-Duty Vehicles	\$0.00	Yes
ML09032	Los Angeles World Airports	4/8/2011	4/7/2018		\$175,000.00	\$175,000.00	7 Nat. Gas Heavy-Duty Vehicles	\$0.00	Yes
ML09033	City of Beverly Hills	3/4/2011	5/3/2017	1/3/2019	\$550,000.00	\$550,000.00	10 Nat. Gas Heavy-Duty Vehicles & CNG St	\$0.00	No
ML09034	City of La Palma	11/25/2009	6/24/2015		\$25,000.00	\$25,000.00	1 LPG Heavy-Duty Vehicle	\$0.00	Yes

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
ML09035	City of Fullerton	6/17/2010	6/16/2017	6/16/2018	\$450,000.00	\$450,000.00	2 Heavy-Duty CNG Vehicles & Install CNG	\$0.00	Yes
ML09037	City of Redondo Beach	6/18/2010	6/17/2016		\$50,000.00	\$50,000.00	Purchase Two CNG Sweepers	\$0.00	Yes
ML09038	City of Chino	9/27/2010	5/26/2017		\$250,000.00	\$250,000.00	Upgrade Existing CNG Station	\$0.00	Yes
ML09041	City of Los Angeles, Bureau of Sanit	10/1/2010	9/30/2017		\$875,000.00	\$875,000.00	Purchase 35 H.D. Nat. Gas Vehicles	\$0.00	Yes
ML09042	Los Angeles Department of Water an	12/10/2010	12/9/2017		\$1,400,000.00	\$1,400,000.00	Purchase 56 Dump Trucks	\$0.00	Yes
ML09043	City of Covina	10/8/2010	4/7/2017	10/7/2018	\$179,591.00	\$179,591.00	Upgrade Existing CNG Station	\$0.00	Yes
ML09046	City of Newport Beach	5/20/2010	5/19/2016		\$162,500.00	\$162,500.00	Upgrade Existing CNG Station, Maintenance	\$0.00	Yes
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: 31	1		1	•		ł		1	

Open/Complete Contracts

ML09026	Los Angeles County Department of P	10/15/2010	10/14/2017	4/14/2019	\$150,000.00	\$80,411.18	3 Off-Road Vehicles Repowers	\$69,588.82	Yes			
ML09036	City of Long Beach Fleet Services B	5/7/2010	5/6/2017	11/6/2022	\$875,000.00	\$875,000.00	Purchase 35 Natural Gas Refuse Trucks	\$0.00	Yes			

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Broject Description	Award Balance	Billing
Cont.#	Contractor	Start Date			Value	Remitted	Project Description	Balanco	Complete?
FY 2010	0-2011 Contracts								
Open Cont	racts								
ML11029	City of Santa Ana	9/7/2012	3/6/2020	3/6/2023	\$262,500.00	\$75,000.00	Expansion of Existing CNG Station, Install N	\$187,500.00	No
ML11045	City of Newport Beach	2/3/2012	8/2/2018	3/2/2021	\$30,000.00	\$0.00	Purchase 1 Nat. Gas H.D. Vehicle	\$30,000.00	No
Total: 2					Ш	L	-		
Declined/C	ancelled Contracts								
ML11038	City of Santa Monica	5/18/2012	7/17/2018		\$400,000.00	\$0.00	Maintenance Facility Modifications	\$400,000.00	No
MS11013	Go Natural Gas, Inc.				\$150,000.00	\$0.00	New CNG Station - Huntington Beach	\$150,000.00	No
MS11014	Go Natural Gas, Inc.				\$150,000.00	\$0.00	New CNG Station - Santa Ana	\$150,000.00	No
MS11015	Go Natural Gas, Inc.				\$150,000.00	\$0.00	New CNG Station - Inglewood	\$150,000.00	No
MS11046	Luis Castro				\$40,000.00	\$0.00	Repower One Heavy-Duty Vehicle	\$40,000.00	No
MS11047	Ivan Borjas				\$40,000.00	\$0.00	Repower One Heavy-Duty Vehicle	\$40,000.00	No
MS11048	Phase II Transportation				\$1,080,000.00	\$0.00	Repower 27 Heavy-Duty Vehicles	\$1,080,000.00	No
MS11049	Ruben Caceras				\$40,000.00	\$0.00	Repower One Heavy-Duty Vehicle	\$40,000.00	No
MS11050	Carlos Arrue				\$40,000.00	\$0.00	Repower One Heavy-Duty Vehicle	\$40,000.00	No
MS11051	Francisco Vargas				\$40,000.00	\$0.00	Repower One Heavy-Duty Vehicle	\$40,000.00	No
MS11053	Jose Ivan Soltero				\$40,000.00	\$0.00	Repower One Heavy-Duty Vehicle	\$40,000.00	No
MS11054	Albino Meza				\$40,000.00	\$0.00	Repower One Heavy-Duty Vehicle	\$40,000.00	No
MS11059	Go Natural Gas				\$150,000.00	\$0.00	New Public Access CNG Station - Paramou	\$150,000.00	No
MS11063	Standard Concrete Products				\$310,825.00	\$0.00	Retrofit Two Off-Road Vehicles under Showc	\$310,825.00	No
MS11070	American Honda Motor Company				\$100,000.00	\$0.00	Expansion of Existing CNG Station	\$100,000.00	No
MS11072	Trillium USA Company DBA Californi				\$150,000.00	\$0.00	New Public Access CNG Station	\$150,000.00	No
MS11077	DCL America Inc.				\$263,107.00	\$0.00	Retrofit of 13 Off-Road Diesel Vehicles with	\$263,107.00	No
MS11083	Cattrac Construction, Inc.				\$500,000.00	\$0.00	Install DECS on Eight Off-Road Vehicles	\$500,000.00	No
MS11084	Ivanhoe Energy Services and Develo				\$66,750.00	\$0.00	Retrofit One H.D. Off-Road Vehicle Under S	\$66,750.00	No
MS11088	Diesel Emission Technologies				\$32,750.00	\$0.00	Retrofit Three H.D. Off-Road Vehicles Under	\$32,750.00	No
MS11089	Diesel Emission Technologies				\$9,750.00	\$0.00	Retrofit One H.D. Off-Road Vehicle Under S	\$9,750.00	No
MS11090	Diesel Emission Technologies				\$14,750.00	\$0.00	Retrofit One H.D. Off-Road Vehicle Under S	\$14,750.00	No
Total: 22									
Closed Cor	ntracts								
ML11007	Coachella Valley Association of Gov	7/29/2011	7/28/2012		\$250,000.00	\$249,999.96	Regional PM10 Street Sweeping Program	\$0.04	Yes
ML11022	City of Anaheim	3/16/2012	7/15/2018		\$150,000.00	\$150,000.00	Purchase of 5 H.D. Vehicles	\$0.00	Yes
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
ML11027	City of Los Angeles, Dept. of Genera	5/4/2012	7/3/2015	1/3/2016	\$300,000.00	\$300,000.00	Maintenance Facility Modifications	\$0.00	Yes
ML11028	City of Glendale	1/13/2012	5/12/2018		\$300,000.00	\$300,000.00	Purchase 10 H.D. CNG Vehicles	\$0.00	Yes
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

			Original	Amended	Contract			Award	Billing
Cont.#	Contractor	Start Date	End Date	End Date	Value	Remitted	Project Description	Balance	Complete?
ML11031	City of Culver City Transportation De	12/2/2011	12/1/2018		\$300,000.00	\$300,000.00	Purchase 10 H.D. Nat. Gas Vehicles	\$0.00	Yes
ML11033	City of Los Angeles, Bureau of Sanit	3/16/2012	1/15/2019		\$1,080,000.00	\$1,080,000.00	Purchase 36 LNG H.D. Vehicles	\$0.00	Yes
ML11034	City of Los Angeles, Department of	5/4/2012	1/3/2019		\$630,000.00	\$630,000.00	Purchase 21 H.D. CNG Vehicles	\$0.00	Yes
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
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
MS11001	Mineral LLC	4/22/2011	4/30/2013	4/30/2015	\$111,827.00	\$103,136.83	Design, Develop, Host and Maintain MSRC	\$8,690.17	Yes
MS11002	A-Z Bus Sales, Inc.	7/15/2011	12/31/2011	6/30/2013	\$1,705,000.00	\$1,705,000.00	Alternative Fuel School Bus Incentive Progra	\$0.00	Yes
MS11003	BusWest	7/26/2011	12/31/2011	12/31/2012	\$1,305,000.00	\$1,305,000.00	Alternative Fuel School Bus Incentive Progra	\$0.00	Yes
MS11004	Los Angeles County MTA	9/9/2011	2/29/2012		\$450,000.00	\$299,743.34	Clean Fuel Transit Service to Dodger Stadiu	\$150,256.66	Yes
MS11006	Orange County Transportation Autho	10/7/2011	2/29/2012	8/31/2012	\$268,207.00	\$160,713.00	Metrolink Service to Angel Stadium	\$107,494.00	Yes
MS11017	CR&R, Inc.	3/2/2012	2/1/2018		\$100,000.00	\$100,000.00	Expansion of existing station - Garden Grove	\$0.00	Yes
MS11018	Orange County Transportation Autho	10/14/2011	1/31/2012		\$211,360.00	\$211,360.00	Express Bus Service to Orange County Fair	\$0.00	Yes
MS11052	Krisda Inc	9/27/2012	6/26/2013		\$120,000.00	\$120,000.00	Repower Three Heavy-Duty Vehicles	\$0.00	Yes
MS11056	Better World Group Advisors	12/30/2011	12/29/2013	12/29/2015	\$206,836.00	\$186,953.46	Programmatic Outreach Services	\$19,882.54	Yes
MS11057	Riverside County Transportation Co	7/28/2012	3/27/2013		\$100,000.00	\$89,159.40	Develop and Implement 511 "Smart Phone"	\$10,840.60	Yes
MS11058	L A Service Authority for Freeway E	5/31/2013	4/30/2014		\$123,395.00	\$123,395.00	Implement 511 "Smart Phone" Application	\$0.00	Yes
MS11061	Eastern Municipal Water District	3/29/2012	5/28/2015		\$11,659.00	\$1,450.00	Retrofit One Off-Road Vehicle under Showc	\$10,209.00	Yes
MS11062	Load Center	9/7/2012	1/6/2016	12/6/2016	\$175,384.00	\$169,883.00	Retrofit Six Off-Road Vehicles under Showc	\$5,501.00	Yes
MS11065	Temecula Valley Unified School Distr	8/11/2012	1/10/2019		\$50,000.00	\$48,539.62	Expansion of Existing CNG Station	\$1,460.38	No
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
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
MS11074	SunLine Transit Agency	5/11/2012	7/31/2012		\$41,849.00	\$22,391.00	Transit Service for Coachella Valley Festival	\$19,458.00	Yes
MS11080	Southern California Regional Rail Au	4/6/2012	7/31/2012		\$26,000.00	\$26,000.00	Metrolink Service to Auto Club Speedway	\$0.00	Yes
MS11086	DCL America Inc.	6/7/2013	10/6/2016		\$500,000.00	\$359,076.96	Retrofit Eight H.D. Off-Road Vehicles Under	\$140,923.04	Yes
MS11087	Cemex Construction Material Pacific,	10/16/2012	2/15/2016		\$448,766.00	\$448,760.80	Retrofit 13 H.D. Off-Road Vehicles Under Sh	\$5.20	Yes
MS11091	California Cartage Company, LLC	4/5/2013	8/4/2016	2/4/2018	\$55,000.00	\$0.00	Retrofit Two H.D. Off-Road Vehicles Under	\$55,000.00	No
MS11092	Griffith Company	2/15/2013	6/14/2016	12/14/2017	\$390,521.00	\$78,750.00	Retrofit 17 H.D. Off-Road Vehicles Under Sh	\$311,771.00	No
Total: 36	·						-		<u>.</u>
Closed/Inco	omplete Contracts								
MS11064	City of Hawthorne	7/28/2012	8/27/2018	8/27/2019	\$175,000.00	\$0.00	New Limited Access CNG Station	\$175,000.00	No
MS11076	SA Recycling, LLC	5/24/2012	9/23/2015		\$424,801.00	\$0.00	Retrofit of 13 Off-Road Diesel Vehicles with	\$424,801.00	No
MS11081	Metropolitan Stevedore Company	9/7/2012	1/6/2016		\$45,416.00	\$0.00	Install DECS on Two Off-Road Vehicles	\$45,416.00	No
MS11082	Baumot North America, LLC	8/2/2012	12/1/2015		\$65,958.00	\$4,350.00	Install DECS on Four Off-Road Vehicles	\$61,608.00	Yes
MS11085	City of Long Beach Fleet Services B	8/23/2013	12/22/2016		\$159,012.00	\$0.00	Retrofit Seven H.D. Off-Road Vehicles Unde	\$159,012.00	No

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
Total: 5									
Open/Com	olete Contracts								
ML11020	City of Indio	2/1/2013	3/31/2019	9/30/2020	\$15,000.00	\$9,749.50	Retrofit one H.D. Vehicles w/DECS, repower	\$5,250.50	Yes
ML11021	City of Whittier	1/27/2012	9/26/2018	6/26/2019	\$210,000.00	\$210,000.00	Purchase 7 Nat. Gas H.D. Vehicles	\$0.00	Yes
ML11023	City of Rancho Cucamonga	4/20/2012	12/19/2018	9/19/2020	\$260,000.00	\$260,000.00	Expand Existing CNG Station, 2 H.D. Vehicl	\$0.00	Yes
ML11024	County of Los Angeles, Dept of Publi	12/5/2014	6/4/2022		\$90,000.00	\$90,000.00	Purchase 3 Nat. Gas H.D. Vehicles	\$0.00	Yes
ML11025	County of Los Angeles Department o	3/14/2014	9/13/2021		\$150,000.00	\$150,000.00	Purchase 5 Nat. Gas H.D. Vehicles	\$0.00	Yes
ML11032	City of Gardena	3/2/2012	9/1/2018	10/1/2020	\$102,500.00	\$102,500.00	Purchase Heavy-Duty CNG Vehicle, Install	\$0.00	Yes
ML11036	City of Riverside	1/27/2012	1/26/2019	3/26/2021	\$670,000.00	\$670,000.00	Install New CNG Station, Purchase 9 H.D. N	\$0.00	Yes
ML11037	City of Anaheim	12/22/2012	12/21/2019		\$300,000.00	\$300,000.00	Purchase 12 Nat. Gas H.D. Vehicles	\$0.00	Yes
ML11040	City of South Pasadena	5/4/2012	1/3/2019	1/3/2022	\$30,000.00	\$30,000.00	Purchase 1 Nat. Gas H.D. Vehicle	\$0.00	Yes
ML11041	City of Santa Ana	9/7/2012	11/6/2018	1/6/2021	\$265,000.00	\$244,651.86	Purchase 7 LPG H.D. Vehicles, Retrofit 6 H.	\$20,348.14	Yes
ML11044	City of Ontario, Housing & Municipal	1/27/2012	6/26/2019		\$400,000.00	\$400,000.00	Expand Existing CNG Station	\$0.00	Yes
MS11008	USA Waste of California, Inc.	10/24/2013	4/23/2020		\$125,000.00	\$125,000.00	Expansion of Existing LCNG Station	\$0.00	Yes
MS11009	USA Waste of California, Inc.	10/24/2013	4/23/2020		\$125,000.00	\$125,000.00	Expansion of Existing LCNG Station	\$0.00	Yes
MS11010	Border Valley Trading	8/26/2011	10/25/2017	4/25/2020	\$150,000.00	\$150,000.00	New LNG Station	\$0.00	Yes
MS11011	EDCO Disposal Corporation	12/30/2011	4/29/2019		\$100,000.00	\$100,000.00	New CNG Station - Signal Hill	\$0.00	Yes
MS11012	EDCO Disposal Corporation	12/30/2011	4/29/2019		\$100,000.00	\$100,000.00	New CNG Station - Buena Park	\$0.00	Yes
MS11016	CR&R Incorporated	4/12/2013	10/11/2019		\$100,000.00	\$100,000.00	New CNG Station - Perris	\$0.00	Yes
MS11019	City of Corona	11/29/2012	4/28/2020		\$225,000.00	\$225,000.00	Expansion of Existing CNG Station	\$0.00	Yes
MS11055	KEC Engineering	2/3/2012	8/2/2018	8/2/2019	\$200,000.00	\$200,000.00	Repower 5 H.D. Off-Road Vehicles	\$0.00	Yes
MS11060	Rowland Unified School District	8/17/2012	1/16/2019	1/16/2020	\$175,000.00	\$175,000.00	New Limited Access CNG Station	\$0.00	Yes
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
MS11071	City of Torrance Transit Department	12/22/2012	1/21/2019	1/21/2020	\$175,000.00	\$175,000.00	New Limited Access CNG Station	\$0.00	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

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
FY 201	1-2012 Contracts								
Open Cont	racts								
ML12014	City of Santa Ana	11/8/2013	8/7/2020		\$384,000.00	\$4,709.00	9 H.D. Nat. Gas & LPG Trucks, EV Charging	\$379,291.00	No
ML12018	City of West Covina	10/18/2013	10/17/2020	8/17/2023	\$300,000.00	\$0.00	Expansion of Existing CNG Station	\$300,000.00	No
ML12043	City of Hemet	6/24/2013	9/23/2019		\$60,000.00	\$0.00	Two Heavy-Duty Nat. Gas Vehicles	\$60,000.00	No
ML12045	City of Baldwin Park DPW	2/14/2014	12/13/2020	6/13/2022	\$400,000.00	\$0.00	Install New CNG Station	\$400,000.00	No
ML12057	City of Coachella	8/28/2013	8/27/2019	1/27/2022	\$57,456.00	\$40,375.80	Purchase One Nat. Gas H.D. Vehicle/Street	\$17,080.20	No
ML12090	City of Palm Springs	10/9/2015	10/8/2021		\$21,163.00	\$0.00	EV Charging Infrastructure	\$21,163.00	No
ML12091	City of Bellflower	10/5/2018	10/4/2019		\$100,000.00	\$0.00	EV Charging Infrastructure	\$100,000.00	No
MS12060	City of Santa Monica	4/4/2014	8/3/2017	8/3/2019	\$500,000.00	\$434,202.57	Implement Westside Bikeshare Program	\$65,797.43	No
Total: 8				1					
Declined/C	ancelled Contracts								
ML12016	City of Cathedral City	1/4/2013	10/3/2019		\$60,000.00	\$0.00	CNG Vehicle & Electric Vehicle Infrastructur	\$60,000.00	No
ML12038	City of Long Beach Public Works				\$26,000.00	\$0.00	Electric Vehicle Charging Infrastructure	\$26,000.00	No
ML12040	City of Duarte				\$30,000.00	\$0.00	One Heavy-Duty Nat. Gas Vehicle	\$30,000.00	No
ML12044	County of San Bernardino Public Wo				\$250,000.00	\$0.00	Install New CNG Station	\$250,000.00	No
ML12048	City of La Palma	1/4/2013	11/3/2018		\$20,000.00	\$0.00	Two Medium-Duty LPG Vehicles	\$20,000.00	No
ML12052	City of Whittier	3/14/2013	7/13/2019		\$165,000.00	\$0.00	Expansion of Existing CNG Station	\$165,000.00	No
ML12053	City of Mission Viejo				\$60,000.00	\$0.00	EV Charging Infrastructure	\$60,000.00	No
MS12007	WestAir Gases & Equipment				\$100,000.00	\$0.00	Construct New Limited-Acess CNG Station	\$100,000.00	No
MS12027	C.V. Ice Company, Inc.	5/17/2013	11/16/2019		\$75,000.00	\$0.00	Purchase 3 Medium-Heavy Duty Vehicles	\$75,000.00	No
MS12030	Complete Landscape Care, Inc.				\$150,000.00	\$0.00	Purchase 6 Medium-Heavy Duty Vehicles	\$150,000.00	No
MS12067	Leatherwood Construction, Inc.	11/8/2013	3/7/2017		\$122,719.00	\$0.00	Retrofit Six Vehicles w/DECS - Showcase III	\$122,719.00	No
MS12070	Valley Music Travel/CID Entertainme				\$99,000.00	\$0.00	Implement Shuttle Service to Coachella Mus	\$99,000.00	No
Total: 12									
Closed Co	ntracts								
ML12013	City of Pasadena	10/19/2012	3/18/2015	9/18/2015	\$200,000.00	\$65,065.00	Electric Vehicle Charging Infrastructure	\$134,935.00	Yes
ML12019	City of Palm Springs	9/6/2013	7/5/2015		\$38,000.00	\$16,837.00	EV Charging Infrastructure	\$21,163.00	Yes
ML12021	City of Rancho Cucamonga	9/14/2012	1/13/2020		\$40,000.00	\$40,000.00	Four Medium-Duty Nat. Gas Vehicles	\$0.00	Yes
ML12023	County of Los Angeles Internal Servi	8/1/2013	2/28/2015		\$250,000.00	\$192,333.00	EV Charging Infrastructure	\$57,667.00	Yes
ML12037	Coachella Valley Association of Gov	3/14/2013	3/13/2014		\$250,000.00	\$250,000.00	Street Sweeping Operations	\$0.00	Yes
ML12041	City of Anaheim Public Utilities Depa	4/4/2014	11/3/2015	11/3/2017	\$68,977.00	\$38,742.16	EV Charging Infrastructure	\$30,234.84	Yes
ML12042	City of Chino Hills	1/18/2013	3/17/2017		\$87,500.00	\$87,500.00	Expansion of Existing CNG Station	\$0.00	Yes
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
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

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
ML12054	City of Palm Desert	9/30/2013	2/28/2015		\$77,385.00	\$77,385.00	EV Charging Infrastructure	\$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
ML12056	City of Cathedral City	3/26/2013	5/25/2014		\$25,000.00	\$25,000.00	Regional Street Sweeping Program	\$0.00	Yes
ML12066	City of Manhattan Beach	1/7/2014	4/6/2015		\$5,900.00	\$5,900.00	Electric Vehicle Charging Infrastructure	\$0.00	Yes
MS12001	Los Angeles County MTA	7/1/2012	4/30/2013		\$300,000.00	\$211,170.00	Clean Fuel Transit Service to Dodger Stadiu	\$88,830.00	Yes
MS12002	Orange County Transportation Autho	9/7/2012	4/30/2013		\$342,340.00	\$333,185.13	Express Bus Service to Orange County Fair	\$9,154.87	Yes
MS12003	Orange County Transportation Autho	7/20/2012	2/28/2013		\$234,669.00	\$167,665.12	Implement Metrolink Service to Angel Stadiu	\$67,003.88	Yes
MS12005	USA Waste of California, Inc.	10/19/2012	8/18/2013		\$75,000.00	\$75,000.00	Vehicle Maintenance Facility Modifications	\$0.00	Yes
MS12006	Waste Management Collection & Re	10/19/2012	8/18/2013		\$75,000.00	\$75,000.00	Vehicle Maintenance Facility Modifications	\$0.00	Yes
MS12012	Rim of the World Unified School Dist	12/20/2012	5/19/2014		\$75,000.00	\$75,000.00	Vehicle Maintenance Facility Modifications	\$0.00	Yes
MS12025	Silverado Stages, Inc.	11/2/2012	7/1/2018		\$150,000.00	\$150,000.00	Purchase Six Medium-Heavy Duty Vehicles	\$0.00	Yes
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
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
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
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
MS12076	City of Ontario, Housing & Municipal	3/8/2013	4/7/2015		\$75,000.00	\$75,000.00	Maintenance Facilities Modification	\$0.00	Yes
MS12078	Penske Truck Leasing Co., L.P.	1/7/2014	1/6/2016		\$75,000.00	\$73,107.00	Maintenance Facility Modifications - Vernon	\$1,893.00	Yes
MS12081	Penske Truck Leasing Co., L.P.	1/7/2014	1/6/2016		\$75,000.00	\$75,000.00	Maintenance Facility Modifications - Santa A	\$0.00	Yes
MS12085	Bear Valley Unified School District	4/25/2013	6/24/2014		\$75,000.00	\$75,000.00	Maintenance Facility Modifications	\$0.00	Yes
MS12087	Los Angeles County MTA	8/29/2013	11/28/2015		\$125,000.00	\$125,000.00	Implement Rideshare Incentives Program	\$0.00	Yes
MS12088	Orange County Transportation Autho	12/6/2013	3/5/2016		\$125,000.00	\$18,496.50	Implement Rideshare Incentives Program	\$106,503.50	Yes
MS12089	Riverside County Transportation Co	10/18/2013	9/17/2015		\$249,136.00	\$105,747.48	Implement Rideshare Incentives Program	\$143,388.52	No
MS12Hom	Mansfield Gas Equipment Systems				\$296,000.00	\$0.00	Home Refueling Apparatus Incentive Progra	\$296,000.00	No
Total: 44									
Closed/Inco	omplete Contracts								
					• · • • • • • • •			• • • • • • • • • •	1

\$100,000.00

\$0.00

EV Charging Infrastructure

\$100,000.00

No

City of Bellflower

ML12051

2/7/2014

2/6/2016

5/6/2018

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
MS12077	City of Coachella	6/14/2013	6/13/2020		\$225,000.00	\$0.00	Construct New CNG Station	\$225,000.00	No
MS12079	Penske Truck Leasing Co., L.P.	1/7/2014	1/6/2016		\$75.000.00	\$0.00	Maintenance Facility Modifications - Boyle H	\$75.000.00	No
MS12084	Airport Mobil Inc.	12/6/2013	5/5/2020		\$150,000.00	\$0.00	Install New CNG Infrastructure	\$150,000.00	No
Total: 4					· · · · · · · · · · · ·	· · · · ·		+,	-
	plete Contracts								
ML12015	City of Fullerton	4/25/2013	11/24/2020	11/24/2021	\$40,000.00	\$40,000.00	HD CNG Vehicle, Expand CNG Station	\$0.00	Yes
ML12017	City of Los Angeles, Bureau of Sanit	6/26/2013	5/25/2020	11/25/2021	\$950,000.00	\$950,000.00	32 H.D. Nat. Gas Vehicles	\$0.00	Yes
ML12020	City of Los Angeles, Department of	9/27/2012	3/26/2019	3/26/2020	\$450,000.00	\$450,000.00	15 H.D. Nat. Gas Vehicles	\$0.00	Yes
ML12022	City of La Puente	12/6/2013	6/5/2020	0,20,2020	\$110,000.00	\$110,000.00	2 Medium-Duty and Three Heavy-Duty CNG	\$0.00	Yes
ML12039	City of Redlands	2/8/2013	10/7/2019		\$90,000.00	\$90,000.00	Three Heavy-Duty Nat. Gas Vehicles	\$0.00	Yes
ML12046	City of Irvine	8/11/2013	3/10/2021		\$30,000.00	\$30,000.00	One Heavy-Duty Nat. Gas Vehicle	\$0.00	Yes
MS12004	USA Waste of California, Inc.	10/24/2013	11/23/2019		\$175,000.00	\$175,000.00	Construct New Limited-Access CNG Station	\$0.00	Yes
MS12008	Bonita Unified School District	7/12/2013	12/11/2019	4/11/2021	\$175,000.00	\$175,000.00	Construct New Limited-Access CNG Station	\$0.00	Yes
MS12009	Sysco Food Services of Los Angeles	1/7/2014	4/6/2020		\$150,000.00	\$150,000.00	Construct New Public-Access LNG Station	\$0.00	Yes
MS12010	Murrieta Valley Unified School Distric	4/5/2013	9/4/2019		\$242,786.00	\$242,786.00	Construct New Limited-Access CNG Station	\$0.00	Yes
MS12011	Southern California Gas Company	6/14/2013	6/13/2019	5/28/2021	\$150,000.00	\$150,000.00	Construct New Public-Access CNG Station -	\$0.00	Yes
MS12024	Southern California Gas Company	6/13/2013	12/12/2019	11/12/2020	\$150,000.00	\$150,000.00	Construct New Public-Access CNG Station -	\$0.00	Yes
MS12033	Mike Diamond/Phace Management	12/22/2012	12/21/2018	6/21/2021	\$148,900.00	\$148,900.00	Purchase 20 Medium-Heavy Duty Vehicles	\$0.00	No
MS12034	Ware Disposal Company, Inc.	11/2/2012	11/1/2018	5/1/2022	\$133,070.00	\$133,070.00	Purchase 8 Medium-Heavy Duty Vehicles	\$0.00	No
MS12035	Disneyland Resort	1/4/2013	7/3/2019		\$25,000.00	\$18,900.00	Purchase 1 Medium-Heavy Duty Vehicle	\$6,100.00	Yes
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
MS12072	99 Cents Only Stores	4/5/2013	9/4/2019		\$100,000.00	\$100,000.00	Construct New CNG Station	\$0.00	Yes
MS12073	FirstCNG, LLC	7/27/2013	12/26/2019		\$150,000.00	\$150,000.00	Construct New CNG Station	\$0.00	Yes
MS12074	Arcadia Unified School District	7/5/2013	9/4/2019		\$175,000.00	\$175,000.00	Expansion of Existing CNG Infrastructure	\$0.00	Yes
MS12075	CR&R Incorporated	7/27/2013	1/26/2021	1/26/2022	\$100,000.00	\$100,000.00	Expansion of Existing CNG Infrastructure	\$0.00	No
MS12080	City of Pasadena	11/8/2013	8/7/2020	2/7/2022	\$225,000.00	\$225,000.00	Expansion of Existing CNG Infrastructure	\$0.00	Yes
MS12082	City of Los Angeles, Bureau of Sanit	11/20/2013	2/19/2021	2/19/2023	\$175,000.00	\$175,000.00	Install New CNG Infrastructure	\$0.00	Yes
MS12083	Brea Olinda Unified School District	7/30/2015	2/29/2024		\$59,454.00	\$59,454.00	Install New CNG Infrastructure	\$0.00	Yes
MS12086	SuperShuttle International, Inc.	3/26/2013	3/25/2019		\$225,000.00	\$225,000.00	Purchase 23 Medium-Heavy Duty Vehicles	\$0.00	Yes

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
FY 2012	2-2014 Contracts								
Open Cont	racts								
ML14012	City of Santa Ana	2/13/2015	10/12/2021		\$244,000.00	\$0.00	EV Charging and 7 H.D. LPG Vehicles	\$244,000.00	No
ML14018	City of Los Angeles, Department of	3/6/2015	9/5/2021	12/5/2022	\$810,000.00	\$720,000.00	Purchase 27 H.D. Nat. Gas Vehicles	\$90,000.00	No
ML14019	City of Corona Public Works	12/5/2014	6/4/2020	3/6/2023	\$111,518.00	\$111,517.18	EV Charging, Bicycle Racks, Bicycle Locker	\$0.82	No
ML14021	Riverside County Regional Park and	7/24/2014	12/23/2016	9/30/2020	\$250,000.00	\$0.00	Bicycle Trail Improvements	\$250,000.00	No
ML14023	County of Los Angeles Department o	10/2/2015	9/1/2017	9/1/2019	\$230,000.00	\$0.00	Maintenance Fac. Modifications-Westcheste	\$230,000.00	No
ML14024	County of Los Angeles Department o	10/2/2015	9/1/2017	9/1/2019	\$230,000.00	\$0.00	Maintenance Fac. Modifications-Baldwin Par	\$230,000.00	No
ML14025	County of Los Angeles Dept of Publi	10/2/2015	7/1/2018	7/1/2024	\$300,000.00	\$0.00	Construct New CNG Station in Malibu	\$300,000.00	No
ML14026	County of Los Angeles Dept of Publi	10/2/2015	5/1/2023	5/1/2024	\$300,000.00	\$0.00	Construct New CNG Station in Castaic	\$300,000.00	No
ML14027	County of Los Angeles Dept of Publi	10/2/2015	5/1/2023	6/1/2024	\$500,000.00	\$0.00	Construct New CNG Station in Canyon Coun	\$500,000.00	No
ML14030	County of Los Angeles Internal Servi	1/9/2015	3/8/2018	6/8/2019	\$425,000.00	\$25,000.00	Bicycle Racks, Outreach & Education	\$400,000.00	No
ML14049	City of Moreno Valley	7/11/2014	3/10/2021		\$105,000.00	\$101,976.09	One HD Nat Gas Vehicle, EV Charging, Bicy	\$3,023.91	No
ML14062	City of San Fernando	3/27/2015	5/26/2021	10/31/2023	\$387,091.00	\$0.00	Expand Existing CNG Fueling Station	\$387,091.00	No
ML14067	City of Duarte	12/4/2015	1/3/2023	6/3/2024	\$60,000.00	\$0.00	Purchase Two Electric Buses	\$60,000.00	No
ML14068	City of South Pasadena	9/12/2014	10/11/2015	1/11/2020	\$10,183.00	\$0.00	Electric Vehicle Charging Infrastructure	\$10,183.00	No
ML14069	City of Beaumont	3/3/2017	3/2/2025		\$200,000.00	\$0.00	Construct New CNG Infrastructure	\$200,000.00	No
ML14070	City of Rancho Cucamonga	9/3/2016	12/2/2018		\$365,245.00	\$326,922.25	Bicycle Trail Improvements	\$38,322.75	No
ML14072	City of Cathedral City	8/13/2014	1/12/2021	7/12/2022	\$136,000.00	\$0.00	Medium & H.D. Vehicles, EV Charging, Bike	\$136,000.00	No
ML14095	City of South Pasadena	1/10/2019	7/9/2019		\$142,096.00	\$134,182.09	Bicycle Trail Improvements	\$7,913.91	No
MS14037	Penske Truck Leasing Co., L.P.	4/7/2017	6/6/2020		\$75,000.00	\$0.00	Vehicle Maint. Fac. Modifications - Carson	\$75,000.00	No
MS14057	Los Angeles County MTA	11/7/2014	10/6/2019	10/6/2020	\$1,250,000.00	\$0.00	Implement Various Signal Synchronization P	\$1,250,000.00	No
MS14059	Riverside County Transportation Co	9/5/2014	3/4/2018	4/4/2020	\$1,250,000.00	\$0.00	Implement Various Signal Synchronization P	\$1,250,000.00	No
MS14072	San Bernardino County Transportatio	3/27/2015	3/26/2018	3/26/2020	\$1,250,000.00	\$887,566.17	Implement Various Signal Synchronization P	\$362,433.83	No
MS14076	Rialto Unified School District	6/17/2015	2/16/2022	6/5/2023	\$225,000.00	\$213,750.00	New Public Access CNG Station	\$11,250.00	No
MS14079	Waste Resources, Inc.	9/14/2016	8/13/2022	8/13/2023	\$100,000.00	\$0.00	New Limited Access CNG Station	\$100,000.00	No
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
Total: 25					n	1	1	u.	

Pending Execution Contract

	County of Los Angeles Dept of Publi	\$150,000.00	\$0.00	San Gabriel BikeTrail Underpass Improveme	\$150,000.00	No
ML14097	County of Los Angeles Internal Servi	\$104,400.00	\$0.00	Electric Vehicle Charging Infrastructure	\$104,400.00	No

Declined/Ca	ancelled Contracts					
ML14063	City of Hawthorne	\$32,000.00	\$0.00	Expansion of Existng CNG Infrastructure	\$32,000.00	No
MS14035	Penske Truck Leasing Co., L.P.	\$75,000.00	\$0.00	Vehicle Maint. Fac. Modifications - Sun Valle	\$75,000.00	No
MS14036	Penske Truck Leasing Co., L.P.	\$75,000.00	\$0.00	Vehicle Maint. Fac. Modifications - La Mirad	\$75,000.00	No

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
MS14038	Penske Truck Leasing Co., L.P.				\$75,000.00	\$0.00	Vehicle Maint. Fac. Modifications - Fontana	\$75,000.00	No
MS14043	City of Anaheim				\$175,000.00	\$0.00	Expansion of Existing CNG Station	\$175,000.00	No
MS14078	American Honda Motor Co., Inc.	9/4/2015	8/3/2022		\$150,000.00	\$0.00	New Public Access CNG Station	\$150,000.00	No
MS14085	Prologis, L.P.				\$100,000.00	\$0.00	New Limited Access CNG Station	\$100,000.00	No
MS14086	San Gabriel Valley Towing I				\$150,000.00	\$0.00	New Public Access CNG Station	\$150,000.00	No
MS14091	Serv-Wel Disposal				\$100,000.00	\$0.00	New Limited-Access CNG Infrastructure	\$100,000.00	No
Total: 9						·			
Closed Cor	ntracts								
ML14010	City of Cathedral City	8/13/2014	10/12/2015		\$25,000.00	\$25,000.00	Street Sweeping Operations	\$0.00	Yes
ML14011	City of Palm Springs	6/13/2014	1/12/2016		\$79,000.00	\$78,627.00	Bicycle Racks, Bicycle Outreach & Educatio	\$373.00	Yes
ML14015	Coachella Valley Association of Gov	6/6/2014	9/5/2015		\$250,000.00	\$250,000.00	Street Sweeping Operations	\$0.00	Yes
ML14020	County of Los Angeles Dept of Publi	8/13/2014	1/12/2018		\$150,000.00	\$0.00	San Gabriel BikeTrail Underpass Improveme	\$150,000.00	No
ML14029	City of Irvine	7/11/2014	6/10/2017		\$90,500.00	\$71,056.78	Bicycle Trail Improvements	\$19,443.22	Yes
ML14051	City of Brea	9/5/2014	1/4/2017	7/4/2018	\$450,000.00	\$450,000.00	Installation of Bicycle Trail	\$0.00	Yes
ML14054	City of Torrance	11/14/2014	4/13/2017	7/13/2017	\$350,000.00	\$319,908.80	Upgrade Maintenance Facility	\$30,091.20	Yes
ML14055	City of Highland	10/10/2014	3/9/2018	3/9/2019	\$500,000.00	\$489,385.24	Bicycle Lanes and Outreach	\$10,614.76	Yes
ML14056	City of Redlands	9/5/2014	5/4/2016	5/4/2018	\$125,000.00	\$125,000.00	Bicycle Lanes	\$0.00	Yes
ML14065	City of Orange	9/5/2014	8/4/2015		\$10,000.00	\$10,000.00	Electric Vehicle Charging Infrastructure	\$0.00	Yes
ML14071	City of Manhattan Beach	1/9/2015	11/8/2018		\$22,485.00	\$22,485.00	Electric Vehicle Charging Infrastructure	\$0.00	Yes
ML14094	City of Yucaipa	6/9/2017	6/8/2018		\$84,795.00	\$84,795.00	Installation of Bicycle Lanes	\$0.00	Yes
MS14001	Los Angeles County MTA	3/6/2015	4/30/2015		\$1,216,637.00	\$1,199,512.68	Clean Fuel Transit Service to Dodger Stadiu	\$17,124.32	Yes
MS14002	Orange County Transportation Autho	9/6/2013	4/30/2014		\$576,833.00	\$576,833.00	Clean Fuel Transit Service to Orange Count	\$0.00	Yes
MS14003	Orange County Transportation Autho	8/1/2013	4/30/2014	10/30/2014	\$194,235.00	\$184,523.00	Implement Metrolink Service to Angel Stadiu	\$9,712.00	Yes
MS14004	Orange County Transportation Autho	9/24/2013	4/30/2014		\$36,800.00	\$35,485.23	Implement Express Bus Service to Solar De	\$1,314.77	Yes
MS14005	Transit Systems Unlimited, Inc.	4/11/2014	2/28/2016		\$515,200.00	\$511,520.00	Provide Expanded Shuttle Service to Hollyw	\$3,680.00	Yes
MS14007	Orange County Transportation Autho	6/6/2014	4/30/2015		\$208,520.00	\$189,622.94	Implement Special Metrolink Service to Ang	\$18,897.06	Yes
MS14008	Orange County Transportation Autho	8/13/2014	5/31/2015		\$601,187.00	\$601,187.00	Implement Clean Fuel Bus Service to Orang	\$0.00	Yes
MS14009	A-Z Bus Sales, Inc.	1/17/2014	12/31/2014	3/31/2015	\$388,000.00	\$388,000.00	Alternative Fuel School Bus Incentive Progra	\$0.00	Yes
MS14039	Waste Management Collection and	7/10/2015	4/9/2016		\$75,000.00	\$75,000.00	Vehicle Maint. Fac. Modifications - Irvine	\$0.00	Yes
MS14040	Waste Management Collection and	7/10/2015	4/9/2016		\$75,000.00	\$75,000.00	Vehicle Maint. Fac. Modifications - Santa An	\$0.00	Yes
MS14047	Southern California Regional Rail Au	3/7/2014	9/30/2014		\$49,203.00	\$32,067.04	Special Metrolink Service to Autoclub Speed	\$17,135.96	Yes
MS14048	BusWest	3/14/2014	12/31/2014	5/31/2015	\$940,850.00	\$847,850.00	Alternative Fuel School Bus Incentive Progra	\$93,000.00	Yes
MS14058	Orange County Transportation Autho	11/7/2014	4/6/2016	4/6/2017	\$1,250,000.00	\$1,250,000.00	Implement Various Signal Synchronization P	\$0.00	Yes
MS14073	Anaheim Transportation Network	1/9/2015	4/30/2017		\$221,312.00	\$221,312.00	Anaheim Resort Circulator Service	\$0.00	Yes
MS14087	Orange County Transportation Autho	8/14/2015	4/30/2016		\$239,645.00	\$195,377.88	Implement Special Metrolink Service to Ang	\$44,267.12	Yes
MS14088	Southern California Regional Rail Au	5/7/2015	9/30/2015		\$79,660.00	\$66,351.44	Special Metrolink Service to Autoclub Speed	\$13,308.56	Yes
MS14089	Top Shelf Consulting, LLC	1/18/2017	8/4/2016	3/31/2017	\$200,000.00	\$200,000.00	Enhanced Fleet Modernization Program	\$0.00	Yes

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
Total: 29							·		
Closed/Inco	omplete Contracts								
ML14050	City of Yucaipa	7/11/2014	9/10/2015	7/1/2016	\$84,795.00	\$0.00	Installation of Bicycle Lanes	\$84,795.00	No
ML14060	County of Los Angeles Internal Servi	10/6/2017	1/5/2019		\$104,400.00	\$0.00	Electric Vehicle Charging Infrastructure	\$104,400.00	No
ML14066	City of South Pasadena	9/12/2014	7/11/2016	2/11/2018	\$142,096.00	\$0.00	Bicycle Trail Improvements	\$142,096.00	No
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
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: 5	· · · · · · · · · · · · · · · · · · ·					ľ			
Open/Comp	olete Contracts								
ML14013	City of Los Angeles, Bureau of Sanit	10/7/2016	2/6/2025		\$400,000.00	\$400,000.00	Purchase 14 H.D. Nat. Gas Vehicles	\$0.00	Yes
ML14014	City of Torrance	9/5/2014	12/4/2019		\$56,000.00	\$56,000.00	EV Charging Infrastructure	\$0.00	Yes
ML14016	City of Anaheim	4/3/2015	9/2/2021		\$380,000.00	\$380,000.00	Purchase 2 H.D. Vehicles, Expansion of Exi	\$0.00	Yes
ML14022	County of Los Angeles Department o	10/2/2015	5/1/2022		\$270,000.00	\$270,000.00	Purchase 9 H.D. Nat. Gas Vehicles	\$0.00	Yes
ML14028	City of Fullerton	9/5/2014	1/4/2022		\$126,950.00	\$126,950.00	Expansion of Exisiting CNG Infrastructure	\$0.00	Yes
ML14031	Riverside County Waste Manageme	6/13/2014	12/12/2020		\$90,000.00	\$90,000.00	Purchase 3 H.D. CNG Vehicles	\$0.00	Yes
ML14032	City of Rancho Cucamonga	1/9/2015	1/8/2022		\$113,990.00	\$104,350.63	Expansion of Existing CNG Infras., Bicycle L	\$9,639.37	Yes
ML14033	City of Irvine	7/11/2014	2/10/2021	2/10/2022	\$60,000.00	\$60,000.00	Purchase 2 H.D. CNG Vehicles	\$0.00	Yes
ML14034	City of Lake Elsinore	9/5/2014	5/4/2021		\$56,700.00	\$56,700.00	EV Charging Stations	\$0.00	Yes
ML14061	City of La Habra	3/11/2016	3/10/2022		\$41,600.00	\$41,270.49	Purchase Two Heavy-Duty Nat. Gas Vehicle	\$329.51	Yes
ML14064	City of Claremont	7/11/2014	7/10/2020	1/10/2021	\$60,000.00	\$60,000.00	Purchase Two Heavy-Duty Nat. Gas Vehicle	\$0.00	Yes
MS14041	USA Waste of California, Inc.	9/4/2015	10/3/2021		\$175,000.00	\$175,000.00	Limited-Access CNG Station, Vehicle Maint.	\$0.00	Yes
MS14042	Grand Central Recycling & Transfer	6/6/2014	9/5/2021		\$150,000.00	\$150,000.00	Expansion of Existing CNG Station	\$0.00	Yes
MS14044	TIMCO CNG Fund I, LLC	5/2/2014	11/1/2020		\$150,000.00	\$150,000.00	New Public-Access CNG Station in Santa A	\$0.00	Yes
MS14045	TIMCO CNG Fund I, LLC	6/6/2014	12/5/2020		\$150,000.00	\$150,000.00	New Public-Access CNG Station in Inglewoo	\$0.00	Yes
MS14046	Ontario CNG Station Inc.	5/15/2014	5/14/2020	11/14/2021	\$150,000.00	\$150,000.00	Expansion of Existing CNG Infrastructure	\$0.00	Yes
MS14052	Arcadia Unified School District	6/13/2014	10/12/2020		\$78,000.00	\$78,000.00	Expansion of an Existing CNG Fueling Statio	\$0.00	Yes
MS14053	Upland Unified School District	1/9/2015	7/8/2021		\$175,000.00	\$175,000.00	Expansion of Existing CNG Infrastructure	\$0.00	No
MS14074	Midway City Sanitary District	1/9/2015	3/8/2021		\$250,000.00	\$250,000.00	Limited-Access CNG Station & Facility Modif	\$0.00	Yes
MS14075	Fullerton Joint Union High School Di	7/22/2016	11/21/2023		\$300,000.00	\$293,442.00	Expansion of Existing CNG Infrastructure/Ma	\$6,558.00	Yes
MS14077	County Sanitation Districts of L.A. Co	3/6/2015	5/5/2021		\$175,000.00	\$175,000.00	New Limited Access CNG Station	\$0.00	Yes
MS14080	CR&R Incorporated	6/1/2015	8/31/2021	8/31/2022	\$200,000.00	\$200,000.00	Expansion of Existing CNG Infrastructure/Ma	\$0.00	No
MS14081	CR&R Incorporated	6/1/2015	5/30/2021		\$175,000.00	\$100,000.00	Expansion of Existing CNG Infrastructure/Ma	\$75,000.00	No
MS14082	Grand Central Recycling & Transfer	12/4/2015	3/3/2023	3/3/2024	\$150,000.00	\$150,000.00	Construct New Public Access CNG Station	\$0.00	Yes
MS14084	US Air Conditioning Distributors	5/7/2015	9/6/2021		\$100,000.00	\$100,000.00	Expansion of Existing CNG Infrastructure	\$0.00	Yes
MS14090	City of Monterey Park	5/7/2015	5/6/2021		\$225,000.00	\$225,000.00	Expansion of Existing CNG Infrastructure	\$0.00	Yes

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
FY 2014	4-2016 Contracts								
Open Cont	racts								
ML16006	City of Cathedral City	4/27/2016	4/26/2022		\$55,000.00	\$0.00	Purchase 1 H.D. Nat. Gas Vehicle, Bicycle	\$55,000.00	No
ML16007	City of Culver City Transportation De	10/6/2015	4/5/2023		\$246,000.00	\$210,000.00	Purchase 7 H.D. Nat. Gas Vehicles, EV Cha	\$36,000.00	No
ML16008	City of Pomona	9/20/2016	11/19/2022	11/19/2023	\$60,000.00	\$0.00	Purchase 3 Medium-Duty and 1 Heavy-Duty	\$60,000.00	No
ML16009	City of Fountain Valley	10/6/2015	2/5/2018	5/5/2019	\$46,100.00	\$0.00	Install EV Charging Infrastructure	\$46,100.00	No
ML16010	City of Fullerton	10/7/2016	4/6/2023		\$370,500.00	\$0.00	Expand Existing CNG Station, EV Charging I	\$370,500.00	No
ML16013	City of Monterey Park	12/4/2015	7/3/2022	7/3/2024	\$90,000.00	\$0.00	Purchase 3 Heavy-Duty Nat. Gas Vehicles	\$90,000.00	No
ML16016	City of Los Angeles, Department of	2/5/2016	12/4/2022		\$630,000.00	\$540,000.00	Purchase 21 Heavy-Duty Nat. Gas Vehicles	\$90,000.00	No
ML16017	City of Long Beach	2/5/2016	8/4/2023		\$1,445,400.00	\$1,101,400.00	Purchase 50 Medium-Duty, 19 H.D. Nat. Ga	\$344,000.00	No
ML16018	City of Hermosa Beach	10/7/2016	1/6/2023		\$29,520.00	\$23,768.44	Purchase 2 M.D. Nat. Gas Vehicles, Bicycle	\$5,751.56	No
ML16019	City of Los Angeles, Dept of General	1/25/2017	3/24/2020		\$102,955.00	\$0.00	Install EV Charging Infrastructure	\$102,955.00	No
ML16021	City of Santa Clarita	10/7/2016	6/6/2024		\$49,400.00	\$0.00	Install EV Charging Infrastructure	\$49,400.00	No
ML16022	Los Angeles Department of Water an	5/5/2017	3/4/2024	9/4/2025	\$360,000.00	\$0.00	Purchase 13 H.D. Nat. Gas Vehicles	\$360,000.00	No
ML16025	City of South Pasadena	6/22/2016	4/21/2023	4/21/2024	\$160,000.00	\$0.00	Purchase H.D. Nat. Gas Vehicle, Expand Ex	\$160,000.00	No
ML16032	City of Azusa	9/9/2016	4/8/2019	4/8/2020	\$474,925.00	\$0.00	Implement a "Complete Streets" Pedestrian	\$474,925.00	No
ML16034	City of Riverside	3/11/2016	10/10/2018	10/10/2019	\$500,000.00	\$0.00	Implement a "Complete Streets" Pedestrian	\$500,000.00	No
ML16038	City of Palm Springs	4/1/2016	7/31/2022		\$230,000.00	\$0.00	Install Bicycle Lanes & Purchase 4 Heavy-D	\$230,000.00	No
ML16039	City of Torrance Transit Department	1/6/2017	9/5/2022		\$32,000.00	\$0.00	Install EV Charging Infrastructure	\$32,000.00	No
ML16040	City of Eastvale	1/6/2017	7/5/2022		\$110,000.00	\$0.00	Install EV Charging Infrastructure	\$110,000.00	No
ML16041	City of Moreno Valley	9/3/2016	1/2/2021	1/2/2022	\$20,000.00	\$0.00	Install EV Charging Infrastructure	\$20,000.00	No
ML16042	City of San Dimas	4/1/2016	12/31/2019	12/31/2021	\$55,000.00	\$0.00	Install EV Charging Infrastructure	\$55,000.00	No
ML16045	City of Anaheim	6/22/2016	8/21/2019		\$275,000.00	\$0.00	Maintenance Facility Modifications	\$275,000.00	No
ML16046	City of El Monte	4/1/2016	5/31/2021	5/31/2023	\$20,160.00	\$0.00	Install EV Charging Infrastructure	\$20,160.00	No
ML16047	City of Fontana	1/6/2017	8/5/2019		\$500,000.00	\$0.00	Enhance an Existing Class 1 Bikeway	\$500,000.00	No
ML16048	City of Placentia	3/26/2016	5/25/2021	6/25/2022	\$90,000.00	\$18,655.00	Install a Bicycle Locker and EV Charging Infr	\$71,345.00	No
ML16052	City of Rancho Cucamonga	9/3/2016	11/2/2019		\$315,576.00	\$0.00	Install Two Class 1 Bikeways	\$315,576.00	No
ML16053	City of Claremont	3/11/2016	7/10/2018	5/10/2020	\$498,750.00	\$0.00	Implement a "Complete Streets" Pedestrian	\$498,750.00	No
ML16054	City of Yucaipa	3/26/2016	7/26/2018	7/26/2019	\$120,000.00	\$0.00	Implement a "Complete Streets" Pedestrian	\$120,000.00	No
ML16056	City of Ontario	3/23/2016	9/22/2020	9/22/2021	\$150,000.00	\$0.00	Expansion of an Existing CNG Station	\$150,000.00	No
ML16057	City of Yucaipa	4/27/2016	1/26/2019	1/26/2020	\$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
ML16069	City of West Covina	3/10/2017	6/9/2021		\$54,199.00	\$0.00	Installation of EV Charging Infrastructure	\$54,199.00	No
ML16070	City of Beverly Hills	2/21/2017	6/20/2023		\$90,000.00	\$90,000.00	Purchase 3 H.D. Nat. Gas Vehicles	\$0.00	No
ML16071	City of Highland	5/5/2017	1/4/2020		\$264,500.00	\$0.00	Implement a "Complete Streets" Pedestrian	\$264,500.00	No
ML16075	City of San Fernando	10/27/2016	2/26/2019	2/26/2020	\$354,000.00	\$0.00	Install a Class 1 Bikeway	\$354,000.00	No

			Original	Amended	Contract			Award	Billing
Cont.#	Contractor	Start Date	End Date	End Date	Value	Remitted	Project Description	Balance	Complete?
ML16076	City of San Fernando	2/21/2017	8/20/2021		\$100,000.00	\$43,993.89	Install EV Charging Infrastructure	\$56,006.11	No
ML16077	City of Rialto	5/3/2018	10/2/2021		\$463,216.00	\$0.00	Pedestrian Access Improvements, Bicycle L	\$463,216.00	No
ML16083	City of El Monte	4/1/2016	4/30/2021	4/30/2023	\$57,210.00	\$0.00	Install EV Charging Infrastructure	\$57,210.00	No
ML16122	City of Wildomar	6/8/2018	6/7/2019		\$500,000.00	\$0.00	Install Bicycle Lanes	\$500,000.00	No
MS16029	Orange County Transportation Autho	1/12/2018	6/11/2020		\$851,883.00	\$0.00	Transportation Control Measure Partnership	\$851,883.00	No
MS16030	Better World Group Advisors	12/19/2015	12/31/2017	12/31/2019	\$256,619.00	\$175,229.18	Programmic Outreach Services to the MSR	\$81,389.82	No
MS16086	San Bernardino County Transportatio	9/3/2016	10/2/2021		\$800,625.00	\$229,589.91	Freeway Service Patrols	\$571,035.09	No
MS16090	Los Angeles County MTA	10/27/2016	4/26/2020		\$2,500,000.00	\$0.00	Expansion of the Willowbrook/Rosa Parks Tr	\$2,500,000.00	No
MS16094	Riverside County Transportation Co	1/25/2017	1/24/2022		\$1,909,241.00	\$0.00	MetroLink First Mile/Last Mile Mobility Strate	\$1,909,241.00	No
MS16096	San Bernardino County Transportatio	10/27/2016	12/26/2019		\$450,000.00	\$0.00	EV Charging Infrastructure	\$450,000.00	No
MS16097	Walnut Valley Unified School District	10/7/2016	11/6/2022		\$250,000.00	\$175,000.00	Expand CNG Station & Modify Maintenance	\$75,000.00	No
MS16102	Nasa Services, Inc.	2/21/2017	4/20/2023		\$100,000.00	\$100,000.00	Construct a Limited-Access CNG Station	\$0.00	No
MS16110	City of Riverside	10/6/2017	2/5/2025		\$300,000.00	\$0.00	Expansion of Existing CNG Station and Main	\$300,000.00	No
MS16112	Orange County Transportation Autho	4/14/2017	3/13/2024		\$1,470,000.00	\$465,000.00	Repower Up to 98 Transit Buses	\$1,005,000.00	No
MS16113	Los Angeles County MTA	5/12/2017	4/11/2024		\$1,875,000.00	\$1,068,750.00	Repower Up to 125 Transit Buses	\$806,250.00	No
MS16115	City of Santa Monica	4/14/2017	7/13/2025		\$870,000.00	\$361,500.00	Repower 58 Transit Buses	\$508,500.00	No
MS16117	Omnitrans	4/21/2017	6/20/2023		\$175,000.00	\$166,250.00	Expansion of Existing CNG Infrastructure	\$8,750.00	No
MS16118	Omnitrans	4/21/2017	6/20/2023		\$175,000.00	\$166,250.00	Expansion of Existing CNG Infrastructure	\$8,750.00	No
MS16119	Omnitrans	4/21/2017	8/20/2022		\$150,000.00	\$0.00	New Public Access CNG Station	\$150,000.00	No
MS16120	Omnitrans	4/7/2017	5/6/2025		\$945,000.00	\$0.00	Repower 63 Existing Buses	\$945,000.00	No
MS16121	Long Beach Transit	11/3/2017	4/2/2024	11/30/2026	\$600,000.00	\$0.00	Repower 39 and Purchase 1 New Transit Bu	\$600,000.00	No
MS16123	Orange County Transportation Autho	12/7/2018	11/6/2023		\$91,760.00	\$0.00	Install La Habra Union Pacific Bikeway	\$91,760.00	No
MS16124	Riverside County Transportation Co	12/14/2018	12/14/2019		\$253,239.00	\$28,869.20	Extended Freeway Service Patrols	\$224,369.80	No
Total: 57									
Pending Ex	ecution Contracts								
ML16126	City of Palm Springs				\$40,000.00	\$0.00	Install Bicycle Racks, and Implement Bicycl	\$40,000.00	No
MS16106	City of Lawndale				\$175,000.00	\$0.00	Expansion of Existing CNG Infrastructure	\$175,000.00	No
MS16125	San Bernardino County Transportatio				\$1,000,000.00	\$0.00	Traffic Signal Synchronization Projects	\$1,000,000.00	No
Total: 3									
Declined/Ca	ancelled Contracts								
ML16014	City of Dana Point				\$153,818.00	\$0.00	Extend an Existing Class 1 Bikeway	\$153,818.00	No
ML16065	City of Temple City				\$500,000.00	\$0.00	Implement a "Complete Streets" Pedestrian	\$500,000.00	No
ML16067	City of South El Monte				\$73,329.00	\$0.00	Implement an "Open Streets" Event	\$73,329.00	No
ML16074	City of La Verne	7/22/2016	1/21/2023		\$365,000.00	\$0.00	Install CNG Fueling Station	\$365,000.00	No
MS16043	LBA Realty Company LLC				\$100,000.00	\$0.00	Install Limited-Access CNG Station	\$100,000.00	No
MS16080	Riverside County Transportation Co				\$1,200,000.00	\$0.00	Passenger Rail Service for Coachella and St	\$1,200,000.00	No
MS16098	Long Beach Transit				\$198,957.00	\$0.00	Provide Special Bus Service to Stub Hub Ce	\$198,957.00	No

Cont.# MS16104 MS16107	Contractor City of Perris		End Date	End Date	Contract Value			Award Balance	Billing
MS16107	City of Porrie	Start Date	Life Date	Life Date		Remitted	Project Description		Complete?
-	•				\$175,000.00	\$0.00	Expansion of Existing CNG Infrastructure	\$175,000.00	No
	Athens Services				\$100,000.00	\$0.00	Construct a Limited-Access CNG Station	\$100,000.00	No
MS16108	VNG 5703 Gage Avenue, LLC				\$150,000.00	\$0.00	Construct Public-Access CNG Station in Bell	\$150,000.00	No
MS16109	Sanitation Districts of Los Angeles C				\$275,000.00	\$0.00	Expansion of an Existing L/CNG Station	\$275,000.00	No
MS16111	VNG 925 Lakeview Avenue, LLC				\$150,000.00	\$0.00	Construct Public Access CNG Station in Pla	\$150,000.00	No
Total: 12									
Closed Con	itracts								
ML16015	City of Yorba Linda	3/4/2016	11/3/2017		\$85,000.00	\$85,000.00	Install Bicycle Lanes	\$0.00	No
ML16020	City of Pomona	4/1/2016	2/1/2018	8/1/2018	\$440,000.00	\$440,000.00	Install Road Surface Bicycle Detection Syste	\$0.00	No
ML16026	City of Downey	5/6/2016	9/5/2017		\$40,000.00	\$40,000.00	Install EV Charging Infrastructure	\$0.00	No
ML16028	City of Azusa	9/9/2016	4/8/2018		\$25,000.00	\$25,000.00	Enhance Existing Class 1 Bikeway	\$0.00	Yes
ML16031	City of Cathedral City	12/19/2015	2/18/2017		\$25,000.00	\$25,000.00	Street Sweeping in Coachella Valley	\$0.00	Yes
ML16033	Coachella Valley Association of Gov	4/27/2016	4/26/2018		\$250,000.00	\$250,000.00	Street Sweeping Operations in Coachella Va	\$0.00	Yes
ML16035	City of Wildomar	4/1/2016	11/1/2017		\$500,000.00	\$0.00	Install Bicycle Lanes	\$500,000.00	No
ML16036	City of Brea	3/4/2016	12/3/2018		\$500,000.00	\$500,000.00	Install a Class 1 Bikeway	\$0.00	Yes
ML16049	City of Buena Park	4/1/2016	11/30/2018		\$429,262.00	\$429,262.00	Installation of a Class 1 Bikeway	\$0.00	Yes
ML16051	City of South Pasadena	2/12/2016	1/11/2017	12/11/2017	\$320,000.00	\$258,691.25	Implement "Open Streets" Event with Variou	\$61,308.75	Yes
ML16060	City of Cudahy	2/5/2016	10/4/2017		\$73,910.00	\$62,480.00	Implement an "Open Streets" Event	\$11,430.00	No
ML16064	County of Orange, OC Parks	2/21/2017	10/20/2018		\$204,073.00	\$157,632.73	Implement "Open Streets" Events with Vario	\$46,440.27	No
ML16066	City of Long Beach Public Works	1/13/2017	9/12/2018		\$75,050.00	\$63,763.62	Implement an "Open Streets" Event	\$11,286.38	Yes
ML16068	Riverside County Dept of Public Heal	12/2/2016	8/1/2018		\$171,648.00	\$171,648.00	Implement "Open Streets" Events with Vario	\$0.00	Yes
ML16073	City of Long Beach Public Works	1/13/2017	7/12/2017		\$50,000.00	\$50,000.00	Implement an "Open Streets" Event	\$0.00	Yes
ML16078	City of Moreno Valley	5/6/2016	11/5/2017	5/5/2018	\$32,800.00	\$31,604.72	Install Bicycle Infrastructure & Implement Bi	\$1,195.28	Yes
MS16001	Los Angeles County MTA	4/1/2016	4/30/2017		\$1,350,000.00	\$1,332,039.84	Clean Fuel Transit Service to Dodger Stadiu	\$17,960.16	Yes
MS16002	Orange County Transportation Autho	10/6/2015	5/31/2016		\$722,266.00	\$703,860.99	Clean Fuel Transit Service to Orange Count	\$18,405.01	Yes
MS16003	Special Olympics World Games Los	10/9/2015	12/30/2015		\$380,304.00	\$380,304.00	Low-Emission Transportation Service for Sp	\$0.00	Yes
MS16004	Mineral LLC	9/4/2015	7/3/2017	1/3/2018	\$27,690.00	\$9,300.00	Design, Develop, Host and Maintain MSRC	\$18,390.00	Yes
MS16084	Transit Systems Unlimited, Inc.	5/6/2016	2/28/2018		\$565,600.00	\$396,930.00	Implement Special Shuttle Service from Uni	\$168,670.00	No
MS16085	Southern California Regional Rail Au	3/11/2016	9/30/2016		\$78,033.00	\$64,285.44	Special MetroLink Service to Autoclub Spee	\$13,747.56	No
MS16089	Orange County Transportation Autho	7/8/2016	4/30/2017		\$128,500.00	\$128,500.00	Implement Special Bus Service to Angel Sta	\$0.00	Yes
MS16092	San Bernardino County Transportatio	2/3/2017	1/2/2019		\$242,937.00	\$242,016.53	Implement a Series of "Open Streets" Event	\$920.47	No
MS16093	Orange County Transportation Autho	9/3/2016	3/2/2018	9/2/2018	\$1,553,657.00	\$1,499,575.85	Implement a Mobile Ticketing System	\$54,081.15	No
MS16095	Orange County Transportation Autho	7/22/2016	5/31/2017		\$694,645.00	\$672,864.35	Implement Special Bus Service to Orange C	\$21,780.65	Yes
MS16099	Foothill Transit	3/3/2017	3/31/2017		\$50,000.00	\$50,000.00	Provide Special Bus Service to the Los Ange	\$0.00	Yes
MS16100	Southern California Regional Rail Au	5/5/2017	9/30/2017		\$80,455.00	\$66,169.43	Provide Metrolink Service to Autoclub Speed	\$14,285.57	Yes

Closed/Incomplete Contracts

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
ML16005	City of Palm Springs	3/4/2016	10/3/2017		\$40,000.00	\$0.00	Install Bicycle Racks, and Implement Bicycl	\$40,000.00	No
MS16082	Riverside County Transportation Co	9/3/2016	8/2/2018		\$590,759.00	\$337,519.71	Extended Freeway Service Patrols	\$253,239.29	No
MS16091	San Bernardino County Transportatio	10/7/2016	11/6/2018		\$1,000,000.00	\$0.00	Traffic Signal Synchronization Projects	\$1,000,000.00	No
Total: 3									
Open/Com	olete Contracts								
ML16011	City of Claremont	10/6/2015	6/5/2022		\$90,000.00	\$90,000.00	Purchase 3 Heavy-Duty Nat. Gas Vehicles	\$0.00	Yes
ML16012	City of Carson	1/15/2016	10/14/2022		\$60,000.00	\$60,000.00	Purchase 2 Heavy-Duty Nat. Gas Vehicles	\$0.00	Yes
ML16023	City of Banning	12/11/2015	12/10/2021		\$30,000.00	\$30,000.00	Purchase 1 H.D. Nat. Gas Vehicle	\$0.00	Yes
ML16024	City of Azusa	4/27/2016	2/26/2022		\$30,000.00	\$30,000.00	Purchase 1 H.D. Nat. Gas Vehicle	\$0.00	Yes
ML16027	City of Whittier	1/8/2016	11/7/2022		\$30,000.00	\$30,000.00	Purchase 1 H.D. Nat. Gas Vehicle	\$0.00	Yes
ML16037	City of Rancho Cucamonga	2/5/2016	11/4/2022		\$30,000.00	\$30,000.00	Purchase One Heavy-Duty Natural Gas Vehi	\$0.00	Yes
ML16050	City of Westminster	5/6/2016	7/5/2020	5/5/2022	\$115,000.00	\$93,925.19	Installation of EV Charging Infrastructure	\$21,074.81	No
ML16055	City of Ontario	5/6/2016	5/5/2022		\$270,000.00	\$270,000.00	Purchase Nine Heavy-Duty Natural-Gas Veh	\$0.00	Yes
ML16059	City of Burbank	4/1/2016	2/28/2022		\$180,000.00	\$180,000.00	Purchase 6 H.D. Nat. Gas Vehicles	\$0.00	No
ML16061	City of Murrieta	4/27/2016	1/26/2020		\$11,642.00	\$9,398.36	Installation of EV Charging Infrastructure	\$2,243.64	Yes
ML16062	City of Colton	6/3/2016	7/2/2020		\$25,000.00	\$21,003.82	Installation of EV Charging Infrastructure	\$3,996.18	Yes
ML16063	City of Glendora	3/4/2016	4/3/2022		\$30,000.00	\$30,000.00	Purchase One H.D. Nat. Gas Vehicle	\$0.00	Yes
ML16072	City of Palm Desert	3/4/2016	1/4/2020	1/3/2022	\$56,000.00	\$56,000.00	Installation of EV Charging Infrastructure	\$0.00	Yes
ML16079	City of Yucaipa	4/1/2016	3/31/2020		\$5,000.00	\$5,000.00	Purchase Electric Lawnmower	\$0.00	Yes
MS16081	EDCO Disposal Corporation	3/4/2016	10/3/2022		\$150,000.00	\$150,000.00	Expansion of Existing Public Access CNG St	\$0.00	Yes
MS16087	Burrtec Waste & Recycling Services,	7/8/2016	3/7/2023		\$100,000.00	\$100,000.00	Construct New Limited-Access CNG Station	\$0.00	Yes
MS16088	Transit Systems Unlimited, Inc.	5/12/2017	1/11/2023		\$17,000.00	\$17,000.00	Expansion of Existing CNG Station	\$0.00	Yes
MS16103	Arrow Services, Inc.	2/3/2017	4/2/2023		\$100,000.00	\$100,000.00	Construct a Limited-Access CNG Station	\$0.00	Yes
MS16105	Huntington Beach Union High School	3/3/2017	7/2/2024		\$175,000.00	\$175,000.00	Expansion of Existing CNG Infrastructure	\$0.00	Yes
MS16114	City of Norwalk	3/3/2017	6/2/2024		\$45,000.00	\$32,170.00	Purchase 3 Transit Buses	\$12,830.00	Yes
MS16116	Riverside Transit Agency	3/3/2017	1/2/2023		\$10,000.00	\$9,793.00	Purchase One Transit Bus	\$207.00	No

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
FY 201	6-2018 Contracts								
Open Con	racts								
ML18019	City of Hidden Hills	5/3/2018	5/2/2022		\$49,999.00	\$10,000.00	Purchase Two Light-Duty ZEVs and EVSE	\$39,999.00	No
ML18020	City of Colton	5/3/2018	4/2/2024		\$67,881.00	\$0.00	Purchase One Medium-Duty and One Heavy	\$67,881.00	No
ML18022	City of Desert Hot Springs	5/3/2018	1/2/2020		\$50,000.00	\$0.00	Traffic Signal and Synchronization Project	\$50,000.00	No
ML18028	City of Artesia	6/28/2018	3/27/2025		\$50,000.00	\$0.00	Install EVSE	\$50,000.00	No
ML18030	City of Grand Terrace	6/28/2018	3/27/2022	3/27/2025	\$45,000.00	\$0.00	Install EVSE	\$45,000.00	No
ML18031	City of Diamond Bar	9/7/2018	11/6/2025		\$73,930.00	\$0.00	Install EVSE, Purchase up to 2-LD Vehicles	\$73,930.00	No
ML18032	City of Arcadia	2/1/2019	4/30/2025		\$74,650.00	\$0.00	Purchase 1-HD ZEV & 1-HD Near-ZEV	\$74,650.00	No
ML18033	City of Duarte	8/8/2018	2/7/2025		\$50,000.00	\$0.00	Purchase 1-HD ZEV	\$50,000.00	No
ML18034	City of Calabasas	6/8/2018	3/7/2022		\$50,000.00	\$0.00	Install EVSE	\$50,000.00	No
ML18035	City of Westlake Village	8/8/2018	11/7/2022		\$50,000.00	\$0.00	Install EVSE	\$50,000.00	No
ML18036	City of Indian Wells	8/8/2018	5/7/2023		\$50,000.00	\$0.00	Install EVSE	\$50,000.00	No
ML18037	City of Westminster	6/28/2018	6/27/2024	12/27/2026	\$120,900.00	\$0.00	Install EVSE, Purchase up to 3-LD ZEV & 1-	\$120,900.00	No
ML18038	City of Anaheim	10/5/2018	5/4/2025		\$221,500.00	\$0.00	Purchase 5 Light-Duty ZEVs and Install EVS	\$221,500.00	No
ML18039	City of Redlands	6/28/2018	7/27/2024		\$87,000.00	\$0.00	Purchase 1 Medium/Heavy-Duty ZEV and In	\$87,000.00	No
ML18040	City of Agoura Hills	7/13/2018	6/12/2022		\$50,000.00	\$0.00	Install EV Charging Infrastructure	\$50,000.00	No
ML18041	City of West Hollywood	8/8/2018	12/7/2023		\$50,000.00	\$0.00	Install EV Charging Infrastructure	\$50,000.00	No
ML18043	City of Yorba Linda	9/7/2018	12/6/2023		\$87,990.00	\$0.00	Install EV Charging Infrastructure	\$87,990.00	No
ML18044	City of Malibu	8/8/2018	10/7/2022		\$50,000.00	\$0.00	Install EV Charging Infrastructure	\$50,000.00	No
ML18045	City of Culver City Transportation De	6/28/2018	6/27/2025		\$51,000.00	\$0.00	Purchase Eight Near-Zero Vehicles	\$51,000.00	No
ML18046	City of Santa Ana	11/9/2018	7/8/2026		\$385,000.00	\$0.00	Purchase 6 Light-Duty ZEVs, 9 Heavy-Duty	\$385,000.00	No
ML18047	City of Whittier	8/8/2018	4/7/2026		\$113,910.00	\$0.00	Purchase 5 Heavy-Duty Near ZEVs	\$113,910.00	No
ML18048	City of Lynwood	6/28/2018	10/27/2024		\$93,500.00	\$0.00	Purchase Up to 3 Medium-Duty Zero-Emissi	\$93,500.00	No
ML18049	City of Downey	7/6/2018	5/5/2023		\$148,260.00	\$0.00	Install EVSE	\$148,260.00	No
ML18050	City of Irvine	9/7/2018	8/6/2028		\$330,490.00	\$0.00	Purchase 1 Medium/Heavy-Duty ZEV and In	\$330,490.00	No
ML18052	City of Garden Grove	8/8/2018	10/7/2022		\$53,593.00	\$0.00	Purchase 4 L.D. ZEVs and Infrastructure	\$53,593.00	No
ML18053	City of Paramount	9/7/2018	3/6/2023		\$72,580.00	\$0.00	Install EV Charging Infrastructure	\$72,580.00	No
ML18054	City of La Habra Heights	8/8/2018	4/7/2022		\$9,200.00	\$0.00	Purchase 1 L.D. ZEV	\$9,200.00	No
ML18055	City of Long Beach Fleet Services B	11/29/2018	11/28/2026		\$622,220.00	\$0.00	Install EV Charging Stations	\$622,220.00	No
ML18057	City of Carson	10/5/2018	7/4/2023		\$106,250.00	\$0.00	Purchase 5 Zero-Emission Vehicles and Infr	\$106,250.00	No
ML18058	City of Perris	10/12/2018	11/11/2024		\$94,624.00	\$0.00	Purchase 1 Med. H.D. ZEV and EV Chargin	\$94,624.00	No
ML18059	City of Glendale Water & Power	2/1/2019	7/31/2026		\$260,500.00	\$0.00	Install Electric Vehicle Charging Infrastructur	\$260,500.00	No
ML18060	County of Los Angeles Internal Servi	10/5/2018	8/4/2026		\$1,367,610.00	\$0.00	Purchase 29 Light-Duty ZEVs, 1 Med/Heavy	\$1,367,610.00	No
ML18062	City of Beaumont	8/8/2018	9/7/2024		\$25,000.00	\$0.00	Purchase 1 Heavy-Duty Near-ZEV	\$25,000.00	No
ML18064	City of Eastvale	11/29/2018	4/28/2026		\$80,400.00	\$0.00	Purchase 2 Med. H.D. Zero Emission Vehicl	\$80,400.00	No

			Original	Amended	Contract			Award	Billing
Cont.#	Contractor	Start Date	End Date	End Date	Value	Remitted	Project Description	Balance	Complete?
ML18067	City of Pico Rivera	9/7/2018	11/6/2022		\$83,500.00	\$0.00	Instal EVSE	\$83,500.00	No
ML18070	City of Lomita	11/29/2018	6/28/2022		\$6,250.00	\$0.00	Purchase 1 Light-Duty ZEV	\$6,250.00	No
ML18071	City of Chino Hills	9/7/2018	10/6/2022		\$30,000.00	\$0.00	Purchase 2 Light-Duty ZEVs and Install EVS	\$30,000.00	No
ML18072	City of Anaheim	12/18/2018	11/17/2026		\$239,560.00	\$0.00	Purchase 9 Light-Duty ZEVs & 2 Med/Hvy-D	\$239,560.00	No
ML18074	City of Buena Park	12/14/2018	6/13/2026		\$107,960.00	\$0.00	EV Charging Infrastructure	\$107,960.00	No
ML18076	City of Culver City Transportation De	10/5/2018	10/4/2023		\$1,130.00	\$0.00	Purchase Light-Duty ZEV	\$1,130.00	No
ML18077	City of Orange	11/2/2018	10/1/2022		\$59,776.00	\$0.00	Four Light-Duty ZEV and EV Charging Infras	\$59,776.00	No
ML18078	County of Riverside	10/5/2018	10/4/2028		\$425,000.00	\$25,000.00	Purchase 17 Heavy-Duty Vehicles	\$400,000.00	No
ML18079	City of Pasadena	12/7/2018	11/6/2023		\$183,670.00	\$0.00	EV Charging Infrastructure	\$183,670.00	No
ML18080	City of Santa Monica	1/10/2019	12/9/2023		\$121,500.00	\$0.00	Install EV Charging Stations	\$121,500.00	No
ML18081	City of Beaumont	10/5/2018	10/4/2022		\$31,870.00	\$0.00	EV Charging Infrastructure	\$31,870.00	No
ML18083	City of San Fernando	11/2/2018	11/1/2022		\$20,000.00	\$0.00	Implement Traffic Signal Synchronization	\$20,000.00	No
ML18088	City of Big Bear Lake	11/29/2018	8/28/2020		\$50,000.00	\$0.00	Install Bicycle Trail	\$50,000.00	No
ML18091	City of Temecula	1/19/2019	7/18/2023		\$141,000.00	\$0.00	Install Sixteen EV Charging Stations	\$141,000.00	No
ML18092	City of South Pasadena	2/1/2019	1/31/2025		\$50,000.00	\$0.00	Procure Two Light-Duty ZEVs and Install EV	\$50,000.00	No
ML18093	City of Monterey Park	2/1/2019	2/28/2026		\$25,000.00	\$0.00	Purchase Heavy-Duty Near-ZEV	\$25,000.00	No
ML18095	City of Gardena	11/9/2018	12/8/2024		\$25,000.00	\$0.00	Purchase Heavy-Duty Near-ZEV	\$25,000.00	No
ML18097	City of Temple City	11/29/2018	7/28/2022		\$16,000.00	\$0.00	Purchase Two Light-Duty ZEVs	\$16,000.00	No
ML18098	City of Redondo Beach	2/1/2019	3/31/2023		\$89,400.00	\$0.00	Install Six EV Charging Stations	\$89,400.00	No
ML18101	City of Burbank	2/1/2019	4/30/2024		\$137,310.00	\$0.00	Install Twenty EV Charging Stations	\$137,310.00	No
ML18126	City of Lomita	12/7/2018	1/6/2020		\$26,500.00	\$0.00	Install bicycle racks and lanes	\$26,500.00	No
ML18127	City of La Puente	2/1/2019	2/28/2023		\$27,800.00	\$0.00	Purchase One Light-Duty ZEV, One Heavy-	\$27,800.00	No
ML18129	City of Yucaipa	12/14/2018	3/13/2023		\$63,097.00	\$0.00	Install Six EV Charging Stations	\$63,097.00	No
ML18133	City of Rancho Mirage	12/7/2018	11/6/2020		\$50,000.00	\$0.00	Traffic Signal Synchronization	\$50,000.00	No
ML18140	City of Bell Gardens	12/14/2018	12/13/2028		\$50,000.00	\$0.00	Purchase Two Heavy-Duty Near-ZEVs	\$50,000.00	No
ML18147	City of Palm Springs	1/10/2019	1/9/2024		\$60,000.00	\$0.00	Install Eighteen EV Charging Stations	\$60,000.00	No
ML18156	City of Covina	2/1/2019	3/31/2023		\$63,800.00	\$0.00	Purchase Four Light-Duty ZEVs and EV Cha	\$63,800.00	No
ML18165	City of Baldwin Park	2/1/2019	1/30/2024		\$49,030.00	\$0.00	Expand CNG Station	\$49,030.00	No
MS18001	Los Angeles County MTA	6/29/2017	4/30/2018		\$807,945.00	\$468,050.00	Provide Clean Fuel Transit Service to Dodge	\$339,895.00	No
MS18002	Southern California Association of G	6/9/2017	11/30/2018	12/30/2019	\$2,500,000.00	\$419,111.87	Regional Active Transportation Partnership	\$2,080,888.13	No
MS18003	Geographics	2/21/2017	2/20/2021		\$62,953.00	\$52,708.61	Design, Host and Maintain MSRC Website	\$10,244.39	No
MS18004	Orange County Transportation Autho	8/3/2017	4/30/2019		\$503,272.00	\$456,145.29	Provide Special Rail Service to Angel Stadiu	\$47,126.71	No
MS18005	Orange County Transportation Autho	1/5/2018	4/30/2019		\$834,222.00	\$405,709.29	Clean Fuel Bus Service to OC Fair	\$428,512.71	No
MS18006	Anaheim Transportation Network	10/6/2017	2/28/2020		\$219,564.00	\$9,488.22	Implement Anaheim Circulator Service	\$210,075.78	No
MS18008	Foothill Transit	1/12/2018	3/31/2019		\$100,000.00	\$49,406.61	Special Transit Service to LA County Fair	\$50,593.39	No
MS18009	Penske Truck Leasing Co., L.P.	8/8/2018	12/7/2020		\$82,500.00	\$0.00	Modify Maintenance Facility & Train Technici	\$82,500.00	No
MS18010	Southern California Regional Rail Au	12/28/2017	7/31/2019		\$351,186.00	\$148,570.20	Implement Special Metrolink Service to Unio	\$202,615.80	No
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Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
MS18012	City of Hermosa Beach	2/2/2018	2/1/2024		\$36,000.00	\$0.00	Construct New Limited-Access CNG Station	\$36,000.00	No
MS18014	Regents of the University of Californi	10/5/2018	12/4/2019		\$254,795.00	\$58,574.02	Planning for EV Charging Infrastructure Inve	\$196,220.98	No
MS18015	Southern California Association of G	7/13/2018	2/28/2021		\$2,000,000.00	\$0.00	Southern California Future Communities Par	\$2,000,000.00	No
MS18016	Southern California Regional Rail Au	1/10/2019	3/31/2019		\$87,764.00	\$73,140.89	Special Train Service to Auto Club Speedwa	\$14,623.11	No
MS18018	City of Norwalk	6/8/2018	9/7/2019		\$75,000.00	\$0.00	Vehicle Maintenance Facility Modifications	\$75,000.00	No
MS18023	Riverside County Transportation Co	6/28/2018	6/27/2021		\$500,000.00	\$60,720.54	Weekend Freeway Service Patrols	\$439,279.46	No
MS18024	Riverside County Transportation Co	6/28/2018	8/27/2021		\$1,500,000.00	\$148,825.00	Vanpool Incentive Program	\$1,351,175.00	No
MS18025	Los Angeles County MTA	11/29/2018	5/31/2019		\$1,324,560.00	\$0.00	Special Bus and Train Service to Dodger Sta	\$1,324,560.00	No
MS18026	Omnitrans	10/5/2018	1/4/2020		\$83,000.00	\$0.00	Modify Vehicles Maintenance Facility and Tr	\$83,000.00	No
MS18027	City of Gardena	11/2/2018	9/1/2026		\$365,000.00	\$0.00	Install New Limited Access CNG, Modify Mai	\$365,000.00	No
MS18029	Irvine Ranch Water District	8/8/2018	10/7/2024		\$190,000.00	\$0.00	Install New Limited Access CNG Station & T	\$190,000.00	No
MS18073	Los Angeles County MTA	1/10/2019	2/9/2026		\$2,000,000.00	\$0.00	Purchase 40 Zero-Emission Transit Buses	\$2,000,000.00	No
MS18105	Southern California Regional Rail Au	1/10/2019	6/30/2019		\$252,696.00	\$0.00	Special Train Service to the Festival of Light	\$252,696.00	No
MS18108	Capistrano Unified School District	2/1/2019	5/30/2025		\$116,000.00	\$0.00	Expansion of Existing Infrastructure & Train	\$116,000.00	No
MS18110	Mountain View Unified School Distric	2/1/2019	3/31/2025		\$275,000.00	\$0.00	Install New Limited-Access CNG Infrastructu	\$275,000.00	No
MS18112	Banning Unified School District	11/29/2018	11/28/2024		\$275,000.00	\$0.00	Install New CNG Infrastructure	\$275,000.00	No
MS18120	City of Redondo Beach	2/1/2019	9/30/2025		\$275,000.00	\$0.00	Install New Limited-Access CNG Infrastructu	\$275,000.00	No
MS18122	Universal Waste Systems, Inc.	2/1/2019	3/31/2025		\$200,000.00	\$0.00	Install New Limited Acess CNG Infrastructur	\$200,000.00	No
MS18123	City Rent A Bin DBA Serv-Wel Dispo	12/14/2018	2/13/2025		\$200,000.00	\$0.00	Install New Limited-Access CNG Infrastructu	\$200,000.00	No

Pending Ex	recution Contracts					
ML18051	City of Rancho Cucamonga	\$227	,040.00 \$0.00	Purchase 9 Light-Duty ZEVs, 2 Med-Duty Z	\$227,040.00	No
ML18056	City of Chino	\$103	,868.00 \$0.00	Install EV Charging Infrastructure	\$103,868.00	No
ML18061	City of Moreno Valley	\$25	,000.00 \$0.00	Purchase 1 Heavy-Duty Near-ZEV	\$25,000.00	No
ML18063	City of Riverside	\$383	,610.00 \$0.00	Expand Existing CNG Fueling Station	\$383,610.00	No
ML18068	City of Mission Viejo	\$125	,690.00 \$0.00	Purchase 2 Light-Duty ZEVs, Install EVSE &	\$125,690.00	No
ML18069	City of Torrance	\$187	,400.00 \$0.00	Purchase 4 Heavy-Duty Near ZEV and Instal	\$187,400.00	No
ML18082	City of Los Angeles Bureau of Sanita	\$900	,000.00 \$0.00	Purchase Medium-Duty Vehicles and EV Ch	\$900,000.00	No
ML18084	City of South El Monte	\$30	,000.00 \$0.00	EV Charging Infrastructure	\$30,000.00	No
ML18085	City of Orange	\$50	,000.00 \$0.00	Purchase Two Heavy-Duty Near-Zero Emiss	\$50,000.00	No
ML18086	City of Los Angeles Bureau of Street	\$300	,000.00 \$0.00	Install Sixty EV Charging Stations	\$300,000.00	No
ML18087	City of Murrieta	\$143	,520.00 \$0.00	Install Four EV Charging Stations	\$143,520.00	No
ML18089	City of Glendora	\$50	,760.00 \$0.00	Purchase a medium-duty ZEV	\$50,760.00	No
ML18090	City of Santa Clarita	\$122	,000.00 \$0.00	Install Eight EV Charging Stations	\$122,000.00	No
ML18094	City of Laguna Woods	\$50	,000.00 \$0.00	Install Two EV Charging Stations	\$50,000.00	No
ML18096	City of Highland	\$70	,210.00 \$0.00	Purchase Light-Duty ZEV and Install Three	\$70,210.00	No
ML18099	City of Laguna Hills	\$32	,250.00 \$0.00	Install Six EV Charging Stations	\$32,250.00	No

			Original	Amended	Contract			Award	Billing
Cont.#	Contractor	Start Date	End Date	End Date	Value	Remitted	Project Description	Balance	Complete?
ML18100	City of Brea				\$56,500.00	\$0.00	Install Thirteen EV Charging Stations	\$56,500.00	No
ML18128	City of Aliso Viejo				\$65,460.00	\$0.00	Purchase Two Light-Duty ZEVs and Install S	\$65,460.00	No
ML18130	City of Lake Forest				\$106,480.00	\$0.00	Install Twenty-One EVSEs	\$106,480.00	No
ML18131	City of Los Angeles				\$19,294.00	\$0.00	Purchase Three Light-Duty ZEVs	\$19,294.00	No
ML18132	City of Montclair				\$50,000.00	\$0.00	Puchase Light-Duty ZEV and Install Eight E	\$50,000.00	No
ML18134	City of Los Angeles, Department of				\$290,000.00	\$0.00	Purchase Five Medium-Duty ZEVs	\$290,000.00	No
ML18135	City of Azusa				\$55,000.00	\$0.00	Purchase Three Light-Duty ZEVs and One H	\$55,000.00	No
ML18136	City of Orange				\$42,500.00	\$0.00	Purchase Four Light-Duty ZEVs and Install	\$42,500.00	No
ML18137	City of Wildomar				\$50,000.00	\$0.00	Install Bicycle Trail	\$50,000.00	No
ML18138	City of La Canada Flintridge				\$50,000.00	\$0.00	Install Four EVSEs and Install Bicycle Racks	\$50,000.00	No
ML18139	City of Calimesa				\$50,000.00	\$0.00	Install Bicycle Lane	\$50,000.00	No
ML18141	City of Rolling Hills Estates				\$40,000.00	\$0.00	Purchase One Light-Duty ZEV and Install T	\$40,000.00	No
ML18142	City of La Quinta				\$51,780.00	\$0.00	Install Two EV Charging Stations	\$51,780.00	No
ML18143	City of La Habra				\$80,700.00	\$0.00	Install Two EVSEs	\$80,700.00	No
ML18144	City of Fontana				\$269,090.00	\$0.00	Install Twelve EVSEs	\$269,090.00	No
ML18145	City of Los Angeles Dept of Transpor				\$1,400,000.00	\$0.00	Provide One Hundred Rebates to Purchaser	\$1,400,000.00	No
ML18146	City of South Gate				\$127,400.00	\$0.00	Purchase Five Light-Duty ZEVs and Install T	\$127,400.00	No
ML18148	City of San Dimas				\$50,000.00	\$0.00	Implement Bike Share Program	\$50,000.00	No
ML18149	City of Sierra Madre				\$50,000.00	\$0.00	Implement Bike Share Program	\$50,000.00	No
ML18150	City of South El Monte				\$20,000.00	\$0.00	Implement Bike Share Program	\$20,000.00	No
ML18151	County of San Bernardino Departme				\$200,000.00	\$0.00	Purchase Eight Heavy-Duty Near Zero Emis	\$200,000.00	No
ML18152	County of San Bernardino Flood Con				\$108,990.00	\$0.00	Purchase Five Heavy-Duty Near Zero Emissi	\$108,990.00	No
ML18153	City of Cathedral City				\$52,215.00	\$0.00	Install EV Charging Infrastructure	\$52,215.00	No
ML18154	City of Hemet				\$30,000.00	\$0.00	Purchase Two Light-Duty ZEV and EV Char	\$30,000.00	No
ML18155	City of Claremont				\$50,000.00	\$0.00	Install EV Charging Infrastructure	\$50,000.00	No
ML18157	City of Los Angeles Bureau of Street				\$85,000.00	\$0.00	Purchase One Medium-Duty ZEV	\$85,000.00	No
ML18158	City of Inglewood				\$146,000.00	\$0.00	Purchase 4 Light-Duty Zero Emission, 4 Me	\$146,000.00	No
ML18159	City of Rialto				\$135,980.00	\$0.00	Purchase Nine Light-Duty ZEVs and EV Cha	\$135,980.00	No
ML18160	City of Irwindale				\$14,263.00	\$0.00	Purchase Two Light-Duty ZEVs	\$14,263.00	No
ML18161	City of Indio				\$50,000.00	\$0.00	Purchase 1 Light-Duty Zero Emission, 1 Hea	\$50,000.00	No
ML18162	City of Costa Mesa				\$148,210.00	\$0.00	Purchase Four Light-Duty ZEVs and EV Cha	\$148,210.00	No
ML18163	City of San Clemente				\$85,000.00	\$0.00	Purchase Three Light-Duty ZEVs and EV Ch	\$85,000.00	No
ML18164	City of Pomona				\$200,140.00	\$0.00	Purchase Three Heavy-Duty ZEVs	\$200,140.00	No
ML18166	City of Placentia				\$25,000.00	\$0.00	Purchase One Heavy-Duty Near-Zero Emiss	\$25,000.00	No
ML18167	City of Beverly Hills				\$50,000.00	\$0.00	Purchase Two Heavy-Duty Near-Zero Emiss	\$50,000.00	No
ML18168	City of Maywood			1	\$7,059.00	\$0.00	Purchase EV Charging Infrastructure	\$7,059.00	No
ML18169	City of Alhambra			1	\$111,980.00	\$0.00	Install EV Charging Infrastructure	\$111,980.00	No

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
ML18170	City of Laguna Niguel				\$85,100.00	\$0.00	Purchase Two Light-Duty ZEVs and EV Cha	\$85,100.00	No
ML18171	City of El Monte				\$119,757.00	\$0.00	Purchase One Heavy-Duty ZEVs and EV Ch	\$119,757.00	No
ML18172	City of Huntington Park				\$65,450.00	\$0.00	Purchase One Heavy-Duty ZEV	\$65,450.00	No
ML18173	City of Manhattan Beach				\$49,000.00	\$0.00	Purchase Two Light-Duty ZEVs and EV Cha	\$49,000.00	No
ML18174	City of Bell				\$25,000.00	\$0.00	Purchase One Heavy-Duty ZEV	\$25,000.00	No
ML18176	City of Coachella				\$58,020.00	\$0.00	Install EV Charging Stations	\$58,020.00	No
ML18177	City of San Bernardino				\$279,088.00	\$0.00	Purchase Medium- and Heavy-Duty Evs and	\$279,088.00	No
ML18178	City of La Puente				\$25,000.00	\$0.00	Purchase One Heavy-Duty Near-Zero Emiss	\$25,000.00	No
MS18065	San Bernardino County Transportatio				\$2,000,000.00	\$0.00	Implement Metrolink Line Fare Discount Pro	\$2,000,000.00	No
MS18066	El Dorado National				\$100,000.00	\$0.00	Install New Limited-Access CNG Station	\$100,000.00	No
MS18102	Orange County Transportation Autho				\$1,146,000.00	\$0.00	Implement OC Flex Micro-Transit Pilot Proje	\$1,146,000.00	No
MS18103	Orange County Transportation Autho				\$642,000.00	\$0.00	Install Hydrogen Detection System	\$642,000.00	No
MS18104	Orange County Transportation Autho				\$212,000.00	\$0.00	Implement College Pass Transit Fare Subsi	\$212,000.00	No
MS18106	R.F. Dickson Co., Inc.				\$265,000.00	\$0.00	Expansion of Existing Infrastructure/Mechani	\$265,000.00	No
MS18107	Huntington Beach Union High School				\$225,000.00	\$0.00	Expansion of Existing Infrastructure	\$225,000.00	No
MS18109	City of South Gate				\$175,000.00	\$0.00	Install New Limited-Access CNG Infrastructu	\$175,000.00	No
MS18111	Newport-Mesa Unified School Distric				\$175,000.00	\$0.00	Expansion of Existing CNG Infrastructure	\$175,000.00	No
MS18114	Los Angeles County Department of P				\$175,000.00	\$0.00	Install New Limited-Access CNG Infrastructu	\$175,000.00	No
MS18115	City of Commerce				\$275,000.00	\$0.00	Expansion of Existing L/CNG Infrastructure	\$275,000.00	No
MS18116	Los Angeles County Department of P				\$175,000.00	\$0.00	Install New Limited-Access CNG Infrastructu	\$175,000.00	No
MS18117	City of San Bernardino				\$240,000.00	\$0.00	Expansion of Existing CNG Infrastructure/Me	\$240,000.00	No
MS18118	City of Beverly Hills				\$85,272.00	\$0.00	Expansion of Existing CNG Infrastructure	\$85,272.00	No
MS18119	LBA Realty Company XI LP				\$100,000.00	\$0.00	Install New Limited-Access CNG Infrastructu	\$100,000.00	No
MS18121	City of Montebello				\$70,408.00	\$0.00	Expansion of Existing CNG Infrastructure	\$70,408.00	No
MS18124	County Sanitation Districts of Los An				\$275,000.00	\$0.00	Install New Limited-Access CNG Infrastructu	\$275,000.00	No
MS18125	US Gain				\$200,000.00	\$0.00	Install New Limited-Access CNG Infrastructu	\$200,000.00	No
MS18175	Regents of the University of Californi				\$1,000,000.00	\$0.00	Expansion of Existing Hydrogen Station	\$1,000,000.00	No
Total: 80			1	1	-	1		-	1
Declined/C	ancelled Contracts								
ML18075	City of Orange				\$25,000.00	\$0.00	One Heavy-Duty Vehicle	\$25,000.00	No

ML18075	City of Orange		\$25,000.00	\$0.00	One Heavy-Duty Vehicle	\$25,000.00	No
MS18013	California Energy Commission		\$3,000,000.00	\$0.00	Advise MSRC and Administer Hydrogen Infr	\$3,000,000.00	No
MS18017	City of Banning		\$225,000.00	\$0.00	Expansion of Existing CNG Infrastructure	\$225,000.00	No
MS18113	City of Torrance		\$100,000.00	\$0.00	Expansion of Existing CNG Infrastructure	\$100,000.00	No
Total: 4	•	· · · · ·	·	·			

Closed Con	tracts							
MS18011	Southern California Regional Rail Au	2/9/2018	6/30/2018	\$239,565.00	\$221,725.12	Special Train Service to Festival of Lights	\$17,839.88	Yes

Cont.# Total: 1	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
	plete Contracts								
ML18021	City of Signal Hill	4/6/2018	1/5/2022		\$49,661.00	\$46,079.31	Install EVSE	\$3,581.69	Yes
ML18042	City of San Fernando	6/28/2018	2/27/2024		\$10,000.00	\$10,000.00	Purchase 1 Light-Duty ZEV	\$0.00	Yes



BOARD MEETING DATE: April 5, 2019

AGENDA NO. 23

REPORT: California Air Resources Board Monthly Meeting

SYNOPSIS: The California Air Resources Board met on February 21, 2019 and on March 21, 2019 in Sacramento, CA. The following are summaries of the meetings.

RECOMMENDED ACTION: Receive and file.

Judith Mitchell, Member SCAQMD Governing Board

dg

The California Air Resources Board's (CARB or Board) held a meeting on February 21, 2019 in Sacramento at the at the California Environmental Protection Agency Headquarters Building. Key items presented are summarized below.

CONSENT ITEMS

19-2-1: Public Meeting to Consider One Research Proposal

The Board approved a research proposal titled "Off-Road Diesel Low-Emission Demo for NOx, Particulate Matter and Toxics". This proposal from the Southwest Research Institute was developed in response to the Board's FY 2019-2020 research projects.

19-2-3: Public Hearing to Consider Proposed 2018 Amendments to Area Designations for State Ambient Air Quality Standards

The Board adopted amendments to the regulations designating areas of California as attainment, nonattainment, nonattainment-transitional, or unclassified for pollutants with state ambient air quality standards. Based on 2015 to 2017 air quality data, the Board changed the designations of four areas in California for the state ozone and nitrogen dioxide standards. The Board separated the Sutter Buttes area from the

remainder of Sutter County and designated the portion of Sutter County outside of the Sutter Buttes area as attainment for the state ozone standard while the Sutter Buttes area will remain nonattainment. The Board also redesignated the North Central Coast Air Basin and the Solano and Yolo counties in the Sacramento Valley Air Basin from nonattainment to nonattainment-transitional for the state ozone standard. In regard to the state nitrogen dioxide standard, the Board separated the area that runs along the CA-60 corridor through portions of Riverside, San Bernardino, and Los Angeles counties from the remainder of the South Coast Air Basin and designated this corridor as nonattainment while the remainder of the South Coast Air Basin will remain attainment for the California nitrogen dioxide standard.

DISCUSSION ITEMS

19-2-4: The 2018 Haagen-Smit Clean Air Awards

The Board presented the 2018 Haagen-Smit Clean Air Awards. The awards are presented annually to esteemed scientists, legislators, professors, activists, business leaders and others who have made significant contributions toward improving air quality, public health, and our understanding of climate change matters. The 2018 award recipients are: Paul Crutzen, Ph.D., for ground breaking research in the atmospheric chemistry of ozone; Anne Douglass, Ph.D., for her advancement of modeling the chemical and climate processes that control ozone in the earth's atmosphere; Hal Harvey for elevating the practice of strategic philanthropy in the service of climate change mitigation; Barry Wallerstein, D. Env., for more than 30 years of service improving the respiratory health of 17 million Californians in the South Coast Air Basin; and John Watson, Ph.D., for his seminal contributions to the science and technology of air pollution measurement, characterization and monitoring.

19-2-5: Public Hearing to Consider Proposed Alternative Certification Requirements and Test Procedures for Heavy-Duty Electric and Fuel-Cell Vehicles and Proposed Standards and Test Procedures for Zero-Emission Powertrains (Zero-Emission Powertrain Certification Regulation)

This was the first of two hearings on the Zero-Emission Powertrain Certification Regulation (Certification Regulation). The Certification Regulation establishes a new, optional certification pathway for heavy-duty electric and fuel-cell vehicles and the zero-emission powertrains utilized by these vehicles. The Certification Regulation will help reduce variability in the quality and reliability of heavy-duty electric and fuel cell vehicles, ensure information regarding the vehicles and their powertrains are effectively and consistently communicated to purchasers, and accelerate progress towards greater vehicle repairability.

19-2-6: Public Hearing to Consider the Proposed Zero-Emission Airport Shuttle Regulation

This was the first of two planned Board hearings to consider approval of the Zero-Emission Airport Shuttle Regulation (Regulation). The Regulation will transition combustion powered airport shuttles that serve California's commercial airports to zero-emission vehicles (ZEVs). The proposed Regulation will require fixed route airport shuttles that serve California's 13 largest airports to transition to 100 percent ZEVs by 2035. The proposed regulation would apply to public and private fleets, including operators of parking facilities, rental car agencies, and hotels. For 2026 and later model years, heavy-duty ZEV airport shuttles will be required to certify to the proposed Enhanced Zero-Emission Powertrain Certification requirements. The proposed In-Use Fleet composition element of the regulation will require at least 33 percent of the fleet must be ZEVs by December 31, 2027; at least 66 percent of the fleet must be ZEVs by December 31, 2031; and 100 percent of the fleet must be ZEVs by December 31, 2035.

SCAQMD Staff Comments/Testimony: Staff testified in support of the proposed regulation for transitioning airport shuttle fleets to 100 percent zero-emission technology by 2035. The proposed regulation will implement one of the key measures of CARB's 2016 SIP Strategy and SCAQMD's 2016 AQMP, and will also further facilitate the development and deployment of zero-emission technologies for other heavy-duty vehicle sectors. Staff also indicated that SCAQMD is currently in the process of developing MOUs with the commercial airports in South Coast Air Basin to help achieve the emission reduction goals established in SCAQMD's 2016 AQMP and the State SIP Strategy. The airport MOUs will complement the proposed regulation for airport shuttles.

19-2-8: Public Meeting to Hear an Informational Update on the 2017 Scoping Plan Implementation

The Board heard an informational update on the implementation status of key strategies included in the 2017 Scoping Plan Update (Scoping Plan). The 2017 Scoping Plan laid out a path to achieve the Senate Bill (SB) 32 greenhouse gas (GHG) reduction target of 40 percent below 1990 emissions by 2030. In 2018, the Board took several actions that implement aspects of the Scoping Plan, many of which were associated with reducing GHG emissions in the transportation sector. These actions included establishing GHG planning targets for the electricity sector and updating GHG emission reduction targets for Sustainable Communities Strategies developed by each of the state's Metropolitan Planning Organizations. Regulatory actions included establishing a more stringent carbon intensity reduction target in the Low Carbon Fuel Standard, developing post-2020 adjustments to the California Cap on GHG Emissions and Market-Based Compliance Mechanisms, and adopting a regulation prohibiting high-Global Warming

Potential hydrofluorocarbons in stationary refrigeration and foam end uses. CARB staff also discussed with the Board efforts in 2019 focusing on achieving carbon neutrality.

19-2-9: Public Meeting to Hear an Informational Update on Senate Bill 375 Pilot Project for Sacramento Area Council of Governments

The Board heard a presentation from the Executive Director of the Sacramento Area Council of Governments (SACOG), James Corless, on innovative actions and targeted incentives to overcome implementation challenges of SACOG's SB 375 Sustainable Communities Strategy, and to achieve greater regional greenhouse gas emissions reductions in order to meet SACOG's SB 375 target.

The California Air Resources Board's (CARB or Board) held a meeting on March 21, 2019 in Sacramento at the California Environmental Protection Agency Headquarters Building. Key items presented are summarized below.

DISCUSSION ITEMS

19-3-4: Public Meeting to Consider the Proposed Research Projects for Fiscal Year 2019-2020 and an Update on the Implementation of the Triennial Strategic Research Plan

The Board approved the Proposed Research Projects for Fiscal Year 2019-2020. For Fiscal Year 2019-20, the Board approved four broad-scope projects that will each cover multiple priority research initiatives. These projects are designed to inform policies to ensure that health and other co-benefits are realized in all communities, inform how forest management practices could minimize the impacts of wildfire on health and air quality, and develop long-term strategies to reduce the greenhouse gas emissions associated with automated and shared mobility options. The Board also directed staff to develop three white papers that will analyze the state of the science and identify research gaps for emerging priority areas to shape future research projects.

19-3-2: Public Meeting to Hear an Informational Update on California's Actions to Minimize Community Health Impacts from Freight

The Board heard an informational update on California's actions to minimize emissions and community health impacts from California's freight system. Transitioning to a less-polluting and more efficient freight transport system is essential to meeting CARB's air pollution and climate goals. The Board heard that CARB's freight actions are designed to reduce community health risk as required by Assembly Bill (AB) 617, support attainment of regional air quality standards as required by the federal Clean Air Act and reduce emissions of greenhouse gases as required by AB 32 and AB 398. Specifically, the latest actions included regulatory development, incentives, plans, and guidance on freight facilities. All of these actions are designed to achieve emission reductions in the most impacted areas and support the transition to zero-emission equipment everywhere feasible and near-zero emission equipment powered by clean, low-carbon renewable fuels everywhere else. Staff also provided an overview of community outreach and advocacy, and other freight initiatives to support the State's overall economic health and transition to a sustainable freight transport system.

19-3-1: Public Meeting to Hear an Informational Update on Assembly Bill 617 Community Air Protection Program

The Board heard an informational update on implementation of AB 617, the Community Air Protection Program. In September 2018, the Board approved the selection of the first communities required to develop community air monitoring plans and/or community emissions reduction programs. Staff's presentation provided a status update on implementation of the Community Air Protection Program including efforts developing tools in support of AB 617, and progress in the initial ten communities. CARB staff also updated the Board on the progress of work with the local community members, air districts, environmental justice organizations, industry, and other interested stakeholders, and the considerations for the community selection process for the second year of the program.

SCAQMD Staff Comments/Testimony: Members of the Board asked SCAQMD staff to share best practices that have been successful in their Steering Committee Meetings. Staff testified that the following practices have been useful in the meetings: 1) streaming the meetings via Facebook Live; 2) utilizing co-hosts and/or facilitators at the meetings; and 3) including breakout sessions within the meetings. He also noted that staff documents all suggestions made by the committee and prepares meeting summaries that are posted on the SCAQMD website.

19-3-3: Public Meeting to Consider an Update on CARB Response to Senate Bill 150 Report Findings

The Board heard a presentation by CARB staff on potential actions developed in response to the findings contained in the 2018 Progress Report: California Sustainable Communities and Climate Protection Act (2018 Progress Report). SB 150 requires CARB to develop a report to the Legislature beginning in 2018 and updated every four years thereafter that assesses progress towards meeting regional greenhouse reduction targets as required under SB 375. The 2018 Progress Report found that California is not on track to meet the greenhouse gas reductions expected for 2020, and that emissions from statewide passenger vehicle travel per capita are increasing rather than falling.

Staff has identified key efforts through which CARB can respond to the report's call for significant structural changes that address the interconnected relationship of land use, housing, economic development, transportation investments, and travel choices. The Board directed CARB staff to return to the Board with an update on these efforts by the end of 2020.

Attachment

CARB February 21 and March 21, 2019 Meeting Agendas



PUBLIC MEETING AGENDA

Thursday, February 21, 2019

Webcast

LOCATION:

California Environmental Protection Agency California Air Resources Board Byron Sher Auditorium, 2nd Floor 1001 I Street Sacramento, California 95814

This facility is accessible by public transit. For transit information, call (916) 321-BUSS, website: <u>http://www.sacrt.com</u> (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 <u>February 21, 2019</u> 9:00 a.m.

CONSENT CALENDAR:

The following items on the consent calendar will be presented to the Board immediately after the start of the public meeting, unless removed from the consent calendar either upon a Board member's request or if someone in the audience wishes to speak.

Consent Items

19-2-1: Public Meeting to Consider One Research Proposal

The Board will consider approval of one research proposal that was developed in response to the Board approved research projects for Fiscal Year 2019-2020.

1. "Off-Road Diesel Low-Emission Demo for NOx, Particulate Matter and Toxics," Southwest Research Institute, RFP No. 18RD006

More Information

Proposed Resolution

19-2-2: Public Meeting to Consider the South Coast PM2.5 Contingency Measure

**This item was removed from the Public Agenda on 2/13.

19-2-3: Public Hearing to Consider Proposed 2018 Amendments to Area Designations for State Ambient Air Quality Standards

The Board will consider the proposed amendments to the regulations designating areas of California as attainment, nonattainment, nonattainment-transitional, or unclassified for pollutants with State ambient air quality standards. Based on 2015 to 2017 air quality data, a total of four changes to area designations are proposed for ozone and NO2.

More Information

Proposed Resolution

DISCUSSION ITEMS:

Note: The following agenda items may be heard in a different order at the Board meeting.

Agenda Items

19-2-4: The 2018 Haagen-Smit Clean Air Awards

The recipients of the 2018 Haagen-Smit Clean Air Awards will be presented with their awards. The Board annually presents the Haagen-Smit Clean Air Awards to esteemed persons in the air quality and climate change community – scientists, legislators, professors, activists, business leaders, and others who have made significant contributions toward improving air quality, public health, and our understanding of climate change issues.

More Information

Staff Presentation

19-2-5: Public Hearing To Consider Proposed Alternative Certification Requirements and Test Procedures for Heavy-Duty Electric and Fuel-Cell Vehicles and Proposed Standards and Test Procedures for Zero-Emission Powertrains (Zero-Emission Powertrain Certification Regulation)

The Board will consider staff's proposal for the Zero-Emission Powertrain Certification Regulation, which would establish a new, optional certification pathway for heavy-duty electric and fuel-cell vehicles and the zero-emission powertrains they use. The proposal would help reduce variability in the quality and reliability of heavy-duty electric and fuel cell vehicles, ensure information regarding the vehicles and their powertrains are effectively and consistently communicated to purchasers, and accelerate progress towards greater vehicle reparability. This hearing will be the first of two planned Board hearings.

More Information

Staff Presentation

19-2-6: Public Hearing to Consider the Proposed Zero-Emission Airport Shuttle Regulation

The Board will consider staff's proposal for the Zero-Emission Airport Shuttle Regulation that will transition combustion powered airport shuttles to zero-emission vehicles. The proposed regulation will apply to private and public fixed destination shuttles that serve California's commercial airports. This hearing will be the first of two planned Board hearings.

More Information

Staff Presentation

19-2-8: Public Meeting to Hear an Informational Update on the 2017 Scoping Plan Implementation

The Board will hear an informational update on the implementation status of key strategies included in the 2017 Scoping Plan Update, which lays out the path to achieve the Senate Bill 32 greenhouse gas reduction target of 40 percent below 1990 emissions by 2030. The 2017 Scoping Plan Update was adopted by the Board in December 2017.

More Information

Staff Presentation

19-2-9: Public Meeting to Hear an Informational Update on Senate Bill 375 Pilot Project for Sacramento Area Council of Governments

The Board will hear a guest presentation from the Executive Director of the Sacramento Area Council of Governments (SACOG), James Corless, on innovative actions and targeted incentives to overcome implementation challenges of SACOG's Senate Bill 375 Sustainable Communities Strategy, and achieve greater regional greenhouse gas emissions reductions.

More Information

Guest Presentation

CLOSED SESSION

The Board may hold a closed session, as authorized by Government Code section 11126(e), to confer with, and receive advice from, its legal counsel regarding the following pending or potential litigation, and as authorized by Government Code section 11126(a):

American Fuels and Petrochemical Manufacturers, et al. v. Jane O'Keeffe, et al., U.S. District Court (D. Ore. Portland), Case No. 3:15-CV-00467; Plaintiffs' appeal, U.S. Court of Appeals, Ninth Circuit, Case No. 15-35834.

California Air Resources Board v. United States Environmental Protection Agency, U.S. Court of Appeals, District of Columbia Circuit, Case No. 18-1085.

Electric Power Supply Association, et al. v. Star, et al., U.S. Court of Appeals, Seventh Circuit, Case No. 17-2445.

POET, LLC, et al. v. California Air Resources Board, et al., Fresno County Superior Court, 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. 12-15131.

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.

State of California, et al. v. United States Environmental Protection Agency, U.S. Court of Appeals, District of Columbia Circuit, Case No. 18-1114.

State of California, et al. v. United States Bureau of Land Management, et al., U.S. District Court, Northern District of California Circuit, Case No. 3:17-cv-07186-WHO.

State of New York, et al. v. United States Environmental Protection Agency, U.S. District Court, District of Columbia, Case No. 1:18-cv-00773.

State of North Dakota, et al. v. United States Environmental Protection Agency, U.S. Court of Appeals, District of Columbia Circuit, Case No. 16-1242.

State of North Dakota v. United States Environmental Protection Agency, U.S. Court of Appeals, District of Columbia Circuit, Case No. 15-1381.

State of West Virginia et al. v. United States Environmental Protection Agency, U.S. Court of Appeals, District of Columbia Circuit, Case No. 15-1363.

State of Wyoming, et al. v. United States Department of the Interior, et al., U.S. District Court, District of Wyoming, Case No. 16-CV-285-SWS.

The Two Hundred, et al. v. California Air Resources Board, et al., Fresno County Superior Court, Case No. 18CECG01494.

Truck Trailer Manufacturers Association, Inc. v. United States Environmental Protection Agency, et al., U.S. Court of Appeals, District of Columbia Circuit, Case No. 16-1430.

Valero Refining Co. California v. Hearing Board of the Bay Area Air Quality Management District et al., Court of Appeal, First Appellate District, Case No. A151004.

Alliance for California Business v. California Air Resources Board, et al., Glenn County Superior Court, Case No. 13CV01232; plaintiffs' appeal, Court of Appeal, Third District, Case No. C082828.

Alliance for California Business v. California State Transportation Agency, et al., Sacramento County Superior Court, Case No. 34-2016-80002491.

American Coatings Association, Inc. v. State of California and California Air Resources Board, Sacramento County Superior Court, Case No. 04CS01707.

Dalton Trucking, Inc. v. United States Environmental Protection Agency, U.S. Court of Appeals, District of Columbia Circuit, Case No. 13-1283 (dismissed), U.S. Court of Appeals, Ninth Circuit, Case No. 13-74019.

John R. Lawson Rock & Oil, Inc. et al. v. California Air Resources Board et al., Fresno County Superior Court, Case No. 14-CECG01494; ARB's appeal, Court of Appeal, Fifth District, Case No. F074003.

Murray Energy Corporation v. United States Environmental Protection Agency, U.S. Court of Appeals, District of Columbia Circuit, Case No. 15-1385.

State of California, et al. v. United States Environmental Protection Agency et al., U.S. District Court, Northern District of California, Oakland Division, Case No. 4:17-cv-6936-HSG.

State of New York, et al. v. United States Environmental Protection Agency et al., U.S. Court of Appeals, District of Columbia Circuit, Case No. 17-1185.

People v. Southern California Gas Company, Los Angeles Superior Court, Case No. BC 602973.

In re: Volkswagen "Clean Diesel" MDL, United States District Court, Northern District of California, Case No. 15-MD-2672-CRB (JSC).

Friends of Oceano Dunes, Inc. v. California Coastal Commission, et al., San Luis Obispo County Superior Court, Case No. 17CV-0576; U.S. District Court for the Central District of California, Case No. 2:17-cv-8733

California Air Resources Board v. Fiat Chrysler Automobiles N.V. and FCA US LLC, United States District Court, Northern District of California, Case No. 3:19-cv-00151.

OPPORTUNITY FOR MEMBERS OF THE BOARD TO COMMENT ON MATTERS OF INTEREST

Board members may identify matters they would like to have noticed for consideration at future meetings and comment on topics of interest; no formal action on these topics will be taken without further notice.

OPEN SESSION TO PROVIDE AN OPPORTUNITY FOR MEMBERS OF THE PUBLIC TO ADDRESS THE BOARD ON SUBJECT MATTERS WITHIN THE JURISDICTION OF THE BOARD

Although no formal Board action may be taken, the Board is allowing an opportunity to interested members of the public to address the Board on items of interest that are within the Board's jurisdiction, but that do not specifically appear on the agenda. Each person will be allowed a maximum of three minutes to ensure that everyone has a chance to speak.

TO ELECTRONICALLY SUBMIT WRITTEN COMMENTS ON AN AGENDA ITEM IN ADVANCE OF THE MEETING GO TO:

https://www.arb.ca.gov/lispub/comm/bclist.php

(Note: not all agenda items are available for electronic submittals of written comments.)

PLEASE NOTE: No outside memory sticks or other external devices may be used at any time with the Board audio/visual system or any CARB computers. Therefore, PowerPoint presentations to be displayed at the Board meeting must be electronically submitted via email to the Clerk of the Board at <u>cotb@arb.ca.gov</u> no later than noon on the business day prior to the scheduled Board meeting.

IF YOU HAVE ANY QUESTIONS, PLEASE CONTACT THE CLERK OF THE BOARD: 1001 I Street, 23rd Floor, Sacramento, California 95814 (916) 322-5594

CARB Homepage: <u>www.arb.ca.gov</u>

SPECIAL ACCOMMODATION REQUEST

Consistent with California Government Code Section 7296.2, special accommodation or language needs may be provided for any of the following:

- An interpreter to be available at the hearing;
- Documents made available in an alternate format or another language;
- A disability-related reasonable accommodation.

To request these special accommodations or language needs, please contact the Clerk of the Board at (916) 322-5594 or by facsimile at (916) 322-3928 as soon as possible, but no later than 7 business days before the scheduled Board hearing. TTY/TDD/Speech to Speech users may dial 711 for the California Relay Service.

Consecuente con la sección 7296.2 del Código de Gobierno de California, una acomodación especial o necesidades lingüísticas pueden ser suministradas para cualquiera de los siguientes:

- Un intérprete que esté disponible en la audiencia
- Documentos disponibles en un formato alterno u otro idioma
- Una acomodación razonable relacionados con una incapacidad

Para solicitar estas comodidades especiales o necesidades de otro idioma, por favor llame a la oficina del Consejo al (916) 322-5594 o envié un fax a (916) 322-3928 lo más pronto posible, pero no menos de 7 días de trabajo antes del día programado para la audiencia del Consejo. TTY/TDD/Personas que necesiten este servicio pueden marcar el 711 para el Servicio de Retransmisión de Mensajes de California.

SMOKING IS NOT PERMITTED AT MEETINGS OF THE CALIFORNIA AIR RESOURCES BOARD



PUBLIC MEETING AGENDA

REVISED 3/19/2019 Thursday,

March 21, 2019

LOCATION:

California Environmental Protection Agency California Air Resources Board Byron Sher Auditorium, 2nd Floor 1001 I Street Sacramento, California 95814

This facility is accessible by public transit. For transit information, call (916) 321-BUSS, website: <u>http://www.sacrt.com</u> (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 <u>March 21, 2019</u> 9:00 a.m.

DISCUSSION ITEMS:

Note: The following agenda items may be heard in a different order at the Board meeting.

Agenda Items

19-3-4: Public Meeting to Consider the Proposed Research Projects for Fiscal Year 2019-2020 and an Update on the Implementation of the Triennial Strategic Research Plan

The Board will consider approval of the Proposed Research for Fiscal Year 2019-2020. These research projects will advance the state of the science and support the Board's efforts to meet California's air quality and climate goals. If the Proposed Research is approved by the Board, staff will work with our research partners to develop full proposals and return to the Board to request approval and funding for each project.

More Information

Staff Presentation

19-3-2: Public Meeting to Hear an Informational Update on California's Actions to Minimize Community Health Impacts from Freight

Spanish translation will be provided at the Board Meeting for this item, Item 19-3-2.

The Board will hear an informational update on California's actions to minimize emissions and community health impacts from California's freight system, including regulatory development, incentives, plans, and guidance on freight facilities.

More Information

Staff Presentation

19-3-1: Public Meeting to Hear an Informational Update on Assembly Bill 617 Community Air Protection Program

Spanish translation will be provided at the Board Meeting for this item, Item 19-3-1.

In September 2018, the California Air Resources Board (CARB or Board) approved the selection of the first ten communities to develop community air monitoring plans and/or

Community Emissions Reduciton Programs under the Community Air Protection Program adopted pursuant to Assembly Bill (AB) 617 (C. Garcia, Chapter 136, Statutes of 2017). The presentation will provide the status of that implementation, CARB staff's efforts in developing tools in support of AB 617, and the community selection process for the second year.

More Information

Staff Presentation

19-3-3: Public Meeting to Consider an Update on CARB Response to Senate Bill 150 Report Findings

Spanish translation will be provided at the Board Meeting for this item, Item 19-3-3.

The Board will hear and discuss CARB staff work being undertaken in response to the findings contained in the 2018 Progress Report: California Sustainable Communities and Climate Protection Act, required under Senate Bill (SB) 150 (Allen, Chapter 646, Statutes of 2017). This report assesses the progress made toward meeting regional greenhouse reduction targets under SB 375 (Steinberg, Chapter 728, Statutes of 2008) and discusses topics related to meeting the targets.

More Information

Staff Presentation

CLOSED SESSION

The Board may hold a closed session, as authorized by Government Code section 11126(e), to confer with, and receive advice from, its legal counsel regarding the following pending or potential litigation, and as authorized by Government Code section 11126(a):

American Fuels and Petrochemical Manufacturers, et al. v. Jane O'Keeffe, et al., U.S. District Court (D. Ore. Portland), Case No. 3:15-CV-00467; Plaintiffs' appeal, U.S. Court of Appeals, Ninth Circuit, Case No. 15-35834.

California Air Resources Board v. United States Environmental Protection Agency, U.S. Court of Appeals, District of Columbia Circuit, Case No. 18-1085.

Electric Power Supply Association, et al. v. Star, et al., U.S. Court of Appeals, Seventh Circuit, Case No. 17-2445.

POET, LLC, et al. v. California Air Resources Board, et al., Fresno County Superior Court, 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. 12-15131.

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.

State of California, et al. v. United States Environmental Protection Agency, U.S. Court of Appeals, District of Columbia Circuit, Case No. 18-1114.

State of California, et al. v. United States Bureau of Land Management, et al., U.S. District Court, Northern District of California Circuit, Case No. 3:17-cv-07186-WHO.

State of New York, et al. v. United States Environmental Protection Agency, U.S. District Court, District of Columbia, Case No. 1:18-cv-00773.

State of North Dakota, et al. v. United States Environmental Protection Agency, U.S. Court of Appeals, District of Columbia Circuit, Case No. 16-1242.

State of North Dakota v. United States Environmental Protection Agency, U.S. Court of Appeals, District of Columbia Circuit, Case No. 15-1381. State of West Virginia et al. v. United States Environmental Protection Agency, U.S. Court of Appeals, District of Columbia Circuit, Case No. 15-1363.

State of Wyoming, et al. v. United States Department of the Interior, et al., U.S. District Court, District of Wyoming, Case No. 16-CV-285-SWS.

The Two Hundred, et al. v. California Air Resources Board, et al., Fresno County Superior Court, Case No. 18CECG01494.

Truck Trailer Manufacturers Association, Inc. v. United States Environmental Protection Agency, et al., U.S. Court of Appeals, District of Columbia Circuit, Case No. 16-1430.

Valero Refining Co. California v. Hearing Board of the Bay Area Air Quality Management District et al., Court of Appeal, First Appellate District, Case No. A151004.

Alliance for California Business v. California State Transportation Agency, et al., Sacramento County Superior Court, Case No. 34-2016-80002491.

American Coatings Association, Inc. v. State of California and California Air Resources Board, Sacramento County Superior Court, Case No. 04CS01707.

Dalton Trucking, Inc. v. United States Environmental Protection Agency, U.S. Court of Appeals, District of Columbia Circuit, Case No. 13-1283 (dismissed), U.S. Court of Appeals, Ninth Circuit, Case No. 13-74019.

John R. Lawson Rock & Oil, Inc. et al. v. California Air Resources Board et al., Fresno County Superior Court, Case No. 14-CECG01494; ARB's appeal, Court of Appeal, Fifth District, Case No. F074003.

Murray Energy Corporation v. United States Environmental Protection Agency, U.S. Court of Appeals, District of Columbia Circuit, Case No. 15-1385.

State of California, et al. v. United States Environmental Protection Agency et al., U.S. District Court, Northern District of California, Oakland Division, Case No. 4:17-cv-6936-HSG.

People v. Southern California Gas Company, Los Angeles Superior Court, Case No. BC 602973.

In re: Volkswagen "Clean Diesel" MDL, United States District Court, Northern District of California, Case No. 15-MD-2672-CRB (JSC).

Friends of Oceano Dunes, Inc. v. California Coastal Commission, et al., San Luis Obispo County Superior Court, Case No. 17CV-0576; U.S. District Court for the Central District of California, Case No. 2:17-cv-8733

California Air Resources Board v. Fiat Chrysler Automobiles N.V. and FCA US LLC, United States District Court, Northern District of California, Case No. 3:19-cv-00151.

People v. Walgreens Co., Sacramento County, Case No. 34-2018-00244759.

OPPORTUNITY FOR MEMBERS OF THE BOARD TO COMMENT ON MATTERS OF INTEREST

Board members may identify matters they would like to have noticed for consideration at future meetings and comment on topics of interest; no formal action on these topics will be taken without further notice.

OPEN SESSION TO PROVIDE AN OPPORTUNITY FOR MEMBERS OF THE PUBLIC TO ADDRESS THE BOARD ON SUBJECT MATTERS WITHIN THE JURISDICTION OF THE BOARD

Although no formal Board action may be taken, the Board is allowing an opportunity to interested members of the public to address the Board on items of interest that are within the Board's jurisdiction, but that do not specifically appear on the agenda. Each person will be allowed a maximum of three minutes to ensure that everyone has a chance to speak.

TO ELECTRONICALLY SUBMIT WRITTEN COMMENTS ON AN AGENDA ITEM IN ADVANCE OF THE MEETING GO TO:

https://www.arb.ca.gov/lispub/comm/bclist.php

(Note: not all agenda items are available for electronic submittals of written comments.)

PLEASE NOTE: No outside memory sticks or other external devices may be used at any time with the Board audio/visual system or any CARB computers. Therefore, PowerPoint presentations to be displayed at the Board meeting must be electronically submitted via email to the Clerk of the Board at <u>cotb@arb.ca.gov</u> no later than noon on the business day prior to the scheduled Board meeting.

IF YOU HAVE ANY QUESTIONS, PLEASE CONTACT THE CLERK OF THE BOARD: 1001 I Street, 23rd Floor, Sacramento, California 95814 (916) 322-5594 CARB Homepage: www.arb.ca.gov

SPECIAL ACCOMMODATION REQUEST

Consistent with California Government Code Section 7296.2, special accommodation or language needs may be provided for any of the following:

- An interpreter to be available at the hearing;
- Documents made available in an alternate format or another language;
- A disability-related reasonable accommodation.

To request these special accommodations or language needs, please contact the Clerk of the Board at (916) 322-5594 or by facsimile at (916) 322-3928 as soon as possible, but no later than 7 business days before the scheduled Board hearing. TTY/TDD/Speech to Speech users may dial 711 for the California Relay Service.

Consecuente con la sección 7296.2 del Código de Gobierno de California, una acomodación especial o necesidades lingüísticas pueden ser suministradas para cualquiera de los siguientes:

- Un intérprete que esté disponible en la audiencia
- Documentos disponibles en un formato alterno u otro idioma
- Una acomodación razonable relacionados con una incapacidad

Para solicitar estas comodidades especiales o necesidades de otro idioma, por favor llame a la oficina del Consejo al (916) 322-5594 o envié un fax a (916) 322-3928 lo más pronto posible, pero no menos de 7 días de trabajo antes del día programado para la audiencia del Consejo. TTY/TDD/Personas que necesiten este servicio pueden marcar el 711 para el Servicio de Retransmisión de Mensajes de California.

SMOKING IS NOT PERMITTED AT MEETINGS OF THE CALIFORNIA AIR RESOURCES BOARD

1 Back to Agen	da
AGENDA NO.	24

BOARD MEETING DATE: April 5, 2019

PROPOSAL: Certify Final Subsequent Environmental Assessment and Amend Rule 1134 – Emissions of Oxides of Nitrogen from Stationary Gas Turbines

- SYNOPSIS: The adoption Resolution of the Final 2016 AQMP directed staff to achieve additional NOx emission reductions and to transition the RECLAIM program to a command-and-control regulatory structure as soon as practicable. Proposed Amended Rule 1134 applies to RECLAIM and non-RECLAIM stationary gas turbines and is being amended to update NOx emission limits to reflect current BARCT, establish ammonia emission limits, and provide implementation timeframes to facilitate the transition of the NOx RECLAIM program to a command-and-control regulatory structure. The proposed amended rule also establishes provisions for monitoring, reporting, and recordkeeping. Other provisions are incorporated to remove obsolete provisions and provide clarifications.
- COMMITTEE: Stationary Source, February 15, 2019, Reviewed

RECOMMENDED ACTIONS:

Adopt the attached Resolution:

- 1. Certifying the Final Subsequent Environmental Assessment for Proposed Amended Rule 1134 – Emissions of Oxides of Nitrogen from Stationary Gas Turbines; and
- Amending Rule 1134 Emissions of Oxides of Nitrogen from Stationary Gas Turbines.

Wayne Nastri Executive Officer

PMF:SN:MM:UV

Background

Rule 1134 – Emissions of Oxides of Nitrogen from Stationary Gas Turbines, was adopted in 1989 and currently applies to stationary gas turbines rated at 0.3 MW and larger that were issued a permit to operate by the SCAQMD prior to August 4, 1989. When the RECLAIM program was adopted in 1993, many facilities that owned or operated turbines entered the RECLAIM program and were no longer subject to Rule 1134. Non-RECLAIM facilities with gas turbines remained subject to Rule 1134.

Rule 1134 was subsequently amended three times; each to provide regulatory flexibility.

- In December 1995, Rule 1134 was amended to exempt gas turbines located on San Clemente Island and the South East Desert Air Basin.
- In April 1997, Rule 1134 was amended to increase the NOx concentration limit for turbines utilizing sewage digester gas.
- In August 1997, Rule 1134 was amended to clarify the need for continuous emission monitoring systems (CEMS) on turbines with a power output of 2.9 MW or larger.

Proposed Amended Rule (PAR) 1134 updates NOx emission limits and will facilitate the transition of the NOx RECLAIM program to a command-and-control regulatory structure. Amendments apply to RECLAIM and non-RECLAIM facilities.

Public Process

Development of PAR 1134 was conducted through a public process. Staff held four working group meetings at SCAQMD: February 22, 2018, April 26, 2018, June 13, 2018, and August 10, 2018. A Public Workshop was held on December 18, 2018. In addition, staff met individually with numerous facility operators.

Proposed Amendments

PAR 1134 updates and lowers NOx emission limits to reflect current BARCT and provides implementation timeframes. Table 1 summarizes PAR 1134 NOx and ammonia emission limits and effective compliance dates for stationary gas turbines by category and fuel type, and those turbines located on the Outer Continental Shelf.

Equipment Type	NOx (ppmv)	Ammonia (ppmv)	Effective Date
Natural Gas Combined Cycle Gas Turbine	2	5	Jan. 1, 2024
Natural Gas Simple Cycle Gas Turbine	2.5	5	Jan. 1, 2024
Natural Gas Simple Cycle Compressor Gas Turbine	3.5	10	Jan. 1, 2024 - See Below
Produced Gas Turbine	9	5	Jan. 1, 2024
Outer Continental Shelf Produced Gas Turbine	15	5	Jan. 1, 2024
Outer Continental Shelf Liquid Fuel Turbine	30	5	Jan. 1, 2024
Other Gas Turbine	12.5	5	Jan. 1, 2024

Table 1PAR 1134 Emission Limits for Stationary Gas Turbines
(Oxygen Correction 15%, dry)

PAR 1134 provides possible extensions for compressor gas turbines to extend the effective date by one year for the NOx emission limit, provided other NOx emission reductions are implemented; and up to three years for the ammonia emission limit, provided an ammonia continuous emissions monitoring system is installed and other criteria are met.

PAR 1134 also includes an exemption from the NOx emission limits for low-use equipment that is permitted below a specified capacity factor and units that are permitted near the proposed NOx concentration limits as these two scenarios far exceed the cost-effectiveness threshold of \$50,000 per ton of NOx reduced.

Regarding monitoring, reporting, and recordkeeping requirements, PAR 1134 will continue to implement Rule 2012 – Requirements for Monitoring, Reporting, and Recordkeeping for NOx Emissions for RECLAIM facilities. Former RECLAIM facilities will continue to implement portions of Rule 2012, and non-RECLAIM facilities will continue complying with Rule 218 – Continuous Emission Monitoring. Monitoring requirements remain the same for all facilities.

Emission Reductions

Implementation of PAR 1134 is expected to reduce NOx emissions by 2.8 tons per day.

Key Issues

Through the rulemaking process, staff worked with stakeholders to address comments and resolve a number of key issues. Staff received a letter from the Regulatory Flexibility Group and the Western States Petroleum Association commenting on PAR 1134 and issues related to the transition of RECLAIM to a command-and-control regulatory program. The five key comments are discussed below.

SCAQMD's Authority to Base a BARCT Emission Limit on Equipment Replacement

Staff believes that the statutory definition of BARCT supports a broad interpretation, including replacement. In addition BARCT is not a limitation on SCAQMD authority. The SCAQMD retains broad statutory authority to adopt emission control requirements for stationary sources, and that authority may require equipment replacement, as long as the requirement is not arbitrary and capricious.

Consideration of Other Pollutants, Including Particulate Matter

The staff report includes a discussion of applicable ammonia emission limits and particulate matter emissions increases.

Availability of Information that Forms the Bases of BARCT Recommendations

Staff has provided detailed information regarding how the technology assessment was conducted and the conclusions derived. This information was presented in the working group meetings and is included in the staff report. Information on turbines, limits from other agencies, and other documents that staff relied on are included in the staff report and reference section.

Resolve New Source Review Issues Before Adopting or Amending BARCT Rules

Rule 2002 - Allocations for Oxides of Nitrogen (NOx) and Oxides of Sulfur (SOx), allows a facility to stay in RECLAIM if they receive a Final Determination to exit RECLAIM. Staff has committed to not propose requiring RECLAIM facilities to exit the program until New Source Review (NSR) issues are resolved. Staff continues to work with U.S. EPA and stakeholders to resolve NSR issues.

CEQA and Socioeconomic Impacts are Piecemealed

The CEQA and socioeconomic documents for the 2016 AQMP contain the programmatic analyses of the overall effects of SCAQMD's clean air plan. The CEQA and socioeconomic impact analyses include the changes in PAR 1134, consistent with analyses for other rule projects.

California Environmental Quality Act

PAR 1134 is considered a "project" as defined by the California Environmental Quality Act (CEQA) and the SCAQMD is the designated lead agency. Pursuant to CEQA Guidelines Sections 15252, 15162(b), and 15251(l) (codified in SCAQMD Rule 110), the SCAQMD has prepared a Subsequent Environmental Assessment (SEA) for PAR 1134 which relies on the March 2017 Final Program Environmental Impact Report

(EIR) for the 2016 AQMP. Staff has also prepared Findings pursuant to CEQA Guidelines 15091, a Statement of Overriding Considerations pursuant to CEQA Guidelines Section 15093, and a Mitigation, Monitoring, and Reporting Plan pursuant to Public Resources Code Section 21081.6 and CEQA Guidelines Section 15097.

Socioeconomic Analysis

There are 35 facilities that are potentially impacted by PAR 1134. There are 73 turbines at these 35 facilities: six turbines already operate at the proposed emissions limits, 23 would be exempt, and 11 would qualify for the low-use provisions. The remaining 33 turbines will need to be replaced, repowered, or retrofitted to come into compliance with PAR 1134. These 33 turbines are located in 19 facilities. The average cost-effectiveness is provided in Table 2.

Equipment Type	Cost-Effectiveness	
	(Cost per ton of NOx reduced)	
Combined Cycle Turbines	\$11,500	
Simple Cycle Turbines	\$8,400	
Produced Gas Turbines	\$0*	
Outer Continental Shelf Gas Turbines	\$3,600	
Compressor Gas Turbines	\$4,900	

Table 2PAR 1134 Cost-Effectiveness

*All Produced Gas Turbines meet the proposed 9 ppmv at 15% oxygen on a dry basis

The main requirements of PAR 1134 include one-time costs and annual recurring costs. The one-time costs would include the capital costs of Selective Catalytic Reduction (SCR) retrofits and one-time permit modification fees. Annual recurring cost estimates include the annual operating cost of SCRs including reagent, catalyst replacement, electricity, and maintenance costs. The average annual total cost of PAR 1134 is projected to be \$5.5 - \$6.7 million (in 2018 dollars) between 2019 and 2045, for 1% and 4% real interest rate scenarios, respectively. Average annual capital cost is estimated to be \$3.2 - \$4.4 million per year, and average annual recurring costs are estimated to be \$2.3 million across all affected facilities. As a result of the direct costs required to comply with PAR 1134, it is projected that 33 - 46 jobs will be forgone annually, on average, between 2019 and 2045. The projected job loss impacts represent 0.00029% – 0.00041% of total employment in the Basin.

There are three CEQA alternatives associated with the proposed amendments to Rule 1134. Assuming a 4% real interest rate, average annual compliance costs for the CEQA alternatives range from \$6.9 - \$7.0 million between 2019 and 2045. Average annual jobs forgone for the CEQA alternatives, other than the no project alternative, range from 48 - 50 between 2019 and 2045.

AQMP and Legal Mandates

Pursuant to Health & Safety Code Section 40460 (a), the SCAQMD is required to adopt an AQMP demonstrating compliance with all federal regulations and standards. The SCAQMD is required to adopt rules and regulations that carry out the objectives of the AQMP. PAR 1134 is part of a control measure (CMB-05) in the 2016 AQMP and will reduce NOx emissions and facilitate the transition of the NOx RECLAIM program to a command-and-control regulatory structure.

Resource Impacts

Existing staff resources are adequate to implement the proposed amendments.

Attachments

- A. Summary of Proposal
- B. Key Issues and Responses
- C. Rule Development Process
- D. Key Contacts List
- E. Resolution
- F. Attachment 1 to the Resolution (Findings, Statement of Overriding Considerations, and Mitigation Monitoring and Reporting Plan)
- G. Proposed Amended Rule 1134
- H. Final Staff Report
- I. Final Socioeconomic Impact Assessment
- J. Final Subsequent Environmental Assessment
- K. Board Meeting Presentation

ATTACHMENT A

SUMMARY OF PROPOSAL

Proposed Amended Rule 1134 – Emissions of Oxides of Nitrogen from Stationary Gas Turbines

Applicability

- Applies to stationary gas turbines, regardless of installation date, excluding electricity generating facilities, petroleum refineries, publicly owned treatment works, landfills, and turbines fueled with landfill gas
- Applies to RECLAIM and non-RECLAIM facilities

Emissions Limits (effective January 1, 2024)

- Establishes NOx and ammonia emission limits for combined cycle gas turbines and associated duct burners, simple cycle gas turbines, produced gas turbines, turbines located on the outer continental shelf, compressor gas turbines, and other gas turbines
- Includes an alternative compliance date for compressor gas turbines provided the facility demonstrates 25% or more NOx emission reductions beginning December 31, 2023
- Includes an extension of up to 36 months to comply with ammonia emission limits provided an ammonia continuous emissions monitoring system is installed and the turbine operates less than one thousand hours per year

Monitoring, Recordkeeping, and Reporting

- RECLAIM facilities will continue to comply with SCAQMD Rule 2012 Requirements for Monitoring, Reporting, and Recordkeeping for Oxides of Nitrogen (NO_x) Emissions
- Former RECLAIM facilities will comply with SCAQMD Rule 2012, excluding reporting requirements
- Non-RECLAIM facilities will comply with SCAQMD Rule 218 Continuous Emission Monitoring

Exemptions

- Exemption provisions included for low-use turbines where it is not cost-effective to retrofit or replace
- Exemption provisions included for turbines that are near the proposed NOx emission limit where it is not cost-effective to retrofit or replace

ATTACHMENT B

KEY ISSUES AND RESPONSES

Proposed Amended Rule 1134 – Emissions of Oxides of Nitrogen from Stationary Gas Turbines

Through the rulemaking process, staff has worked with stakeholders to address comments and resolve a number of key issues. Staff received a letter from the Regulatory Flexibility Group and the Western States Petroleum Association commenting on PAR 1134 and issues related to the transition of RECLAIM to a command-and-control regulatory program. The five key comments are discussed below.

SCAQMD's Authority to Base a BARCT Emission Limit on Equipment Replacement

Staff believes that the statutory definition of BARCT supports a broad interpretation, including replacement. In addition BARCT is not a limitation on SCAQMD authority. The SCAQMD retains broad statutory authority to adopt emission control requirements for stationary sources, and that authority may require equipment replacement, as long as the requirement is not arbitrary and capricious.

Consideration of Other Pollutants, Including Particulate Matter

The staff report includes a discussion of applicable ammonia emission limits and particulate matter emissions increases.

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Staff has provided detailed information regarding how the technology assessment was conducted and the conclusions derived. This information was presented in the working group meetings and staff report. Information on turbines, limits from other agencies, and other documents that staff relied on are included in the staff report and reference section.

Resolve New Source Review Issues Before Adopting or Amending BARCT Rules

Rule 2002 - Allocations for Oxides of Nitrogen (NOx) and Oxides of Sulfur (SOx), allows a facility to stay in RECLAIM if they receive a Final Determination to exit RECLAIM. Staff has committed to not requiring RECLAIM facilities to exit the program until NSR issues are resolved. Staff continues to work with U.S. EPA and stakeholders to resolve NSR issues.

CEQA and Socioeconomic Impacts are Piecemealed

The CEQA and Socioeconomic documents for the 2016 AQMP, contain the programmatic analyses of the overall effects of SCAQMD's clean air plan. The CEQA and socioeconomic impact analyses include the changes in PAR 1134, consistent with analyses for other rule projects.

ATTACHMENT C

RULE DEVELOPMENT PROCESS

Proposed Amended Rule 1134 – Emissions of Oxides of Nitrogen from Stationary Gas Turbines



Sixteen (16) months spent in rule development.

One (1) Public Workshop.

One (1) Stationary Source Committee Meeting.

Four (4) Working Group Meetings.

ATTACHMENT D

KEY CONTACTS LIST

Proposed Amended Rule 1134 – Emissions of Oxides of Nitrogen from Stationary Gas Turbines

AECOM **AES** Corporation Almega Andeavor **B** Braun Medical Beta Offshore Broadrock Burbank Water and Power California Air Resources Board California Council for Environmental and Economic Balance California Resources Corporation Cemtek KVB-Enertec City of Anaheim City of Glendale City of Riverside Chevron **Colton Power Environmental Management** Professionals Harbor Cogeneration Heorot Power Management Los Angeles World Airports Los Angeles Department of Water & Power

Los Angeles Internal Services M&C TechGroup North America Miratech Montrose Air Quality Services New Indy Containerboard NRG Energy **OLS** Energy Paramount Petroleum Pasadena Water and Power Phillips66 Refinery Pod Technologies Ramboll Sanitation Districts of Los Angeles County Signal Hill Petroleum Southern California Air Quality Alliance Southern California Edison Southern California Gas Company Southwest Generation Operating Company Sunshine Gas Producers U.S. Environmental Protection Agency University of California at Los Angeles Western States Petroleum Association Yorke Engineering

ATTACHMENT E

RESOLUTION NO. 19-____

A Resolution of the Governing Board of the South Coast Air Quality Management District (SCAQMD) certifying the Final Subsequent Environmental Assessment (SEA) for Proposed Amended Rule 1134 – Emissions of Oxides of Nitrogen from Stationary Gas Turbines.

A Resolution of the SCAQMD Governing Board amending Rule 1134 – Emissions of Oxides of Nitrogen from Stationary Gas Turbines.

WHEREAS, the SCAQMD Governing Board finds and determines with certainty that Proposed Amended Rule 1134 is considered a "project" as defined by the California Environmental Quality Act (CEQA); and

WHEREAS, the SCAQMD has had its regulatory program certified pursuant to Public Resources Code Section 21080.5 and CEQA Guidelines Section 15251(l), and has conducted a CEQA review and analysis of Proposed Amended Rule 1134 pursuant to such program (SCAQMD Rule 110); and

WHEREAS, the SCAQMD Governing Board has determined that the requirements for a Subsequent Environmental Impact Report have been triggered pursuant to its certified regulatory program and CEQA Guidelines Section 15162(b), and that a Subsequent Environmental Assessment (SEA), a substitute document allowed pursuant CEQA Guidelines Section 15252 and SCAQMD's certified regulatory program, is appropriate; and

WHEREAS, the SCAQMD staff has prepared a Draft SEA pursuant to its certified regulatory program and CEQA Guidelines Sections 15251, 15252, and 15162, setting forth the potential environmental consequences of Proposed Amended Rule 1134 and determined that the proposed project would have the potential to generate significant adverse environmental impacts after mitigation measures are applied; and

WHEREAS, the Draft SEA was circulated for a 45-day public review and comment period, from January 29, 2019 to March 15, 2019, and four comment letters were received; and

WHEREAS, the Draft SEA has been revised to include the comment letters received on the Draft Mitigated SEA and the responses, so that it is now a Final Mitigated SEA; and

WHEREAS, it is necessary that the SCAQMD Governing Board review the Final SEA prior to its certification, to determine that it provides adequate information on the potential adverse environmental impacts that may occur as a result of adopting Proposed Amended Rule 1134, including the responses to the comments received relative to the Draft SEA; and **WHEREAS**, pursuant to CEQA Guidelines Section 15252(a)(2)(A), significant adverse impacts were identified such that alternatives and mitigation measures are required for project approval; thus, a Mitigation, Monitoring, and Reporting Plan pursuant to Public Resources Code Section 21081.6 and CEQA Guidelines Section 15097, has been prepared; and

WHEREAS, while mitigation measures are imposed to reduce significant impacts, no feasible mitigation measures were identified that would reduce or eliminate the significant adverse hazards and hazardous materials impacts to less than significant levels; and

WHEREAS, it is necessary that the SCAQMD prepare Findings pursuant to CEQA Guidelines Section 15091, and a Statement of Overriding Considerations pursuant to CEQA Guidelines Section 15093, regarding potentially significant adverse environmental impacts that cannot be mitigated to less than significant levels; and

WHEREAS, Findings, a Statement of Overriding Considerations, and a Mitigation, Monitoring, and Reporting Plan are included in Attachment 1 to this Resolution, which is attached and incorporated herein by reference; and

WHEREAS, the SCAQMD Governing Board voting to adopt Proposed Amended Rule 1134 has reviewed and considered the information contained in the Final SEA, including the responses to the comment letters, the Mitigation, Monitoring, and Reporting Plan, the Findings, the Statement of Overriding Considerations, and all other supporting documentation, prior to its certification, and has determined that the Final SEA, including the responses to the comment letters received, has been completed in compliance with CEQA; and

WHEREAS, Proposed Amended Rule 1134 and supporting documentation, including but not limited to, the Final SEA, the Final Staff Report, and the Socioeconomic Impact Assessment, were presented to the SCAQMD Governing Board and the SCAQMD Governing Board has reviewed and considered this information, as well as has taken and considered staff testimony and public comment prior to approving the project; and

WHEREAS, the Final SEA reflects the independent judgment of the SCAQMD; and

WHEREAS, the SCAQMD Governing Board finds and determines that all changes made in the Final SEA after the public notice of availability of the Draft SEA, were not substantial revisions and do not constitute significant new information within the meaning of CEQA Guidelines Section 15073.5 or 15088.5, because no new significant effects were identified, and no new project conditions or mitigation measures were added, and all changes merely clarify, amplify, or make insignificant modifications to the Draft SEA, and recirculation is therefore not required; and **WHEREAS**, the SCAQMD Governing Board finds and determines, taking into consideration the factors in Section (d)(4)(D) of the Governing Board Procedures (codified as Section 30.5(4)(D)(i) of the Administrative Code), that the modifications to subdivision (b) and paragraphs (c)(3), (c)(6), (c)(21), (d)(4), (d)(6), (d)(9), and (f)(3) of Proposed Amended Rule 1134 since the notice of public hearing was published add clarity that meet the same air quality objective as the version of the rule proposed with the 30-day notice and are not so substantial as to significantly affect the meaning of the proposed amended rule within the meaning of Health and Safety Code Section 40726 because: (a) the changes do not impact emission reductions, (b) the changes do not affect the number or type of sources regulated by the rules, (c) the changes are consistent with the information contained in the notice of public hearing, and (d) the effects of Proposed Amended Rule 1134 do not exceed the effects of the range of alternatives analyzed in the CEQA document; and

WHEREAS, Proposed Amended Rule 1134 will be submitted for inclusion into the State Implementation Plan; and

WHEREAS, the SCAQMD staff conducted a combined Public Workshop and CEQA Scoping regarding Proposed Amended Rule 1134 on December 18, 2018; and

WHEREAS, Health and Safety Code Section 40727 requires that prior to adopting, amending, or repealing a rule or regulation, the SCAQMD Governing Board shall make findings of necessity, authority, clarity, consistency, non-duplication, and reference based on relevant information presented at the public hearing and in the staff report; and

WHEREAS, the SCAQMD Governing Board has determined that Proposed Amended Rule 1134 is needed to transition stationary gas turbines in the RECLAIM program to a command-and-control regulatory structure requiring Best Available Retrofit Control Technologies to reduce NOx emissions as directed by Control Measure CMB-05 of the Final 2016 Air Quality Management Plan and to implement BARCT for related sources; and

WHEREAS, the SCAQMD Governing Board obtains its authority to adopt, amend or repeal rules and regulations from Health and Safety Code Sections 39002, 40000, 40001, 40440, 40702, 40725 through 40728, and 41508; and

WHEREAS, the SCAQMD Governing Board has determined that Proposed Amended Rule 1134 is written or displayed so that the meaning can be easily understood by the persons directly affected by it; and

WHEREAS, the SCAQMD Governing Board has determined that Proposed Amended Rule 1134 is in harmony with and not in conflict with or contradictory to, existing statutes, court decisions, or state or federal regulations; and **WHEREAS**, the SCAQMD Governing Board has determined that Proposed Amended Rule 1134 will not impose the same requirements as any existing state or federal regulations. The amendments are necessary and proper to execute the powers and duties granted to, and imposed upon, SCAQMD; and

WHEREAS, the SCAQMD Governing Board, in amending Rule 1134, references the following statutes which the SCAQMD hereby implements, interprets, or makes specific: Health and Safety Code Sections 39002, 40000, 40001, 40702, 40406 (BARCT), 40440(a), and 40725 through 40728.5, and Clean Air Act Section 172 (c)(1) (reasonably available control technology); and

WHEREAS, the SCAQMD Governing Board has determined that the Socioeconomic Impact Assessment of Proposed Amended Rule 1134 is consistent with the March 17, 1989 Governing Board Socioeconomic Resolution for rule adoption; and

WHEREAS, the SCAQMD Governing Board has determined that the Socioeconomic Impact Assessment is consistent with the provisions of California Health and Safety Code Sections 40440.8, 40728.5, and 40920.6; and

WHEREAS, the SCAQMD Governing Board has determined that Proposed Amended Rule 1134 will result in increased costs to the affected industries, yet are considered to be reasonable, with a total annualized cost as specified in the Socioeconomic Impact Assessment; and

WHEREAS, the SCAQMD Governing Board finds and determines that SCAQMD staff identified additional control options, calculated the incremental costeffectiveness between each progressively more stringent option, and finds the more stringent control option exceeds the cost-effectiveness threshold established for this rule, and so was not selected; and

WHEREAS, the SCAQMD Governing Board has actively considered the Socioeconomic Impact Assessment and has made a good faith effort to minimize such impacts; and

WHEREAS, SCAQMD Rule 2002 – Allocations for Oxides of Nitrogen (NOx) and Oxides of Sulfur (SOx) provides an option for facilities to remain in RECLAIM if they receive an Initial Determination to exit RECLAIM; and

WHEREAS, the SCAQMD Governing Board directs staff to resolve NSR issues prior to forcing any facilities to exit out of RECLAIM; and

WHEREAS, the SCAQMD specifies that the Planning and Rules Manager of Rule 1134 is the custodian of the documents or other materials which constitute the record of proceedings upon which the adoption of these proposed amendments is based, which are located at the South Coast Air Quality Management District, 21865 Copley Drive, Diamond Bar, California; and **WHEREAS**, a public hearing has been properly noticed in accordance with the provisions of Health and Safety Code Section 40725 and 40440.5; and

WHEREAS, the SCAQMD Governing Board has held a public hearing in accordance with all applicable provisions of state and federal law; and

NOW, THEREFORE BE IT RESOLVED, that the SCAQMD Governing Board has considered the Final SEA for Proposed Amended Rule 1134 together with all comments received during the public review period, and, on the basis of the whole record before it, the SCAQMD Governing Board: 1) finds that the Final SEA, including responses to comments, was completed in compliance with CEQA and the SCAQMD's Certified Regulatory Program, 2) finds that the Final SEA and all supporting documents was presented to the SCAQMD Governing Board, whose members exercised their independent judgment and reviewed, considered and approved the information therein prior to acting on Proposed Amended Rule 1134, and 3) certifies the Final SEA; and

BE IT FURTHER RESOLVED, that the SCAQMD Governing Board does hereby adopt Findings pursuant to CEQA Guidelines Section 15091, a Statement of Overriding Considerations pursuant to CEQA Guidelines 15093, and a Mitigation, Monitoring, and Reporting Plan pursuant to Public Resources Code Section 21081.6 and CEQA Guidelines Section 15097, as required by CEQA, and which are included as Attachment F (Attachment 1 to the Resolution) and incorporated herein by reference; and

BE IT FURTHER RESOLVED, that the SCAQMD Governing Board does hereby adopt, pursuant to the authority granted by law, Proposed Amended Rule 1134 as set forth in the attached, and incorporated herein by reference; and

BE IT FURTHER RESOLVED, that the SCAQMD Governing Board requests that Proposed Amended Rule 1134 be submitted into the State Implementation Plan; and

BE IT FURTHER RESOLVED, that the Executive Officer is hereby directed to forward a copy of this Resolution and Proposed Amended Rule 1134 to the California Air Resources Board for approval and subsequent submittal to the U.S. Environmental Protection Agency for inclusion into the State Implementation Plan.

DATE: _____

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

Attachment 1 to the Governing Board Resolution for:

Final Subsequent Environmental Assessment for Proposed Amended Rule 1134 – Emissions of Oxides of Nitrogen from Stationary Gas Turbines

Findings, Statement of Overriding Considerations, and Mitigation, Monitoring, and Reporting Plan

SCAQMD No. 01292019RB

State Clearinghouse No: 2016071006

March 2019

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INTRODUCTION

As a result of control measure CMB-05 - Further NOx Reductions from RECLAIM Assessment, from the 2016 Air Quality Management Plan (AQMP), the South Coast Air Quality Management District (SCAQMD) Governing Board directed staff to begin the process of transitioning the current regulatory structure for facilities subject to SCAQMD Regulation XX – Regional Clean Air Incentives Market (RECLAIM) for emissions of oxides of nitrogen (NOx) from to an equipment-based command-and-control regulatory structure per SCAQMD Regulation XI – Source Specific Standards. SCAQMD staff conducted a programmatic analysis of the NOx RECLAIM equipment at each facility to determine if there are appropriate and up-to-date Best Available Retrofit Control Technology (BARCT) NOx limits within existing SCAQMD command-and-control rules for all RECLAIM equipment. This analysis concluded that command-and-control rules would need to be adopted and/or amended to reflect current BARCT and provide implementation timeframes for achieving BARCT. Consequently, SCAQMD staff determined that RECLAIM facilities should not exit RECLAIM unless their NOx emitting equipment is subject to an adopted BARCT rule.

As such, SCAQMD staff has proposed amendments to Rule 1134 – Emissions of Oxides of Nitrogen from Stationary Gas Turbines. Proposed Amended Rule (PAR) 1134 applies to stationary gas turbines that are not subject to SCAQMD Rule 1135 – Emissions of Oxides of Nitrogen from Electricity Generating Facilities, or located at petroleum refineries. Specifically, if adopted, PAR 1134 would: 1) expand its applicability to include stationary gas turbines that were not previously required to comply with Rule 1134; 2) update the NOx and ammonia emission limits for stationary gas turbines to comply with Best Available Retrofit Control Technology (BARCT); 3) establish new exemptions for low-use equipment, certain existing combined cycle gas turbines, and emergency standby gas turbines; 4) provide relief from having to comply with ammonia requirements for turbines that do not use ammonia for controlling NOx emissions; and 5) revise existing exemptions to remove obsolete provisions.

Implementation of the proposed project is estimated to reduce NOx emissions by 2.8 tons per day after implementation of the BARCT limits.

PAR 1134 is considered a "project" as defined by the California Environmental Quality Act (CEQA) (Public Resources Code Sections 21000 et seq.). The SCAQMD, as Lead Agency for the proposed project, prepared a Subsequent Environmental Assessment (SEA) which analyzes the potential adverse environmental impacts that could be generated as a result of the proposed project. Analysis of the proposed project in the SEA indicated that while the project will reduce NOx emissions, complying with PAR 1134 may cause some facility operators to make physical modifications to their equipment in order to achieve compliance, and these activities may create secondary adverse environmental impacts in the topic area of hazards and hazardous materials. For example, in order to comply with the proposed emission limits, owners/operators may need to retrofit existing stationary gas turbines with air pollution control equipment (e.g., selective catalytic reduction (SCR) technology/system installations), or repowering or replacing existing stationary gas turbines.

The SEA identified and analyzed activities associated with installing new or modifying existing air pollution control equipment, or repowering, or replacing existing stationary gas turbines in order to reduce NOx emissions. Thus, the analysis in the SEA concluded that only the topic of

hazards and hazardous materials due to the storage and use of aqueous ammonia was identified has having potentially significant adverse impacts if the project is implemented.

Pursuant to CEQA Guidelines Section 15252, mitigation measures are required to avoid or reduce any potential significant adverse impacts that a project might have on the environment. As such, mitigation measures were crafted to reduce the severity of the potentially significant adverse hazards and hazardous materials impacts. However, even after mitigation measures are applied, the potentially significant adverse environmental impacts cannot be fully mitigated to less than significant levels. In addition, because there are remaining significant impacts to the topic of hazards and hazardous materials after mitigation measures are applied, project alternatives are also required. An alternatives analysis was included in the Chapter 5 of the Final SEA; however, no project alternative was identified that would reduce these impacts to insignificance while achieving the project's goals and objectives. No other environmental topic areas were identified in the SEA as having potentially significant adverse impacts.

A Draft SEA was circulated for a 45-day public review and comment period from January 29, 2019 to March 15, 2019 and four comment letters were received. Subsequent to release of the Draft SEA for public review and comment, minor modifications were made to PAR 1134. Staff has reviewed the modifications to PAR 1134 and concluded that none of the revisions: 1) constitute significant new information; 2) constitute a substantial increase in the severity of an environmental impact; or 3) provide new information of substantial importance relative to the Draft SEA. In addition, revisions to the proposed project in response to verbal or written comments during the rule development process would not create new, avoidable significant effects. As a result, these revisions do not require recirculation of the Draft SEA pursuant to CEQA Guidelines Sections 15073.5 and 15088.5. The Draft SEA has been revised to include the aforementioned modifications such that it is now the Final SEA. The comment letters and responses relative to the Draft SEA have been included in Appendix G of the Final SEA.

SIGNIFICANT ADVERSE IMPACTS WHICH CAN BE REDUCED BELOW A SIGNIFICANT LEVEL OR WERE CONCLUDED TO BE INSIGNIFICANT

The Final SEA for PAR 1134 relies on the previous CEQA analysis in the March 2017 Final Program Environmental Impact Report (EIR) for the 2016 AQMP¹. As such, the Final SEA relies on the conclusions reached in that document as evidence for environmental areas where impacts were found not to be significant. The previous CEQA document reviewed approximately 17 environmental topic areas and analyzed whether the respective project would create potentially significant adverse impacts. The analysis in the March 2017 Final Program EIR for the 2016 AQMP concluded that significant and unavoidable adverse environmental impacts from the project are expected to occur after implementing mitigation measures for the following environmental topic areas: 1) aesthetics from increased glare and from the construction and operation of catenary lines and use of bonnet technology for ships; 2) construction air quality and GHGs; 3) energy (due to increased electricity demand); 4) hazards and hazardous materials due to: (a) increased flammability of solvents; (b) storage, accidental release and transportation of ammonia; (c) storage and transportation of liquefied natural gas (LNG); and (d) proximity to schools; 5) hydrology (water demand); 6) construction noise and vibration; 7) solid construction waste and operational waste from vehicle and equipment scrapping; and, 8) transportation and traffic during construction

¹ March 2017 Final Program EIR for the 2016 AQMP: <u>http://www.aqmd.gov/home/research/documents-reports/lead-agency-scaqmd-projects/scaqmd-projects---year-2017</u>

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and during operation on roadways with catenary lines and at the harbors. It is important to note, however, that for these environmental topic areas, not all of the conclusions of significance are applicable to this currently proposed project, PAR 1134. Table 1 summarizes the significant and unavoidable adverse environmental impacts identified in the March 2017 Final Program EIR and identifies which topic area applies to PAR 1134.

Table 1
Applicability of Significant Impacts Identified in the March 2017 Final Program EIR
to Proposed Project (PAR 1134)

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CONCLUSION OF SIGNIFICANT IMPACTS IN MARCH 2017 FINAL PROGRAM EIR	APPLICABLE TO/SIGNIFICANT FOR THE PROPOSED PROJECT (PAR 1134)?	EXPLANATION
Aesthetics from increased glare and from the construction and operation of catenary lines and use of bonnet technology for ships	No	This environmental topic area is not applicable to PAR 1134 because neither catenary lines nor the use of bonnet technology for ships are applicable to stationary gas turbines and the corresponding NOx emission controls (e.g., SCR technology). Therefore, this conclusion is not applicable to the proposed project.
Construction air quality and GHGs	No	These environmental topic areas are applicable to the proposed project. The impacts for these environmental topics areas are analyzed in the SEA (see SEA pp. 4-3 to 4- 18 for construction air quality and GHGs), and the analysis concluded less than significant impacts.
Energy due to increased electricity demand	No	While the use of SCR technology will require some electricity to operate, the amount of electricity that would be needed to install SCR technology for PAR 1134 would be less than significant.
Hazards and hazardous materials due the increased flammability of solvents	No	Stationary gas turbines and the corresponding NOx emission controls (e.g. SCR technology) do not utilize solvents for their operation. Therefore, this conclusion is not applicable to the proposed project.
Hazards and hazardous materials due to the storage, accidental release and transportation of ammonia	Yes	This environmental topic area is applicable to the proposed project because SCR technology utilizes ammonia. The impacts for this environmental topic area are analyzed in the Final SEA for PAR 1134 (see pp. 4-19 to 4-27). The analysis concluded significant impacts for the storage and accidental release of ammonia and less than significant impacts for the transportation of ammonia.
Hazards and hazardous materials due to the storage and transportation of LNG	No	Stationary gas turbines and the corresponding NOx emission controls (e.g. SCRs) do not utilize LNG for their operation. Therefore, this conclusion is not applicable to the proposed project.
Hazards and hazardous materials due to proximity to schools	Yes	This conclusion is applicable to the proposed project because some of the affected facilities that are expected to install new SCR systems are located near schools. The impacts for this environmental topic area are analyzed in the Final SEA for PAR 1134 (see pp. 4-19 to 4-27).

Table 1 (concluded)		
Applicability of Significant Impacts in March 2017 Final Program EIR		
to Proposed Project (PAR 1134)		

CONCLUSION OF SIGNIFICANT IMPACTS IN MARCH 2017 FINAL PROGRAM EIR	APPLICABLE TO/SIGNIFICANT FOR THE PROPOSED PROJECT (PAR 1134)?	EXPLANATION
Hydrology (water demand)	No	Stationary gas turbines and the corresponding NOx emission controls (e.g., SCR technology) do not utilize water for their operation. Therefore, this conclusion is not applicable to the proposed project.
Construction noise and vibration	No	While the construction activities associated with installing new SCR technology for affected stationary gas turbines may create some noise and vibration, the existing noise environment at each facility is typically dominated by noise from existing equipment on-site, vehicular traffic around the facilities, and trucks entering and existing facility premises. Operation of the construction equipment would be expected to comply with all existing noise control laws and ordinances. Further, since the facilities are located in industrial or commercial land use areas, the noise generated during construction will likely be indistinguishable from the background noise levels at the property line. Therefore, the potential noise increases are expected to be within the allowable noise levels established by the local noise ordinances for industrial areas, and thus are expected to be less than significant.
Solid construction waste and operational waste from vehicle and equipment scrapping	No	Vehicle scrapping is not applicable to stationary gas turbines and the corresponding NOx emission controls (e.g. SCR technology). Therefore, this conclusion is not applicable to the proposed project.
Transportation and traffic during construction and during operation on roadways with catenary lines and at the harbors	No	Catenary lines and the associated transportation and traffic impacts on roadways and at the harbors are not applicable to stationary gas turbines and the corresponding NOx emission controls (e.g., SCR technology). Therefore, this conclusion is not applicable to the proposed project.

PAR 1134 is expected to have: 1) significant effects that were not discussed in the previous March 2017 Final Program EIR for the 2016 AQMP (CEQA Guidelines Section 15162(a)(3)(A)); and 2) significant effects that were previously examined that will be substantially more severe than what was discussed in the March 2017 Final Program EIR for the 2016 AQMP (CEQA Guidelines Section 15162(a)(3)(B)).

As summarized in Table 1, the topic of hazards and hazardous materials is the only environmental topic area that would be affected by PAR 1134 due to the storage and use of aqueous ammonia in proximity to sensitive receptors at some affected facilities.

Aside from the topic of hazards and hazardous materials due to the storage and use of aqueous ammonia, the conclusions reached for the other environmental topic areas in the Final SEA are consistent with the conclusions reached in the March 2017 Final Program EIR for the 2016 AQMP such that there would be no other significant adverse effects from the implementation of the proposed project. Thus, the proposed project would either have no impact or less than significant direct or indirect adverse effects on the following environmental topic areas:

- aesthetics
- air quality and greenhouse gases
- agriculture and forestry resources
- biological resources
- cultural resources
- energy
- geology and soils
- hydrology and water quality
- land use and planning
- mineral resources
- noise
- population and housing
- public services
- recreation
- solid and hazardous waste
- transportation and traffic

POTENTIAL SIGNIFICANT ADVERSE IMPACTS THAT CANNOT BE REDUCED BELOW A SIGNIFICANT LEVEL

The Final SEA identified the topic of hazards and hazardous materials due to the storage and use of aqueous ammonia resulting from the installation of SCR systems as the only area that may be significantly adversely affected by the proposed project. The analysis in the Final SEA also concluded that the hazards and hazardous materials impacts due to the proximity of facilities to schools (as well as other sensitive receptors) was entirely dependent upon whether the affected facilities would be expected to install SCR systems. Further, the number of aqueous ammonia storage tanks to be installed per facility, the location of the tanks to be installed on each property relative to any nearby schools or other sensitive receptors, and the capacity of the storage tanks, all factor into the overarching conclusion of significant for hazards and hazardous materials due to the storage and use of aqueous ammonia needed for SCR systems.

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If significant adverse environmental impacts are identified in a CEQA document, the CEQA document shall describe feasible measures that could minimize or eliminate the impacts of the proposed project. SCR systems which require the use of ammonia are the most likely air pollution control equipment currently available on the market that is capable of reducing NOx emissions to the levels prescribed in PAR 1134. Thus, the Final SEA identified the topic of hazards and hazardous materials due to the storage and use of aqueous ammonia for SCR systems as having potentially significant adverse impacts that cannot be reduced below a significant level.

The Final SEA contains mitigation measures to address these potentially significant adverse impacts. While it is entirely possible that individual facilities installing a SCR system may find that implementing the prescribed mitigation measures will effectively reduce or eliminate the risk of offsite consequences of exposure to aqueous ammonia to less than significant levels at the facility level, because of the varying operational needs and locations of the affected facilities that may install SCR systems and their proximity to sensitive receptors as a result of the proposed project, the Final SEA could not conclusively determine for every facility that installs one or more SCR systems that the significant adverse hazards and hazardous materials impacts for the storage and use of aqueous ammonia would be able to be fully eliminated or reduced to less than significant levels. For this reason, the Final SEA concluded that the hazards and hazardous materials impacts due to the storage and use of aqueous ammonia for SCR systems would remain significant if PAR 1134 is implemented, even after mitigation measures are applied.

FINDINGS

Public Resources Code Section 21081 and CEQA Guidelines Section 15091(a) state that no public agency shall approve or carry out a project for which a CEQA document has been completed which identifies one or more significant adverse environmental effects of the project unless the public agency makes one or more written findings for each of those significant effects, accompanied by a brief explanation of the rationale for each finding. Additionally, the findings must be supported by substantial evidence in the record. [CEQA Guidelines Section 15091(b)]. As stated in the Final SEA and summarized above, the proposed project has the potential to create significant adverse hazards and hazardous materials impacts for the storage and use of aqueous ammonia; therefore, findings are required. The SCAQMD Governing Board, therefore, makes the following findings regarding the proposed project. The findings will be included in the record of project approval and will also be noted in the Notice of Decision. The findings made by the SCAQMD Governing Board are based on the following significant adverse impact identified in the Final SEA.

Based on the analysis, the potential location(s) of the aqueous ammonia storage tanks at some facilities and their proximity to sensitive receptors could potentially have a significant impact from hazards and hazardous materials that cannot be mitigated to insignificance.

Finding and Explanation:

As explained earlier, PAR 1134 is concluded to result in significant adverse hazards and hazardous materials impacts for the storage and use of aqueous ammonia. The Governing Board finds that mitigation measures have been identified, but there are no feasible mitigation measures that would eliminate or reduce the aforementioned significant adverse hazards and hazardous materials impacts to less than significant levels. No other feasible mitigation measures have been identified. CEQA defines "feasible" as "capable of being accomplished in a successful manner within a

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reasonable period of time, taking into account economic, environmental, social, and technological factors." [Public Resources Code Section 21061.1 and CEQA Guidelines Section 15364].

The Governing Board finds further that the Final SEA considered alternatives pursuant to CEQA Guidelines Section 15126.6, but aside from the No Project Alternative (identified as Alternative A in Chapter 5 of the Final SEA), there are no other alternatives that would reduce to insignificant levels the significant hazards and hazardous materials impacts identified for the proposed project and still achieve the objectives of the proposed project because under Alternative A, no facilities would have equipment meeting BARCT level equivalency.

Conclusion

The Governing Board finds that the findings required by CEQA Guidelines Section 15091(a) are supported by substantial evidence in the record. The administrative record for the CEQA document and adoption of PAR 1134 is maintained by the Office of Planning, Rule Development and Area Sources. The record of approval for this project may be found in the SCAQMD's Clerk of the Board's Office located at SCAQMD headquarters in Diamond Bar, California.

STATEMENT OF OVERRIDING CONSIDERATIONS

If significant adverse impacts of a proposed project remain after incorporating mitigation measures or no measures or alternatives to mitigate the significant adverse impacts are identified, the lead agency must make a determination that the benefits of the project outweigh the unavoidable adverse environmental effects if it is to approve the project. CEQA requires the decision-making agency to balance, as applicable, the economic, legal, social, technological, or other benefits, including region-wide or statewide environmental benefits, of a proposed project against its unavoidable environmental risks when determining whether to approve the project. [CEQA Guidelines Section 15093(a)]. If the specific economic, legal, social, technological, or other benefits, including region-wide or statewide environmental benefits, of a proposed project outweigh the unavoidable adverse environmental effects, the adverse environmental effects may be considered "acceptable" [CEQA Guidelines Section 15093(a)]. Accordingly, a Statement of Overriding Considerations regarding the potentially significant adverse operational NOx air quality impacts resulting from the proposed project has been prepared. This Statement of Overriding Considerations is included as part of the record of the project approval for the proposed Pursuant to CEQA Guidelines Section 15093(c), the Statement of Overriding project. Considerations will also be noted in the Notice of Decision for the proposed project.

Despite incorporating mitigation measures into the proposed project, the mitigation measures cannot reduce or eliminate the potentially significant adverse hazards and hazardous material impacts to a level of insignificance; the SCAQMD's Governing Board finds that the following benefits and considerations outweigh the significant unavoidable adverse environmental impacts:

1. The analysis of potential adverse environmental impacts incorporates a "worst-case" approach. This entails the premise that whenever the analysis requires that assumptions be made, those assumptions that result in the greatest adverse impacts are typically chosen. The analysis in the Final SEA contained conservative assumptions that the implementation of PAR 1134 would result in multiple facilities installing one or more SCR systems with an accompanying ammonia storage tank even though each facility could consider other factors (e.g., age of the stationary gas turbine, cost, etc.) and instead, some facilities with applicable stationary gas turbines, could replace an entire turbine with new equipment capable of meeting the NOx

emission limits without needing a SCR system. The analysis in the Final SEA also assumed that for any facility anticipated to install multiple SCR systems, one ammonia storage tank with a sufficient capacity to service all SCR systems would also be installed. Depending on the quantity of aqueous ammonia that may be needed for each SCR system, the locations of each SCR system and aqueous ammonia tank, the availability of space at each facility, and/or cost, multiple, smaller aqueous ammonia storage tanks could be installed instead of one large ammonia storage tank. However, to conduct a "worst-case" analysis of the potential for creating significant adverse hazards and hazardous materials impacts from the catastrophic failure of an aqueous ammonia storage tank, the largest sized aqueous ammonia tank and the distance of each aqueous ammonia tank to nearby sensitive receptors was relied upon to determine whether the toxic endpoint (calculated using EPA RMP*Comp) would create a significant offsite consequence. In the analysis, the EPA RMP*Comp model only has the capability of evaluating the hazard potential of 20 percent aqueous ammonia. Therefore, the potentially significant adverse impacts from the storage and use aqueous ammonia was evaluated based on the 20 percent aqueous ammonia. However, to minimize the hazards associated with using aqueous ammonia, it is the policy of the SCAQMD to require the use of 19 percent by volume aqueous ammonia in air pollution control equipment for the following reasons: 1) 19 percent aqueous ammonia does not travel as a dense gas like anhydrous ammonia; and 2) 19 percent aqueous ammonia is not on any acutely hazardous materials lists unlike anhydrous ammonia or aqueous ammonia at higher percentages. As such, SCAQMD staff does not typically issue permits for the use of anhydrous ammonia or aqueous ammonia in concentrations higher than 19 percent by volume for use in SCR systems. Thus, the offsite consequence analysis for an aqueous ammonia release at a 20 percent concentration likely overestimates the risk.

- 2. Although the prescribed mitigation measures may be able to reduce or eliminate the hazards and hazardous impacts to levels of insignificance at some individual facilities, because of the varying operational needs and locations of the affected facilities that may install SCR systems and their proximity to sensitive receptors as a result of the proposed project, the Final SEA could not conclusively determine for every facility that installs a SCR system that each one would be able to fully eliminate or reduce the significant adverse hazards and hazardous materials impacts for the storage and use of aqueous ammonia to less than significant levels. At the time each affected facility submits an application for a Permit to Construct for a SCR system and corresponding aqueous ammonia storage tank in response to the project is covered by the analysis in the Final SEA and whether the mitigation measures could reduce or fully eliminate the hazards or hazardous materials impacts to less than significant levels. In the event that the evaluation of the application for a Permit to Construct for a SCR system and corresponding aqueous amterials impacts to less than significant levels. In the event that the evaluation of the application for a Permit to Construct for a SCR system and corresponding aqueous ammonia storage tank does not conform to the analysis in the Final SEA, an additional facility-specific CEQA analysis may be required.
- 3. Although the hazards and hazardous materials impacts are shown to be significant from the implementation of PAR 1134, only the use and storage of aqueous ammonia for SCR systems is expected to be significant. The Final SEA concluded that the potential impacts due to an accidental release of aqueous ammonia from transportation and delivery activities is less than significant.

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- 4. Although the proposed project could result in significant adverse hazards and hazardous materials impacts from the storage and use of aqueous ammonia, overall implementation of the proposed project will achieve substantial NOx emission reductions and improve air quality; thus, providing human health benefits by reducing population exposures to existing NOx emissions. Based on regional modeling analyses performed for the 2016 AQMP, implementing control measures contained in the 2016 AQMP, in addition to the air quality benefits of the existing rules, is anticipated to bring the District into attainment with all national and most state ambient air quality standards. The 2016 AQMP also predicts to achieving the ozone 8-hour standard by 2023.
- 5. The Governor approved Assembly Bill (AB) 617 on July 26, 2017, which addresses non-vehicular air pollution including criteria pollutants and TACs. AB 617 is a companion legislation to approved AB 398, which extends California's cap-and-trade program for reducing GHG emissions from stationary sources. AB 398 requires Air Districts to develop by January 1, 2019 an expedited schedule for the implementation of BARCT by December 31, 2023 for cap-and-trade facilities. A subset of the affected facilities will be subject to the requirements of ABs 617 and 398. The implementation of the proposed project would achieve BARCT level equivalency for these stationary gas turbines.

The SCAQMD's Governing Board finds that the aforementioned considerations outweigh the unavoidable significant effects to the environment as a result of the proposed project.

MITIGATION, MONITORING, AND REPORTING PLAN

Pursuant to CEQA Guidelines Section 15252, mitigation measures are required to avoid or reduce any potential significant adverse impacts that a project might have on the environment. As such, mitigation measures were crafted to reduce the severity of the potentially significant adverse hazards and hazardous materials impacts. When making findings as required by Public Resources Code Section 21081 and CEQA Guidelines Section 15091, the lead agency must adopt a reporting or monitoring program for the changes to the project which it has adopted or made a condition of project approval in order to mitigate or avoid significant effects on the environment. [Public Resources Code Section 21081.6 and CEQA Guidelines Section 15097(a)]. Although SCAQMD identified mitigation measures that may be effective in reducing or eliminating the significant adverse impacts from hazards and hazardous materials due to the storage and use of aqueous ammonia at individual facilities, because of the varying operational needs and locations of the affected facilities that may install SCR systems and their proximity to sensitive receptors as a result of the proposed project, the Final SEA could not conclusively determine for every facility that installs a SCR system that they would be able to fully eliminate or reduce the significant adverse hazards and hazardous materials impacts for the storage and use of aqueous ammonia to less than significant levels. For this reason, the Final SEA concluded that the hazards and hazardous materials impacts due to the storage and use of aqueous ammonia needed for operation of SCR systems would remain significant if PAR 1134 is implemented, even after mitigation measures are applied. Thus, a mitigation, monitoring, and reporting plan has been developed for PAR 1134.

In accordance with CEQA Guidelines Section 15097(a), the lead agency shall adopt a program for monitoring or reporting for the revisions to the project which it has required and the measures it has imposed to mitigate or avoid significant environmental effects. To fulfill this requirement, the SCAQMD has developed this Mitigation, Monitoring, and Reporting Plan to address the mitigation measures required for the significant adverse hazards and hazardous materials impacts

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that may result from implementing PAR 1134. Each operator of any facility required to comply with this Mitigation, Monitoring, and Reporting Plan shall keep records onsite of applicable compliance activities to demonstrate the steps taken to assure compliance with all of the mitigation measures, as applicable.

Hazards and Hazardous Materials Impacts Due to Storage and Use of Aqueous Ammonia

Impacts Summary: The ongoing storage and handling of aqueous ammonia at facilities affected by PAR 1134 could create a significant adverse hazards and hazardous materials impact to the public due to the possibility for an accidental spill and release of aqueous ammonia, which could create a potential risk for an offsite public and sensitive receptor exposure.

Ammonia, though not a carcinogen, is a chronic and acutely hazardous material. Located on the Safety Data Sheet (SDS) for aqueous ammonia (19 percent by weight), the hazards ratings are as follows: health is rated 3 (highly hazardous), flammability is rated 1 (slight), and reactivity is rated 0 (none). Therefore, an increase in the use of aqueous ammonia in response to the proposed project may increase the current existing risk setting associated with deliveries (i.e., truck and road accidents) and onsite or offsite spills for each facility that currently uses, will begin to use, or will increase the use of ammonia. Exposure to a toxic gas cloud is the potential hazard associated with this type of control equipment. A toxic gas cloud is the release of a volatile chemical such as anhydrous ammonia that could form a cloud and migrate offsite, thus exposing individuals. Anhydrous ammonia is heavier than air such that when released into the atmosphere, it would form a cloud at ground level rather than be dispersed. "Worst-case" conditions tend to arise when very low wind speeds coincide with the accidental release, which can allow the chemicals to accumulate rather than disperse. Possible sources of potential aqueous ammonia releases include aqueous ammonia delivery trucks and aqueous ammonia storage tanks.

In addition, the shipping, handling, storage, and disposal of hazardous materials inherently poses a certain risk of a release to the environment. Thus, the routine transport of hazardous materials, use, and disposal of hazardous materials may increase as a result of implementing the proposed project. Further, if a facility installs air pollution control technology that utilizes ammonia, such as SCR systems, the proposed project may alter the transportation modes for feedstock and products to/from the existing facilities such as aqueous ammonia and catalyst. It is important to note, however, that the Final SEA only identified the storage and use of aqueous ammonia has having potentially significant adverse hazards and hazardous materials impacts requiring mitigation measures. Further, the Final SEA also concluded that the routine transport and disposal of hazardous materials would have less than significant hazards and hazardous materials impacts, such that mitigation measures were not required for this activity.

To the extent that a facility would need to install a new aqueous ammonia storage tank as part of the proposed project, the implementation of mitigation measures HZ-1 through HZ-6 would be expected to prevent a catastrophic release of aqueous ammonia from leaving a facility's property and exposing offsite sensitive receptors, thus, somewhat reducing a potential significant hazards and hazardous materials impact due to storage and use of aqueous ammonia. The analysis conducted in the Final SEA made a conservative assumption that some of the facilities' affected by the proposed project would likely retrofit their stationary gas turbines with a SCR system which would require an ammonia storage tank for operation. Although the mitigation measures would reduce the potential impacts for hazards and hazardous materials for facilities choosing to install a SCR system with an accompanying aqueous ammonia storage tank, without knowing the exact location of each storage tank, number of ammonia storage tanks and/or corresponding size of the ammonia storage tank at each facility; it is still conservatively estimated that the proposed project will result in significant impacts of hazards and hazardous materials through the storage and use of aqueous ammonia.

Current SCAQMD practice typically does not allow the use of anhydrous ammonia for air pollution control equipment. Further, to minimize the hazards associated with using ammonia for air pollution control technology, it is the permitting practice of the SCAQMD to typically require the use of 19 percent by volume aqueous ammonia in air pollution control equipment for the following reasons: 1) 19 percent aqueous ammonia does not travel as a dense gas like anhydrous ammonia; and 2) 19 percent aqueous ammonia is not on any acutely hazardous material lists unlike anhydrous ammonia or aqueous ammonia at higher percentages. As such, SCAQMD staff does not typically issue permits for the use of anhydrous ammonia or aqueous ammonia in concentrations higher than 19 percent by volume for use in SCR systems. As a result, this impact summary focuses on the use of 19 percent by volume aqueous ammonia. Thus, because aqueous ammonia (at 19 percent by weight) would be typically required for any permits issued for the installation of air pollution control equipment that utilize ammonia and because MMHZ-1 requires the use of aqueous ammonia at a concentration less than or equal to 19 percent by volume, hazards from toxic clouds are expected to be lessened when compared to higher concentrations of ammonia. As a practical matter, the actual concentration that is typically utilized is a solution of 19 percent aqueous ammonia, which contains approximately 81 percent water. Due to the high water content, aqueous ammonia is not considered to be flammable. Thus, heat-related hazard impacts such as fires, explosions, and boiling liquidexpanding vapor explosion (BLEVE) are not expected to occur from the increased delivery, storage and use of aqueous ammonia as part of implementing the proposed project.

Further, the accidental release of ammonia from a delivery and use is a localized event (i.e., the release of ammonia would only affect the receptors that are within the zone of the toxic endpoint). The accidental release from offloading aqueous ammonia during a delivery would also be temporally limited in the fact that deliveries are not likely to be made at the same time in the same area and the safety devices required as part of MMHZ-2 further reduce the likelihood of an accidental release. Based on these limitations, it is assumed that an accidental release would be limited to a single delivery at a single facility at a time. In addition, it is unlikely that an accidental release from both a delivery truck and the stationary storage tank would result in more than the amount evaluated in the catastrophic release of the storage tank because the level of ammonia in the storage tanks would be low or else the delivery trip would not be necessary. In addition, implementation of MMHZ-4 (grating covered trench) and MMHZ-5 (underground gravity drain) would further reduce the impact from an accidental release during the delivery and transfer of aqueous ammonia to the storage tank.

A hazard analysis is dependent on several parameters about the potential hazard such as the capacity of the aqueous ammonia storage tank, the concentration of the aqueous ammonia, meteorological conditions, location of nearest receptor, and the dimensions of secondary containment, if any. If a facility were to install a new aqueous ammonia tank to supply

additional aqueous ammonia needed to support to a new SCR system and the effects of an offsite consequence from an accidental release of aqueous ammonia due to a tank rupture was analyzed using the EPA RMP*Comp (Version 1.07) model which did not result in a significant hazards impact to sensitive receptors, the facility operator would not be required to implement the following feasible mitigation measures. However, if the analysis were to determine a significant hazards impact to sensitive receptors (such as in this Final SEA), the facility operator would be required at a minimum to implement the following feasible mitigation measures to reduce the severity of the impacts and prevent a catastrophic release of aqueous ammonia from leaving a facility's property.

Mitigation Measures: The following mitigation measures are required for any facility whose operators choose to install a new aqueous ammonia storage tank and the offsite consequence analysis indicates that sensitive receptors will be located within the toxic endpoint distance. SCAQMD staff will conduct a CEQA evaluation of each facility-specific project proposed in response to the proposed project and determine if the project is covered by the analysis in this Final SEA. In addition, these mitigation measures will be included in a mitigation monitoring and reporting plan as part of issuing SCAQMD permits to construct for the facility-specific project. The mitigation measures will be enforceable by SCAQMD personnel.

Hazards and Hazardous Materials

- HZ-1 Require the use of aqueous ammonia at concentrations less than or equal to 19 percent by volume for all facilities regulated by Rule 1134.
- HZ-2 Install safety devices, including but not limited to: continuous tank level monitors (e.g., high and low level), temperature and pressure monitors, leak monitoring and detection system, alarms, check valves, and emergency block valves.
- HZ-3 Install secondary containment such as dikes and/or berms to capture 110 percent or more of the storage tank volume in the event of a spill.
- HZ-4 Install a grating-covered trench around the perimeter of the delivery bay to passively contain potential spills from the tanker truck during the transfer of aqueous ammonia from the delivery truck to the storage tank.
- HZ-5 Equip the truck loading/unloading area with an underground gravity drain that flows to a large on-site retention basin to provide sufficient ammonia dilution to minimize the offsite hazards impacts to the maximum extent feasible in the event of an accidental release during transfer of aqueous ammonia.
- HZ-6 Install tertiary containment that is capable of evacuating 110 percent or more of the storage tank volume from the secondary containment area.

Implementing Parties: The SCAQMD's Governing Board finds that implementing the mitigation measures HZ-1 through HZ-6 is the responsibility of the owner, operator, or agent of each affected facility who submits a permit application to comply with the proposed project.

Implementation Mechanism: Mitigation measures HZ-1 through HZ-6 shall be included as a condition in the SCAQMD Permit to Construct and Permit to Operate. Further, all information required as part of this Mitigation, Monitoring, and Reporting Plan shall be provided by the owner, operator or agent of the affected facility at the time when an applicant submits a permit application.

Monitoring Agency: The SCAQMD's Governing Board finds that through its discretionary authority to issue and enforce permits for this project and to implement conditions to prevent an air pollution nuisance, the SCAQMD will ensure compliance with mitigation measures HZ-1 through HZ-6. Mitigation, monitoring, and reporting (MMR) will be accomplished as follows:

MMRHZ-1 All aqueous ammonia used and stored onsite shall be at a concentration of less than 19 percent by volume.

Each facility operator shall ensure the concentration of aqueous ammonia used and stored onsite is less than 19 percent by volume. The percent by volume of aqueous ammonia shall be posted on the aqueous ammonia tank at all times. The SCAQMD may conduct inspections of the site to verify compliance.

MMRHZ-2: Safety devices shall be installed on all equipment associated with the use and storage of aqueous ammonia, to the extent feasible.

At the time of submitting an application for a Permit to Construct for an aqueous ammonia storage tank each facility operator shall submit a list of all safety devices installed. Safety devices may include, but are not limited to: continuous tank level monitors (e.g., high and low level), temperature and pressure monitors, leak monitoring and detection system, alarms, check valves, and emergency block valves. Once the aqueous ammonia storage tank becomes operational, each facility operator shall ensure all safety devices are maintained and are functioning properly. All maintenance records shall be kept onsite from the initiation of operations.

MMRHZ-3: All facility operators shall install a secondary containment system such as a dike or berm to capture 110 percent or more of the aqueous ammonia storage tank volume in the event of a spill.

At the time of submitting an application for a Permit to Construct for an aqueous ammonia storage tank each facility operator shall submit plans for a secondary containment system to capture 110 percent or more of the aqueous ammonia storage tank volume in the event of a spill. Secondary containment systems may include, but are not limited to: a dike or berm. Once the aqueous ammonia storage tank becomes operational, each facility operator shall ensure all secondary containment systems are maintained, free of detritus, and are functioning properly. All maintenance records shall be kept onsite from the initiation of operations.

MMRHZ-4: All facility operators shall install a grating-covered trench around the perimeter of the aqueous ammonia delivery bay to passively contain potential spills from the tanker truck during the transfer of aqueous ammonia from the delivery truck to the storage tank.

At the time of submitting an application for a Permit to Construct for an aqueous ammonia storage tank each facility operator shall submit plans for installation of a grating covered

Attachment 1 to the Resolution – Findings, Statement of Overriding Considerations, and Mitigation, Monitoring, and Reporting Plan

trench around the perimeter of the delivery bay to passively contain spills from the tanker truck during the transfer of aqueous ammonia from the delivery truck to the aqueous ammonia storage tank. Once the aqueous ammonia storage tank becomes operational, each facility operator shall ensure the grating-covered trench is maintained, free of detritus, and is functioning properly. All maintenance records shall be kept onsite from the initiation of operations.

MMRHZ-5: All facility operators shall equip the truck loading/unloading area with an underground gravity drain that flows to a large on-site retention basin to provide sufficient ammonia dilution to minimize the offsite hazards impacts to the maximum extent feasible in the event of an accidental release during transfer of aqueous ammonia.

At the time of submitting an application for a Permit to Construct for an aqueous ammonia storage tank, each facility operator shall submit plans for installation of an underground gravity drain that flows to a large on-site retention basin to provide sufficient ammonia dilution to minimize the offsite hazards impacts to the maximum extent feasible in the event of an accidental release during transfer of aqueous ammonia. Once the aqueous ammonia storage tank becomes operational, each facility operator shall ensure the underground gravity drain is maintained, free of detritus, and is functioning properly. All maintenance records shall be kept onsite from the initiation of operations.

MMRHZ-6: All facility operators shall install a tertiary containment system capable of evacuating 110 percent or more of the aqueous ammonia storage tank volume from the secondary containment area.

At the time of submitting an application for a Permit to Construct for an aqueous ammonia storage tank each facility operator shall submit plans for a tertiary containment system to capture 110 percent or more of the aqueous ammonia storage tank volume from the secondary containment area in the event of a spill. Once the aqueous ammonia storage tank becomes operational, each facility operator shall ensure all tertiary containment systems are maintained, free of detritus, and are functioning properly. All maintenance records shall be kept onsite from the initiation of operations.

CONCLUSION

Based on a "worst-case" analysis, the potential adverse hazards and hazardous materials impacts from the adoption and implementation of PAR 1134 is considered significant and unavoidable. Some feasible mitigation measures have been identified that would somewhat reduce the level of significant adverse hazards and hazardous materials impacts associated with implementing the PAR 1134; however, the mitigation measures cannot be guaranteed to reduce the entire project to less than significant levels. Further, no project alternatives have been identified that would reduce these impacts to insignificance while achieving the project's goals and objectives of NOx emissions reductions and BARCT level equivalency.

ATTACHMENT G

(Adopted August 4, 1989)(Amended December 7, 1995) (Amended April 11, 1997)(Amended August 8, 1997) (PAR 1134 April 5, 2019)

<u>PROPOSED AMENDED</u> RULE 1134. EMISSIONS OF OXIDES OF NITROGEN FROM STATIONARY GAS TURBINES

(a) <u>Purpose</u>

The purpose of this rule is to reduce emissions of oxides of nitrogen (NO_x) from stationary gas turbines.

(b) Applicability

The provisions of this rule shall apply to all <u>existing</u> stationary gas turbines, 0.3 megawatt (MW) and larger, as of August 4, 1989. This rule does not apply to stationary gas turbines subject to: Rule 1135 – Emissions of Oxides of Nitrogen from Electricity Generating Facilities; located at petroleum refineries, landfills, or publicly owned treatment works; or fueled by landfill gas.

(bc) Definitions

- (1) <u>ANNUAL CAPACITY FACTOR is the ratio between the measured heat input (in MMBTU) from fuel consumption to a stationary gas turbine during a calendar year and the potential heat input (in MMBTU) to the stationary gas turbine had it been operated for 8,760 hours during a calendar year at the permitted heat input rating, expressed as a percent. CHEMICAL PROCESSING GAS TURBINE UNIT is a gas turbine unit that vents its exhaust gases into the operating stream of a chemical process.</u>
- (2) COGENERATION CYCLE-GAS TURBINE UNIT-is a gas turbine that operates both for the simultaneous production of shaft work and for the recovery of useful thermal energy from the exhaust gases or waste steam as defined by Section 25134 of the California Public Resources Code which is designed to generate electricity and useful heat energy at the same time (combined heat and power).
- (3) COMBINED CYCLE GAS TURBINE UNIT is a gas turbine, including cogeneration gas turbines, unit that operates both for the production of electrical energy from shaft work and the useful energy produced from heat recovered from its exhaust gases recovers heat from the gas turbine exhaust

gases for use in a heat recovery steam generator to generate additional electricity.

- (4) <u>COMPRESSOR GAS TURBINE is a stationary gas turbine used to</u> <u>transport gases or liquids in a pipeline.</u>
- (5) DUCT BURNER is a device located in the heat recovery steam generator of a gas turbine that combusts fuel and adds heat energy to the turbine exhaust to increase the output of the heat recovery steam generator.
- (46) EMERGENCY STANDBY GAS TURBINE UNIT is a gas turbine unit that operates only as a mechanical or electrical power source for a facility when the primary power source has been rendered inoperable, except <u>it may not</u> <u>be used for *due to*</u> power interruption pursuant to an interruptible power supply agreement. This does not include utility company electrical power plant units.
- (5) EMISSION CONTROL PLAN is a plan that shall contain at a minimum District permit or identification number; name of gas turbine manufacturer; model designation; rated brake horsepower; heat rate (BTU/KW-HR), corrected to the HHV for each type of fueling (liquid/gas); type of liquid fuel and/or type of gaseous fuel; hours of operation in the previous one-year period; fuel consumption (cubic feet of gas or gallons of liquid) for the previous one-year period; and a list of all gas turbine units required to be controlled identifying the type of emission control to be applied to such gas turbine units along with documentation showing existing emissions of NO_{*} and CO.
- (67) EXHAUST AFTER-TREATMENT means is a control method for the postcombustion reduction of NO_x emissions, such as selective catalytic reduction (SCR).
- (78) EXISTING GAS TURBINE UNIT is a stationary gas turbine unit that is located at a non-RECLAIM NO_x facility and met the following criteria prior to August 4, 1989:
 - (A) Had been issued a valid permit to construct or operate by the DistrictSCAQMD, or
 - (B) Was in operation pursuant to the provisions of District SCAQMD Rule 219(b)(1).
- (9) FORMER RECLAIM NOx FACILTY is a facility, or any of its successors, that was in the Regional Clean Air Incentives Market (RECLAIM) as of January 5, 2018, as established in Regulation XX, that has received a final

determination notification from the Executive Officer or the owner or operator opts-out of RECLAIM, and is no longer in the RECLAIM program.

- (8) HHV HIGHER HEATING VALUE OF FUEL.
- (10) LANDFILL is an entire disposal facility in a contiguous geographical space where solid waste is placed in or on land. A landfill may be active, inactive, or closed.
- (9) LHV LOWER HEATING VALUE OF FUEL.
- (10) PEAKING GAS TURBINE UNIT is a gas turbine unit that is used intermittently to produce energy on a demand basis.
- (11) NATURAL GAS is a mixture of gaseous hydrocarbons, with at least 80 percent methane (by volume), and of pipeline quality, such as the gas sold or distributed by any utility company regulated by the California Public Utilities Commission.
- (12) <u>NON-RECLAIM NO_x FACILITY is a facility, or any of its successors, that</u> was not in the Regional Clean Air Incentives Market as of January 5, 2018, as established in Regulation XX.
- (13) OXIDES OF NITROGEN (NO_x) EMISSIONS is the sum of nitric oxides and nitrogen dioxides emitted, collectively expressed as nitrogen dioxide emissions.
- (14) OUTER CONTINENTAL SHELF is as defined in 40 CFR, Part 55 Outer Continental Shelf Air Regulations.
- (15) <u>PETROLEUM REFINERY is a facility identified by the North American</u> <u>Industry Classification System Code 324110, Petroleum Refineries.</u>
- (11) PIPELINE GAS TURBINE UNIT is a stationary gas turbine unit used to transport gases or liquids in a pipeline.
- (1216) POWER AUGMENTATION is the increase in the gas turbine shaft output and/or the decrease in gas turbine fuel consumption by the addition of energy recovered from exhaust heat.
- (17) PUBLICLY OWNED TREATMENT WORKS are wastewater treatment or reclamation plants owned and operated by a public entity, including all operations within the boundaries of the wastewater and sludge treatment plant.
- (18) PRODUCED GAS is made up of organic compounds that are gaseous at standard temperature and pressure and are associated with the production, gathering, separation, or processing of crude oil.

- (1319) RATING OF A GAS TURBINE UNIT is the continuous MW (megawatt) rating or mechanical equivalent by a manufacturer for <u>a gas turbine unit(s)</u> without power augmentation.
- (20) <u>RECLAIM NO_x FACILITY is a facility or its successor that was in the</u> <u>Regional Clean Air Incentives Market as of January 5, 2018, as established</u> <u>in Regulation XX and is still in RECLAIM on the relevant date.</u>
- (2114) <u>SEWAGE DIGESTER GAS is any gas derived from anaerobic</u> <u>decomposition of organic sewage.</u>
- (221) SHUTDOWN is the time period that begins when a stationary gas turbine reduces load and which ends in a period of zero fuel flow, or as otherwise defined in the SCAQMD permit to operate.
- (232) <u>SIMPLE CYCLE GAS TURBINE is any stationary combustion turbine that</u> does not recover heat from the combustion turbine exhaust gases to heat water or generate steam.
- (243) START-UP is the time period that begins when a stationary gas turbine combusts fuel after a period of zero fuel flow and which ends when the stationary gas turbine generates electricity for sale or for any other purpose including on-site use, or as otherwise defined in the SCAQMD permit to operate.
- (15) SOUTHEAST DESERT AIR BASIN (SEDAB) means the portion of the air basin containing specific desert portions of Los Angeles, Riverside and San Bernardino counties, as defined in Title 17, California Code of Regulations, Section 60109, within the jurisdiction of the District.
- (16254)STATIONARY GAS TURBINE UNIT is any gas turbine unit that is gas and/or liquid fueled with or without power augmentation. This gas turbine unit is either attached to a foundation at a facility or is portable equipment operated at a specific facility for more than 90 days in any 12-month periodthat will reside at the same location for more than 12 consecutive months. Two or more gas turbines units powering one shaft shall be treated as one gas turbine unit.
- (17265)THERMAL STABILIZATION PERIOD is the two-hour start up time necessary for NO_x control purposes in cogeneration cycle, combined cycle, or any other applicable stationary gas turbines <u>units</u>.
- (276) <u>TUNING is adjusting, optimizing, rebalancing, or other similar operations</u> to a stationary gas turbine or an associated control device or otherwise as

defined in the SCAQMD permit to operate. Tuning does not include normal operations to meet load fluctuations.

- (ed) Emissions Limitations
 - (1) Until the existing gas turbine operates in compliance with subparagraph (d)(3), but no later than December 31, 2023, The the owner or operator of any existing stationary gas turbine unit shall not operate such unit under load conditions, excluding the thermal stabilization period or other time period specified in the Permit to Construct or the Permit to Operate issued prior to August 4, 1989, which result in the discharge of oxides of nitrogen (NO_x) emissions, directly or indirectly, into the atmosphere at concentrations in excess of the following as measured pursuant to subdivision (ef):

Compliance Limit = Reference Limit
$$\times \frac{EFF}{25\%}$$

Where:

Compliance Limit	=	allowable NO _x emissions (ppm by
		volume).
Reference Limit	=	the NO _x emission limit (ppm by
		volume) is corrected to 15 percent
		oxygen on a dry basis, and averaged
		over 15 consecutive minutes. These
		limits for various megawatt ratings
		(continuous rating by the manufacturer
		without power augmentation) are as
		follows:

REFERENCE NO_x LIMITS, PPM

Unit Stationary Gas Turbine Size Megawatt (MW) Rating	Effective 12-31-95
0.3 to Less Than 2.9 MW	25
2.9 to Less Than 10.0 MW	9
2.9 to Less Than 10.0 MW No SCR	15
10.0 MW and Over	9

			IW and Over SCR	12
			V and Over Combined Cycle SCR	15
		60 MW	and Over Combined Cycle	9
			_	Effective 4/11/97
		Fuel C Sewag	Less Than 10.0 MW Utilizing ontaining a Minimum of 60% e Digester Gas by Volume on 7 Average	25
And,	EFF	=	Actual Heat Rate at Higher 1 (BTU/K)	Heat Value (HHV) of Fuel
or,	EFF	=	(Manufacturer's Rated Efficient Lower Heating Value (LHV))	ncy at $x \frac{LHV}{HHV}$
or	EFF	=	-	ciency of the gas turbine unit nsideration of any downstream

- only as calculated without consideration of any downstream energy recovery from the actual heat rate, (BTU/KW HR) or 1.34 BTU/HP; corrected to the HHV (higher heating value) of the fuel, as measured at peak load for that facility; or the manufacturer's continuous rated percent efficiency (manufacturer's rated efficiency) of the gas turbine unit-after correction from LHV (lower heating value) to the HHV of the fuel, whichever efficiency is higher. The value of EFF shall not be less than 25 percent. Gas turbine<u>s</u> units-with lower efficiencies will be assigned a 25 percent efficiency for this calculation.
- (2) The operator of any existing gas turbine unit-subject to this rule shall also be subject to Regulation XIII if carbon monoxide (CO) emissions increase as a result of the application of NO_x controls.
- (3) Notwithstanding the exemptions contained in Rule 2001 Applicability, Table I – Rules Not Applicable to RECLAIM Facilities for Requirements

Pertaining to NO_x Emissions, on and after January 1, 2024, or when required by a permit to operate, whichever occurs first, the owner or operator of any stationary gas turbine, excluding compressor gas turbines, shall not operate such unit under load conditions, excluding start-up, shutdown, and tuning periods, which result in the discharge of NO_x and ammonia emissions, directly or indirectly, into the atmosphere at concentrations in excess of the following emissions limits listed in Table I.

(Corrected to 15% oxygen on a dry basis)			
<u>Fuel Type</u>	<u>NO_x (ppmv)</u>	<u>Ammonia</u> (ppmv)	
Liquid Fuel – Turbines Located on Outer Continental Shelf	<u>30</u>	<u>5</u>	
Natural Gas – Combined Cycle Turbine	<u>2</u>	<u>5</u>	
Natural Gas – Simple Cycle Turbine	<u>2.5</u>	<u>5</u>	
Produced Gas	<u>9</u>	<u>5</u>	
Produced Gas – Turbines Located on Outer Continental Shelf	<u>15</u>	<u>5</u>	
Other	<u>12.5</u>	<u>5</u>	

Table I: Emissions Limits for Stationary Gas Turbines

(4) Notwithstanding the exemptions contained in Rule 2001 – Applicability, Table I – Rules Not Applicable to RECLAIM Facilities for Requirements Pertaining to NO_x Emissions, 24 months after a permit to construct is issued by the Executive Officer, or 36 months after a permit to construct is issued by the Executive Officer if the application was submitted by July 1, 2021, the owner or operator of a compressor gas turbine, shall not operate such unit under load conditions, excluding start-up, shutdown, and tuning periods, which result in the discharge of NO_x and ammonia emissions, directly or indirectly, into the atmosphere at concentrations in excess of the following emissions limits listed in Table II.

Fuel Type	<u>NO_x (ppmv)</u>	<u>Ammonia</u> (ppmv)
Natural Gas – Compressor Gas Turbine	<u>3.5</u>	<u>10</u>

Table II: Emissions Limits for Compressor Gas Turbines

1.1.1.

- (5) Start-Up, Shutdown, and Tuning The owner or operator of a stationary gas turbine shall meet start-up, shutdown, and tuning requirements in the SCAQMD permit to operate. On and after January 1, 2024, the SCAQMD permit to operate shall include limitations for duration, mass emissions, and number of start-ups, shutdowns, and tunings.
- (6) <u>Averaging Time</u>
 - (A) Stationary gas turbines installed prior to [*Date of Adoption*] shall comply with the averaging time requirements specified on the SCAQMD permit to operate as of [*Date of Adoption*], not to exceed <u>3 hours.</u>
 - (B) Stationary gas turbines installed after [Date of Adoption] shall average the NO_x, and ammonia emissions limits in Table I and Table <u>H</u>-over a 60-minute rolling average.
 - (C) Stationary compressor gas turbines installed after [Date of Adoption] shall average the NOx and ammonia emissions limits in Table II over a three-hour rolling average.
- (7) Prohibition of Liquid Fuel
 An owner or operator of a stationary gas turbine shall not burn liquid fuel
 in a stationary gas turbine except for those located in the Outer Continental
 <u>Shelf.</u>
- (8) On or before July 1, 2022, the owner or operator of a stationary gas turbine shall submit an application for a permit to construct or change of permit conditions to reconcile the permit to operate with Rule 1134.
- (9) The owner or operator of a compressor gas turbine may submit a request to the Executive Officer for approval of an extension of up to 12 months to meet the NOx limits specified in paragraph (d)(4) and up to an additional 36 months to meet the ammonia emissions limits specified in paragraph

(d)(4); (such request shall be considered a plan for purposes of Rules 216 – Appeals and Rule 221 – Plans).

- (A) The owner or operator that elects to submit a request for a time extension shall submit the request at least 30 days before the compliance deadline specified in paragraph (d)(4).
- (B) The owner or operator that submits a request for a time extension request shall provide the following information to the Executive Officer:
 - (i) Identification of the units for which a time extension is needed;
 - (ii) The reason(s) a time extension is needed;
 - (iii) <u>Progress of replacing or retrofitting the compressor gas</u> <u>turbines;</u>
 - (iv) The length of time requested;
 - (v) A demonstration that actual facility NOx emissions will decrease by at least an average of 25% in the two years prior to the extension request by December 31, 2023 in comparison to 2017 facility emissions.
 - (vi) Installation of an ammonia continuous emission monitoring system certified under an approved SCAQMD protocol if an extension is requested beyond 12 months to comply with the ammonia emission limits in paragraph (d)(4).
 - (vii) A demonstration that use of a turbine is less than 1,000 hours annually if an extension is requested beyond 24 months to comply with the ammonia emission limits in paragraph (d)(4).
- (C) The Executive Officer will approve or disapprove the request for a time extension. Approval or disapproval will be based on the following criteria:
 - (i) The owner or operator prepared the request for a time extension in compliance with subparagraphs (d)(9)(A) and (d)(9)(B); and
 - (ii) The owner or operator provided sufficient details identifying the reason(s) a time extension is needed that demonstrates to the Executive Officer that there are extenuating circumstances that necessitate additional time to complete

implementation. Such a demonstration may include, but is not limited to, providing detailed schedules, engineering designs, construction plans, land acquisition contracts, permit applications, test results, and purchase orders.

- (D) The owner or operator may appeal the rejection of the extension to the Hearing Board under Rule 216 – Appeals. If the Hearing Board denies the appeal, the emissions limits must be complied with by the compliance deadline specified in paragraph (d)(4) or 30 days after the Hearing Board denial, whichever is later.
- (de) Monitoring and Source Testing

The <u>owner or operator</u> of any stationary gas turbine unit subject to the provisions of this rule shall perform the following actions:

- (1) For eogeneration and combined cycle gas turbines units-2.9 MW and larger (continuous rating by the manufacturer without power augmentation) located at a non-RECLAIM NO_x facility, install, operate, and maintain in calibration a continuous in-stack NO_x and oxygen monitoring system which meets the requirements of <u>SCAQMD Rule 218 Continuous Emission</u> Monitoring40 CFR Part 60, Appendix B, Spec. 2, for NOx, Spec. 3 for oxygen (except the alternative RA procedures for Spec. 2 shall not apply), the 2 and 24 -hour calibration spec. of Rule 218, and 40 CFR Part 60, Appendix F to demonstrate compliance with the emission limits of this rule. The continuous emissions monitoring system shall have data gathering and retrieval capability which meets the reporting requirements of 40 CFR part 60.7(c), 60.7(d), and 60.13. This system shall include equipment that measures and records the following:
 - (A) Flow rate of liquids or gases and the ratio of water or steam to fuel added to the combustion chamber or to the exhaust for the reduction of NO_x emissions, as applicable.:
 - (B) Elapsed time of operation-; and

(C) Turbine output in MW.

- (2) Source Testing
 - (A) <u>The owner or operator of any existing gas turbine located at a non-RECLAIM NO_x facility operating without a continuous emission monitoring system, Provide shall provide source test information regarding the gas turbine's unit's exhaust gas NO_x concentration,</u>

and the demonstrated percent efficiency (EFF), or the manufacturer's rated EFF, if the Executive Officer determines that it is representative of the unit's EFF, and the carbon monoxide concentration as specified pursuant to paragraph (\underline{ef})(1). NO_x and carbon monoxide concentrations shall be in ppm by volume, corrected to 15 percent oxygen on a dry basis.

- (B) The owner or operator of each stationary gas turbine with a catalytic control device shall conduct source testing pursuant to clause (e)(2)(C)(iii) or utilize an ammonia continuous emission monitoring system certified under an approved SCAQMD protocol to demonstrate compliance with the ammonia emission limit.
- (<u>BC</u>) Source Test Frequency
 - (i) <u>The owner or operator of each stationary gas turbine</u> operating without a continuous emission monitoring system and <u>Units</u> emitting 25 tons or more of NO_x per calendar year shall <u>be perform</u> source test<u>sed to demonstrate compliance</u> with the NOx emission limits, at least once every 12 monthscalendar year.
 - (ii) <u>All other The owner or operator of each stationary gas</u> <u>turbine operating without a continuous emission monitoring</u> <u>system and emitting less than 25 tons existing units</u>-shall be <u>perform</u>_source testsed within 90 days after every 8,400 <u>hours of operation to demonstrate compliance with the NOx</u> <u>emission limits at least once every three calendar years</u>.
 - (iii) The owner or operator of each stationary gas turbine with a catalytic control device not utilizing an ammonia continuous emission monitoring system shall conduct source tests quarterly to demonstrate compliance during the first twelve months of operation of the catalytic control device and every calendar year thereafter when four consecutive source tests demonstrate compliance with the ammonia emission limit. If a source test is failed, four consecutive quarterly source tests shall demonstrate compliance with the ammonia emission limits prior to resuming source tests annually.
- (3) The owner or operator of each stationary gas turbine subject to Rule 1134 located at a RECLAIM NO_x facility shall comply with SCAQMD Rule

<u>2012 – Requirements for Monitoring, Reporting, and Recordkeeping for</u> Oxides of Nitrogen (NO_x) Emissions to demonstrate compliance with the <u>NOx emissions limits of this rule.</u>

- (4) The owner or operator of each stationary gas turbine subject to Rule 1134 located at a former RECLAIM NO_x facility shall conduct monitoring and recordkeeping pursuant to SCAQMD Rule 2012 – Requirements for Monitoring, Reporting, and Recordkeeping for Oxides of Nitrogen (NO_x) Emissions, excluding the following:
 - (A) <u>Rule 2012 paragraphs (c)(3) through (c)(8), reporting and Super</u> <u>Compliant facilities;</u>
 - (B) Rule 2012 subparagraphs (d)(2)(B) through (d)(2)(E), reporting and emission factors;
 - (C) <u>Rule 2012 subdivision (e), NO_x Process Units;</u>
 - (D) Rule 2012 paragraphs (g)(5) through (g)(8), reporting;
 - (E) <u>Rule 2012 paragraphs (h)(1), (h)(2), and (h)(4) through (h)(6),</u> reporting and mass emissions;
 - (F) <u>Rule 2012 subdivisions, (i), (k), and (l), Recordkeeping,</u> <u>Exemptions, and Appeals; and</u>
 - (G) Reported Data and Transmitting/Reporting Frequency requirements from Rule 2012 Appendix A – "Protocol for Monitoring, Reporting and Recordkeeping for Oxides of Nitrogen (NO_x) Emissions."
- (\underline{ef}) Test Methods

The following may be used by the Executive Officer to verify the concentrations of NO_x , ammonia, carbon monoxide (CO), and oxygen subject to the provisions of this rule. Emissions determined to exceed any limits established by this rule through either of the following shall constitute a violation of this rule.

- District SCAQMD Test Methods 3.1, <u>5.3</u>, 7.1, 10.1, <u>and</u>-100.1, <u>and 207.1</u>, and EPA Test Methods 10 <u>and 17</u>, or any method deemed to be equivalent by the Executive Officer and approved by CARB and EPA.
- (2) Data obtained from a continuous emissions monitoring system, which is installed and properly operated according to paragraph $(\underline{de})(1)$ of this rule and as approved by the Executive Officer.
- (3) Emissions determined to exceed any limits established by this rule through the use of any of the above-referenced test methods shall constitute a violation of the rule.

(fg) Recordkeeping

The <u>facility-owner or operator of a stationary gas turbine</u> shall comply with the following provisions <u>effective [90 days after Date of Adoption]</u>:

- (1) All records shall be maintained at the facility for a period of two years and made available to <u>District-SCAQMD</u> staff upon request.
- (2) Maintain a gas turbine operating log that includes, on a daily basis, the actual Pacific Standard Time start-up and stop shut-down times; total hours of operation; type and quantity of fuel used (liquid/gas); cumulative hours of operation to date for the calendar year; and if applicable the cumulative hours of operation since the last source test required by subparagraph $(\underline{de})(2)(A)$.
- (3) A monthly summary of emissions pursuant to paragraph (d)(1) shall be submitted to the District on or before the last day of the following calendar month.Install, operate, and maintain a data acquisition system (DAS) to demonstrate compliance with the provisions subdivisions (d) and (h) of this rule.
- (4) The results of source tests shall be submitted to the <u>District SCAQMD</u> in a form and manner as specified by the Executive Officer within <u>30-60</u> days after <u>source</u> testing is completed.
- (5) Any person using an emission control system as a means of complying with this rule shall maintain daily records of system operation and maintenance which will demonstrate continuous operation and compliance of the emission control device during periods of emission producing activities.

(<u>gh</u>) Exemptions

<u>The owner or operator Any person seeking to qualify for any one of the following</u> exemptions has the burden of proving <u>their its existing stationary</u> gas turbine unit meets the applicable specified criteria.

- (1) All provisions of this rule shall not apply to the following:
 - (A) Laboratory gas turbines units used in research and testing-; and
 - (B) Gas turbines <u>units</u> operated exclusively for <u>fire fighting firefighting</u> and/or flood control.
 - (C) Chemical processing gas turbine units.
 - (D) All existing pipeline gas turbine units located in the Southeast Desert Air Basin (SEDAB).

Proposed Amended Rule 1134 (Cont.)

- (2) <u>Emergency Standby Gas Turbines</u>
 - (A) The owner or operator of an emergency standby gas turbine shall not be subject to The provisions of subdivisions (ed) and (de), and paragraphs (fg)(3), (fg)(4), and (fg)(5) for that turbine, provided that the owner or operator of the emergency standby gas turbine shallnot apply to the following:
 - (i) (A)Install and maintain in proper operation a non-resettable engine hour meter; and
 - (ii) Emergency standby and peaking gas turbine units <u>D</u>demonstratesd to operate less than 200 hours of operation per calendar year, which have installed and maintained in proper operation a non-resettable engine hour meter.
 - (B) All existing gas turbine units located in the Southeast Desert Air Basin (SEDAB) which are rated below 4 MW and operate less than 877 hours per year.
 - (C) All existing gas turbine units located on San Clemente Island which are rated below 4 MW and operate less than 877 hours per year.
 - (B) However, iIf the hour-per-year limit is exceeded, the exemption shall be automatically and permanently withdrawn. The <u>owner or</u> operator of any stationary gas turbine unit exempt under this subparagraph (h)(2)(A) must-shall:
 - (i) <u>nNotify the Executive Officer within seven days if of the</u> <u>date the hour-per-year limit is exceeded-; and</u>
 - (ii) Within 30 days after the date the hour-per-year limit is exceeded, the operator must-submit a permit application for modification to equipment to meet the applicable compliance limit within 24 months of the date the hour-per-year limit is exceeded. Included with this permit application, the <u>owner or operator must-shall</u> submit an emission control plan including a schedule of increments of progress for the installation of the required control equipment. This plan and schedule shall be subject to the review and approval of the Executive Officer.

(3) Combined Cycle Gas Turbines

The owner or operator of a combined cycle gas turbine installed prior to [*Date of Adoption*] shall not be subject to paragraph (d)(3) for that combined cycle gas turbine, provided that:

- (A) The SCAQMD permit to operate as of [Date of Adoption] includes a condition limiting the NOx concentration to 2.5 ppmv NOx at 15% oxygen on a dry basis; and
- (B) The NOx and ammonia limits, averaging times, and start-up, shutdown, and tuning requirements specified on the SCAQMD permit to operate as of [Date of Adoption] are retained.

(4) Low-Use

- (A) The owner or operator of a stationary gas turbine installed prior to [Date of Adoption] shall not be subject to subdivision (d) for that stationary gas turbine, provided that:
 - (i) The stationary gas turbine maintains an annual capacity factor of less than twenty-five percent each calendar year;
 - (ii) The stationary gas turbine maintains an annual capacity factor of less than ten percent averaged over three consecutive calendar years on a rolling basis;
 - (iii) The stationary gas turbine retains the NO_x and ammonia limits, averaging times, and start-up, shutdown, and tuning requirements specified on the SCAQMD permit to operate as of [*Date of Adoption*];
 - (iv)The NOx limit shall not exceed 12 ppmv at 15% oxygen on
a dry basis and the ammonia limit shall not exceed 10 ppmv
at 15% oxygen on a dry basis; and
 - (v) The low-use exemption is a condition of the SCAQMD permit.
- (B) The owner or operator of a stationary gas turbine that elects the lowuse exemption pursuant to subparagraph (h)(4)(A) shall submit permit applications for each stationary gas turbine requesting the change of SCAQMD permit conditions to incorporate the low-use exemption by July 1, 2022.
- (C) The owner or operator shall determine eligibility of the low-use exemption for each stationary gas turbine annually and reported to

the Executive Officer no later than March 1 following each reporting year.

- (D) If a stationary gas turbine with a low-use exemption pursuant to subparagraph (h)(4)(A) exceeds the annual or three-year average annual capacity factor limit, such an exceedance shall be a violation of this rule and the owner or operator of that stationary gas turbine is subject to issuance of a notice of violation each year there is an exceedance for each annual and/or three-year exceedance. The owner or operator of that stationary gas turbine shall:
 - <u>Submit complete SCAQMD permit applications to repower</u>, retrofit, or retire that stationary gas turbine within six months from the date of the reported exceedance of subparagraph (h)(4)(A);
 - (ii) Submit a CEMS Plan within six months from the date of complete SCAQMD permit application submittal pursuant to clause (h)(4)(D)(i); and
 - (iii) Not operate that stationary gas turbine in a manner that exceeds the emissions limits listed in Table I after two years from the date of the reported exceedance of subparagraph (h)(4)(A).
- (5) The ammonia limits in Table 1 and ammonia source testing requirements of clause (e)(2)(C)(iii) shall not apply to turbines that do not use selective catalytic reduction or other processes that add ammonia into the exhaust gas.

ATTACHMENT H

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

Final Staff Report Proposed Amended Rule 1134 – Emissions of Oxides of Nitrogen from Stationary Gas Turbines

April 2019

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CHAPTER 1: BACKGROUND

INTRODUCTION BACKGROUND REGULATORY BACKGROUND PUBLIC PROCESS

INTRODUCTION

In March 2017, the SCAQMD adopted the Final 2016 Air Quality Management Plan (2016 AQMP) which includes a series of control measures to achieve the National Ambient Air Quality Standards for ozone. The adoption resolution of the 2016 AQMP directed staff to achieve additional NOx emission reductions and to transition the Regional Clean Air Incentives Market (RECLAIM) program to a command-and-control regulatory structure requiring Best Available Retrofit Control Technology (BARCT) as soon as practicable. In addition, California State Assembly Bill 617 (AB 617), which was signed by the Governor on July 26, 2017 and affects RECLAIM facilities that are also in the California Greenhouse Gas Cap and Trade program, requires implementation of Best Available Retrofit Control Technology (BARCT) no later than December 31, 2023, with priority given to older, higher polluting units.

Rule 1134 – Emissions of Oxides of Nitrogen from Stationary Gas Turbines (Rule 1134) was adopted in 1989. Proposed Amended Rule (PAR) 1134 – Emissions of Oxides of Nitrogen from Stationary Gas Turbines will facilitate the transition of the NOx RECLAIM program to a command-and-control regulatory structure and to implement Control Measure CMB-05 – Further NOx Reductions from RECLAIM Assessment (Control Measure CMB-05) of the 2016 AQMP. PAR 1134 applies to stationary gas turbines that are located at RECLAIM and non-RECLAIM facilities. PAR 1134 does not apply to gas turbines that are subject to Rule 1135 – Emissions of Oxides of Nitrogen from Electricity Generating Facilities (Rule 1135), turbines located at landfills, petroleum refineries, or publicly owned treatment works, or turbines fueled by landfill gas.

BACKGROUND

The SCAQMD Governing Board adopted the RECLAIM program in October 1993. The purpose of RECLAIM is to reduce NOx and SOx emissions through a market-based approach. The program replaced a series of existing and future command-and-control rules and was designed to provide facilities with the flexibility to seek the most cost-effective solution to reduce their emissions. It also was designed to provide equivalent emission reductions, in the aggregate, for the facilities in the program compared to what would occur under a command-and-control regulatory approach. Regulation XX – Regional Clean Air Incentives Market (RECLAIM) (Regulation XX) includes a series of rules that specify the applicability and procedures for determining NOx and SOx facility emissions allocations, program requirements, as well as monitoring, reporting, and recordkeeping requirements for RECLAIM facilities.

Various rules within Regulation XX have been amended throughout the years. On December 4, 2015, Regulation XX was amended to achieve programmatic NOx emission reductions through an overall reduction in RECLAIM trading credits (RTC) of 12 tons per day from compliance years 2016 through 2022. Regulation XX was amended on October 7, 2016 to incorporate provisions that limited use of RTCs from facility shutdowns. On January 5, 2018, Regulation XX, Rule 2001 – Applicability (Rule 2001) and Rule 2002 – Allocations for Oxides of Nitrogen (NOx) and Oxides of Sulfur (SOx) (Rule 2002), were amended to commence the initial steps to transition RECLAIM facilities to a command-and-control regulatory approach. On October 5, 2018, Rules 2001 and 2002 were amended to support ongoing efforts for transitioning RECLAIM facilities. Rule 2001 includes a provision to allow facilities to approve of RECLAIM if certain criteria are met. Rule 2002 provides an option for facilities that receive an initial determination notification to stay in RECLAIM for a limited time while complying with applicable command-and-control

requirements. Additionally, Rule 2002 establishes a provision that precludes any former RECLAIM facility from obtaining offsets from the SCAQMD internal bank.

In response to concerns regarding actual emission reductions and implementation of BARCT under RECLAIM, Control Measure CMB-05 of the 2016 AQMP committed to an assessment of the RECLAIM program in order to achieve further NOx emission reductions of five tons per day, including actions to sunset the program and ensure future equivalency to command-and-control regulations. During the adoption of the 2016 AQMP, the Resolution directed staff to modify Control Measure CMB-05 to achieve the five tons per day NOx emission reduction as soon as feasible but no later than 2025, and to transition the RECLAIM program to a command-and-control regulatory structure requiring BARCT-level controls as soon as practicable. Staff provided a report on transitioning the NOx RECLAIM program to a command-and-control regulatory structure at the May 5, 2017 Governing Board meeting and provides quarterly updates to the Stationary Source Committee, with the first quarterly report provided on October 20, 2017.

On July 26, 2017, AB 617 was approved by the Governor, which addresses non-vehicular air pollution (criteria pollutants and toxic air contaminants). It is a companion legislation to AB 398, which was also approved, and extends California's cap-and-trade program for reducing greenhouse gas emissions from stationary industrial sources. RECLAIM facilities that are in the cap-and-trade program are subject to the requirements of AB 617. Among the requirements of this bill is an expedited schedule for implementing BARCT for cap-and-trade facilities. Air Districts are to develop by January 1, 2019, an expedited schedule for the implementation of BARCT no later than December 31, 2023. The highest priority would be given to older, higher polluting units that will need to install retrofit controls.

REGULATORY BACKGROUND

Rule 1134 was adopted in 1989. The rule applies to stationary gas turbines rated at 0.3 MW and larger that were issued a permit to operate by the SCAQMD prior to August 4, 1989. The origin of the rule can be traced to a 1979 United States Environmental Protection Agency (EPA) New Source Performance Standard for Stationary Gas Turbines. In 1981, the California Air Resources Board (CARB) adopted a Suggested Control Measure for this same equipment. Rule 1134 was subsequently amended three times; each to provide regulatory flexibility.

- In December 1995, Rule 1134 was amended to exempt gas turbines located on San Clemente Island and the South East Desert Air Basin.
- In April 1997, Rule 1134 was amended to increase the NOx concentration limit for turbines utilizing sewage digester gas.
- In August 1997, Rule 1134 was amended to clarify the need for continuous emission monitoring systems (CEMS) on turbines with a power output of 2.9 MW or larger.

EPA approved Rule 1134 into the SIP on August 1, 2000.

Stationary Gas Turbines and RECLAIM

Beginning in 1994, a large number of utilities and third-party-owned cogeneration facilities were included in the RECLAIM program and as such were not required to meet the NO_X concentration limits imposed by Rule 1134 which had effective dates post 1994. However, gas turbines permitted prior to August 4, 1989 that were used at publicly-owned treatment works, landfills,

hospitals, and other public facilities, were not included in RECLAIM and were required to meet the concentration limits in Rule 1134. PAR 1134 will apply to all stationary gas turbines located at non-RECLAIM and RECLAIM facilities (excluding those subject to Rule 1135, located at a petroleum refineries, landfills, or publicly owned treatment works), or turbines fueled with landfill gas, regardless of the date they were permitted.

PUBLIC PROCESS

Development of Proposed Amended Rule 1134 – Emissions of Oxides of Nitrogen from Stationary Gas Turbines was conducted through a public process. SCAQMD has held four working group meetings at the SCAQMD Headquarters in Diamond Bar on February 22, 2018, April 26, 2018, June 13, 2018, and August 10, 2018. The Working Group is composed of representatives from businesses, environmental groups, public agencies, and consultants. The purpose of the working group meetings is to discuss proposed concepts and work through the details of staff's proposal. Additionally, a Public Workshop will be was held at the SCAQMD Headquarters in Diamond Bar on December 18, 2018.

CHAPTER 2: BARCT ASSESSMENT

INTRODUCTION BARCT – RETROFIT VERSUS REPLACEMENT BARCT ANALYSIS APPROACH

INTRODUCTION

Staff conducted an assessment of Best Available Retrofit Control Technology (BARCT) for stationary gas turbines. BARCT is defined in the California Health and Safety Code section 40406 as "an emission limitation that is based on the maximum degree of reduction achievable, taking into account environmental, energy, and economic impacts by each class or category of source." Consistent with state law, BARCT emissions limits take into consideration environmental impacts, energy impacts, and economic impacts. In addition to NOx reductions sought in the proposed amended rule, SCAQMD, through the California Environmental Quality Act (CEQA) process, identified potential environmental and energy effects of the proposed rule. Economic impacts are assessed at the equipment category level by a review of cost-effectiveness and incremental cost-effectives contained in this report and at the macro level as part of the socio-economic assessment contained in a separate report.

BARCT – RETROFIT VERSUS REPLACEMENT

A question was raised in the Regional Clean Air Incentives Market (RECLAIM) Working Group concerning the scope of "best available retrofit control technology," which the SCAQMD must impose for all existing stationary sources, including sources that exit RECLAIM or that exist after RECLAIM has ended pursuant to Health & Safety Code section 40440(b)(1). A commenter stated that the use of the word "retrofit" precludes the SCAQMD from requiring emissions limits that can only be cost-effectively met by replacing the basic equipment with new equipment.

As explained in detail below, BARCT may certainly include the replacement of equipment. However, PAR 1134 does not require equipment replacement. The following discussion addresses comments raised in connection with this rule even though it does not require replacements. In summary, we explain the particular instance in which SCAQMD has sought to specify a level equivalent to equipment replacement as BARCT for internal combustion engines on Santa Catalina Island. This was part of Proposed Amended Rule 1135 (PAR 1135), which has already been adopted. This demonstrates how public policy supports SCAQMD's interpretation. Moreover, as we explained in the PAR 1135 Preliminary Draft Staff Report, the statutory definition of BARCT supports a broad interpretation. And applicable dictionary definitions do not preclude the view that BARCT can include equipment replacement. Finally, even if a court were to conclude that BARCT cannot encompass equipment replacement, BARCT is not a limitation on SCAQMD authority. The SCAQMD retains broad statutory authority to adopt emission-control requirements for stationary sources, and that authority may require equipment replacement, as long as the requirement is not arbitrary and capricious.

Public Policy Supports the SCAQMD's Interpretation

As noted in the staff report for PAR 1135, staff has-proposed a BARCT for diesel fueled engines that appears to be more cost-effectively met by replacing the engine rather than trying to install additional add-on controls. If SCAQMD were precluded from requiring the replacement of these engines, the oldest and dirtiest power-producing equipment would continue to operate for possibly many years, even though it would be cost-effective and otherwise reasonable to replace those engines. As long as an emissions limit meets the requirements of the definition set forth in section 40406, there is no policy reason why replacement equipment cannot be an element of BARCT. And there is no policy reason why BARCT – if it does not include replacements – would somehow

limit the SCAQMD from requiring equipment replacement where that requirement is reasonable and feasible. "If the statutory language permits more than one reasonable interpretation, courts may consider other aids, such as the statute's purpose, legislative history, and public policy." *Jones v. Lodge at Torrey Pines Partnership*, 42 Cal. 3d. 1158, 1163 (2008). In this case, the statue permits two reasonable interpretations, since the statutory definition in 40406 does not preclude requiring equipment replacement if it is reasonable considering economic and other factors. The legislative history and public policy both support the SCAQMD's interpretation, and a narrow interpretation is inconsistent with the broad language of the statutory definition.

The BARCT proposed adopted in Rule 1135 for internal combustion engine power producers (replacement with Tier IV engines) is economically and practically reasonable and therefore does not "go beyond" BARCT if we look strictly at the statutory definition. As stated by the Supreme Court, the "statutes that provide the districts with regulatory authority serve a public purpose of the highest order-protection of the public health." *W. Oil & Gas Assn. v. Monterey Bay Unified Air Pollution Control Dist.*, 49 Cal. 3d 408, 419 (1989) ("WOGA"). Therefore, courts should not find that any statute causes an "implied repeal" of the districts' authority. *Id.*

While PAR 1134 does not require replacement of any equipment as BARCT, in the recently amended Rule 1135, replacement of certain equipment was required as BARCT. In that rule, the proposal to require replacement of five out of the six internal combustion engines at Santa Catalina Island was supported by overwhelming policy justifications. There are six internal combustion engines at the facility, of which three are at least 50 years old. The other three were installed in 1974, 1985, and 1995. The 1995 engine was installed with SCR; the other five had SCR installed in 2003. Staff concludes that it would be more cost-effective to replace the five oldest of these engines with new Tier IV engines rather than to install additional add-on controls. (The sixth engine was found not to be cost-effective to replace). These engines account for 0.06% of the electric utility power produced in the District (PAR 1135 Final Staff Report, Table 4-3, 9 MWhr divided by 15,904 MWhr). But they account for 5.7% of the emissions inventory from electricity generating facilities (PAR 1135 Staff Report, Table 4-4, 0.2 tpd divided by 3.5 tpd). If the SCAQMD could not require replacement of these engines, then paradoxically the oldest, highest-emitting equipment would escape control.

The SCAQMD has in the past required replacement of old equipment in appropriate cases. The SCAQMD has required replacement, for example, in its dry-cleaning rule, adopted in 2002, which required all perchloroethylene dry-cleaning machines to be phased out by 2020, with other specific requirements implemented starting shortly after rule adoption. Rule 1421(d)(1)(F). Thus, a perchloroethylene machine that was installed in 2001 would be required to be replaced with a non-perchloroethylene machine when it is 19 years old. While this is a rule relating to toxic air contaminants, we do not believe the SCAQMD's authority is any less for criteria pollutants.

Dictionary Definitions Support SCAQMD's Interpretation

We do not agree that the term "retrofit" excludes replacement, such as replacement of an engine. We do not find that limitation in the dictionary definitions for the term "retrofit," including those cited in the SCAQMD staff report for Rule 1135. Instead, at least one definition provides that "retrofit" can mean "to replace existing parts, equipment, etc., with updated parts or systems." <u>http://www.dictionary.com/browse/retrofit</u>. Nothing in this definition requires that only part of a

piece of equipment can be replaced. Indeed, according to this definition, a retrofit can include the replacement of an entire system. In our view, at least one dictionary definition of the term "retrofit" encompasses "replacement of equipment or systems." *See* definition cited above. This definition is broad enough to include replacing the entire piece of equipment or system. Therefore, the key question is what did the legislature mean when it imposed the BARCT requirement on SCAQMD?

Statutory Definition of BARCT Supports SCAQMD's Interpretation

The statutory definition of BARCT, as found in Health & Safety Code section 40406, does not contain any language precluding replacement technology. Section 40406 defines BARCT as "an emissions limitation that is based on the maximum degree of reduction achievable, taking into account environmental, energy, and economic impacts by each class or category of source." Thus, BARCT is an emissions limitation. Nothing in the statutory definition specifies the type of technology that may be used. The California Supreme Court has made it clear that it is the definition of BARCT that controls, not implications from the language used in the term itself. Thus, the Supreme Court rejected the argument that "best available retrofit control technology" is limited to that which is readily available at the time when the regulation is enacted, and instead concluded that it encompasses technology that is "achievable," i.e. expected to become available at a future date. American Coatings Ass'n. v. South Coast Air Quality Mgt. Dist., 54 Cal. 4th 446, 462 (2012). The Court focused on the actual statutory definition, which provides that BARCT is "an emissions limitation that is based on the maximum degree of reduction achievable, taking into account environmental, energy, and economic impacts by each class or category of source." American Coatings, 54 Cal. 4th at 463. The Court concluded that in common usage, "achievable" means "capable of being achieved," which in turn includes "a potentiality to be fulfilled or a goal to be achieved at some future date." Id.

Thus, an emissions reduction was "achievable" when the rule was adopted in 1999 if it was "capable of being achieved" by the rule deadline of 2006. *American Coatings*, 54 Cal. 4th at 464. This was so even if that reduction was not "readily available" in 1999, notwithstanding the use of the word "available" in the term being defined. The Supreme Court held that the statutory definition controls, and in this case the statutory definition does not preclude replacement technology.

When the Legislature has defined a term, courts must follow that definition. *People v. Ward*, 62 Cal. App. 4th 122, 126 (1998). Following the California Supreme Court's analysis in *American Coatings*, the test of whether an emission limit constitutes BARCT is whether it meets the definition found in the statute, section 40406. If so, then it is within the statutory definition of BARCT, whether or not it is within the most common understanding of "retrofit." This does not mean that the word "retrofit" is surplusage. The use of the word "retrofit" serves to distinguish an emission limit that is imposed on existing sources, and which, under the statutory definition, must consider economic and other factors, from the emissions limit imposed on new sources. The limit for new sources must be met if it has been achieved in practice, regardless of cost. *See* definition of "best available control technology" [BACT] in section 40405, which includes "the most stringent emission limitation that is achieved in practice by that class or category of source." We do not argue that a replacement can be BARCT if it does not meet the definition of BARCT. Instead, if a limit meets that definition, it can be BARCT even if it can most cost-effectively be

met by replacing the equipment with new equipment, as recognized in the dictionary definition discussed above.

<u>Contrary to the commenter's argument, The the American Coatings</u> ruling is not irrelevant just because it dealt with a rule for architectural coatings requiring coating reformulation, which "does not typically involve the manufacture of modified production equipment or new add-on controls," whereas control technologies that require physical modification of existing equipment or installation of add-on controls may require "significant disruption to the operation of the facility." We do not know whether the claim regarding architectural coatings is correct, but even if it is, we do not understand how this relates to the question at issue since *both* retrofit add-on controls and replacements would involve the disruption of facility operations for some time.

Other Statutory References to "Retrofit" Are Inapplicable

The legislature has used the term replacement as well as retrofit in certain sections of the Health and Safety Code. §§ 43021(a), 44281(a). Furthermore, the legislature defined retrofit in sections 44275(a)(19) and 44299.80(o), and the definition does not mention replacement but rather making modifications to the engine and fuel system. Finally, these same code sections define "repower" as replacing an engine with a different engine. §§ 44275(a)(18), 44299.80(n). However, all of these code sections were adopted long after 1987, when the legislature mandated SCAQMD to require BARCT for existing sources. They do not shed any light on what the legislature meant by "retrofit" in 1987 when section 40406 was adopted. All of the sections cited (except section 43021(a)) deal with incentive programs, and the definitions are specifically stated to be only "as used in this chapter"; i.e. for the specific incentive program. §§ 44275(a); 44299.80(a). These definitions facilitate the administering agency in implementing the programs, which generally provide different amounts of funding for different types of projects, including "repowering" or "retrofitting." *See e.g.*

<u>https://www.arb.ca.gov/msprog/moyer/source_categories/moyer_sc_on_road_hdv_2.htm</u> Therefore, the legislature had a specific purpose in distinguishing between replacements and retrofits in these particular chapters, whereas no one has identified a policy reason that the legislature would have wanted to exclude replacement projects from BARCT, as long as they met the statutory definition.

Section 43021(a), enacted in 2017 as Part of SB1, prohibits Air Resources Board rules that require the "retirement, replacement, retrofit, or repower" of a commercial motor vehicle for a period of time. An argument can be made that this language means that a replacement must be different than a retrofit, under that theory it must also mean that a replacement is different from a repower, whereas under the sections cited above, a repower IS a replacement. Presumably, the legislature wanted to make very sure it covered all possibilities. And to add to the confusion, the Carl Moyer statutes appear to distinguish "retrofit" (an eligible project under §44282(a)(2)) from "use of emission-reducing add-on equipment" (an eligible project under §44281(a)(3)). Normally installing add-on controls is considered a type of retrofit.

Statute Discussing Best Available Control Technology Determinations Does Not Circumscribe BARCT Definition

Section 40920.6 states that in establishing the best available control technology, (BACT), the District shall consider only "control options or emission limits to be applied to the basic production or process equipment." BACT is frequently applied to replacement of an entire source (such as repowers of electric generating units) as well as to new and modified sources. Obviously, in the case of a new source, there is no existing equipment to which to apply the technology. We interpret this statutory language to mean that in establishing BACT, the SCAQMD is not to fundamentally change the nature of the underlying process. For example, if an applicant seeks approval of a simple cycle turbine, the SCAQMD cannot require it to instead construct a combined cycle turbine, since they have different operational characteristics and needs to fill. This would be consistent with EPA's Draft NSR Workshop Manual, p. B-13, which specifies that in determining BACT, states need not redefine the design of the source, although they retain discretion to do so where require consideration inherently (i.e. of cleaner technology). warranted to https://www.epa.gov/nsr/nsr-workshop-manual-draft-october-1990. Similarly, SCAQMD does not propose to require a facility subject to BARCT to "redefine" the nature of its source but merely, in the case of recently amended Rule 1135, to replace old diesel internal combustion engines with diesel internal combustion engines meeting EPA's Tier IV standards. Therefore, section 40920.6 does not speak to the question at hand: whether BARCT precludes replacing old equipment with new equipment of the same type.

SCAQMD Has Authority to Require Equipment Replacement, Which is Not Limited by the BARCT Definition

Finally, even if BARCT by itself did not include replacement equipment, the SCAQMD could still require the equipment to be replaced. We disagree that only section 40440(a)(1) grants the authority to require BARCT (i.e., that without that section, the district would have no authority to require BARCT). We also disagree with the proposition that Section 40440(a)(1) limits the District's authority.

State law has explicitly granted air districts primary authority over the control of pollution from all sources except motor vehicles since at least 1975, when the air pollution regulation provisions were recodified. *See* § 40000, enacted Stats. 1975, ch. 957, §12; *see also* § 39002, containing similar language and adopted in that same section. As held by the California Supreme Court, these two sections (and their predecessors dating back to 1947) confirm that the air districts had plenary authority to regulate non-vehicular sources "for many years." WOGA, 49 Cal. 3d. at 418-19. And the Supreme Court had previously recognized the air districts' authority to adopt local regulations for non-vehicular sources under the predecessor statutes. Orange County Air Pollution Control Dist. v. Public Util. Comm., 4 Cal. 3d 945, 948 (1971). Under these broad statutes, the districts could have adopted BARCT requirements for non-vehicular sources. Section 40440(a)(1), therefore, was not a statute granting authority, since the districts already had authority, but a statute imposing a mandate to adopt BARCT.

We also disagree with the claim that section 40440(a)(1) requiring the SCAQMD to impose BARCT on existing sources was a "limitation" of district authority. State law expressly provides that districts "may establish additional, stricter standards than those set forth by law" unless the Legislature has specifically provided otherwise §§ 39002; 41508. Nothing in Section 40440(a)(1)

specifically limits the District's authority. In fact, the legislative history of the bill requiring SCAQMD to impose BARCT – among other requirements – states that "this bill is intended to encourage more aggressive improvements in air quality and to give the District new authority to implement such improvements." *American Coatings*, 54 Cal. 4th at 466 (emphasis added). As stated by the Supreme Court, "[t]the BARCT standard was therefore part of a legislative enactment designed to augment rather than restrain the District's regulatory power." *Id.* As explained by the legislative history, BARCT is a "minimum" requirement, and the legislature did not intend it to preclude the District from adopting requirements that go beyond BARCT.

Among the new authorities granted were section 40447.5, authorizing fleet rules and limits on heavy duty truck traffic and section 40447.6, authorizing the SCAQMD to adopt sulfur limits for motor vehicle diesel fuel. We do not believe that section 40440(a)(1) granted "new" authority to require BARCT, as the districts already had authority over non-vehicular sources.

Moreover, when the Legislature extended the BARCT requirement to other districts with significant air pollution, section 40919(a)(3) (districts with serious pollution and worse) the legislature expressly stated that the bill "is intended to establish minimum requirements for air pollution control districts and quality management districts" and that "[n]othing in this act is intended to limit or otherwise discourage those district from adopting rules and regulations which exceed those requirements." Stats. 1992, ch. 945 § 18. Thus it is clear that BARCT is not intended to be a limitation or restriction on existing authority.

Although the California Supreme Court found it unnecessary to decide whether the SCAQMD could adopt rules going beyond BARCT, because it held that BARCT could include technology-forcing measures, it did state that BARCT was not designed to restrain the District's regulatory power. *American Coatings*, 54 Cal 4th at 466, 469.

In an earlier case, the California Supreme Court made it clear that new legislation does not impliedly repeal an air district's existing authority unless it "gives undebatable evidence of an intent to supersede" the earlier law. WOGA, 49 Cal. 3d. at 420 (internal citation omitted; emphasis by Supreme Court). There the court noted that the present statutes and their predecessors giving air districts authority over non-vehicular sources, including the authority to regulate air toxics, had been in effect before the allegedly preempting law was enacted (in 1983; Stats 1983 Ch. 1047), and had been generally understood and acted upon. Id. at 419. The court concluded there was no "undebatable evidence of a legislative intent to repeal the districts' statutory authority to protect the health of their citizens by controlling air pollution." WOGA, 49 Cal 3d at 420. By the same token here, there is no undebatable evidence of an intent to limit air districts' existing authority by imposing a mandate to adopt BARCT requirements. Instead, BARCT was a minimum requirement that SCAQMD must impose, not a limit on its ability to impose additional, including more stringent, requirements. Indeed, the argument that BARCT limits SCAQMD's authority is illogical. It would make no sense for the Legislature in 1987 to limit only the district with the worst air pollution (SCAQMD) while leaving untouched the authority of other districts with lesser levels of pollution.

Nor does this conclusion leave the SCAQMD with unlimited regulatory power. In going beyond the statutory minimum of BARCT for existing sources, the District would still be limited by the

requirement that its rules may not be arbitrary and capricious, or without reasonable or rational basis, or entirely lacking in evidentiary support. *American Coatings*, 54 Cal. 4th at 460. And of course, the SCAQMD's rulemaking authority is limited by applicable constitutional principles. Therefore, stakeholders need not rely on an argument that BARCT restricts the SCAQMD's authority in order to ensure the SCAQMD does not implement any arbitrary action.

Conclusion

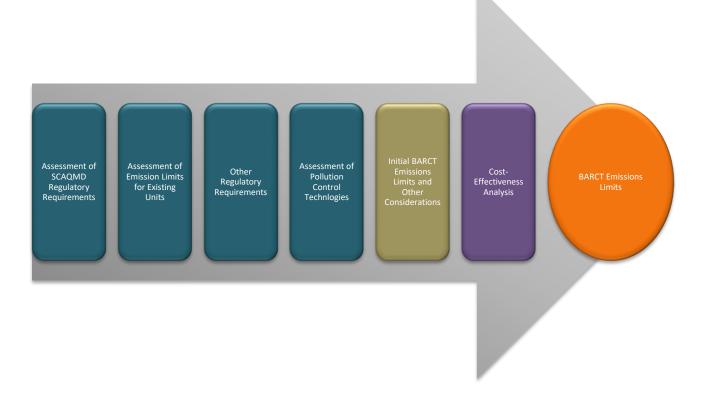
SCAQMD has the authority to require equipment replacement as a BARCT requirement as long as the requirement meets the statutory definition of BARCT. But even if BARCT were to exclude equipment replacement, the SCAQMD would still have the authority to require replacement, as long as the replacement is not arbitrary and capricious.

BARCT ANALYSIS APPROACH

The BARCT analysis approach follows a series of steps conducted for each equipment category and fuel type. For Proposed Amended Rule 1134 – Emissions of Oxides of Nitrogen from Stationary Gas Turbines (PAR 1134), stationary gas turbines were analyzed by process and fuel type.

The steps for BARCT analysis consist of:

- Assessment of SCAQMD Regulatory Requirements
- Assessment of Emissions Limits for Existing Units
- Other Regulatory Requirements
- Assessment of Pollution Control Technologies
- Initial BARCT Emissions Limits and Other Considerations
- Cost-Effectiveness Analysis
- Final BARCT Emissions Limits



Assessment of SCAQMD Regulatory Requirements

As part of the BARCT assessment, staff reviewed existing SCAQMD regulatory requirements that affect NOx emissions from stationary gas turbines. NOx emissions from stationary gas turbines permitted prior to August 4, 1989 located at non-RECLAIM facilities are regulated under Rule 1134 – Emissions of Oxides of Nitrogen from Stationary Gas Turbines (Rule 1134). Under Rule 1134, the NOx emission concentration limits are as follows in Table 2-1 below.

Table 2-1 Current Kule 1154 Nox Concentration Emilis							
Unit Size (MW)	NOx Reference Limit (ppmv at 15% oxygen, dry)						
No Selective Catalytic Reduction							
0.3 to < 2.9	25						
2.9 to < 10	15						
2.9 to < 10 (Sewage Digester Gas)	25						
10 and Over	12						
60 and Over (Combined Cycle)	15						
With Selective Catalytic Reductions							
2.9 to < 10	9						
10 and Over	9						
60 and Over (Combined Cycle)	9						

Table 2-1 –	Current	Rule 1134	NOx	Concentration Limits
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Assessment of Emission Limit for Existing Units

Staff examined all of the current non-emergency stationary gas turbines, excluding those subject to Rule 1135, located at a petroleum refinery, landfill, or publicly owned treatment work, or powered by landfill gas to assess the emission rate of equipment located in SCAQMD. Emissions limits are established at the time of permitting, and permits include concentration limits for NOx and emissions limits for non-RECLAIM pollutants such as particulate matter. Stationary gas turbines installed after August 4, 1989 and not located at a RECLAIM facility (existing units) only have emissions limits established at the time of permitting. Permit limits for NOx concentrations were identified for all equipment to identify what is already being done in practice. Currently, there are approximately 73 turbines at 39 facilities: 40 natural gas turbines at 27 facilities; 3 produced gas turbines at two facilities; and 17 emergency standby gas turbines at six facilities.

Natural Gas Combined Cycle Gas Turbines

For natural gas combined cycle gas turbines, one of eighteen units are is permitted at 2 ppmv NOx at 15% oxygen on a dry basis. Six natural gas combined cycle gas turbines are permitted at 2.5 ppmv NOx at 15% oxygen on a dry basis. These seven units were replacement units installed in 2009 or later. Units that were permitted at 2 ppmv or 2.5 ppmv NOx at 15% oxygen on a dry basis also had ammonia permit limits of 5 ppmv at 15% oxygen on a dry basis. The lowest permitted NOx limit for a natural gas combined cycle gas turbines in SCAQMD is 2 ppmv at 15% oxygen on a dry basis. Table 2-2 lists the information regarding natural gas combined cycle gas turbines.

Unit	Size (MMBTU/HR)	MW Rating	Install Year	Control ¹	NOx Permit Limit ² (ppmv @ 15% oxygen, dry)	Ammonia Permit Limit (ppmv @ 15% oxygen, dry)	2015 NOx Emissions (tons)
NG CS10 ³	410	60	1996	SCR	1024	5	192.7
NG CS3	16	1.1	1989	Water injection	41	Not applicable	2.4
NG CS1	59	2.9	1989	Water injection	25	Not applicable	10.8
NG CS2	59	2.9	1989	Water injection	25	Not applicable	4.0
NG CS8 ³	59	6	1993	Water injection/Low NOx duct burner	21	Not applicable	26.2
NG CS9 ³	59	6	1993	Water injection/Low NOx duct burner	21	Not applicable	24.1
NG CS4	234	23.6	1989	Steam or water injection/SCR/Vaporization system	12	None	33.3
NG CS6 ³	46	2.8	1992	Water injection	9	Not applicable	5.3
NG CS7	49	2.9	1992	Water injection	9	Not applicable	5.6
NG CS17	446	48.2	1987	SCR/Water Injection	9	None	10.2
NG CS5	221	21.7	1990	SCR/Water Injection	9	5	45.4
NG CS18	350	30	2010	SCR/Water Injection	2.5	5	1.0
NG CS11 ³	57	5	2009	SCR	2.5	5	0.6

 Table 2-2 – Natural Gas Combined Cycle Gas Turbines

NG CS12 ³	57	5	2009	SCR	2.5	5	0.2
NG CS13	162	13.4	2010	SCR	2.5	5	3.5
NG CS15	114	5.6	2015	SCR	2.5	5	0.4
NG CS16	114	5.6	2015	SCR	2.5	5	0.4
NG CS14	173	13.5	2013	SCR	2	5	0.9

¹ – SCR: Selective Catalytic Reduction

² – Actual NOx concentrations emitted are generally lower than the NOx permit limit

³ – Natural Gas Combined Cycle Gas Turbine with Associated Duct Burner

⁴⁻ Actual NOx concentration emitted are much lower than NOx permit limit

Natural Gas Simple Cycle Gas Turbines

For natural gas simple cycle gas turbines, two of twenty-two units are permitted at 2.5 ppmv NOx at 15% oxygen on a dry basis. Some simple cycle gas turbines have permitted ammonia concentrations of 5 ppmv at 15% oxygen on a dry basis. However, many have no limits whatsoever because the addition of ammonia limits is a relatively recent addition. Table 2-3 lists the information regarding natural gas simple cycle turbines.

Unit	Size (MMBTU/HR)	Output (MW)	Install Year	Control ¹	NOx Permit Limit ² (ppmv at 15% oxygen, dry)	Ammonia (ppmv at 15% oxygen, dry)	2015 NOx Emissions (tons)
NG SS13	246	23	1987	Steam injection	42	Not applicable	26.1
NG SS14	466	42	1987	Steam injection	42	Not applicable	279.2
NG SS8	50	4	1988	Steam injection	40	Not applicable	29.3
NG SS9	50	4	1989	Steam injection	40	Not applicable	29.3
NG SS10	229	22.4		SCR/Steam injection	9	20	32.4
NG SS11	250.6	23.1	2002	SCR/Steam injection	9	20	27.3
NG SS 28	221	21.8	1989	SCR	9	20	19.0
NG SS 29	221	21.8	1989	SCR	9	20	23.1
NG SS12	1080	158	2009	Steam injection	7.5	Not applicable	4.9
NG SS19	530.2	43.8	2008	SCR/Steam injection	7	20	0
NG SS15	472.5	39		SCR/Steam injection	5	5	4.8
NG SS17	43.8	4.6	2009	Lean pre-mix combustor	5	Not applicable	3.2
NG SS20	136.5	10.5	2001	SCR	-	5	0
NG SS21	136.5	10.5	2001	SCR	5	5	0
NG SS22	136.5	10.5	2001	SCR		5	0
NG SS23	136.5	10.5	2001	SCR	5	5	0
NG SS24	136.5	10.5	2001	SCR	5	5	0.1
NG SS25	136.5	10.5	2001	SCR	-	5	0
NG SS26	136.5	10.5	2001	SCR	5	5	0
NG SS27	136.5	10.5	2001	SCR	5		0
NG SS16	126	10	2008	SCR	2.5	None	8.7
NG SS18	407.7	39		SCR	2.5	10	1.7

Table 2-3 – Natural Gas Simple Cycle Gas Turbines

¹- SCR: Selective Catalytic Reductions

² - Actual NOx concentration emitted are generally lower than the NOx permit limit

Produced Gas Turbines

Currently there are three non-Outer Continental Shelf (OCS) produced gas turbines subject to PAR 1134. One produced gas turbine is permitted at 5 ppmv NOx and 5 ppmv ammonia at 15% oxygen on a dry basis. Table 2-4 lists the information regarding the non-OCS produced gas turbines.

Unit	Size (MMBTU/HR)	Output (MW)	Install Year	Control ¹	NOx Permit Limit ² (ppmv at 15% oxygen, dry)	Ammonia (ppmv at 15% oxygen, dry)	2016 NOx Emissions (tons)
PGT2	49	4.8	2001	SCR	9	10	4.0
PGT3	49	4.8	2001	SCR	9	10	1.5
PGT5	63	5.7	2003	SCR	5	5	4.6

¹- SCR: Selective Catalytic Reduction

²- Actual NOx concentration emitted are generally lower than the NOx permit limit

Outer Continental Shelf Produced Gas and Liquid Fueled Turbines

Currently there are six OCS produced gas turbines subject to PAR 1134. They also have the capability to burn liquid fuel when produced gas is not available. The turbines are permitted between 65 and 140 ppmv NOx at 15% oxygen on a dry basis. Table 2-5 lists the information regarding the OCS produced gas turbines.

	Table 2-5 – Outer Continental Shen Produced Gas Turbines								
Unit	Size (MMBTU/HR)	Output (MW)	Install Year	Control	NOx Permit Limit ¹ (ppmv at 15% oxygen, dry)	Ammonia (ppmv at 15% oxygen, dry)	2016 NOx Emissions (tons)		
PGOCST1	29	2.5	1984	N/A	140	Not applicable	47.7		
PGOCST2	29	2.5	1984	N/A	140	Not applicable	42.3		
PGOCST3	29	2.5	1984	N/A	130	Not applicable	40.1		
PGOCST4	42	2.5	1984	N/A	65	Not applicable	7.2		
PGOCST5	42	2.5	1984	N/A	65	Not applicable	3.0		
PGOCST6	42	2.5	1984	N/A	65	Not applicable	8.9		

 Table 2-5 – Outer Continental Shelf Produced Gas Turbines

¹ - Actual NOx concentration emitted are generally lower than the NOx permit limit

Compressor Gas Turbines

Currently there are seven compressor gas turbines subject to PAR 1134. The turbines are permitted between 64 and 81 ppmv NOx at 15% oxygen on a dry basis. Table 2-6 lists the information regarding the compressor gas turbines.

Unit	Size (MMBTU/HR)	Output (MW)	Install Year	Control	NOx Permit Limit ¹ (ppmv at 15% oxygen, dry)	Ammonia (ppmv at 15% oxygen, dry)	2015 NOx Emissions (tons)
NG SS1 ²	150	11	1980	None	81	Not applicable	58.1
NG SS2 ²	150	11	1980	None	81	Not applicable	54.3
NG SS3 ²	150	11	1980	None	81	Not applicable	52.4
NG SS4	13.11	0.9	<u>1980197</u> 2	None	68	Not applicable	3.7
NG SS6	13.11	0.9	<u>1990197</u> 2	None	68	Not applicable	3.9
NG SS5	13.11	0.9	2002 <u>197</u> 2	None	67	Not applicable	4.3
NG SS7	13.11	0.9	<u>1987197</u> 2	None	64	Not applicable	3.7

Table 2-6 – Compressor Gas Turbines

1 – Actual NOx concentration emitted are generally lower than the NOx permit limit

2 - Equipment replaced in 2018

Summary

A summary of permitted limits in SCAQMD for the five types of stationary gas turbines is provided in Table 2-7.

Equipment	Initial Recommendation for NOx Concentration Limit Based on Existing Units	Number of Units Meeting Retrofit Concentration Limit	Pollution Control Technology
Natural Gas Combined Cycle Gas Turbine	2 ppmv at 15% oxygen, dry	1 unit	Selective Catalytic Reduction (Replacement)
Natural Gas Simple Cycle Gas Turbine	2.5 ppmv at 15% oxygen, dry	2 units	Selective Catalytic Reduction (Replacement)
Produced Gas Turbines	5 ppmv at 15% oxygen, dry	1 unit	Selective Catalytic Reduction (Replacement)
Outer Continental Shelf Produced Gas Turbines	65 ppmv at 15% oxygen, dry	3 units	None
Compressor Gas Turbines	64 ppmv at 15% oxygen, dry	1 unit	None

 Table 2-7 – Assessment of NOx Concentration Levels for Existing Units

Other Regulatory Requirements

As part of the BARCT assessment, staff examined NOx limits for stationary gas turbines promulgated by Bay Area Air Quality Management District (BAAQMD) and San Joaquin Valley Air Pollution Control District (SJVAPCD). BAAQMD Regulation 9, Rule 9 – Nitrogen Oxides and Carbon Monoxide from Stationary Gas Turbines and SJVAPCD Rule 4703 – Stationary Gas

Turbines were reviewed. Table 2-8 below notes the NOx limits in the two air districts for stationary gas turbines.

Agency	Rule Adoption Date	Rule Effective Date	Capacity (MMBTU/HR)	Output (MW)	NOx Limit (ppmv @ 15% oxygen, dry)
			5 - 50	N/A	42
	December	Tomasona	>50 - 150	N/A	25-42
BAAQMD ¹	BAAQMD ¹ December 2006	January 2010	>150 - 250	N/A	15
			>250 - 500	N/A	9
			>500	N/A	5
			<35 ²	<3	25
			>35-130 ²	>3-10	25
SJVAPCD	September	January			8 steady and 12
SJVAPCD	2007	2012	$>35 - 130^{2}$	>3 - 10	transition
					(Pipeline/Compressor)
			>130 ²	>10	25-42

 Table 2-8 – Stationary Gas Turbine Limits in Other Air Districts

¹ – Currently under review

² – Non-regulatory, converted for comparison purposes only

For natural gas turbines, the NOx concentration limits in other Air District regulations were higher than existing units located in SCAQMD. The exception is the SJVAPCD compressor gas turbine limit.

Assessment of Pollution Control Technologies

As part of the BARCT assessment, staff conducted a technology assessment to evaluate NOx pollution control technologies for stationary gas turbines. Staff reviewed scientific literature, vendor information, and strategies utilized in practice. The documents that staff relied upon are listed in this report's references section, including U.S. EPA's "Catalog of CHP Technologies" and "Air Pollution Control Cost Estimation Spreadsheet for Selective Catalytic Reduction". Reference is included for the Office of Energy Efficiency and Renewable Energy's "Catalytic Combustion". The technologies are presented below and the applicability for use with various stationary gas turbines is noted. In most cases, post-combustion technologies may be utilized in conjunction with pre-combustion technologies.

Pre-Combustion Technologies

Dry Low-NOx or Lean Premix Emission Combustors (Natural Gas, Produced Gas Turbines, Compressor)

Prior to combustion, gaseous fuel and compressed air are pre-mixed, minimizing localized hot spots that produce elevated combustion temperatures and therefore, less NOx is formed. Atmospheric nitrogen from the combustion air is mixed with air upstream of the combustor at deliberately fuel-lean conditions. Approximately twice as much air is supplied as is actually needed to burn the fuel. This excess air is a key to limiting NOx formation, as very lean conditions cannot produce the high temperatures that create thermal NOx. Using this technology, NOx emissions, without further controls, have been demonstrated at single digits (< 9 ppmv at 15% oxygen, dry). The technology is engineered into the combustor that becomes an intrinsic part of

the turbine design. Fuel staging or air staging is utilized to keep the flame within its operating boundaries. It is not available as a "retrofit" technology and must be designed for each turbine application.

Water or Steam Injection (Natural Gas, Produced Gas Turbines, Compressor)

Demineralized water is injected into the combustor through the fuel nozzles to lower flame temperature and reduce NOx emissions. Water or steam provides a heat sink that lowers flame temperature. Imprecise application leads to some hot zones so NOx is still created. NOx levels in natural gas turbines can be lowered by 80% to 25 ppmv at 15% oxygen on a dry basis. Addition of water or steam increases mass flow through the turbine and creates a small amount of additional power. The addition of water increases carbon monoxide emissions and there is added cost to demineralize the water. Turbines using water or steam injection have increased maintenance due to erosion and wear.

Catalytic Combustion (Natural Gas, Produced Gas Turbines, Compressor)

A catalytic process is used instead of a flame to combust the natural gas. Flameless combustion lowers combustion temperature resulting in reduced NOx formation. The overriding constraints are operating efficiency over a wide operating range of the turbine. Initial engine demonstrations have shown that catalytic combustion reduces NOx emissions. In its first commercial installation, NOx concentrations were lowered from approximately 20 ppmv to below 3 ppmv at 15% oxygen on a dry basis without post-combustion controls. Several turbine manufacturers are in the development stage to incorporate this technology.

Post-Combustion Technologies

Selective Catalytic Reduction (Natural Gas, Produced Gas Turbines, Compressor) Selective catalytic reduction is the primary post-combustion technology for NOx reduction and is widely used in turbines. The technology can reduce NOx emissions 95% or greater. In many cases the NOx reduction is limited by the release of other pollutants (ammonia and carbon monoxide), space constraints, or reaches the practical limit of the NOx measuring device. Many stationary gas turbines already utilize selective catalytic reduction. Further reductions could be possible by adding catalyst modules. From observations made during site visits, not all turbines have space readily available to add catalyst modules and would require construction.

Ammonia is injected into the flue gas and reacts with NOx to form nitrogen and water. Catalysts are made from ceramic materials and active catalytic components of base metals, zeolites, or precious metals. The catalyst may be configured into plates but many new systems are configured into honeycombs to ensure uniform dispersion and reduce ammonia emissions to below 5 ppmv. The reductant, ammonia, is available as anhydrous ammonia, aqueous ammonia, or urea. Anhydrous ammonia is toxic and SCAQMD does not permit new installations of anhydrous ammonia storage tanks. Urea is an alternative but requires conversion to ammonia to be used. Most new selective catalytic reduction installations utilize aqueous ammonia in a 19 percent solution.

To perform optimally, the gas temperature in the control device should be between 400°F and 800°F. During start-up and shutdown, the temperature will be below optimal range greatly reducing the effectiveness. Thus, NOx concentration limits are generally not applicable during

start-up or shutdown. Newer stationary gas turbines reduce the low temperature periods where emissions are out of control.

The catalyst is susceptible to "poisoning" if the flue gas contains contaminants including sulfur compounds, particulates, reagent salts, or siloxanes. These contaminants are readily found in landfill gas, sewage digester gas, and other biogas. Poisoned catalysts require cleaning or replacement, resulting in additional costs and extended periods of non-operation for the stationary gas turbine. In those cases, filtering may be used to reduce the impacts on the catalyst.

Catalytic Absorption Systems (Natural Gas Turbines)

Catalytic absorption is based on an integration of catalytic oxidation and absorption technology resulting in similar control efficiency as selective catalytic reduction without the use of ammonia. Carbon monoxide and nitrogen oxide catalytically oxidize to carbon dioxide and nitrogen dioxide, then the nitrogen dioxide molecules are absorbed onto the catalyst. The catalyst is a platinum-based substrate with a potassium carbonate coating. The catalyst appears to be very sensitive to sulfur, even the small amounts in pipeline natural gas. Initial issues regarding catalyst failures have been addressed by conducting more frequent and extensive catalyst washing. At one facility, they have determined that emission levels are best met when all three layers of catalyst are washed about every four months. During the wash process, the turbine is non-operational for about three days.

The NOx concentration levels achieved by the various technologies assessed were consistent with the NOx concentration levels found in existing stationary gas turbines located in SCAQMD.

Initial BARCT Emission Limit and Other Considerations

The recommendation for the NOx BARCT emission limits are established using information gathered from existing SCAQMD regulations, existing units permitted in SCAQMD, regulatory requirements for other air districts, and the technology assessment. Both retrofit and new installations are considered. Existing units are turbines that were installed after 1989 and not subject to Rule 1134. These units would only have been subject to Best Available Control Technology (BACT) at the time of installation.

Once the initial limits are established, a cost-effectiveness determination is made at that initial limit. If the initial limit is not cost-effective, an alternative limit may be recommended. Unique circumstances are taken under consideration to distinguish alternative limits or to create provisions in the rule to address equipment that would otherwise not be cost-effective.

Natural Gas Combined Cycle Gas Turbines

Natural gas combined cycle gas turbines have been <u>new installationsexisting units</u>. The lowest NOx concentration limit for <u>new installationsexisting units</u> in SCAQMD is 2 ppmv at 15% oxygen on a dry basis. Other air districts limit NOx emissions to between 5-25 ppmv at 15% oxygen on a dry basis for existing units and 2-25 ppmv at 15% oxygen on a dry basis for <u>new installationsexisting units</u>. The technology assessment found that a for natural gas combined cycle turbines, a combination of pre-combustion technology and post-combustion control can meet a concentration of 2 ppmv NOx at 15% oxygen on a dry basis. The initial BARCT recommendation

for both existing units-new installations and retrofits of natural gas combined cycle gas turbines is 2 ppmv NOx at 15% oxygen on a dry basis.

	Existing Units (ppmv @ 15% oxygen, dry)	Other Regulatory Requirements (ppmv @ 15% oxygen, dry)	Technology Assessment (ppmv @ 15% oxygen, dry)	Initial BARCT Recommendation (ppmv @ 15% oxygen, dry)
Retrofit	5	5-25	2	2
New Install <u>Existing</u> <u>Units</u>	2	2-25	2	2

Table 2-9 – Initial BARCT Recommendation for Natural Gas Combined Cycle Gas Turbines

Natural Gas Simple Cycle Gas Turbines

For new installations<u>existing units</u>, numerous natural gas simple cycle gas turbines have a NOx concentration limit of 2.5 ppmv at 15% oxygen on a dry basis. Other air districts limit NOx emissions to between 5 and 25 ppmv at 15% oxygen on a dry basis for <u>existing unitsretrofits</u> and 2.5-25 ppmv at 15% oxygen on a dry basis for new installations. The technology assessment found that a combination of pre-combustion technology and post-combustion control can meet a concentration of 2.5 ppmv NOx at 15% oxygen on a dry basis for natural gas simple cycle gas turbines. The initial BARCT recommendation for both <u>new installationsexisting units</u> and retrofits of natural gas simple cycle gas turbines is 2.5 ppmv NOx at 15% oxygen on a dry basis.

1 able 2 - 10 - 1	Table 2-10 – Initial BARCT Recommendation for Natural Gas Simple Cycle Gas Turbines									
	Existing Units (ppmv @ 15% oxygen, dry)	Other Regulatory Requirements (ppmv @ 15% oxygen, dry)	Technology Assessment (ppmv @ 15% oxygen, dry)	Initial BARCT Recommendation (ppmv @ 15% oxygen, dry)						
Retrofit	9	5-25	2.5	2.5						
New Install <u>Existing</u> Units	2.5	2.5-25	2.5	2.5						

Table 2-10 – Initial BARCT Recommendation for Natural Gas Simple Cycle Gas Turbines

Produced Gas Turbines

One produced gas turbines has a NOx concentration limit of 5 ppmv at 15% oxygen on a dry basis. Other air districts do not have specific limits for produced gas turbine NOx emissions. They default to natural gas limits based on the size of the turbine. In this case (3-10 MW or 50-150 MMBtu/hr) the limit ranges between 25-42 ppmv at 15% oxygen on a dry basis. The technology assessment found that a combination of pre-combustion technology and post-combustion control can meet a concentration of 5 ppmv NOx at 15% oxygen on a dry basis. The initial BARCT recommendation for both new installations existing units and retrofits of produced gas turbines is 5 ppmv NOx at 15% oxygen on a dry basis.

	Existing Units (ppmv @ 15% oxygen, dry)	Other Regulatory Requirements (ppmv @ 15% oxygen, dry)	Technology Assessment (ppmv @ 15% oxygen, dry)	Initial BARCT Recommendation (ppmv @ 15% oxygen, dry)
Retrofit	5	25	5	5
New Install <u>Existing</u> <u>Units</u>	5	25	5	5

Table 2-11 – Initial BARCT Recommendation for Produce Gas Turbines

Outer Continental Shelf Produced Gas and Liquid Turbines

Three OCS produced gas turbines have a NOx concentration limit of 65 ppmv at 15% oxygen on a dry basis. Other air districts do not have specific NOx emissions limits for OCS produced gas turbine; they default to natural gas limits based on the size of the turbine. In this case (< 3 MW or < 50 MMBtu/hr) the limit ranges between 25-42 ppmv at 15% oxygen on a dry basis. The technology assessment found that pre-combustion technology can meet a concentration of 15 ppmv NOx at 15% oxygen on a dry basis¹. When firing on liquid fuel, the technology assessment found that pre-combustion for both new installations at 15% oxygen on a dry basis. The initial BARCT recommendation for both new installations and retrofits of OCS produced gas turbines is 15 ppmv NOx at 15% oxygen on a dry basis.

	Existing Units (ppmv @ 15% oxygen, dry)	Other Regulatory Requirements (ppmv @ 15% oxygen, dry)	Technology Assessment (ppmv @ 15% oxygen, dry)	Initial BARCT Recommendation (ppmv @ 15% oxygen, dry)
Retrofit	65	25	15	15
New Install <u>Existing</u> <u>Units</u>	65	25	15	15

Table 2-12 – Initial BARCT Recommendation for Produce Gas Turbines

Compressor Gas Turbines

Two new installations have permitted limits of 3.5 ppmv NOx at 15% oxygen on a dry basis<u>in</u> <u>other air districts²</u>. Other air districts have a limit of 8 ppmv NOx during normal operations and 12 ppmv during transitional operations at 15% oxygen on a dry basis. The technology assessment found that that a combination of pre-combustion technology and post-combustion control can meet a concentration of 3.5 ppmv NOx at 15% oxygen on a dry basis. The initial BARCT recommendation for compressor gas turbines is 3.5 ppmv NOx at 15% oxygen on a dry basis.

¹ <u>https://www.solarturbines.com/en_US/products/power-generation-packages/centaur-50.html</u>

² https://www.deq.virginia.gov/Portals/0/DEQ/Air/BuckinghamCompressorStation/May 25 2018 Updated Application.pdf __https://mde.state.md.us/programs/Permits/AirManagementPermits/Documents/dom%20air%20dispersion%20supplement.pdf

	Existing Units (ppmv @ 15% oxygen, dry)	Other Regulatory Requirements (ppmv @ 15% oxygen, dry)	Technology Assessment (ppmv @ 15% oxygen, dry)	Initial BARCT Recommendation (ppmv @ 15% oxygen, dry)
Retrofit	64	50	3.5	3.5
New Install <u>Existing</u> <u>Units</u>	<u>643.5</u>	50	3.5	3.5

 Table 2-13 – Initial BARCT Recommendation for Compressor Gas Turbines

Other Gas Turbines

The BARCT assessment provided above analyzed existing gas turbines. However, the rule may apply to gas turbines using a fuel besides those listed above. The most likely alternative fuel is biogas that will have contaminant issues such as hydrogen sulfide and siloxanes, which will limit the ability to utilize post-combustion technologies. The technology assessment found that the use of pre-combustion technology can meet a concentration of 12.5 ppmv NOx at 15% oxygen on a dry basis. The initial BARCT recommendation for other gas turbines is 12.5 ppmv at 15% oxygen on a dry basis.

In summary, the initial BARCT recommendations are presented in Table 2-14 below:

Table 2-14 – Summary of Initial DA	DAKCI Kecommenuation				
Equipment	Initial BARCT Recommendation				
Natural Gas Combined Cycle Gas Turbine	2 ppmv @ 15% oxygen, dry				
Natural Gas Simple Cycle Gas Turbine	2.5 ppmv @ 15% oxygen, dry				
Compressor Gas Turbine	3.5 ppmv @ 15% oxygen, dry				
Produced Gas Turbine	5 ppmv @ 15% oxygen, dry				
Outer Continental Shelf Produced Gas Turbine	15 ppmv @ 15% oxygen, dry				
Outer Continental Shelf Liquid Fuel Turbine	30 ppmv @ 15% oxygen, dry				
Other Gas Turbine	12.5 ppmv @ 15% oxygen, dry				

 Table 2-14 – Summary of Initial BARCT Recommendation

Cost-Effectiveness Analysis

Cost-effectiveness is examined for each equipment category type. 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 specified in the 2016 Air Quality Management Plan (AQMP), then the control method is considered to be cost-effective. The 2016 Air Quality Management Plan (AQMP) establishes a cost-effectiveness threshold of \$50,000 per ton of NOx reduced.

The discounted cash flow method (DCF) is used in-to determine cost-effectiveness. 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 of four percent and a 25-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 25-year equipment life.

Baseline emissions are determined by using reported fuel consumption and the permit NOx concentration limit corrected to 15% oxygen on a dry basis. Proposed Amended 1134 – Emissions of Oxides of Nitrogen from Stationary Gas Turbines (PAR 1134) emissions are determined by using reported fuel consumption and the proposed emission limit. Emission reductions are the difference between baseline emissions and PAR 1134 emissions.

Costs for retrofitting stationary gas turbines were determined using U.S. EPA's Air Pollution Control Cost Estimation Spreadsheet for Selective Catalytic Reduction. The methodology used in the spreadsheet is based on U.S. EPA Clean Air Markets Division Integrated Planning Model. Size and costs of selective catalytic reduction control equipment and operational costs are based on size, fuel burned, NOx removal efficiency, reagent consumption rate, and catalyst costs. Fuel consumption is based on 2015 reported fuel usage. Values are reported in 2015 dollars. Cost-effectiveness is not reported for turbines that are already meet the proposed BARCT emission limits.

Natural Gas Combined Cycle Gas Turbines

All but one of the eighteen natural gas combined cycle gas turbines currently have NOx permit limits greater than the proposed NOx concentration limit of 2 ppmv at 15% oxygen on a dry basis. Six units are permitted at 2.5 ppmv NOx at 15% oxygen on a dry basis. The remaining eleven units are permitted at 9 ppmv NOx at 15% oxygen on a dry basis or above. The cost-effectiveness for natural gas combined cycle gas turbines is presented below in Table 2-15 below.

Unit	Input (MMBTU/	Output (MW)	2015 Annual NOx		% Capacity	NOx Permit Limit (ppmv	Capital Cost (Millions)	Operating Cost		Cost- Effectiveness (\$/ton reduced)	Annual Capacity Factor (%) at \$50,000 per ton of NOx Reduced
NG CS10	410	60	192.7	7,500	1.4%	102	\$7.21	\$0.49	188.9	\$3,229	0.1%
NG CS3	16	1	2.4	4,800	49.8%	41	\$0.54	\$0.04	2.3	\$21,064	21.0%
NG CS1	59	3	10.8	22,800	90.1%	25	\$1.00	\$0.09	9.9	\$9,802	17.7%
NG CS2	59	3	4	22,800	90.1%	25	\$1.00	\$0.09	3.7	\$26,465	47.7%
NG CS8	59	6	26.2	47,000	89.4%	21	\$1.61	\$0.14	23.7	\$6,477	11.6%
NG CS9	59	6	24.1	44,000	83.7%	21	\$1.61	\$0.14	21.8	\$7,042	11.8%
NG CS4	234	24	33.3	75,000	36.3%	12	\$3.93	\$0.29	27.8	\$12,516	9.1%
NG CS6	46	3	5.3	18,000	68.4%	9	\$0.98	\$0.07	4.1	\$42,269	57.8%
NG CS7	49	3	5.6	19,000	72.3%	9	\$0.98	\$0.07	4.4	\$40,256	58.2%
NG CS17	446	48	10.2	75,000	17.7%	9	\$6.25	\$0.44	8.0	\$67,219	23.8%
NG CS5	221	21	19.2	140,000	76.1%	9	\$3.72	\$0.30	14.8	\$23,418	35.6%
NG CS18	350	30	1	6,000	2.3%	2.5	\$4.59	\$0.33	0.2	\$1,826,656	84.0%
NG CS11	57	5	0.6	20,000	45.7%	2.5	\$1.43	\$0.11	0.1	\$1,094,878	999.9%
NG CS12	57	5	0.2	10,000	22.8%	2.5	\$1.43	\$0.11	0.0	\$3,284,635	1499.8%
NG CS13	162	13	3.5	100,000	85.2%	2.5	\$2.72	\$0.22	0.6	\$422,044	719.1%
NG CS15	114	6	0.4	44,000	89.7%	2.5	\$1.54	\$0.11	0.1	\$1,668,033	2992.2%
NG CS16	114	6	0.4	44,000	89.7%	2.5	\$1.54	\$0.11	0.1	\$1,668,033	2992.2%

 Table 2-15 – Natural Gas Combined Cycle Gas Turbine¹ Cost-Effectiveness

Average Cost-Effectiveness (Excluding Near-Limit (2.5 ppmv NOx) Turbines): \$11,500

1- Natural Gas Combined Cycle Gas Turbine with Associated Duct Burner

For the natural gas combined cycle gas turbines as a class permitted at 2.5 ppmv NOx at 15% oxygen on a dry basis (near-limit turbines), the cost-effectiveness threshold of \$50,000 per ton reduced is never reached, even when used at 100% annual capacity factor. Those six units will not be required to retrofit to the proposed BARCT limit. For the remaining units, a low-use provision is included in the proposed rule allowing the units to operate at current permitted levels if their annual capacity factor remains below 25% in any one year and 10% averaged over three consecutive years. Otherwise, it is cost-effective for the combined cycle natural gas turbines to meet the proposed 2 ppmv NOx at 15% oxygen on a dry basis.

Natural Gas Simple Cycle Gas Turbines

Twenty of twenty-two natural gas simple cycle gas turbines have permitted NOx limits greater than the proposed BARCT limit of 2.5 ppmv at 15% oxygen on a dry basis. Ten of the natural gas simple cycle gas turbines that are permitted at NOx concentration levels above the proposed limit are used sporadically to support renewable power generation or are no longer in use. The cost-effectiveness for natural gas simple cycle gas turbines is presented below in Table 2-16 below.

Unit	Input (MMBT U/HR)	Output (MW)	2015 Annual NOx Emission s (tons)	Estimated MWb/yr	% Capacity	NOx Permit Limit (ppmv @ 15% oxygen, dry)	Capital Cost (Millions)	Operating Cost (millions)	Emission Reductio ns (tons)	Cost- Effectiveness (\$/ton reduced)	Annual Capacity Factor (%) at \$50,000 per ton of NOx Reduced
NG SS13	246	23	26.1	22,000	10.9%	42	\$3.87	\$0.33	24.5	\$15,067	3.3%
NG SS14	466	42	279.2	250,000	67.9%	42	\$5.72	\$0.69	262.4	\$2,586	3.5%
NG SS8	50	4	29.3	31,500	89.9%	40	\$1.24	\$0.12	27.5	\$4,675	8.4%
NG SS9	50	4	29.3	31,500	89.9%	40	\$1.24	\$0.12	27.5	\$4,675	8.4%
NG SS10	229	22.4	32.4	75,000	38.2%	9	\$3.80	\$0.34	23.4	\$15,927	12.2%
NG SS11	250.6	23.1	27.3	190,000	94.1	9	\$3.88	\$0.32	19.7	\$18,352	34.5%
NG SS28	221	21.8	19.0	140,000	73.3%	9	\$3.72	\$0.29	14.8	\$23,418	65.7%
NG SS29	221	21.8	23.1	160,000	83.7%	9	\$3.72	\$0.30	18.2	\$19,043	55.5%
NG SS12	1080	158	4.9	20,000	1.4%	8	\$13.53	\$1.02	3.3	\$376,566	10.5%
NG SS19	530.2	43.8	0.0	0	0.0%	7	\$5.88	\$0.43	0.0	N/A	17.1%
NG SS15	472.5	39	32.6	340,000	99.5%	5	\$12.70	\$0.45	16.3	\$49,026	99.0%
NG SS17	43.8	4.6	7.0	4,000	9.9%	5	\$1.36	\$0.11	1.6	\$78,135	15.5%
NG SS20	136.5	10.5	0.0	0	0%	5	\$2.3	\$0.15	0	N/A	34.0%
NG SS21	136.5	10.5	0.0	0	0%	5	\$2.3	\$0.15	0	N/A	34.0%
NG SS22	136.5	10.5	0.0	0	0%	5	\$2.3	\$0.15	0	N/A	34.0%
NG SS23	136.5	10.5	0.0	0	0%	5	\$2.3	\$0.15	0	N/A	34.0%
NG SS24	136.5	10.5	0.1	100	0.1%	5	\$2.3	\$0.15	0	N/A	34.0%
NG SS25	136.5	10.5	0.0	0	0%	5	\$2.3	\$0.15	0	N/A	34.0%
NG SS26	136.5	10.5	0.0	0	0%	5	\$2.3	\$0.15	0	N/A	34.0%
NG SS27	136.5	10.5	0.0	0	0%	5	\$2.3	\$0.15	0	N/A	34.0%

Table 2-16 – Natural Gas Simple Cycle Gas Turbine Cost-Effectiveness

Average Cost-Effectiveness (Excluding Low-Use Turbines): \$8,400

A low-use provision is included in the proposed rule allowing the units to operate at current permitted levels if their annual capacity factor remains below 25% in any one year and 10% averaged over three consecutive years. Otherwise, it is cost-effective for the simple cycle natural gas turbines to meet the proposed 2.5 ppmv NOx at 15% oxygen on a dry basis.

Produced Gas Turbines

There are nine produced gas turbines employed in oil and gas production; six are OCS turbines. These do not include turbines used for refining of oil or gas which will be subject to Proposed Rule 1109.1 when it is adopted. Produced gas turbines use the gas released from oil fields. Because the flow of gas from oil fields is inconsistent, there is significant variation in the operating load level of the turbines. In some cases, the gas may be supplemented with natural gas. In the case of OCS turbines, natural gas is unavailable and the produced gas may be supplemented with diesel fuel. One of the three non-OCS produced gas turbines currently meets the proposed BARCT limit of 5 ppmv at 15% oxygen on a dry basis.

	Table 2-17 – Troduced Gas Turbine Cost-Effectiveness										
Unit	Input (MMBTU/HR)	Output (MW)	2015 Annual NOx Emissions (tons)	Estimated MWh/yr	%Capacity	NOx Permit Limit (ppmv @ 15% oxygen, dry)	Capital Cost (Millions)	Operating Cost (millions)	Emission Reductions (tons)	Cost- Effectiveness (\$/ton reduced)	Annual Capacity Factor (%) at \$50,000 per ton of NOx Reduced
PGT2	49	4.8	4.0	30,000	71.4%	9	\$1.24	\$0.09	1.8	\$47,213	67.4%
PGT3	49	4.8	1.5	15,000	35.7%	9	\$1.24	\$0.07	0.7	\$136,500	97.5%

 Table 2-17 – Produced Gas Turbine Cost-Effectiveness

Average Cost-Effectiveness: \$81,400

As a class, produced gas turbines cannot cost-effectively meet the proposed BARCT limit of 5 ppmv at 15% oxygen on a dry basis.

Unit	Input (MMBTU/HR)	Output (MW)	2015 Annual NOx Emissions (tons)	Estimated MWh/yr	%Capacity	NOx Permit Limit (ppmv @ 15% oxygen, dry)	Capital Cost (Millions)	Operating Cost (millions)	Emission Reductions (tons)	Cost- Effectiveness (\$/ton reduced)	Annual Capacity Factor (%) at \$50,000 per ton of NOx Reduced
PGOCST1	29	2.5	53.8	20,000	91.3%	65	\$0.91	\$0.09	46.3	\$2,012	3.7%
PGOCST2	29	2.5	47.8	20,000	91.3%	65	\$0.91	\$0.09	41.1	\$2,267	4.1%
PGOCST3	29	2.5	45.2	20,000	91.3%	65	\$0.91	\$0.09	38.9	\$2,395	4.4%
PGOCST4	42	2.5	8.0	3,500	16.0%	140	\$0.91	\$0.07	7	\$11,481	3.7%
PGOCST5	42	2.5	3.4	1,500	6.8%	140	\$0.91	\$0.07	2.9	\$27,351	3.7%
PGOCST6	42	2.5	9.2	4,300	19.6%	130	\$0.91	\$0.07	8.6	\$9,804	3.9%

 Table 2-18 – Outer Continental Shelf Produced Gas Turbine Cost-Effectiveness

Average Cost-Effectiveness: \$3,600

As a class, OCS produced gas turbines can cost-effectively meet the proposed BARCT limit of $\underline{15}$ ppmv at 15% oxygen on a dry basis. Cost-effectiveness is not calculated for liquid fuel use on outer continental shelf produced gas turbines because the emissions concentration that can be met is twice the value of the produced gas limit.

Compressor Gas Turbines

There are seven compressor gas turbines; all are permitted over the proposed BARCT limit of 3.5 ppmv NOx at 15% oxygen on a dry bases. The cost-effectiveness for compressor gas turbines is presented below in Table 2-19 below.

Unit	Input (MMBT U/HR)	Output (MW)	2015 Annual NOx Emissions (tons)	Estimated MWh/yr	% Capacity	NOx Permit Limit (ppmv @ 15% oxygen, dry)	Capital Cost (Millions)	Operating Cost (millions)	Emission Reductio ns (tons)	Cost- Effectiveness (\$/ton reduced)	Annual Capacity Factor (%) at \$50,000 per ton of NOx Reduced
NG CG1 ¹	150 <u>1</u>	11	62.1	48,000	49.8%	81	\$2.39	\$0.24	59.6	\$ 4,230	4.3%
NG CG2 ¹	150 <u>1</u>	11	61.7	44,000	45.7%	81	\$2.39	\$0.24	59.2	\$ 4,258	4.3%
NG CG3 ¹	150 <u>1</u>	11	60.0	42,000	43.6%	81	\$2.39	\$0.24	57.5	\$ 4,384	4.4%
NG CG4	13.11	0.9	4.3	2,500	31.7%	68	\$0.47	\$0.04	4.1	\$ 10,946	4.5%
NG CG6	13.11	0.9	3.9	1,800	22.8%	68	\$0.47	\$0.04	3.7	\$ 12,130	5.1%
NG CG5	13.11	0.9	3.9	1,800	22.8%	67	\$0.47	\$0.04	3.7	\$ 12,130	5.1%
NG CG7	13.11	0.9	3.7	1,700	21.6%	64	\$0.47	\$0.04	3.5	\$ 12,823	7.6%
				Averag	e Cost-Ef	fectivene	ss: \$4,900	<u>)</u> 2			

 Table 2-19 – Compressor Gas Turbine Cost-Effectiveness

1 – Equipment replaced in 2018

2 – Average cost-effectiveness of four remaining active compressor gas turbines is \$12,000 per ton of NOx reduced

As a class, compressor gas turbines can cost-effectively meet the proposed BARCT limit of 3.5 ppmv at 15% oxygen on a dry basis.

BARCT Emission Limit Recommendation

In all categories, the technology is available to meet the Initial BARCT NOx concentration limits. Low-use and near-limit provisions are included in the rule to address units that are not cost-

effective. The provision allows low-use equipment to continue operating without retrofit provided that they do not exceed an annual capacity factor limit and that they include an annual capacity factor in their Permit to Operate. This ensures that turbines that increase use to the point where the cost-effectiveness threshold is reached, that they will be required to retrofit the units to meet the proposed BARCT concentration limits.

The BARCT emission limits for the proposed rule are listed below in Table 2-20.

Table 2-20 – Summary of DARCT Recommendation								
Equipment	Final BARCT Recommendation							
Natural Gas Combined Cycle Gas Turbine	2 ppmv @ 15% oxygen, dry							
Natural Gas Simple Cycle Gas Turbine	2.5 ppmv @ 15% oxygen, dry							
Natural Gas Simple Cycle Compressor Gas Turbine	3.5 ppmv @ 15% oxygen, dry							
Produced Gas Turbine	9 ppmv @ 15% oxygen, dry							
Outer Continental Shelf Produced Gas Turbine	15 ppmv @ 15% oxygen, dry							
Outer Continental Shelf Liquid Fuel Turbine	30 ppmv @ 15% oxygen, dry							
Other Gas Turbine	12.5 ppmv @ 15% oxygen, dry							

Table 2-20 -	Summary	of BARCT	Recommendation
1 abic 2-20 -	· Summar y	U DANCI	Kecommenuation

CHAPTER 3: SUMMARY OF PROPOSALS

INTRODUCTION TITLE PURPOSE (Subdivision (a)) APPLICABILITY (Subdivision (b)) DEFINITIONS (Subdivision (c)) EMISSIONS LIMITS (Subdivision (d)) MONITORING, RECORDKEEPING, AND REPORTING (Subdivision (e)) TEST METHODS (Subdivision (f)) RECORDKEEPING (Subdivision (g)) EXEMPTIONS (Subdivision (h))

INTRODUCTION

Proposed Amended Rule 1134 – Emissions of Oxides of Nitrogen from Stationary Gas Turbines (PAR 1134) establishes NOx and ammonia emission limits gas turbines. Additionally, PAR 1134 establishes provisions for monitoring, reporting, and recordkeeping, and establishes exemptions from specific provisions.

PURPOSE (Subdivision (a))

Purpose (subdivision (a)) is added to PAR 1134 to be consistent with the structure of current SCAQMD rules. The purpose of PAR 1134 is to reduce emissions of oxides of nitrogen from stationary gas turbines.

APPLICABILITY (Subdivision (b))

While there is no specific language in Rule 1134 excluding RECLAIM facilities from current Rule 1134, a few turbines are currently subject to Rule 1134. Many turbines are included in the RECLAIM program and as such are not required to meet the NOx concentration limits imposed by Rule 1134. However, gas turbines existing as of August 4, 1989 and used at publicly-owned treatment works, landfills, hospitals and other public facilities, and sources which were not covered under RECLAIM, were still required to meet the concentration limits in Rule 1134 through application of various control technologies. New turbines installed at non-RECLAIM facilities after August 4, 1989 are not subject to Rule 1134. PAR 1134 will apply to all stationary gas turbines located at non-RECLAIM and RECLAIM facilities, regardless of the date they were permitted. NOx generating equipment located at petroleum refineries and refinery associated facilities will be subject to forthcoming Proposed Rule 1109.1 – Refinery Equipment. Similarly, NOx generating equipment located at landfills or fueled with landfill gas will be subject to Proposed Rule 1150.3 - NOx Emission Reduction from Combustion Equipment at Landfills and NOx generating equipment located at publicly owned treatment works will be subject to Proposed Rule 1179.1 - NOx Emission Reduction from Combustion Equipment at Publicly Owned Treatment Work Facilities. In the interim, those facilities subject to Rule 1134 or having permit conditions referencing Rule 1134 will remain subject to those conditions until the new sourcespecific rules are adopted.

DEFINITIONS (Subdivision (c))

PAR 1134 adds and modifies definition to clarify and explain key concepts and removes obsolete definitions. Please refer to PAR 1134 for each definition.

Proposed Deleted Definitions:	Chemical Processing Gas Turbine
	Emission Control Plan
	Higher Heating Value of Fuel (HHV)
	Lower Heating Value of Fuel (LLV)
	Peaking Gas Turbine Unit
	Sewage Digester Gas
	Southeast Desert Air Basin (SEDAB)

Proposed Modified Definitions:	Cogeneration Gas Turbine Combined Cycle Gas Turbine Compressor Gas Turbine (formerly Pipeline Gas Turbine Unit) Emergency Standby Gas Turbine Existing Gas Turbine Stationary Gas Turbine
Proposed Added Definitions:	Annual Capacity Factor Duct Burner Former RECLAIM NOx Facility Landfill Natural Gas Non-RECLAIM NOx Facility Oxides of Nitrogen (NO _x) Emissions Outer Continental Shelf Petroleum Refinery Produced Gas Publicly Owned Treatment Works RECLAIM NOx Facility Shutdown Simple Cycle Gas Turbine Start-Up Tuning

EMISSIONS LIMITS (Subdivision (d))

The emissions limits in paragraph (d)(1) will be applicable to existing turbines currently subject to Rule 1134. The emissions limits in (d)(1) are applicable in the interim until the turbine can comply with emissions limits in Table I of paragraph (d)(3) or December 31, 2023, whichever comes first. Turbines that are located at a RECLAIM NOx facility or a former RECLAIM NOx facility are not subject to (d)(1).

The emission limits in Tables I of PAR 1134 are based on the BARCT assessment presented in Chapter 2 – BARCT Assessment. The effective date is January 1, 2024.

Fuel Type	NO _x ¹ (ppmv)	Ammonia (ppmv)	Oxygen Correction (%, dry)
Liquid – Outer Continental Shelf	30	5	15
Natural Gas – Combined Cycle	2	5	15
Natural Gas – Simple Cycle	2.5	5	15
Produced Gas	9	5	15
Produced Gas – Outer Continental Shelf	15	5	15
Other	12.5	5	15

¹ – The NOx emission limits in Table 1 shall not apply during start-up, shutdown, and tuning.

The emission limits in Table II of PAR 1134 also reflect the BARCT assessment presented in Chapter 2-BARCT Assessment. The effective date for compressor gas turbines is two years after a permit to construct is issued by the Executive Officer or three years after a permit to construct is issued if the permit application is submitted before July 1, 2021. The application must be submitted to SCAQMD by July 1, 2022 as required in paragraph (d)(8).

PAR 1134, Table II: Emissions Limits for Compressor Gas Turbines

Fuel Type	NO _x ¹	Ammonia	Oxygen Correction
	(ppmv)	(ppmv)	(%, dry)
Natural Gas – Compressor Gas Turbine	3.5	10	15

¹ – The NOx emission limits in Table 1 shall not apply during start-up, shutdown, and tuning.

Subparagraph (d)(5) states that requirements for start-up, shutdown, and tuning periods will be included in each stationary gas turbine's permit. The requirements will specify duration, mass emissions, and number of start-ups, shutdowns, and, if applicable, tunings. Requirements for start-up, shutdown, and tuning of existing stationary gas turbines are currently in the operating permits for that equipment. Additionally, start-up, shutdown, and tuning are unique to each unit and evaluated during the permitting process.

Subparagraph (d)(6)(B) requires the emissions limits of turbines that are installed after [*Date of* Adoption] to be averaged over a 60-minute rolling average. <u>Compressor Gas Turbines installed</u> <u>after [*Date of* Adoption] shall be averaged over a three-hour rolling average.</u> For stationary gas turbines installed before [*Date of Adoption*], subparagraph (d)(6)(A) requires turbines to retain their current averaging time. The averaging times for these units were evaluated during the permitting process and shall be maintained.

Paragraph (d)(7) prohibits the use of liquid fuel in a stationary gas turbine except for outer continental shelf gas turbines which do not have access to natural gas.

Paragraph (d)(8) requires that by July 1, 2022 facilities must submit applications for a permit to construct or to reconcile their permits with Rule 1134. As facilities transition out of RECLAIM to Rule 1134, their permits will need to be revised to remove references to RECLAIM rules and include references to Rule 1134.

To address the technology forcing nature of the compressor gas turbine emissions limits, an extension of up to one year for compliance with the NOx and ammonia emissions limits in Table II is included and a three year extension for compliance with the ammonia emissions limits in Table II. The one year extension is allowed to address permitting, land acquisition, or some other extenuating circumstance that prevents the implementation of the lower emitting technology. The three year extension is to allow time to confirm that ammonia limits can be complied with at various load conditions. The request for time extension must be submitted at least 30 days before the compliance deadlines and must include: which units need a time extension, the reason(s) an extension is needed, the progress to date of the project, and the length of time requested. The facility must also demonstrate that at least 25% of NOx emission reductions, averaged over a twoyear period, will be realized by December 31, 2023 in the two-year period prior to the submittal of the extension request in comparison to 2017 NOx emissions. If an extension greater than 12 months is requested for compliance with the ammonia emission limits, the turbine must be equipped with an ammonia continuous emission monitoring system certified under an approved SCAQMD protocol. If an extension greater than 24 months is requested for compliance with the ammonia emission limits, the facility must demonstrate that the turbine is operating less than 1,000 hours per year. To be approved for the time extension, the Executive Officer will determine if the facility followed the proper procedure for submitting a request for time extension and if the time extension was needed due to an extenuating circumstance. Examples of extenuating circumstances includes, but is not limited to engineering designs, construction plans, land acquisition contracts, permit applications, test results, and purchase orders that impact scheduling.

MONITORING, RECORDKEEPING, AND REPORTING (Subdivision (e))

Staff is currently working on adopting Rule 113 Monitoring, Reporting, and Recordkeeping (MRR) Requirements for NOx and SOx Sourcesamending Rule 218 – Continuous Emission Monitoring (Rule 218) and Rule 218.1 – Continuous Emission Monitoring Performance Specifications. Once Rule 113 is these amendments are adopted, all Rule 1134 equipment will transition to Rule 113 those rules for MRR. For the interim period, the intention of the PAR 1134 MRR is to maintain current MRR for all facilities and streamline reporting requirements for former RECLAIM NOx facilities. Turbines that are non-RECLAIM NOx sources already comply with Rule 218 – Continuous Emission Monitoring (Rule 218) in addition to other MRR requirements. Therefore, requiring compliance with Rule 218 will not affect these units.

Paragraph (e)(1) requires that turbines 2.9 MW and larger located at non-RECLAIM NOx facilities retain their continuous emission monitoring systems (CEMS).

Subparagraph (e)(2)(A) requires turbines smaller than 2.9 MW and located at a non-RECLAIM NOx facility to conduct a source test to demonstrate compliance with NOx and carbon monoxide concentrations and demonstrated percent efficiency (EFF), if applicable.

Subparagraph (e)(2)(B) requires stationary gas turbines operating with a catalytic control device to conduct source testing to determine compliance with the ammonia concentration emission limit. Alternatively, a certified ammonia CEMS may be used to determine compliance in lieu of source testing. At this time, SCAQMD is in the process of finding a host site for an ammonia CEMS demonstration project. Upon successful demonstration, SCAQMD will develop an ammonia CEMS protocol. Once an ammonia CEMS protocol is developed then SCAQMD intends to require ammonia CEMS instead of source testing to demonstrate compliance with the ammonia limits. At this time, an ammonia CEMS is approximately \$60,000. The provision that allows for ammonia CEMS instead of source testing allows facilities to transition to ammonia CEMS once a protocol is ready, but is not specifically required by Rule 1134.

Source tests to determine compliance with NOx concentration limits for turbines not equipped with NOx CEMS shall be conducted every calendar year according to clause (e)(2)(C)(i). Clause (e)(2)(C)(i) states that turbines emitting less than 25 tons per year of NOx may source test at least once every three calendar years. Additionally, clause (e)(2)(C)(ii) requires turbines not equipped with ammonia CEMS to source test quarterly when initially installed and after an annual test is failed. After four consecutive compliant ammonia source tests, source testing of ammonia may be conducted every calendar year. Turbines currently testing for ammonia annually may retain that schedule until an annual test is failed.

Paragraph (e)(3) applies to RECLAIM NOx facilities and requires that current MRR be maintained until the facility leaves RECLAIM.

Paragraph (e)(4) applies to former RECLAIM NOx facilities. To demonstrate compliance with the NOx emissions limits, these facilities will be required to comply with SCAQMD Rule 2012 with the exception of the following provisions that reference reporting requirements or that do not apply to stationary gas turbines:

- Rule 2012 (c)(3) facility permit holder of a major NOx source
- Rule 2012 (c)(4) Super Compliant Facilities
- Rule 2012 (c)(5) facility Permit holder of a facility which is provisionally approved for NOx Super Compliant status
- Rule 2012 (c)(6) after final approval of Super Compliant status
- Rule 2012 (c)(7) facility designated as a NOx Super Compliant Facility
- Rule 2012 (c)(8) super Compliant Facility exceeds its adjusted allocations
- Rule 2012 (d)(2)(B) install, maintain and operate a modem
- Rule 2012 (d)(2)(C) equipment-specific emission rate or concentration limit
- Rule 2012 (d)(2)(D) monitor one or more measured variables as specified in Appendix A
- Rule 2012 (d)(2)(E) comply with all applicable provisions of subdivision (f)
- Rule 2012 (e) NOx Process Unit
- Rule 2012 (g)(5) system is inadequate to accurately determine mass emissions
- Rule 2012 (g)(6) sharing of totalizing fuel meters

- Rule 2012 (g)(7) equipment which is exempt from permit requirements pursuant to Rule 219 Equipment Not Requiring A Written Permit Pursuant to Regulation II
- Rule 2012 (g)(8) rule 2012 and Appendix A
- Rule 2012 (h)(1) facilities with existing CEMS and fuel meters as of October 15, 1993
- Rule 2012 (h)(2) interim emission reports
- Rule 2012 (h)(4) installation of all required or elected monitoring and reporting systems
- Rule 2012 (h)(5) existing or new facility which elects to enter RECLAIM or a facility which is required to enter RECLAIM
- Rule 2012 (h)(6) new major NOx source at an existing facility
- Rule 2012 (i) Recordkeeping
- Rule 2012 (k) Exemption
- Rule 2012 (l) Appeals
- Reported Data and Transmitting/Reporting Frequency requirements from Rule 2012 Appendix A – "Protocol for Monitoring, Reporting and Recordkeeping for Oxides of Nitrogen (NOx) Emissions"

TEST METHODS (Subdivision (f))

SCAQMD Method 207.1 is included to determine ammonia concentration during source testing.

RECORDKEEPING (Subdivision (g))

The recordkeeping provisions in subdivision (g) are maintained with two minor changes. Paragraph (g)(3) will require the use of a data acquisition system as a replacement for monthly reporting for units that require CEMS. Also, results from source tests shall be submitted within 60 days after source testing is completed.

EXEMPTIONS (Subdivision (h))

The current exemption for chemical processing gas turbine units in subparagraph (h)(1)(C) has been removed and those units must comply with applicable limits in Proposed Rule 1109.1 – Refinery Equipment when it is adopted. The current exemptions in subparagraph (h)(1)(D) and (h)(2)(B) have been removed, these exemptions are no longer necessary because the units located in the Southeast Desert Air Basin which were subject to these exemptions have been removed. Any units installed in the future in this area of the SCAQMD will be subject to this rule. Southeast Desert Air Basin is located outside the SCAQMD. There are no turbines located on San Clemente Island and therefore the exemption in subparagraph (h)(2)(C) is unnecessary.

Rule 1134 will be amended to include several new exemptions. The first new exemption, subparagraph (h)(3), exempts existing combined cycle gas turbines at 2.5 ppmv NOx at 15% oxygen on a dry basis from the emissions limitations in paragraph (d)(3), with the condition that the units keep their NOx and ammonia limits, start-up, shutdown, and tuning requirements, and averaging times on the current permit. According to the BARCT assessment, it is not cost-effective for combined cycle gas turbines at 2.5 ppmv NOx at 15% oxygen on a dry basis to reduce their limits to 2 ppmv at 15% oxygen on a dry basis.

To address low-use stationary gas turbines, a low-use provision, paragraph (h)(4) is included in PAR 1134. The provision allows low-use equipment to continue operating without retrofit provided that they: do not exceed annual capacity factor limits; include annual capacity factor limits in their permit; and keep the NOx and ammonia limits, start-up, shutdown, and tuning requirements, and averaging times on their current permit. The annual capacity factor, paragraph (c)(1), is defined as the ratio between the actual annual input and the annual maximum heat input if operated continuously over one year. The annual capacity factor limits for gas turbines in subparagraph (h)(4)(A) is less than twenty-five percent in one calendar year and less than ten percent averaged over three years. In order to obtain the low-use exemption, subparagraph (h)(4)(B) requires that an application for the low-use exemption be submitted by July 1, 2022. Subparagraph (h)(4)(C) requires that annual capacity factor to be determined annually and submitted to the Executive Officer no later than March 1 following the reporting year. If a unit exceeds the annual capacity factor, subparagraph (h)(4)(D) states the owner or operator is subject to a notice of violation for each year of exceedance and for each annual and/or three-year exceedance. Clause (h)(4)(D)(iii) requires that after two years of the date of reported exceedance, the unit must come into compliance with the emissions limits in Table I. There are also interim milestone requirements in clauses (h)(4)(D)(i) and (h)(4)(D)(ii): submitting a permit application within six months from the date of reported exceedance and a CEMS plan within six months from the date of permit application submittal.

If a stationary gas turbine is not using selective catalytic reduction or other processes that add ammonia into the exhaust gas, then paragraph (h)(5) exempts those turbines from ammonia concentration limits and source testing requirements.

CHAPTER 4: IMPACT ASSESSMENT

POTENTIALLY IMPACTED FACILITIES EMISSIONS INVENTORY AND EMISSION REDUCTIONS COST-EFFECTIVENESS INCREMENTAL COST-EFFECTIVENESS RULE ADOPTION RELATIVE TO COST-EFFECTIVENESS SOCIOECONOMIC ASSESSMENT CALIFORNIA ENVIRONMENTAL QUALITY ACT DRAFT FINDINGS UNDER CALIFORNIA HEALTH AND SAFETY CODE SECTION 40727

COMPARATIVE ANALYSIS

POTENTIALLY IMPACTED FACILITIES

There are 39 facilities that are potentially impacted by Proposed Amended Rule 1134 – Emissions of Oxides of Nitrogen from Stationary Gas Turbines (PAR 1134). Of these 39 facilities, 24 are currently in the NOx RECLAIM program. The remaining facilities are not in the RECLAIM program and eight of these are currently subject to SCAQMD Rule 1134. Seven facilities are not subject to RECLAIM nor Rule 1134 because of the applicability requirements of RECLAIM and Rule 1134 (i.e., the turbines were built after 1989).

There are approximately 73 turbines at these 39 facilities: 6 are at the proposed emissions limits, 17 are emergency standby gas turbines, 6 are exempt, and 11 qualify for the low-use provisions. The remaining 33 turbines will need to be replaced, repowered, or retrofitted to come into compliance with PAR 1134.

The seven exempt units are exempt from emissions limits in PAR 1134 Table I because of the <u>near-limit</u> exemption in paragraph (h)(3) and listed in Table 4-1 below.

Facility	SCAQMD Permit	Current NOx Permit Limit (ppmv at 15% oxygen, dry)
City of Riverside, Public Utilities Department	Turbine D1	2.5
MillerCoors USA	F99403	2.5
MillerCoors USA	F99402	2.5
Kimberly-Clark Worldwide	G33192	2.5
Orange County, Central Utility Facility	G35244	2.5
Orange County, Central Utility Facility	G35245	2.5
University of California at Irvine	G46888	2.5

 Table 4-1: Combined Cycle Turbines Exempt Due to PAR 1134 Paragraph (h)(3)

Assuming similar usage as in 2015, 11 turbines would qualify for the low-use provisions, as summarized in Table 4-2.

Facility	SCAQMD Permit	Current NOx Permit Limit (ppmv at 15% oxygen, dry)
Harbor Cogeneration	G48131	8
CES Placerita	F96765	7
California State University, Fullerton	G20025	5
Colton Power	Turbine D1	5
Colton Power	Turbine D8	5
Colton Power	Turbine D15	5
Colton Power	Turbine D22	5
Colton Power	Turbine D1	5
Colton Power	Turbine D8	5
Colton Power	Turbine D15	5
Colton Power	Turbine D22	5

Table 4.2. Units Potential	y Utilizing Low-Use Provisions in F	Paragranh (h)(4)
Table 4-2. Chits I otentian	y comzing how-coci i consions in i	$a_1a_{s1}a_{p11}(n)(\pi)$

Analysis of Facilities with PAR 1134 Equipment and Other Landing Rules

Staff has reviewed permits for all PAR 1134 units, and identified the number of non-PAR 1134 combustion units a facility has that will require retrofit or replacement because of revisions to BARCT. Eight facilities had between one and five boilers subject to Rule 1146 or Rule 1146.1 which were amended in fall 2018. Two facilities have more than five internal combustion engines that will be subject to Rule 1110.2 that is scheduled to be amended in summer 2019. One of the two facilities already has indicated that they will have completed retrofit or replacement by December 31, 2023. The second facility has requested that more time be allotted to conduct retrofits and replacement. That corporation also has three other facilities with equipment likely to require retrofit or replacement from PAR 1110.2. The emissions from internal combustion engines significantly exceeds the emissions from the turbines. However, the facility is considering replacing some internal combustion engines with turbines. Additional time has been allotted for that facility as contained in paragraphs (d)(4) and (d)(9).

EMISSION INVENTORY AND EMISSION REDUCTIONS

The NOx emission inventory for turbines subject to PAR 1134 is 3.2 tons per day in 2015 as seen in Table 4-3 below.

Equipment Type	2015 NOx Emission Inventory (tons per day)	MWh Capacity
Combined Cycle Turbines	0.9	258
Simple Cycle Turbines	1.2	540
Produced Gas Turbines	< 0.1	161
Outer Continental Shelf Gas Turbines	0.5	15
Compressor Gast Turbines	0.6	37
Total	3.2	1,011

 Table 4-3 – NOx Emission Inventory and MWh Capacity

After the implementation of the BARCT limits, 2.8 tons per day of NOx emission reductions will be realized as seen in Table 4-4 below.

Equipment Type	2015 NOx Emission Inventory (tons per day)	2015 NOx Emissions Reductions (tons per day)
Combined Cycle Turbines	0.9	0.8
Simple Cycle Turbines	1.2	1.1
Produced Gas Turbines	< 0.1	0.0
Outer Continental Shelf Gas Turbines	0.5	0.4
Compressor Gas Turbines	0.6	0.5
Total	3.2	2.8

 Table 4-4 – NOx Emission Reductions

The use of ammonia in the selective catalytic reduction (SCR) process results in an increase of particulate matter emissions. There are 7 turbines that already utilize SCR but will increase their ammonia usage by an estimated 30% to meet the proposed emissions limits. The particulate matter increase is 9,900 pounds annually or 0.01 tons per day. Twenty-three turbines do not currently utilize SCR. The particulate matter increase from incorporating SCR into their process is expected to increase particulate matter emissions by approximately 112,000 pounds annually or 0.15 tons per day.

COST-EFFECTIVENESS

Cost-effectiveness is examined for each equipment category type. Cost-effectiveness is measured in terms of control costs (dollars) per air emissions reduced (tons). The 2016 Air Quality Management Plan (AQMP) establishes a cost-effectiveness threshold of \$50,000 per ton of NOx reduced. Costs for retrofitting stationary gas turbines were determined using U.S. EPA's Air

Pollution Control Cost Estimation Spreadsheet for Selective Catalytic Reduction. The methodology used in the spreadsheet is based on U.S. EPA Clean Air Markets Division Integrated Planning Model. Size and costs of selective catalytic reduction control equipment and operational costs are based on size, fuel burned, NOx removal efficiency, reagent consumption rate, and catalyst costs. Fuel consumption is based on 2015 reported fuel usage. Values are reported in 2015 dollars in Table 4-5 below.

Equipment Type	Cost-Effectiveness (Cost per ton of NOx reduced)
Combined Cycle Turbines	\$11,500
Simple Cycle Turbines	\$8,400
Produced Gas Turbines	\$81,400
Outer Continental Shelf Gas Turbines	\$3,600
Compressor Gas Turbines	\$4,900

For Produced Gas Turbines, the high cost-effectiveness is addressed by establishing a NOx emission limit of 9 ppmv at 15% oxygen on a dry basis which all produced gas turbines currently meet.

INCREMENTAL COST-EFFECTIVENESS

Health and Safety Code section 40920.6 requires an incremental cost-effectiveness analysis for Best Available Retrofit Control Technology (BARCT) rules or emission reduction strategies when there is more than one control option which would achieve the emission reduction objective of the proposed amendments relative to ozone, carbon monoxide, sulfur oxides, oxides of nitrogen, and their precursors. Incremental cost-effectiveness is the difference in the dollar costs divided by the difference in the emission reduction potentials between each progressively more stringent potential control option as compared to the next less expensive control option.

Incremental cost-effectiveness is calculated as follows:

Incremental cost-effectiveness = $(C_{alt}-C_{proposed}) / (E_{alt}-E_{proposed})$ Where:

 $C_{proposed}$ is the present worth value of the proposed control option; $E_{proposed}$ are the emission reductions of the proposed control option; C_{alt} is the present worth value of the alternative control option; and E_{alt} are the emission reductions of the alternative control option

Paragraph (h)(3) exempts natural gas combined cycle gas turbines meeting 2.5 ppmv NOx at 15% oxygen on a dry basis from the proposed NOx limit of 2 ppmv at 15% oxygen on a dry basis. The progressively more stringent potential control option would be to remove the exemption and require all natural gas combined cycle gas turbines to meet the 2 ppmv at15% oxygen on a dry basis NOx limit. The present worth value of the proposed control option is \$44,400,000 and the emission reductions are 1,923 tons over 25 years. The present worth value of the alternative control option is \$63,300,000 and the emission reductions of the alternative control option is 1,978 tons over 25 years. The incremental cost-effectiveness for removing the exemption for natural gas combined cycle gas turbines meeting 2.5 ppmv NOx at 15% oxygen on a dry basis is \$343,600 per ton of NOx reduced as calculated below.

Incremental cost-effectiveness = (\$63,300,000 - \$44,400,000) / (1,978 - 1,923) =\$343,600 per ton of NOx reduced

The proposed rule also includes low-use provisions, paragraph (h)(4), for turbines that operate at less than ten percent of their annual capacity. The progressively more stringent proposal control option would be to remove the exemption. The present worth value of the proposed control option is \$117,000,000 and the emission reductions are 15,228 tons over 25 years. The present worth value of the alternative control option is \$195,700,000 and the emission reductions of the alternative control option is 15,350 tons over 25 years. The incremental cost-effectiveness for removing the exemption for low-use gas turbines is \$687,000 per ton of NOx reduced as calculated below.

Incremental cost-effectiveness = (\$195,700,000 - \$117,000,000) / (15,350 - 15,228) = \$687,000 per ton of NOx reduced

The incremental cost analyses presented above demonstrate that the provisions for low-use equipment and equipment already permitted near the proposed limit are necessary to avoid imposing costs that would exceed the cost-effectiveness threshold.

RULE ADOPTION RELATIVE TO COST-EFFECTIVENESS

On October 14, 1994, the Governing Board adopted a resolution that requires staff to address whether rules being proposed for amendment are considered in the order of cost-effectiveness. The 2016 Air Quality Management Plan (AQMP) ranked, in the order of cost-effectiveness, all of the control measures for which costs were quantified. It is generally recommended that the most cost-effective actions be taken first. Proposed Amended Rule 1134 <u>helps</u> implements Control Measure CMB-05. The 2016 AQMP ranked Control Measure CMB-05 sixth in cost-effectiveness.

SOCIOECONOMIC ASSESSMENT

A Draft Socioeconomic Impact Assessment has been prepared and <u>waswill be</u> released at least 30 days prior to the SCAQMD Governing Board Hearing on PAR 1134, which is anticipated to be heard on April 5, 2019.

CALIFORNIA ENVIRONMENTAL QUALITY ACT

PAR 1134 is considered a "project" as defined by the California Environmental Quality Act (CEQA), and the SCAQMD is the designated lead agency. Pursuant to CEQA and SCAQMD's Certified Regulatory Program (Rule 110), the SCAQMD, as lead agency for the proposed project, prepared a Draft Subsequent Environmental Assessment (SEA) for PAR 1134 which was released for a 45-day public review and comment period from January 29, 2019 to March 15, 2019. As of the publication date of this Draft Staff Report, oneFour comment letters werewas received relative to the Draft SEA. The Draft SEA indicated that while reducing NOx emissions is an environmental benefit, secondary significant adverse environmental impacts are also expected for the topic area of hazards and hazardous materials. Since significant adverse impacts were identified, an

alternatives analysis and mitigation measures are required and are included in the Draft SEA. [CEQA Guidelines Section 15252].

The proposed project may have statewide, regional, or area-wide significance; therefore, a CEQA scoping meeting was required (pursuant to Public Resources Code section 21083.9(a)(2)) and held at the SCAQMD's Headquarters in conjunction with the Public Workshop on December 18, 2019. No comments were made at the CEQA scoping meeting related to CEQA. All comment letters received relative to the Draft SEA and the responses to the comments will be included in Appendix G of the Final SEA.

Prior to making a decision on the adoption of the proposed project, the SCAQMD Governing Board must review and certify the Final SEA, including responses to comments, as providing adequate information on the potential adverse environmental impacts that may occur as a result of adopting the proposed project.

DRAFT FINDINGS UNDER CALIFORNIA HEALTH AND SAFETY CODE SECTION 40727

Requirements to Make Findings

California Health and Safety Code Section 40727 requires that prior to adopting, amending or repealing a rule or regulation, the SCAQMD Governing Board shall make findings of necessity, authority, clarity, consistency, non-duplication, and reference based on relevant information presented at the public hearing, and in the staff report.

Necessity

Proposed Amended Rule 1134 is needed to establish BARCT requirements for stationary gas turbines, including stationary gas turbines at facilities that will be transitioning from RECLAIM to a command-and-control regulatory structure.

Authority

The SCAQMD Governing Board has authority to adopt amendments to Proposed Amended Rule 1134 pursuant to the California Health and Safety Code Sections 39002, 40000, 40001, 40440, 40702, 40725 through 40728, and 41508, and 41508.

Clarity

Proposed Amended Rule 1134 is written or displayed so that its meaning can be easily understood by the persons directly affected by it.

Consistency

Proposed Amended Rule 1134 is in harmony with and not in conflict with or contradictory to, existing statutes, court decisions, or state or federal regulations.

Non-Duplication

Proposed Amended Rule 1134 will not impose the same requirements as any existing state or federal regulations. The proposed amended rule is necessary and proper to execute the powers and duties granted to, and imposed upon, the SCAQMD.

Reference

In amending Rule 1134, the following statutes which the SCAQMD hereby implements, interprets or makes specific are referenced: Health and Safety Code sections 39002, 40000, 40001, <u>40406</u>

(BARCT), 40702, 40440(a), and 40725 through 40728.5, and Clean Air Act Section 172 (c)(1) (reasonably available control technology).

COMPARATIVE ANALYSIS

Health and Safety Code Section 40727.2 requires a comparative analysis of the proposed amended rule with any Federal or District rules and regulations applicable to the same source. A comparative analysis is presented below in Table 4-6.

Rule	PAR 1134	DECLAIM	• •	40 CFR Part 60 KKKK
	FAK 1154	RECLAIM	40 CFR Part 60 GG	40 CFK Part OU KKKK
Element				
Applicability	Turbines with generating capacity greater than 0.3 MW except those located electric generating facilities, landfills, petroleum refineries, and publicly owned treatment works or fueled with landfill gas	Facilities regulated under the NOx RECLAIM program (SCAQMD Reg. XX)	Gas turbines with heat input of ≥ 10 MMBtu/hr constructed or modified before 2/18/2005	Gas turbines with heat input of ≥ 10 MMBtu/hr constructed or modified after 2/18/2005
Requirements	Emission limits: • Combined Cycle Gas Turbine and Associated Duct Burner: NOX 2 ppmv @ 15% O2; Ammonia 5 ppmv @ 15% O2 • Simple Cycle Gas Turbine: NOX 2.5 ppmv @ 15% O2; Ammonia 5 ppmv @ 15% O2 • Produced Gas Turbine: NOX 9 ppmv @ 15% O2; Ammonia 5 ppmv @ 15% O2 • Outer Continental Shelf Produced Gas Turbine: NOX 15 ppmv @ 15% O2 • Outer Continental Shelf Produced Gas Turbine (Liquid Fuel): NOX 30 ppmv @ 15% O2; Ammonia 5 ppmv @ 15% O2 • Compressor Gas Turbine: NOX 3.5 ppmv @ 15% O2; Ammonia 10 ppmv @ 15% O2 • Other Gas Turbine: NOX 12.5 ppmv@ 15% O2; Ammonia 5 ppmv @ 15% O2	None	NOx limit @ 15% O2: 0.0075*(14.4/Y)+F where Y = manufacture's rated heat input and F = NOx emission allowance for fuel-bound nitrogen	 NOx limit for electric generating units (@ 15% O2): ≤ 50 MMBtu/hr – 42 ppm when firing natural gas 50 MMBtu/hr and ≤ 850 MMBtu/hr – 15 ppm when firing natural gas >850 MBtu/hr – 15 ppm when firing natural gas ≤ 50 MMBtu/hr – 96 ppm when firing other fuel 50 MMBtu/hr and ≤ 850 MMBtu/hr – 74 ppm when firing other fuel >850 MBtu/hr – 42 ppm when firing natural gas
Reporting	Annual reporting of NOx emissions	 Daily electronic reporting for major sources Quarterly Certification of Emissions Report and Annual Permit Emissions Program for all units 	Excess emissions and CEMS downtime within 30 days	Excess emissions and CEMS downtime within 30 days; annual performance testing within 60 days
Monitoring	A continuous in-stack NOx monitor for turbines with a capacity of 2.9 MW or greater. Periodic source testing for turbines with a capacity of < 2.9 .	A continuous in-stack NOx monitor for major sources	A continuous in-stack NOx monitor	A continuous in-stack NOx monitor
Recordkeeping	Performance testing; emission rates; monitoring data; CEMS audits and checks maintained for five years	 < 15-min. data = min. 48 hours; • ≥ 15-min. data = 3 years (5 years if Title V) Maintenance & emission records, source test reports, RATA reports, audit reports and fuel meter calibration records for Annual Permit Emissions Program = 3 years (5 years if Title V) 	Performance testing; emission rates; monitoring data; CEMS audits and checks	Performance testing; emission rates; monitoring data; CEMS audits and checks
Fuel Restrictions	Liquid petroleum fuel limited to Outer Continental Shelf turbines	None	None	None

Table 4-6: PAR 1134 Comparative Analysis

REFERENCES

"Final 2016 Air Quality Management Plan", South Coast Air Quality Management District, March 2017

"SCAQMD NOx RECLAIM – BARCT Feasibility and Analysis Review, Norton Engineering Consultants, Inc., Nov 26, 2014

"Regulation 9, Rule 9: Nitrogen Oxides and Carbon Monoxide from Stationary Gas Turbines", Bay Area Air Quality Management District, December 2006

"Regulation 9, Rule 11: Nitrogen Oxides and Carbon Monoxide from Utility Electric Power Generating Boilers", Bay Area Air Quality Management District, May 2000

"Rule 4703 – Stationary Gas Turbines", San Joaquin Valley Air Pollution Control District, September 2007

"Chapter 2 – Selective Catalytic Reduction", U.S. Environmental Protection Agency, May 2016 "Air Pollution Control Cost Estimation Spreadsheet for Selective Catalytic Reduction (SCR), U.S. Environmental Protection Agency, May 2016

"Catalytic Combustion", Office of Energy Efficiency and Renewable Energy, https://www.energy.gov/eere/amo/catalytic-combustion, accessed July 19, 2018

"Catalog of CHP Technologies", U.S. Environmental Protection Agency Combined Heat and Power Partnership, September 2017

<u>Power Generating Packages – Centaur 50, Solar Turbines,</u> <u>https://www.solarturbines.com/en_US/products/power-generation-packages/centaur-50.html,</u> <u>accessed March 2019</u>

APPENDIX A – COMMENTS AND RESPONSES

Comment Letter 1

Beta Offshore – January 17, 2019



January 17, 2019

Michael Morris, Program Supervisor South Coast Air Quality Management District 21865 E. Copley Drive, Diamond Bar, CA 91765-0800

Subject: Beta Offshore, OCS Lease Parcels Facility (ID 166073): Comments for PAR 1134 Landing Rule

Dear Mr. Morris:

Thank you for taking the time to meet with Beta Offshore (Beta) to discuss the December 6, 2018 version of Proposed Amended Rule (PAR) 1134. This letter is in response to the e-mail dated January 9, 2019. We appreciate the clarifications and would like to offer some additional information related to paragraph (d)(6).

Paragraph (d)(6)

Paragraph (d)(6) currently reads, along with the suggested revision (addition deletion):

An owner or operator of a stationary gas turbine shall not burn liquid fuel in a stationary gas turbine except for those located in the Outer Continental Shelf.—Stationary-gas turbines-located on the Outer Continental Shelf burning 10 percent or less by volume liquid fuel shall be subject to the Produced Gas — Turbines Located on-Outer-Continental Shelf limit at all times.

Beta's gas turbines consume either produced gas or liquid fuel (diesel) and would never consume both at the same time. This is not by choice: it is not possible to consume both at the same time.

Under the RECLAIM program, Beta conducts the triennial testing required by Rule 2012(j)(2), when consuming each fuel individually, to demonstrate compliance with the emission limit for each fuel type. Beta appreciates the concern that the gaseous fuel could be supplemented with small amounts of diesel but requests removal of the second sentence. This would make PAR 1134 consistent with the RECLAIM program, i.e., each fuel is used separately, each fuel would have its own emission limit, and compliance with each emission limit would be demonstrated when burning a single fuel.

Subparagraph (e)(2)(C)

Thank you for the clarification that the testing frequency for units without a CEMS is based on the emissions per turbine per year.

1-1

Paragraph (g)(3)

Thank you for the clarification that the DAS provisions apply only to units with a CEMS.

Paragraph (g)(4)

Paragraph (g)(4) currently reads:

The results of source tests shall be submitted to the SCAQMD in a form and manner as specified by the Executive Officer within 30 days after source testing is completed.

Thank you for confirmation that this will be changed from 30 days to 60 days.

Thank you for the clarifications and consideration of the suggested revision to paragraph (d)(6). Please let me know if you have any questions or require additional information. I can be reached at (562) 628-1529 or <u>diana.lang@amplifyenergy.com</u>.

Sincerely,

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Diana Lang HSE Manager

cc: Uyen Uyen Vo – SCAQMD (email) Bruce Berwager – Beta Offshore VP (email) Jazmin Tostado – Beta Offshore 1-2

Response to Comment 1-1

Staff agrees that liquid and gaseous fuels cannot be combusted in the turbine at the same time and the language has been removed.

Response to Comment 1-2

The length of time to submit source test results has been extended to 60 days and is now consistent with other similar source test report submittal times in other SCAQMD regulations.

Comment Letter 2



Daniel R. McGivney Environmental Affairs Program Manager

Tel: 951-225-2958 dmcgivney@semprautilities.com

January 22, 2019

Michael Morris, Program Manager Planning, Rule Development & Area Sources South Coast Air Quality Management District 21865 Copley Drive Diamond Bar, CA 91765

RE: Comments on December 18, 2018 Public Workshop version of draft Proposed Amended Rule 1134 (v120318)

Dear Mr. Morris:

Southern California Gas Company (SoCalGas) and San Diego Gas and Electric Company (SDG&E; SDG&E and SoCalGas are collectively referred to herein as the Utilities) appreciate the opportunity to provide comments to the South Coast Air Quality Management District (AQMD) regarding AQMD Proposed Amended Rule 1134 – Emissions of Oxides of Nitrogen from Stationary Gas Turbines (PAR 1134), version 120318, distributed at the December 18, 2018 public workshop.

Background

On December 18, 2018, the AQMD held a public workshop regarding PAR 1134. At the workshop, the AQMD distributed a draft rule (version 120318) to facilitate the discussion. The Utilities have existing turbines and are considering installation of new turbines which would be affected by these rule amendments.

Comments

After reviewing this proposed draft rule, the Utilities have the following comments and requests:

Alternative Emission Limits

As proposed, PAR 1134 (v120318), section (h) Exemptions, sub-section (6), would allow natural gas pipeline gas turbines to comply with emission limits specified in the turbine permit(s) as of January 1, 2024 (rather than the Table 1 limits proposed in the draft rule), provided the ammonia limit specified in the permit does not exceed 10 parts per million by volume (ppmv). The Utilities support this proposed exemption and requests that it be retained in the final rule.

The AQMD has proposed NOx (8 ppm) and NH₃ (5 ppm) limits for pipeline turbines in PAR 1134. During discussions held with rulemaking staff, and in comments submitted to the AQMD (attached), the Utilities presented data detailing both current adopted BARCT (San Joaquin County Air Pollution Control District) for pipeline turbines and the difficulty in meeting lower 2-1

Page 2

NOx concentrations due to the wide range in operational loads (reference attachment, BARCT Technical Justification, page 3) that the Utilities' turbines experience, made especially difficult by the requirement of an ammonia slip limit of 5 ppm. Throughout the development of PAR 1134, the Utilities have noted that pipeline turbine operation differs significantly from other applications (e.g. power generation) due to wide operating ranges, varying from 30-95 percent load. This results in the need for an avenue to develop alternative emission limits should the proposed limits not be achievable across all turbine operating conditions. Emission limits in PAR 1134 should be consistent with those that have been demonstrated by this class and category of turbines (e.g. natural gas pipeline gas turbines). A mechanism should be provided within the rule to remedy potential technological failures that may occur to avoid putting the Utilities' in compliance jeopardy. As proposed, the exemption provided in version 120318, section (h)(6), would provide a path which would ensure the Utilities have an option where it can achieve continuous compliance with AQMD requirements across the equipment's entire operating range.

Request: Maintain the current exemption (h)(6), as proposed in PAR 1134 version 120318, in the final Rule 1134.

30-Day Source Test Results Submittal Time Frame

Existing Rule 1134, section (f)(4) [and PAR 1134 versions 120318 & 120618, section (g)(4)], require that source test results be submitted to the AQMD within 30 days after the source test is completed. While Rule 1134 addresses specific turbines (those identified as of August 4, 1989), other existing and future new turbines will be affected by PAR 1134 once adopted. The Utilities are concerned that turbines that have Volatile Organic Compounds (VOC) limits, will have difficulty meeting a 30-day turn-a-round on VOC test results. Currently, a 60-day period is more typical [reference Rule 1110.2 (f)(1)(C)(vi)] for submittal of emissions test results, especially those sources that must test and report VOC data. Considering VOCs have a longer analysis time, data quality assurance/control that must be done, report preparation and review, it will be difficult to meet a 30-day submittal deadline.

Request: The Utilities request that the AQMD modify the current 30-day submittal deadline contained in Rule 1134/PAR 1134 for submittal of emissions test data, to a 60-day period, thereby providing an attainable time frame for the analysis and reporting of constituents (VOCs, etc.) other than NOx.

Use of "Pipeline Turbine" Terminology

Early in the development of PAR 1134, the Utilities used the phrase "Natural Gas Pipeline Turbines" to distinguish the use of turbine-driven compressors in the natural gas system (versus other industries) and the use of this terminology by other local air agencies in California. At the time, and currently, these "pipeline" gas turbines are the only units currently operating at the Utilities' facilities within the South Coast air basin, as the turbine-driven compressors previously at the Aliso Canyon natural gas storage facility had been replaced by electric-driven compressors. As part of the Utilities' continued efforts to modernize existing equipment and infrastructure at other facilities, and to reduce emissions in support of the Regional Clean Air Incentives Market (RECLAIM) transition to a command and control program, the use of natural gas turbine-driven compressors is being considered for other facilities. These new turbines may be located at a natural gas storage facility. Although natural gas storage is part of the Utilities' pipeline system, the use of the term "pipeline" turbine may not accurately reflect this use. So,

2-1 (Cont.)

2-2

2-3

Page 3

the Utilities are proposing that the use of "<u>Compressor</u> Turbine" would be more appropriate and cover turbines used at both natural gas transmission <u>and</u> storage facilities.

Request: Currently, the AQMD uses the term "Natural Gas – Pipeline Gas Turbine" in PAR 1134. The Utilities request that the AQMD modify this terminology to "Natural Gas – Pipeline Compressor Turbine."

Conclusion

The Utilities request that the AQMD consider and adopt the Utilities' recommendations regarding maintaining current language in version 120318 [e.g. PAR 1134 (h)(6)], providing an alternative option for developing emission limits for natural gas compressor turbines, revising the 30-day emission test results submittal deadline to 60-days, and modifying the existing terminology of "pipeline" turbine to "compressor" turbine.

The Utilities appreciate your consideration of these comments and recommendations. We would be pleased to discuss the above comments and answer any questions. You may contact me at 951-225-2958 or at <u>dmcgivney@semprautilities.com</u>.

Sincerely,

Daniel R. McGivney

Daniel R. McGivney Environmental Affairs Program Manager Southern California Gas Company

cc: Phil Fine, SCAQMD Susan Nakamura, SCAQMD

Response to Comment 2-1

Staff has reviewed compressor turbines in the same class as those referenced in the comment. Two recent installations¹ with concentration limits of 3.5 ppmv NOx and 10 ppmv ammonia corrected to 15% oxygen on a dry basis were identified. Staff is revising the limits to reflect this new information that will further reduce NOx emissions while providing the regulatory flexibility requested. Staff is also including additional time to meet these these technology forcing-limits with conditions as specified in paragraph (d)(9) of the proposed rule.

Response to Comment 2-2

The length of time to submit source test results has been extended to 60 days and is now consistent with other similar source test report submittal times in other SCAQMD regulations. See comment 1-2.

Response to Comment 2-3

Staff has revised the rule language to replace pipeline turbine with compressor turbine.

¹ <u>https://www.deq.virginia.gov/Portals/0/DEQ/Air/BuckinghamCompressorStation/May_25_2018_Updated_Application.pdf</u> https://mde.state.md.us/programs/Permits/AirManagementPermits/Documents/dom%20air%20dispersion%20supplement.pdf

Comment Letter 3

Bridget McCann Manager, Technical and Regulatory Affairs

February 28, 2019

Dr. Philip Fine Deputy Executive Officer, Planning and Rules South Coast Air Quality Management District 21865 Copley Drive Diamond Bar, CA 91765 sent via email: pfine@aqmd.gov

Re: WSPA Comments on Proposed Amended Rule 1134, Emissions of Oxides of Nitrogen from Stationary Gas Turbines

Dear Dr. Fine,

Western States Petroleum Association (WSPA) appreciates this opportunity to provide feedback on the transition of the Regional Clean Air Incentives Market (RECLAIM) program to a command-and-control regulatory structure (RECLAIM Transition Project) and specifically Proposed Amended Rule 1134 (PAR 1134). WSPA is a non-profit trade association representing companies that explore for, produce, refine, transport and market petroleum, petroleum products, natural gas and other energy supplies in five western states including California. WSPA has been an active participant in air quality planning issues for over 30 years. WSPA-member companies operate petroleum refineries and other facilities in the South Coast Air Basin that are within the purview of the RECLAIM program administered by the South Coast Air Quality Management District (District or SCAQMD).

PAR 1134 is intended to reduce emissions of oxides of nitrogen (NOx) from stationary gas turbines. While this rule is not intended to apply to stationary gas turbines located at petroleum refineries, as those units would be subject to Proposed Rule 1109.1, NOx Emission Reductions for Refinery Equipment (PR 1109.1), the Best Available Retrofit Control Technology (BARCT) determinations made under PAR 1134 could be relevant to the PR 1109.1 rulemaking as it pertains to turbines at refineries. As such, we respectfully offer the following comments on PAR 1134 and the BARCT determinations therein.

 The District is obligated to demonstrate that proposed BARCT requirements are both technically feasible and cost effective. To that end, the District needs to provide stakeholders with the technical and economic information and analyses upon which the demonstration is based.

The California Health and Safety Code defines BARCT as follows:

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PAR 1134 Final Staff Report

3-1

"Best available retrofit control technology means an emission limitation that is based on the maximum degree of reduction achievable, taking into account environmental, energy, and economic impacts by each class or category of source." ¹

Health & Safety Code §40440.8 requires the District to conduct a socioeconomic assessment of any proposed rule, including rule amendments that will significantly affect air quality or emissions limitations, such as a BARCT amendment.²

Furthermore, Section 40920.6 of the Health & Safety Code requires the District to conduct an incremental cost-effectiveness analysis. In order to complete this analysis, the District must identify feasible control options, assess the cost-effectiveness of the option, calculate the incremental cost-effectiveness between the control options, and consider the effectiveness, cost-effectiveness and incremental cost-effectiveness between the control options.³

In short, prior to adopting updated BARCT requirements, the District Governing Board must find that the proposed emission limitation is both: (a) achievable; and (b) cost effective. These findings must be based on information and analyses contained in the rulemaking record.⁴ The evaluations must be provided to the public a minimum of 30 days before any hearing.⁵ This must include technical information concerning emissions performance, energy impacts, and environmental effects, as well as information concerning the capital and operating costs associated with the proposed BARCT. However, in order to ensure an open rulemaking process that allows the decision maker all the necessary data on which to base an informed decision, we encourage staff to provide such detailed information, as long as the data is not confidential business information (CBI), to Working Group stakeholders as early as possible so they have the opportunity to understand and evaluate the basis for Staff's recommendations and provide comments as appropriate, thereby making the rulemaking a legally meaningful exercise. High-level summaries in District Staff presentations are generally insufficient for meeting this objective.

With respect to the finding of cost effectiveness, California Health & Safety Code Section 40703 requires that when adopting any regulation "the district shall consider, pursuant to Section 40922, <u>and make available to the public</u>, its findings related to the cost-effectiveness of a control measure, <u>as well as the basis for the findings and the consideration involved</u>." Thus, the District is required by statute, unless the information is CBI, to make public the basis of its findings that the proposed and adopted BARCT standards are cost-effective.

2. Mandating equipment replacement exceeds the SCAQMD's authority.

The Preliminary Draft Staff Report for PAR 1134⁶ includes a lengthy SCAQMD discussion which argues that "BARCT may certainly include the replacement of equipment." As WSPA

* SCAQMD, Preliminary Draft Staff Report, Proposed Amended Rule 1134 – Emissions of Oxides of Nitrogen from Stationary Gas Turbines, December 2018, see Chapter 2.

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3-1 (Cont.)

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¹ Health & Saf. Code §40406.

² Health & Saf. Code §40440.8.

³ Health & Saf. Code §40920.6.

⁴ Health & Saf. Code §40728(c).

⁵ Health & Saf. Code §40440.5

has noted in several prior comment letters, mandating replacement of basic equipment exceeds the authority of the SCAQMD to adopt BARCT standards for existing sources, as set forth in the California Health & Safety Code, and therefore runs afoul of the well-established legal principle that a regulatory agency must act within the scope of the authority delegated to it by the legislature.

Citing the American Coatings case, Staff has taken the position that the agency's authority is essentially unbounded as long as the requirement is not arbitrary and capricious, or without some reasonable or rational basis, or lacking in evidentiary support. We do not believe that the American Coatings decision expands the Districts authority in the manner in which staff desires. However, as the cases relied upon in American Coatings make clear, a critical consideration in evaluating whether or not an agency action meets this standard is whether or not the action is within the scope of the agency's delegated authority. As stated in Yamaha Corp. of America v. State Bd. of Equalization (1998) 19 Cal.4th 1, citing Wallace Berri & Co. v. State Bd. of Equalization (1985) 40 Cal.3d 60, 65: " [I]n reviewing the legality of a regulation adopted pursuant to a delegation of legislative power, the judicial function is limited to determining whether the regulation (1) is "within the scope of the authority conferred" [citation] and (2) is "reasonably necessary to effectuate the purpose of the statute" [citation]."

This issue was previously addressed in the following WSPA comments letters which are incorporated herein by reference.

- Attachment 1: July 3, 2018 comments from WSPA
- Attachment 2: August 15, 2018 comments from Latham & Watkins LLP on behalf of WSPA
- Attachment 3: November 1, 2018 comments from Latham & Watkins LLP on behalf of WSPA

3. New Source Review (NSR) issues must be fully addressed before Title V facilities are transitioned out of RECLAIM program.

WSPA continues to actively participate in the working groups for the RECLAIM transition as well as the individual BARCT rulemakings. In these forums the District has indicated that it is continuing discussions with U.S. Environmental Protection Agency (USEPA) staff regarding a variety of NSR issues. These include issues that will impact RECLAIM facilities both during the transition of their permits from the RECLAIM program (i.e., SCAQMD Regulation XX) to the District's command-and-control NSR program (i.e., Regulation XIII), and also affect how future NSR actions are regulated. At the present time, neither Regulation XX nor Regulation XIII includes USEPA-approved provisions to address these issues for RECLAIM facilities.

Since permits for Title V facilities are federally enforceable, and Regulation XX is USEPAapproved under the District's State Implementation Plan (SIP), Title V facilities will likely need to continue operating under the Regulation XX RECLAIM program at least until such time that the RECLAIM transition rules have been formally approved by USEPA into the District's SIP and the replaced Regulation XX provisions are rescinded. This would require an effective date for RECLAIM transition tied to the USEPA's approval which will be sometime after the Governing

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Board's adoption of the transition rules. Otherwise, Title V facilities could be left having to comply simultaneously with two different, and mutually exclusive, programs.

RECLAIM facilities subject to PAR 1134 will need to continue under the RECLAIM Monitoring, Reporting and Recordkeeping (MRR) requirements found in Rules 2011 and 2012 until such time as USEPA approves new Proposed Rule 113 to the SIP.

The sequencing issue discussed above will also be relevant to the proposed transition of RECLAIM facilities from the RECLAIM Monitoring, Reporting and Recordkeeping (MRR) requirements codified in Rules 2011 and 2012, towards future requirements of Proposed Rule 113 (Monitoring, Reporting, and Recordkeeping (MRR) Requirements for NOx and SOx Sources). RECLAIM facilities will likely need to continue MRR under the provisions of R2011/2012 at least until such time as PR113 has been approved by USEPA into the SIP as a replacement to R2011/2012. Otherwise, RECLAIM facilities subject to PAR 1134 could be caught trying to simultaneously comply with two different MRR programs. As PR 113 has not been drafted or adopted, it is unknown at this time whether such a feat would be possible.

The California Environmental Quality Act (CEQA) analysis for the RECLAIM transition project has been piecemealed.

It is a fundamental principle of California Environmental Quality Act (CEQA) review that environmental effects for the whole of a project must be analyzed together. In this case, the project" is the RECLAIM transition project as a whole as required by Control Measure CMB-05 as adopted in the 2016 Air Quality Management Plan (AQMP). Yet, staff has continued to conduct CEQA review of RECLAIM transition rules, including PAR 1134,7 through a series of Supplemental or Subsequent Environmental Assessments (SEAs) that analyze only the impacts associated with individual BARCT "landing" rules. Staff argues that this approach is acceptable because each SEA "tiers off" the March 2017 Final Program Environmental Impact Report (EIR) for the 2016 AQMP and several other earlier certified CEQA documents. However, the March 2017 Final Program EIR for the 2016 AQMP, which was completed in January 2018, did not analyze the transition of the RECLAIM program because the transition was not even part of CMB-05 as proposed at that time. Therefore, tiering off the earlier CEQA documents to support rule amendments that seek to implement the transition is not possible (or valid) because there was no comprehensive analysis in the earlier documents. In the absence of a program level CEQA analysis that includes the whole of the RECLAIM transition project, Staff's segmented analysis of each proposed rulemaking action constitutes classic "piecemealing" in violation of CEQA. This issue was addressed in more detail in the following attachments which are incorporated herein by reference

- Attachment 4: May 1, 2018 comments from WSPA
- Attachment 5: September 7, 2018 comments from Latham & Watkins LLP on behalf of WSPA

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3-5

⁷ SCAQMD, Draft Subsequent Environmental Assessment for Proposed Amended Rule 1134 – Emissions of Oxides of Nitrogen from Stationary Gas Turbines, January 2019.

Thank you for considering these comments. We look forward to continuing to work with you and your Staff on the RECLAIM rulemakings which are critically important to stakeholders as well as the regional economy. If you have any questions, please contact me at (310) 808-2146 or via e-mail at bridget@wspa.org.

Sincerely,

Bans

Bridget McCann Manager, Technical and Regulatory Affairs

Cc: Wayne Nastri, SCAQMD Susan Nakamura, SCAQMD Michael Morris, SCAQMD Tom Umenhofer, WSPA Patty Senecal, WSPA

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July 3, 2018

Dr. Philip Fine Deputy Executive Officer South Coast Air Quality Management District 21865 Copley Drive Diamond Bar, CA 91765 Via e-mail at: pfine@aqmd.gov

Re: WSPA Comments on RECLAIM Transition Project Rules

- Proposed Amended Rule 1135 (NO_x Emissions from Electric Power Generating Systems)
- Proposed Amended Rule 1134 (NO_X Emissions from Stationary Gas Turbines)
- Proposed Rule 1109.1 (Refinery Equipment)

Dear Dr. Fine:

Westem States Petroleum Association (WSPA) appreciates this opportunity to provide feedback on the transition of the Regional Clean Air Incentives Market (RECLAIM) program to a command-and-control regulatory structure (RECLAIM Transition Project). WSPA is a non-profit trade association representing companies that explore for, produce, refine, transport and market petroleum, petroleum products, natural gas and other energy supplies in five westem states including California. WSPA has been an active participant in air quality planning issues for over 30 years. WSPA-member companies operate petroleum refineries and other facilities in the South Coast Air Basin that are within the purview of the RECLAIM program administered by the South Coast Air Quality Management District (District or SCAQMD) and they will be impacted by the RECLAIM Transition Project. We have several comments concerning pending rulemakings to implement new Best Available Retrofit Control Technology (BARCT) requirements.

WSPA and its members are active participants in the working groups related to the RECLAIM Transition Project. We respectfully offer the following comments on Proposed Amended Rule (PAR) 1135, NO_X Emissions from Electric Power Generating Systems, PAR 1134, NO_X Emissions from Stationary Gas Turbines, and Proposed Rule (PR) 1109.1, Refinery Equipment.

 BARCT must be established, for each class and category of equipment. BARCT determinations for one class may be different than another class. Caution should be exercised when referencing or applying BARCT determinations from other classes within a category.

The California Health and Safety Code (CHSC) defines BARCT as follows:

"Best available retrofit control technology means an emission limitation that is based on the maximum degree of reduction achievable, taking into account environmental, energy, and economic impacts <u>by each class or category of source</u>."¹ [Emphasis added]

Under District BARCT rules, an equipment category may consist of multiple classes. These classes may be defined by different design criteria or operational factors. Examples might include throughput ratings, duty cycles, or usage level (e.g., low v. high use). Such classifications within a category are necessary to establish what is technologically feasible and cost effective as required in the determination of BARCT.

The District is presently considering BARCT rules for a number of equipment types within the RECLAIM Transition Project. Due to their inclusion in the RECLAIM program, many of these equipment types have not undergone an evaluation for command-and-control BARCT since the RECLAIM program's launch in 1993, at least with respect to equipment situated at RECLAIM facilities. In many cases, an equipment category is comprised of several different classes and therefore addressed under several different rules. Some notable examples include:

- Stationary gas turbines, which will be covered under a number of different classes pursuant to PAR 1134, PAR 1135 and PR 1109.1.
- Process heaters and boilers, which will be addressed under a number of different classes pursuant to PAR 1146, PAR 1146.1, PAR 1146.2, and PR 1109.1.

Despite similarities within the broader categories, BARCT determinations must be conducted specific to each class of equipment within a category. Take for example a stationary gas turbine; a given make/model of turbine might be deployed in a refinery cogeneration system, or an electric generating facility (EGF). However, operational design differences would place this equipment in different classes. That classification could be defined based on differences in fuel type (e.g., refinery fuel gas and/or utility quality natural gas), or duty (e.g., baseload vs. demand response, etc.).

We appreciate that the District is in the process of conducting a thorough BARCT analysis for these sources across the different proposed rules including PR 1109.1. Such BARCT analyses for refinery sources must be specific to refinery applications and BARCT determinations for similar types of equipment in non-refinery application may not be relevant because what is technologically feasible and cost effective in one application may not be in another application. For this reason, caution should be exercised when referencing or applying BARCT determinations from other classes within a category.

2. If a technically feasible endpoint is not cost effective, it cannot be considered BARCT since cost effectiveness is a fundamental requirement of BARCT. Some

¹ CHSC §40406.

endpoints presented by SCAQMD Staff to recent RECLAIM landing rule working groups exceed the District's \$50,000 per ton NOx reduced cost effectiveness threshold.²

In establishing BARCT, a district must do all of the following:³

- Identify one or more potential control options which achieves the emission reduction objectives for the regulation.
- 2) Review the information developed to assess the cost-effectiveness of the potential control option. For purposes of this paragraph, "cost-effectiveness" means the cost, in dollars, of the potential control option divided by emission reduction potential, in tons, of the potential control option.
- 3) Calculate the incremental cost-effectiveness for the potential control options. To determine the incremental cost-effectiveness under this paragraph, the district shall calculate the difference in the dollar costs divided by the difference in the emission reduction potentials between each progressively more stringent potential control option as compared to the next less expensive control option.
- 4) Consider the effectiveness of the proposed control option, the costeffectiveness of each potential control option, and the incremental costeffectiveness between the potential control options.

In short, BARCT must represent an emission limitation which is both technologically feasible <u>and</u> cost effective.

We note that District Staff recently presented at least one preliminary BARCT recommendation which Staff's (preliminary) analysis indicated was not cost effective. Staff presented the PAR 1135 Working Group with a "BARCT Recommendation" for "Combined-Cycle Turbines" as 2 ppm NO_X, despite data suggesting that every affected unit in the class would exceed the District's cost effectiveness threshold.⁴ Given that data, BARCT cannot be 2 ppm NO_X for the class/category and the District's BARCT recommendation would require revision.

 BARCT must be established at a class/category level. Device-level limitations are not appropriate unless the source class/category is classified to include a single device.

As noted above, BARCT must represent an emission limitation which is both technologically feasible and cost effective for each class/category of source.⁵ In one instance, the District Staff presented a working group with a preliminary BARCT recommendation that would effectively establish device-level throughput limits as part of the BARCT rule.⁶ The District Staff's analysis for the category (i.e., EGF Utility Boilers) clearly indicated that the Staff's proposed BARCT level was not cost effective for the class/category. As part of that (preliminary) determination, Staff proposed "low use

² SCAQMD presentation to Proposed Amended Rule 1135 Working Group Meeting, 13 June 2018. Slides 30-46

³ CHSC §40920.6.

⁴ SCAQMD presentation to Proposed Amended Rule 1135 Working Group Meeting, 13 June 2018. Slides 27 and 30 ⁵ CHSC §40406.

⁶ SCAQMD presentation to Proposed Amended Rule 1135 Working Group Meeting, 13 June 2018. Slides 40-43.

exemptions" would be imposed in the form of new operating limits for each of the individual devices to be calculated as a function of cost effectiveness. Such devicelevel limitations are not appropriate for a BARCT determination when the class/category consists of multiple devices. If the District wishes to establish a low-use exemption, it must set a class/category threshold above which the BARCT recommendation would be cost effective for the class/category.

4. Requirements which effectively force retirement of basic equipment must be accounted for in the cost effectiveness analysis for the proposed rule. Such a requirement would also need to be accounted for in the District's socioeconomic analysis for the Proposed Rule.

In the recent working group meetings for PAR 1135 and PAR 1134, District Staff indicated they are considering a "replacement requirement" for older equipment.^{7,8} In both cases, the concept of a replacement requirement appeared to be driven by Staff's desire to impose a control level that was not demonstrated to be cost effective. BARCT is by definition a retrofit standard that applies to existing sources. The requirement that BARCT standards be both technologically achievable and cost effective is an acknowledgement that it may not be possible to achieve the same level of control on an existing source as might be possible with a new source. If there are no more stringent controls that are cost effective for a class or category of source, then that source is at BARCT and the analysis is concluded. To instead require replacement of that source (perhaps without any regard to the technological feasibility or cost effectiveness) with a new source (presumably equipped with best available control technology) renders the technological feasibility and cost effectiveness limitations in the BARCT definition meaningless. The Health and Safety Code grants the District authority to impose best available control technology (BACT) on new and modified sources and BARCT on existing sources.9 We are not aware of any authority that allows the District to compel replacement of an existing source when it finds that there are no cost effective retrofit controls. We do, however, support measures that would make it easier for a facility to replace aging equipment if it elects to do so on a voluntary basis, including streamlined new source review and available sources of emission offsets.

5. The timetable for transition to command-and-control BARCT could materially affect what is achievable, and whether it is cost effective.

Under RECLAIM's market-based design, covered facilities have successfully reduced aggregate program emissions for NOx and SOx in accordance with the program's declining RTC caps. Facilities have implemented custom compliance strategies to meet these caps, which included installing emissions controls on equipment where it was cost effective and using the compliance market where physical changes were not cost effective. The District is now planning to transition RECLAIM facilities to command-andcontrol (under various directives).

Due to program design, RECLAIM facilities within a given sector may have pursued widely varied strategies and now find themselves in widely varied situations with respect

SCAQMD presentation to Proposed Amended Rule 1135 Working Group Meeting, 13 June 2018. Slide 48. SCAQMD presentation to Proposed Amended Rule 1134 Working Group Meeting, 13 June 2018. Slide 42.

CHSC §40440(b)(1).

to their basic equipment and currently installed emissions controls. The investments and construction needed to achieve command-and-control BARCT limits have not yet been defined. Given these varied starting points, the implementation schedule for command-and-control BARCT rules could be an important factor in defining what is achievable or cost effective as BARCT. We recommend that BARCT discussions need to include consideration of both what will be required (i.e., the emission limit) and when (i.e., the schedule). This is especially true for refinery sector facilities where such investments must be coordinated with turnaround schedules and capital projects that require long planning and engineering timetables.

Thank you for considering these comments. We look forward to continuing to work with you and your Staff on these rulemakings which are critically important to stakeholders as well as the regional economy.

If you have any questions, please contact me at (310) 808-2146 or by email at bmccann@wspa.org.

Sincerely,

Bolann

cc: Wayne Nastri, SCAQMD Susan Nakamura, SCAQMD Michael Morris, SCAQMD Michael Krause, SCAQMD Patty Senecal, WSPA

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August 15, 2018

VIA EMAIL

Dr. Philip Fine Deputy Executive Officer South Coast Air Quality Management District 21865 Copley Drive Diamond Bar, CA 91765

Re: SCAQMD Staff Proposal to Require Equipment Replacement as BARCT

Dear Dr. Fine:

We are submitting these comments on behalf of our client Western States Petroleum Association ("WSPA") on an important issue that has arisen in connection with the transition of the Regional Clean Air Incentives Market ("RECLAIM") program to a command-and-control regulatory structure. WSPA is a non-profit trade association representing companies that explore for, produce, refine, transport and market petroleum, petroleum products, natural gas and other energy supplies in five western states including California. WSPA has been an active participant in air quality planning issues for over 30 years. WSPA-member companies operate petroleum refineries and other facilities in the South Coast Air Basin that will be impacted by the transition out of the RECLAIM program.

South Coast Air Quality Management District ("SCAQMD") staff has recently taken the position that a best available retrofit control technology ("BARCT") standard may require total replacement of the emitting piece of equipment. SCAQMD staff has articulated this position in various meetings and documents produced in connection with the RECLAIM transition. The most detailed explanation of the staff's position of which we are aware is contained in the July 2018 Draft Staff Report in support of proposed amendments to SCAQMD Rule 1135 ("Rule 1135 Staff Report") at pages 2-1 through 2-2.

In the Rule 1135 Staff Report, staff makes two arguments in support of its position. First, it cites to dictionary definitions of "retrofit" and concludes that "replacement" is not specifically excluded from those definitions. Second, it cites to a California Supreme Court case, American Coatings Ass'n v. South Coast Air Quality Mgt. Dist., 54 Cal 4th 446 (2012), for the proposition that a BARCT standard may require replacement of the emitting equipment in its entirety. We provide a response to each of these arguments below.

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"Common Sense Definition" Argument

The SCAQMD's "common sense definition" argument is flawed in that it focuses on whether or not "replacements" are specifically <u>excluded</u> from the definitions of "retrofits," as opposed to whether or not they are <u>included</u> within the definition. The SCAQMD's backward approach to interpreting dictionary definitions is non-sensical. Under this approach, because the definition of "apple" does not specifically <u>exclude</u> "orange," an orange may be an apple notwithstanding the fact that the definition of apple clearly does not <u>include</u> orange. When one focuses on what is included within the definitions of "retrofit," as opposed to what is not excluded, it is clear that while replacement of certain elements of any particular object may be a "retrofit," replacement of the object in its entirety is not.

One of the definitions relied upon by the SCAQMD is the following from the on-line Merriam-Webster Dictionary:

> 1: to furnish (something, such as a computer, airplane, or building) with new or modified parts or equipment not available or considered necessary at the time of manufacture, 2: to install (new or modified parts or equipment) in something previously manufactured or constructed, 3: to adapt to a new purpose or need: modify.

This definition makes clear that a "retrofit" involves an existing object – "(something, such as a computer, airplane, or building)" – upon which the act of retrofitting occurs, and which continues to exist following that action. The Rule 1135 Staff Report states: "This definition does not preclude the use of *replacement parts* as a retrofit." (emphasis added). This statement is true, but it does not support the position taken by the SCAQMD that a retrofit may include the replacement of the entire object that is the subject of the retrofit. Note that in the case of BARCT, we are discussing retrofitting a piece of equipment and thus, the second of the definitions in Merriam Webster, "to install (new or modified parts or equipment) in something previously manufactured or constructed," is the most applicable definition. When one retrofits equipment, such as a heater, the parts, such as a burner, may be updated, but the original heater itself remains.

It becomes even more clear that the staff's interpretation of the term "retrofit" is incorrect when one considers the definition of the term "replace" from the same source:

2: to take the place of especially as a substitute or successor.

The distinction between these two terms is clear – in the case of "retrofit," the pre-existing object that is the subject of the action continues to exist following the action, but in an altered state; whereas, in the case of "replace," the pre-existing object of the action no longer exists following the action. So, if you replace a heater, the original heater no longer exists.

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The other definition relied upon by the staff is from the on-line Dictionary.com:

1. To modify equipment (in airplanes, automobiles, a factory, etc.) that is already in service using parts developed or made available after the time of original manufacture, 2. To install, fit, or adapt (a device or system) or use with something older; to retrofit solar heating to a poorly insulated house, 3. (of new or modified parts, equipment, etc.) to fit into or onto existing equipment, 4. To replace existing parts, equipment, etc., with updated parts or systems.

Again, this definition makes clear that a retrofit involves the modification of existing equipment (e.g., airplane, automobile, factory), which continues to exist following such action. To the extent that the term "replacement" is used in the definition, it clearly refers to the replacement of *some element* of that object (e.g., parts of an airplane, equipment in a factory), and not to replacement of the entire object altogether.

And again, the distinction between the two terms becomes even clearer when one considers the definition of "replace" from the same source:

1: to assume the former role, position, or function of; substitute for (a person or thing), 2: to provide a substitute or equivalent in the place of.

"Replace" and "retrofit" are different terms with different meanings, and to suggest that the use of one term somehow includes the other, without some explicit statement of intent to do so, simply ignores the distinction between the two terms.

Furthermore, both "retrofit" and "replace" or "replacement" are terms commonly used in air quality statutes and regulations, and the difference between the terms is well understood. When a statute or regulation is intended to require, or apply to, "replacements," that intention is typically clear on its face. When a legislative body means "replacement," it says so explicitly, and to suggest that the California legislature intended to include "replacement" within the scope of a definition that uses the term "retrofit," flies in the face of the distinction between these two terms that is embodied throughout the universe of air quality statutes and regulations. If the legislature had intended that equipment be replaced, they would have used the word "replacement" (best available replacement control technology). The SCAQMD staff cannot ignore the word "retrofit" in the term "best available retrofit control technology." It is a fundamental principle of statutory interpretation that each term be given meaning.

"American Coatings" Argument

Neither the language from the American Coatings decision quoted in the Rule 1135 Staff Report, nor anything else in the decision, supports the proposition that a BARCT standard may require the replacement of the primary emitting equipment to which the standard is being applied. In fact, this issue is not even addressed in the case.

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The American Coatings case addresses the issue of whether or not there are certain circumstances where an adopted BARCT standard may be more stringent than the currently applicable best available control technology ("BACT") standard for the same class or category of source. The court concludes that it is acceptable for an adopted BARCT standard with a future compliance date to be more stringent than the BACT standard that exists at the time the more stringent BARCT standard is adopted. American Coatings, 467. In explaining its decision, the court pointed out that a BARCT standard with a future compliance date need not be met until some point in the future after which advances in technology have occurred; whereas, a BACT standard must be met immediately in order for a source to obtain a pre-construction permit. The court also pointed out that BARCT standards with future compliance dates that could not be achieved as of the date of adoption are consistent with the concept that BARCT standards may be "technology-forcing."

The Rule 1135 Staff Report correctly articulates the American Coatings holdings described above but does not contain any analysis to support the staff's position that a BARCT standard can require the complete replacement of the emission unit. It simply includes the following conclusory statement: "Therefore, the SCAQMD may establish a BARCT emissions level that can cost-effectively be met by replacing existing equipment rather than installing addon controls . . ." Rule 1135 Staff Report, p. 2-2. The staff report is devoid of any legal analysis or authority, including the American Coatings decision, that supports this conclusion.

Thank you for considering these comments. We look forward to continuing to work with you on these rulemakings which are critically important to stakeholders as well as the regional economy. If you have any questions, please contact me at (714) 401-8105 or by email at michael.carroll@lw.com, or Bridgit McCann of WSPA at (310) 808-2146 or by email at bmccann@wspa.org.

Sincerely.

Michael J. Carroll

cc: Cathy Reheis-Boyd, WSPA Patty Senecal, WSPA Bridgit McCann, WSPA Wayne Nastri, SCAQMD Barbara Baird, SCAQMD

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November 1, 2018

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VIA EMAIL

Bayron T. Gilchrist, General Counsel Barbara Baird, Chief Deputy Counsel South Coast Air Quality Management District 21865 Copley Drive Diamond Bar, CA 91765

Re: SCAQMD Staff Proposal to Require Equipment Replacement as BARCT

Dear Bayron and Barbara:

Thank you for your October 3, 2018 letter responding to our August 15, 2018 comments submitted on behalf of the Western States Petroleum Association ("WSPA"), and our August 24, 2018 comments submitted on behalf of the Regulatory Flexibility Group ("RFG"), regarding South Coast Air Quality Management District ("SCAQMD") staff's position that a best available retrofit control technology ("BARCT") standard may require total replacement of the emitting piece of equipment. Portions of your response reassert arguments that staff has made in the past in support of its position; namely, that neither the statutory definition of BARCT nor common dictionary definitions of "retrofit" specifically exclude replacements, and that the *American Coatings Ass'n v. South Coast Air Quality Mgt. Dist.*, 54 Cal 4th 446 (2012) case ("*American Coatings"*") is supportive of staff's position. We responded to those arguments in our previous comment letters and will not revisit them here. This letter responds on behalf of WSPA and RFG to your assertions that the staff's position is supported by public policy considerations, and that we have failed to present any policy rationale for our position.

Staff asserts that requiring replacements under certain circumstances is supported by policy justifications, and, therefore, public policy supports an expansive interpretation of its authority that would include the authority to mandate replacements. This reasoning is contrary to two important public policies that are also well enshrined in administrative law. The first is that regulatory agencies must act within the scope of the authority delegated to them by the legislature, even if that means the agency may not undertake certain actions that it might otherwise view as sound public policy. The second is that public agencies may not substitute their own judgment for that of the legislature as reflected in the statutory grant of authority. These public policies and legal requirements support our position that staff cannot mandate replacements as BARCT.

Bayron T. Gilchrist/Barbara Baird November 1, 2018 Page 2

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Public policy and well established law dictate that the SCAQMD act within the scope of authority granted to it by the legislature.

An agency can adopt, administer or enforce a regulation only if it is within the scope of authority conferred on it by other provisions of law. Cal Gov. Code § 11342.1. No regulation is valid unless it is consistent and not in conflict with the statute conferring authority to the agency. Cal Gov. Code § 11342.2. As explained in our previous comment letters, the statutory provisions defining BARCT and the SCAQMD's authority to adopt and implement BARCT standards are clear. "In the construction of a statute or instrument, the office of the Judge is simply to ascertain and declare what is in terms or in substance contained therein, *not to insert what has been omitted*, or to omit what has been inserted . . ." Cal. Civ. Proc. Code § 1858 (emphasis added). The role of an agency charged with implementing a statute is no different. In this case, staff seeks to insert what has been omitted by arguing that the term "retrofit" encompasses replacement, notwithstanding that there are numerous examples of the distinction between those terms throughout the statute.

Finding ambiguity where there is none, staff then invokes "public policy" to support an expansive interpretation of its authority. Relying on the example of replacing engines on Santa Catalina Island, staff argues that because the replacements would further the broader statutory purpose of reducing emissions, a mandate to do so is sound public policy, and, therefore, public policy supports an expansive interpretation of the agency's authority to impose such a mandate.

According to staff's reasoning, the scope of the agency's authority should be interpreted to encompass any action which the agency deems sound public policy, regardless of the specific language contained in the statutory grant of authority. In fact, you argue in your letter, citing *American Coatings*, that the agency's authority is essentially unbounded as long as the requirement is not arbitrary and capricious, or without reasonable or rational basis, or lacking in evidentiary support. However, as the cases relied upon in *American Coatings* make clear, a critical consideration in evaluating whether or not an agency action meets this standard is whether or not the action is within the scope of the agency's delegated authority. As stated in *Yamaha Corp. of America v. State Bd. of Equalization* (1998) 19 Cal.4th 1, citing *Wallace Berri & Co. v. State Bd. of Equalization* (1985) 40 Cal.3d 60, 65: " [I]n reviewing the legality of a regulation adopted pursuant to a delegation of legislative power, the judicial function is limited to determining whether the regulation (1) is "within the scope of the authority conferred" [citation] and (2) is "reasonably necessary to effectuate the purpose of the statute" [citation]."

The scope of authority delegated to an agency may not authorize it to take any and all actions that the agency deems sound public policy in light of its overall mission. In fact, acting as it does from a broader perspective, and balancing a broader range of policy considerations, the very reason the legislature imposes limitations on the authority of regulatory agencies is to prevent them from undertaking actions that they might otherwise be inclined to take because they deem them sound public policy. The fact that a proposed action may reflect sound public policy in the view of the agency does not mean that it is within the scope of the authority granted by the legislature.

Bayron T. Gilchrist/Barbara Baird November 1, 2018 Page 3

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Staff's position is contrary to the legislature's policy considerations embedded in the relevant statutory provisions.

By including economic impacts as one of the factors in the definition of BARCT, and by specifying the process for evaluating the cost-effectiveness of proposed BARCT standards, it is clear that one of the policies of the legislature was to balance the goal of achieving additional emission reductions from existing sources against the costs of achieving those reductions, and to impose limits on the costs that would be borne by existing sources to further control emissions.¹ The legislature determined that stationary sources should bear the cost of implementing cost-effective retrofits. If cost-effective retrofits are determined to be unavailable, then that is the end of the inquiry. There may be specific cases where the outcome results in foregone emission reductions, but it was the judgment of the legislature that this regulatory scheme struck the proper public policy balance between achieving air quality goals and imposing additional costs on regulated sources. It is not the place of the agency to substitute its own public policy considerations for those of the legislature when the language of the statute is clear, as it is here.

Furthermore, the fact that a replacement project may be cost-effective in a situation where available retrofits are not is irrelevant. Staff scems to suggest that if a replacement project would cost no more than a cost-effective retrofit project (if one existed), then the cost to the source is no greater than what the legislature intended, and, therefore, requiring replacement in such situations does not undercut any economic considerations that the legislature may have had in mind when adopting the statute. However, in situations where there are no available costeffective retrofits, the legislature determined that the cost to the source for installing additional controls would be zero. Therefore, staff's determination that it can mandate replacement when there are no cost-effective retrofits, as long as the replacement is cost-effective, imposes costs on existing sources that go beyond what the legislature contemplated. The fact that the cost of a replacement may be less than, or more cost-effective than, available retrofits does not mean that the agency is entitled to mandate replacements.

Conclusion

SCAQMD staff is attempting to use policy rationale to read something into the statute that simply is not there. That approach is not only poor public policy, it is contrary to the law. Whether or not a particular course of action may be good public policy in the judgment of the agency does not mean it is within the authority of the agency to mandate it. Furthermore, in this case, that rationale elevates the judgment of the agency over that of the legislature with regards to the appropriate balance between furthering air quality objectives and maintaining a viable economy. There are limits on the rulemaking authority of the SCAQMD, and those limits may well preclude it from pursuing what it might otherwise view as good public policy in order to accomplish the broader policy objectives of the legislature.

¹ Health & Safety Code Sections 40406 and 40920.6.

Bayron T. Gilchrist/Barbara Baird November 1, 2018 Page 4

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Thank you for considering these comments. We look forward to continuing to work with you on these rulemakings which are critically important to stakeholders as well as the regional economy. If you have any questions, please contact me at (714) 755-8105 or by email at michael.carroll@lw.com.

Sincerely, ala f (áttol

Michael J. Carroll of LATHAM & WATKINS LLP

cc: Robert Wyman, Latham & Watkins LLP John Heintz, Latham & Watkins LLP RFG Members Bridget McCann, WSPA



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Oyango A. Snell, Esq. General Counsel

May 1, 2018

Dr. Philip Fine Deputy Executive Officer, Planning and Rules South Coast Air Quality Management District 21865 Copley Drive Diamond Bar, CA 91765

Via e-mail at: pfine@aqmd.gov

Re: WSPA concerns with Proposed Amended Rules 1146, 1146.1 and 1146.2 and RECLAIM Landing Rules

Dear Dr. Fine:

Western States Petroleum Association (WSPA) appreciates the ability to participate in working groups related to the transition of the Regional Clean Air Incentives Market (RECLAIM) program and Proposed Amended Rules (PAR) 1146, 1146.1 and 1146.2 and the opportunity to make comments. WSPA is a non-profit trade association representing companies that explore for, produce, refine, transport and market petroleum, petroleum products, natural gas and other energy supplies in five western states including California. WSPA has been an active participant in air quality planning issues for over 30 years. WSPA-member companies operate petroleum refineries and other facilities in the South Coast Air Basin that are within the purview of the RECLAIM Program administered by the South Coast Air Quality Management District (AQMD or District).

PAR 1146, 1146.1 and 1146.2 represent essential "landing rules" which, if adopted, would apply to many WSPA member and non-member facilities which stand to be transitioned from RECLAIM's market-based structure into new command-and-control Best Available Retrofit Control Technology (BARCT) requirements. We have several comments and concerns with the District's current proposals for these PARs.

1. Staff has not conducted a BARCT assessment for the boilers, steam generators, or process heaters at facilities that would be transitioning from RECLAIM under PAR 1146, 1146.1 and 1146.2.

State law defines BARCT as "an emission limitation that is based on the maximum degree of reduction achievable, taking into account environmental, energy, and economic impacts by each class or category of source." (Health & Saf. Code § 40406). Under the current proposal, District Staff has not conducted a BARCT assessment for boilers, steam generators, or process heaters located at facilities transitioning from RECLAIM to command and control. Rather, the current Staff proposal would simply extend the requirements of existing Rules 1146, 1146.1 and 1146.2 to this large number of facilities. These RECLAIM facilities were not part of the universe of facilities or equipment considered when the District dopted the BARCT requirements currently found in Rules 1146, 1146.1, or 1146.2. Therefore, the District has not analyzed the environmental, energy, and economic impacts for the entire class or category of source. The District cannot simply extend existing requirements to a new universe of facilities and equipment without first conducting new (or supplementary)

BARCT determinations to demonstrate that proposed emission limitations and/or other requirements are both technically feasible and cost effective. Such a demonstration is required under California Health & Safety Code Section 40406.

RECLAIM facilities have been subject to market-based emissions control requirements since 1994. For this reason, the boilers, steam generators, and process heaters at these facilities will widely vary in terms of their physical configurations (e.g., basic equipment, emissions controls) and their emissions performance. Furthermore, many of the compliance requirements (e.g., averaging periods) in these rules differ from RECLAIM and cannot readily be applied to RECLAIM equipment and facilities. It is inappropriate to assume that the BARCT requirements, and supporting technical feasibility and cost effectiveness analyses, can apply equally and equitably to facility equipment that was not part of the original BARCT analysis. The District needs to demonstrate that those requirements or alternative BARCT requirements are both technically feasible and cost effective for this new group of facilities being transitioned from RECLAIM where they have operated for two plus decades.

The environmental and socioeconomic impacts for PAR 1146, 1146.1 and 1146.2 should be considered in CEQA and Socioeconomic Assessments for the entire RECLAIM Transition Project.

Under the California Environmental Quality Act (CEQA), CEQA Guidelines and SCAQMD Rule 110, the SCAQMD Governing Board (as the lead agency under its certified regulatory program) is required to identify and evaluate environmental impacts of its rulemaking activities, as well as feasible means and alternatives to reduce, avoid or eliminate significant impacts. More specifically, "an accurate, stable and finite project description is the sine qua non of an informative and legally sufficient EIR." (*County of Inyo v. City of Los Angeles* (1977) 71 Cal.App.3d 185, 193.) The entire project being proposed must be described in the EIR, and the project description must not minimize project impacts. (*City of Santee v. County of San Diego* (1989) 214 Cal.App.3d 1438, 1450.) Furthermore, CEQA forbids piecemealing¹ and the Court has explicitly found that it is inappropriate to divide a project into small segments in order to avoid preparing an EIR. (*Bosung v. Local Agency Formation Com.* (1975) 13 Cal.3d 263, 283-284.)

The California Supreme Court has also held that EIRs may need to address future environmental effects of a proposed project. In Laurel Heights I, the court set forth the standards for determining whether reasonably foreseeable future activities must be included in an EIR project description and for determining whether the impacts of those activities must be analyzed in the EIR:

"We hold that an EIR must include an analysis of the environmental effects of future expansion or other action if: (1) it is a reasonably foreseeable consequence of the initial project; and (2) the future expansion or action will be significant in that it will likely change the scope or nature of the initial project or its environmental effects." (Laurel Heights Improvement Assn. v. Regents of the University of California ("Laurel Heights I") (1988) 47 Cal.3d 376, 396.)

¹ "Piecemealing" or "segmenting" means dividing a project into two or more pieces and evaluating each piece in a separate environmental document. The rule of forbidding piecemealing arises from the definition of "project" under CEQA, where "project" is defined as "the whole of an action." (14 Cal. Code Regs. § 15378(a).)

As previously noted, PAR 1146, 1146.1 and 1146.2 are part of the District's larger effort to transition RECLAIM program facilities from RECLAIM's market-based design to a command-and-control design. This has been described to the Working Group, and documented in the District's staff report:

"The proposed amendments in Rules 1146, 1146.1 and 1146.2 initiate the transition of the NOx RECLAIM program to a command-and-control regulatory structure." ²

This transition is also noted in the District's preliminary environmental assessment, which was drafted for compliance with the California Environmental Quality Act (CEQA):

"As a result of control measure CMB-05 from the 2016 AQMP and ABs 617 and 398, SCAQMD staff has been directed by the Governing Board to begin the process of transitioning equipment at NOx RECLAIM facilities from a facility permit structure to an equipment-based command-and-control regulatory structure per SCAQMD Regulation XI – Source Specific Standards. SCAQMD has begin this transition process by proposing amendments to Rule 1146 – Emissions of Oxides of Nitrogen from Industrial, Institutional, and Commercial Boilers, Steam Generators, and Process Heaters; Rule 1146.1 – Emissions of Oxides of Nitrogen from Small Industrial, Institutional, and Commercial Boilers, Steam Generators, and Process Heaters; and Rule 1146.2 – Emissions of Oxides of Nitrogen from Large Water Heaters and Small Boilers and Process Heaters. Proposed Amended Rules (PAR) 1146, 1146.1, and 1146.2 (collectively referred to herein as the PAR 1146 series) will be the first set of rules to be amended to initiate the transition of equipment from the NOx RECLAIM program to a command-and-control regulatory structure while achieving BARCT." ³

We believe the District needs to prepare an environmental assessment that considers the entire RECLAIM Transition Project, its rulemakings and its other associated components, across impacted facilities and equipment. While the District prepared a Final Program Environmental Impact Report (Final Program EIR) regarding the 2016 AQMP (certified in March 2017), the analysis focused solely on the implementation of CMB-05. CMB-05 was a general directive from the 2016 AQMP, requiring an assessment of further NOx reductions from the RECLAIM program. (Final Program EIR for the 2016 Air Quality Management Plan (January 2017) p. 2-17.) More specifically, the Final Program EIR describes CMB-05 as "identifying] a series of approaches, assessments, and analyses *that can be explored* to make the program more effective..." (Emphasis added. Final Program EIR at p. 2-17.) The Final Program EIR lists the control methodology of CMB-05 as "re-examination of the RECLAIM program, including voluntary opt-out and the additional control equipment and SCR/SNCR equipment." (Final Program EIR at p. 4.1-2.) Additionally, the Final Program EIR also sets forth the air quality impact, as it relates to CMB-05, as "potential emissions as a result of construction to install new equipment," generation of ammonia emissions from the operations of SCR/SNCR equipment, and potential air quality and GHG emissions from electricity to operate equipment." (Final Program EIR at p. 4.1-2.) The Final Program EIR mever addresses the concept of, much less the impacts related to, sunsetting the RECLAIM program.

As shown above, CMB-05 lacks the specifications set forth in the RECLAIM Transition Project and its rulemakings. More importantly, the RECLAIM Transition Project had not yet even been created when CMB-05 was conceived or evaluated under the Final Program EIR. In fact, the RECLAIM Transition Project is still

² SCAQMD Preliminary Draft Staff Report for Proposed Amended Rule (PAR) 1146, PAR 1146.1, PAR 1146.2 and Proposed Rule 1100, January 2018, see page 3.

³ SCAQMD Draft Subsequent Environmental Assessment for PAR 1146 – Emissions of Oxides of Nitrogen from Industrial, Institutional, and Commercial Boilers, Steam Generators, and Process Heaters; 1146.1 – Emissions of Oxides of Nitrogen from Small Industrial, Institutional, and Commercial Boilers, Steam Generators, and Process Heaters; 1146.2 - Emissions of Oxides of Nitrogen from Large Water Heaters and Small Boilers and Process Heaters; and PR 1100 – Implementation Schedule for NOx Facilities, March 2018, page 1-2.

currently under development on an ongoing basis, as District Staff continues to determine how to approach the applicability of several landing rules and whether some rules will even be included in the Project. Given the Final Program EIR's reliance on general directives like CMB-05 and the RECLAIM Transition Project not yet existing at the time of assessment, the Final Program EIR fails to properly evaluate the potential environmental impacts specifically related to the RECLAIM Transition Project and its rulemakings.

As prior amendments to the Regulation XX program were considered under CEQA, we believe <u>the overall group</u> of RECLAIM Transition rulemakings⁴ needs to be collectively considered under CEQA, as well. Rules to advance the RECLAIM Transition Project, including these proposed amendments to the 1146 series rules, should not be adopted and facilities should not be removed from RECLAIM until the District has completed and certified a CEQA assessment that evaluates the entire Project. Undertaking these RECLAIM Transition Project rulemakings in a fragmented manner <u>constitutes a piecemealing of the project</u>, which is explicitly forbidden by CEQA as described above. Given that the 1146 series rules are clearly part of the larger RECLAIM Transition Project, we believe the District's current draft CEQA document is improperly scoped.

Additionally, Health & Safety Code Section 40440.8 requires that "[w]henever the south coast district intends to propose the adoption, amendment, or repeal of a rule or regulation that will significantly affect air quality or emissions limitations, the district . . . shall perform an assessment of the socioeconomic impacts of the adoption, amendment, or repeal of the rule or regulation." (Health & Saf. Code § 40440.8(a)). One of the specific factors that the Board is to take into consideration is the "availability and cost-effectiveness of alternatives to the rule or regulation . . ." (Health & Saf. Code § 40440.8(b)(4)). Health & Safety Code Section 40728.5 sets forth substantively identical requirements for all air districts. Similarly, Health & Safety Code Section 40440.5(c)(2) requires that if an environmental assessment is prepared in connection with a proposal to adopt, amend or repeal any rule or regulation, "the staff report shall also include social, economic, and public health analyses." Stakeholders have not yet seen the District's draft socioeconomic assessment for these proposed rules, but we similarly recommend that the District conduct a program-level socioeconomic assessment that considers the socioeconomic effects of the overall RECLAIM Transition Project, including all associated Regulation XI rulemakings, and the 1146 series rules. This should be completed to support related Governing Board rule adoptions prior to the District transitioning individual RECLAIM facilities out of the program.

WSPA continues to be concerned that the RECLAIM transition could cause significant negative impacts to Southern California businesses, air quality and the regional economy. Similar to the Final Program EIR described above, the Final Socioeconomic Report for the 2016 AQMP analyzed the socioeconomic impacts for the 2016 AQMP, which focused solely on CMB-05. As discussed above, CMB-05 did not include a transition of the RECLAIM program to a command-and-control scheme like that described in the RECLAIM Transition Project or in the Project's associated rulemakings. Given that fact, the RECLAIM Transition rulemaking proposals cannot rely on the 2016 AQMP's Socioeconomic Assessment to cover the RECLAIM Transition Project.

The District needs to resolve critical questions about New Source Review (NSR) requirements and Federal NSR equivalency before transitioning individual RECLAIM facilities out of the program.

Under PAR 1146, 1146.1 and 1146.2, Staff has proposed that RECLAIM facilities covered by these rules would begin to be transitioned out of the RECLAIM program after the rules' adoption. This raises a number of serious concerns due to the lack of transition framework, particularly on the topic of NSR. There remain a number of complex questions (legal and otherwise) over how the District will satisfy EPA requirements to demonstrate equivalency with the Federal NSR program. Since a transition model has not been agreed upon between EPA and

⁴ At this time, RECLAIM Transition project includes proposed amendments to Regulation XX rules, as well as PAR 301, PAR 1109 and/or PR 1109.1, PAR 1110.2, PAR 1118.1, PAR 1134, PAR 1135, PAR 1146, 1146.1, and 1146.2, and PAR 1147, 1147.1, and 1147.2.

the District, facilities are left with uncertainty regarding their permit transition requirements and how future permit changes will impact their operations. RECLAIM facilities should not be transitioned from the program until SCAQMD has resolved these key NSR issues with EPA.

In light of these important issues, PAR 1146, 1146.1 and 1146.2 are not ready for the Governing Board's consideration. Any scheduled or proposed hearing should be delayed until these issues have been adequately addressed.

Thank you for considering these comments. We look forward to continuing to work with you and your Staff on this rulemaking which is critically important to stakeholders, as well as the regional air quality and economy.

If you have any questions, please contact me at (916) 325-3115, or by email at osnell@wspa.org.

Sincerely,

Organjo a Side

cc:

Cathy Reheis-Boyd, WSPA Patty Senecal, WSPA Bridget McCann, WSPA Wayne Nastri, SCAQMD Clerk of the Board, SCAQMD

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September 7, 2018

VIA EMAIL

Dr. Philip Fine Deputy Executive Officer South Coast Air Quality Management District 21865 Copley Drive Diamond Bar, CA 91765

Proposed Amended Rules 2001 and 2002

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Re: Dear Dr. Fine:

We are submitting these comments on behalf of our client Western States Petroleum Association ("WSPA") on the most recent round of proposed amendments to South Coast Air Quality Management District ("SCAQMD") Rules 2001 and 2002. The amendments are being proposed in connection with the transition of the Regional Clean Air Incentives Market ("RECLAIM") program to a command-and-control regulatory structure. WSPA is a non-profit trade association representing companies that explore for, produce, refine, transport and market petroleum, petroleum products, natural gas and other energy supplies in five western states including California. WSPA has been an active participant in air quality planning issues for over 30 years. WSPA-member companies operate petroleum refineries and other facilities in the South Coast Air Basin that will be impacted by the transition out of the RECLAIM program.

General Comments

The proposed amendments to Rules 2001 and 2002 are primarily interim measures intended to establish new eligibility criteria for exiting RECLAIM, provide opt-out procedures, and address, on a temporary basis, unresolved issues surrounding compliance of new source review ("NSR") for former RECLAIM facilities once they have transitioned out of the RECLAIM program. As WSPA and others have expressed in numerous meetings, workshops and hearings conducted in connection with the RECLAIM transition, we have serious concerns about the lack of clarity surrounding NSR in a post-RECLAIM regime.

We believe current SCAQMD staff's ("staff") proposed approach is premature, as staff has not addressed all of the underlying issues surrounding a RECLAIM sunset. RECLAIM is a comprehensive, complex program that was adopted as a whole. In the development of RECLAIM, staff not only determined current and future effective best available retrofit control

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technology ("BARCT"), but also examined and addressed NSR, reviewed socioeconomic impacts, mitigated implications of emissions trading, resolved enforcement and monitoring issues, and understood a host of other consequences of adopting such a program. This comprehensive approach ensured the overwhelming success of the RECLAIM program as it was designed. In contrast for this rulemaking, staff is dismantling the RECLAIM program without analyzing any of the consequences of the proposed approach. Most importantly, staff has not addressed NSR, nor the environmental and socioeconomic impacts of a RECLAIM sunset.

Our strong preference is that staff prioritizes resolution of the NSR issues and conduct an analysis of the entire RECLAIM transition project comparable with the same full analysis that was done during the implementation of RECLAIM before initiating rulemaking. There is no evidence that this has been done to date. We believe that addressing fundamental programmatic issues that will affect all former RECLAIM facilities, such as NSR, early in the transition process, and then moving on to the more narrowly applicable landing rules, would result in a more orderly and efficient transition in the following ways:

- It would provide facilities with an understanding of the NSR requirements and
 procedures that will apply to modifications required to comply with updated BARCT
 rules. It is not possible to develop a final and comprehensive plan for implementing new
 BARCT requirements without knowing the NSR requirements and procedures and how
 those will impact post-RECLAIM operating permits.
- It would result in a more efficient use of staff resources. For example, the proposed
 amendments to Rules 2001 and 2002 are essentially "stop-gap" measures that are
 necessary because the NSR and other programmatic issues remain unresolved. If the
 NSR and other programmatic issues were addressed, it would not be necessary to develop
 and implement such measures.
- It would avoid the current ad hoc, piecemeal approach to the RECLAIM Transition
 Project which results in additional confusion and uncertainty. This is illustrated by the
 fact that staff's positions with respect to certain issues related to the proposed
 amendments to Rules 2001 and 2002 are quite different than positions taken when these
 two rules were amended in January of this year in what we view as a rush to get the
 RECLAIM transition process underway.
- It would avoid legal vulnerabilities that we believe are inherent in the current ad hoc, piecemeal approach because the environmental and socioeconomic assessments of incremental rulemaking are disjointed and incomplete.

Should the District continue with this piecemeal approach, we offer the comments set forth below on the proposed amendments:

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Specific Comments on Proposed Amended Rule 2002(f)(11) - "Stay-In" Provision

The proposed amendments to Rule 2002 would allow facilities to remain in the RECLAIM program, and thereby avail themselves of the RECLAIM NSR program set forth in SCAQMD Rule 2005 for some period of time. Our understanding, which was confirmed by staff during the RECLAIM Working Group meeting on August 9, 2018, is that the decision of whether or not to remain in the RECLAIM program is completely within the discretion of the facility (assuming the facility meets the specified criteria). Some of the language in the proposed amendments could be read to grant the Executive Officer discretion (beyond merely confirming that the facility meets the specified criteria) to decide whether or not the facility may remain in the program. The following proposed changes are intended to better reflect staff's intent.

- (11) An owner of <u>or</u> operator of a RECLAIM facility that receives an initial determination notification may elect <u>that</u> for the facility to remain in RECLAIM <u>by submitting</u> if a request to the Executive Officer to remain in RECLAIM is <u>submitted</u>, <u>together with</u> including any equipment information required pursuant to paragraph (f)(6).
 - (A) Upon receiving a request to remain in <u>RECLAIM and any equipment information</u> required pursuant to paragraph (f)(6), written approval by the Executive Officer shall notify the owner or operator in writing that the facility shall remain in RECLAIM subject to the following:
 - The facility shall remain in RECLAIM until a subsequent notification is issued to the facility that it must exit by a date no later than December 31, 2023.
 - The facility is required to submit any updated information within 30 days of the date of the subsequent notification.
 - (iii) The facility shall comply with all requirements of any non-RECLAIM rule that does not exempt NOx emissions from RECLAIM facilities.

Specific Comments on Proposed Amended Rule 2002(f)(10) - "Opt-Out" Provision

- -

Proposed Amended Rule 2002 includes an "opt-out" provision for those facilities that may be ready to voluntarily exit RECLAIM prior to the time that they might otherwise be transitioned out. The current staff proposal differs from previous proposals in that it places

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certain restrictions on facilities after they have exited the program that we believe are unfair and unwarranted. Specifically, proposed paragraph (f)(10)(B) would prohibit such facilities from taking advantage of otherwise available offset exemptions in SCAQMD Rule 1304. In the event that an NSR event requiring offsets were to occur after the facility exited the RECLAIM program, it would be required to obtain emission reduction credits on the open market, which the staff acknowledges are "scarce." (July 20 Preliminary Draft Staff Report, p. 8).¹ We believe that it is unnecessary, unfair, and possibly contrary to state law, to deny former RECLAIM facilities advantages that they would otherwise be entitled to and that are available to all other non-RECLAIM facilities.

The Preliminary Draft Staff Report expresses concern that the potential impacts associated with emission increases from facilities that might exit the RECLAIM program, even if limited to the 37 facilities the staff initially identified as eligible to exit, could impose a demand on Rule 1304 offset exemptions that could approach or surpass the cumulative emissions increase thresholds of SCAQMD Rule 1315. (Preliminary Draft Staff Report, p. 8). In other words, staff is concerned that if former RECLAIM facilities were permitted to utilize Rule 1304 offset exemptions, the demand on the SCAQMD's internal emission offset bank, which supports the offset exemptions, might exceed previously analyzed levels. This concern seems inconsistent with positions taken by staff in connection with the January 2018 amendments to these two rules, and with more recent statements by staff suggesting that it believes the internal emission offset bank is the most viable source of emission offsets for former RECLAIM facilities on a long-term basis.

The January 2018 amendments established the criteria and procedures pursuant to which eligible facilities would be identified and exited from RECLAIM. According to the Final Staff Report, "... the proposed amendments would remove approximately 38 facilities from NOx RECLAIM." (January 5 Final Staff Report, p. 2).² Staff determined that the impact of exiting the initial round of facilities, including impacts associated with reduced demand for RTCs, would be minimal:

Given the analysis above and the fact that the 38 facilities—which are potentially ready to exit out of the NOx RECLAIM program into command-and-control—account for about one percent of NOx emissions and NOx RTC holdings in the NOx RECLAIM universe, staff concludes that the potential impact of PAR 2002 on the demand and supply of NOx RTC market is expected to be

¹ References herein to "July 20 Preliminary Draft Staff Report" refer to the Preliminary Draft Staff Report, Proposed Amendments to Regulation XX- Regional Clean Air Incentives Market (RECLAIM), Proposed Amended Rules 2001 – Applicability and 2002 – Allocations for Oxides of Nitrogen (NOx) and Oxides of Sulfur (SOx), dated July 20, 2018.

² References herein to "January 5 Final Staff Report" refer to the Final Staff Report Proposed Amendments to Regulation XX – Regional Clean Air Incentives Market (RECLAIM) Proposed Amended Rules 2001 – Applicability and 2002 – Allocations for Oxides of Nitrogen (NOx) and Oxides of Sulfur (SOx), dated January 5, 2018.

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minimal and large price fluctuations in the NOx RTC market are unlikely to result directly from the potential exit of the 38 directly affected facilities out of the NOx RECLAIM program. Therefore, PAR 2002 would have minimal impacts on the existing facilities that are not yet ready to exit the NOx RECLAIM program. (January 5 Final Staff Report, p. 12.)

To support its conclusion that exiting the initial round of facilities from the program would have minimal impacts as a result of foregone market demand for RTCs, staff analyzed three scenarios in which NOx emissions from the subject facilities were: i) 5% below 2015 NOx emissions; ii) the same as 2015 NOx emissions; and iii) 5% above 2015 NOx emissions. (January 5 Final Staff Report, p. 11). Staff determined that foregone market demand for RTCs associated with exiting the initial group of facilities under each of the three scenarios would be 0.073 tons per day (TPD), 0.080 TPD, and 0.086 TPD, respectively. Based on this analysis, staff concluded that the anticipated future demand for NOx RTCs associated with the exiting facilities was minimal, and that eliminating that demand would not materially impact the remaining market. In other words, staff concluded that the exiting facilities would have a negligible demand for RTCs in the future, including RTCs required to satisfy NSR requirements. As stated in the Summary of the Proposal:

Considering the past market behavior by these facilities, staff concludes that the potential impact of PAR 2002 on the demand and supply of NOx RTC market is expected to be minimal and large price fluctuations in the NOx RTC market are unlikely to result directly from the potential exit of these facilities out of the NOx RECLAIM program. (Summary of Proposal, Agenda Item No. 18, January 5, 2018, p. 3.)

Notably, staff did not even address the impact that the January 2018 amendments might have on the internal bank even though those amendments were intended to result in precisely the situation about which staff is now expressing concern – the removal of 38 facilities from the RECLAIM program that would then be eligible to take advantage of offset exemptions in Rule 1304 like any other RECLAIM facility.

In contrast with the January 2018 Final Staff Report, the July 2018 Preliminary Draft Staff Report expresses serious concerns about the potential for increased NOx emissions from facilities exiting the program, stating that "[e]ven among the first 37 facilities identified that may be eligible to exit, any impacts from potential emissions increases are unknown and if significant enough, can approach or surpass the cumulative emissions increase thresholds of Rule 1315." (July 2018 Preliminary Draft Staff Report, p. 8).

Clearly, the conclusions reached by staff in the January 2018 Final Staff Report, upon which the Governing Board relied when it adopted the current versions of Rules 2001 and 2002, are inconsistent with the concerns being raised by staff in the current proposal. Either staff erred in January by underestimating the impacts on the RECLAIM market and failing to even analyze

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the potential impacts on the internal bank, or it is overstating the potential impacts associated with the current proposal. In either case, this inconsistency illustrates the problem with undertaking the RECLAIM transition in an ad hoc, piecemeal fashion.

California Environmental Quality Act Considerations

WSPA and others have expressed concerns regarding the "piecemeal" manner in which the California Environmental Quality Act ("CEQA") analysis for the RECLAIM transition is being conducted. "... CEQA's requirements 'cannot be avoided by chopping up proposed projects into bite-size pieces which, individually considered, might be found to have no significant effect on the environment or to be only ministerial.' [Fn. omitted.]" *Lincoln Place Tenants Assn. v. City of Los Angeles* (2005) 130 Cal.App.4th 1491,1507 quoting *Plan for Arcadia, Inc. v. City Council of Arcadia* (1974) 42 Cal.App.3d 712, 726. Staff explained its CEQA strategy for the RECLAIM transition in an April 25, 2018 letter to the Los Angeles County Business Federation in which it stated:

> The potential environmental impacts associated with the 2016 AQMP, including CMB-05, were analyzed in Program Environmental Impact Report (PEIR) certified in March, 2017 . . . In other words, the environmental impacts of the entire RECLAIM Transition project . . . were analyzed in the 2016 AQMP and the associated PEIR, which was a program level analysis . . . Since the SCAQMD has already prepared a program-level CEQA analysis for the 2016 AQMP, including the RECLAIM Transition, no additional program-level analysis is required and further analysis will be tiered off the 2016 AQMP PEIR. (http://www.aqmd.gov/docs/default-source/rule-book/Proposed-Rules/regxx/aqmd-response-letter-to-bizfed-042518.pdf?sfvrsn=6).

Consistent with the staff's explanation described above, SCAQMD staff has prepared a Draft Subsequent Environmental Assessment ("Draft SEA") to analyze environmental impacts from the proposed amendments to Rules 2001 and 2002. (http://www.aqmd.gov/home/research/documents-reports/lead-agency-scaqmd-projects). The Draft SEA attempts to tier off of the March 2017 Final Program Environmental Impact Report for the 2016 AQMP and tries to obscure the issue by citing to several other previously certified CEQA documents, including the December 2015 Final Program Environmental Assessment completed for the amendments to the NOx RECLAIM program that were adopted on December 4, 2015, and the October 2016 Addendum to the December 2015 Final Program Environmental Assessment completed for facilities undergoing a shutdown and for the treatment of RTCs. Consistent with the staff's earlier explanation, the Draft SEA states:

"The decision to transition from NOx RECLAIM into a sourcespecific command-and-control regulatory structure was approved by the SCAQMD Governing Board as control measure CMB-05 in

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the 2016 AQMP and the potential environmental impacts associated with the 2016 AQMP, including CMB-05, were analyzed in the Final Program EIR certified in March 2017. This Draft SEA relies on the analysis in the March 2017 Final Program EIR for the 2016 AQMP." (Draft SEA, p. 2-5).

The proposed amendments to Rules 2001 and 2002 implement that portion of control measure CMB-05, written after the Governing Board's adoption of the 2016 AQMP that calls for the transition of the RECLAIM program to a command and control regulatory structure. As stated in the July 2018 Preliminary Draft Staff Report, "Proposed Amended Rules 2001 and 2002 will continue the efforts to transition RECLAIM facilities to a command-and-control regulatory structure" (July 2018 Preliminary Draft Staff Report, p. 2). The problem with the proposal to tier the CEQA analysis for the currently proposed amendments to Rules 2001 and 2002 off from the March 2017 Final Program EIR for the 2016 AQMP is that control measure CMB-05 as proposed at the time the March 2017 Final Program EIR was prepared did not include a transition out of the RECLAIM program. That language was added well after the CEQA analysis was complete. Furthermore, no additional CEQA analysis was conducted to address the changes to CMB-05.

The Final Draft 2016 AQMP, which was ultimately presented to the SCAQMD Governing Board, was released in December 2016. Control measure CMB-05 called for an additional five tons per day of NOx reductions from sources covered by the RECLAIM program by the year 2031. CMB-05 also called for convening a Working Group to consider replacing the RECLAIM program with a more traditional command-and-control regulatory program, but did not include a mandate to undertake such a transition. SCAQMD Governing Board action on the Final Draft 2016 AQMP was noticed for February 3, 2017. When the 2016 AQMP item came up on the agenda, SCAQMD staff made a presentation, as is typical. No substantive questions were asked of the staff by Board Members, and no Board Members indicated an intention to offer amendments to the staff proposal. The public was then provided an opportunity to comment, and approximately five hours of public comment ensued.

Following the close of the public comment period, Board Member Mitchell stated her intention to introduce amendments to the staff proposal for control measure CMB-05 that would: i) accelerate the additional five TPD of reductions to 2025 from 2031; and ii) transition to a command-and-control program as soon as practicable. Board Member Mitchell did not provide any specific proposed language and did not make a formal motion to amend the staff proposal. For reasons that are not relevant here, action on the item was continued to the March 3, 2017 Governing Board hearing. The Governing Board stated its intention not to take additional public comment on the item at the March 3, 2017 hearing.

At the hearing on March 3, 2017, Board Member Mitchell introduced the following amendments to CMB-05 that included a direction to staff to develop a transition out of the RECLAIM program: LATHAM®WATKINS.

BE IT FURTHER RESOLVED, that the SCAQMD Governing Board does hereby direct staff to modify the 2016 AQMP NOx RECLAIM measure (CMB-05) to achieve the five (5) tons per day NOx emission reduction commitment as soon as feasible, and no later than 2025, and to transition the RECLAIM program to a command and control regulatory structure requiring BARCT level controls as soon as practicable and to request staff to return in 60 days to report feasible target dates for sunsetting the RECLAIM program.

There was no Board Member discussion of the proposed amendments, and they were approved on a vote of 7-6.

The CEQA analysis supporting the 2016 AQMP commenced with a Notice of Preparation of a Draft Environmental Impact Report ("EIR") released on July 5, 2016. The Draft EIR was released on September 16, 2016, with the comment period closing on November 15, 2016. In mid-November 2016, four public hearings related to the AQMP were held in each of the four counties within the SCAQMD territory, at which comments on the Draft EIR were taken. After incorporating comments and making minor textual changes, the Final EIR was released in January 2017. No material changes or additional analysis were undertaken subsequent to the release of the Final EIR, which was certified by the Governing Board on March 3, 2017 as the March 2017 Final Program Environmental Impact Report for the 2016 AQMP, upon which staff now seeks to rely.

Thus, the transition out of the RECLAIM program, which the currently proposed amendments to Rules 2001 and 2002 seek to implement, was not included in the version of CMB-05 presented to the Governing Board as part of the 2016 AQMP. The March 2017 Final Program EIR for the 2016 AQMP, which was completed in January 2018, did not analyze the transition of the RECLAIM program because that was not prescribed by the CMB-05 measure at that time. Therefore, tiering off of the March 2017 Final Program EIR for the 2016 AQMP to support rule amendments that seek to implement the transition is not possible since there is no analysis from which to tier off. In the absence of a program level CEQA analysis that includes the RECLAIM transition, staff's segmented analysis of each proposed rulemaking action in the transition process constitutes classic "piecemealing" contrary to the requirements of CEQA.

Staff's attempt to tier without having completed a programmatic analysis of the RECLAIM Transition Project ignores the fact that RECLAIM is a comprehensive program that includes an assessment of BARCT for all of the sources in the program. It was adopted as a whole, a single package, not as a series of individual rules and regulations. There are no separate BARCT regulations in the RECLAIM program. Because RECLAIM allows for BARCT to be implemented on an aggregate basis, all BARCT determinations had to be made together. Furthermore, all RECLAIM rules are dependent upon one another, and none of these can stand alone. By attempting to analyze the impact of a single RECLAIM rule, i.e., BARCT determination, staff is ignoring the interdependency of the program, and thus, improperly disregarding the impacts of the comprehensive program.

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In the draft SEA, staff claims that it is speculative to determine what BARCT may be for all the various sources under the RECLAIM program. This underscores the fact that a comprehensive program transitioning RECLAIM sources to command and control rules was never developed or analyzed. Rather, staff is piecemealing the analysis of the RECLAIM transition. Such an approach has been rejected by the courts: "Instead of itself providing an analytically complete and coherent explanation, the FEIR notes that a full analysis of the planned conjunctive use program must await environmental review of the Water Agency's zone 40 master plan update, which was pending at the time the FEIR was released. The Board's findings repeat this explanation. To the extent the FEIR attempted, in effect, to tier from a *future* environmental document, we reject its approach as legally improper under CEQA." *Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* (2007) 40 Cal.4th 412, 440 [emphasis in original].

Furthermore, RECLAIM is an emissions trading program. It allows facilities to choose to implement specific controls or to purchase emissions credits. Staff's piecemealing of the analysis does not account for those facilities that have implemented other means to comply with the program and the additional impacts the transition to individual command and control rules may have on these facilities. Additionally, these impacts cannot be captured in a single rule analysis. Rather, staff's piecemealing further ignores the impacts on facilities that are subject to multiple BARCT determinations.

Health & Safety Code Section 39616

The current staff proposal for amending Rule 2002 to prevent former RECLAIM facilities from accessing offset exemptions in Rule 1304 would place former RECLAIM facilities at a significant disadvantage relative to other non-RECLAIM facilities. California Health & Safety Code Section 39616(c)(7) prohibits imposing disproportionate impacts, measured on an aggregate basis, on those stationary sources included in the RECLAIM program compared to other permitted stationary sources. Creating a new category of sources without access to either RTCs or Rule 1304 offset exemptions to satisfy NSR requirements runs afoul of this prohibition.

Statement Pertaining to SCAOMD Rule 1306

The July 2018 Preliminary Draft Staff Report contains the following statement: "Moreover, Rule 1306 – Emission Calculations would calculate emission increases of exiting RECLAIM facilities based on actual to potential emissions, thereby further exacerbating the need for offsets." (Preliminary Draft Staff Report, p. 8). It is not clear why this would be the case. Furthermore, it is premature to make such assertions outside the context of an overall analysis of what the NSR requirements for former RECLAIM facilities might be. This is a critical issue that must be addressed in the overall development of the NSR program for former RECLAIM facilities.

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Conclusion

Thank you for considering these comments. We look forward to continuing to work with you on these rulemakings which are critically important to stakeholders as well as the regional economy. If you have any questions, please contact me at (714) 401-8105 or by email at michael.carroll@lw.com or Bridget McCann of WSPA at (310) 808-2146 or by email at bmccann@wspa.org.

Sincerely,

uchael orrell pue Michael J. Carroll of LATHAM & WATKINS LLP

cc: Cathy Reheis-Boyd, WSPA Patty Senecal, WSPA Bridget McCann, WSPA Wayne Nastri, SCAQMD Barbara Baird, SCAQMD Michael Krause, SCAQMD

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Response to Comment 3-1

Detailed technical and economic information and analyses upon which the technical feasibility and cost-effectiveness are provided in chapters 2 and 4 of the staff report. Incremental cost-effectiveness between control options is included in chapter 4 of the staff report. This information is presented in this report which is released at least 30 days before any hearing. The other documents that staff relied upon are noted and contained in this report's references section, including U.S. EPA's "Catalog of CHP Technologies" and "Air Pollution Control Cost Estimation Spreadsheet for Selective Catalytic Reduction" and the Office of Energy Efficiency and Renewable Energy's "Catalytic Combustion". This information is presented in this report which is released at least 30 days before any the energy is the presented and the office of Energy Efficiency and Renewable Energy's "Catalytic Combustion". This information is presented in this report which is released at least 30 days before any hearing. Cost-effectiveness and technical feasibility information has been identified and presented during working group meetings and the Public Workshop during rule development as well.

Response to Comment 3-2

A detailed response to this comment is included in chapter 2 of the staff report.

Response to Comment 3-3

Staff has found it necessary to continue with the approach of amending command-and-control NOx rules concurrently with addressing NSR issues. The reason for this approach is to avoid delay in adopting implementation schedules for BARCT to give facilities adequate time to comply with command-and-control NOx emission limits. Based on AB 617, many RECLAIM facilities must implement BARCT before 2024. Resolving NSR is a significant issue as it requires involvement and approval from U.S. EPA. In the interim, facilities have two options. A facility that receives an initial determination notification can remain in RECLAIM, and if there are emission increases that would trigger a New Source Review event, the facility would comply with RECLAIM NSR. Staff is committed to not exit facilities from RECLAIM until the NSR issues are resolved. If however, a facility decides to exit before NSR issues are resolved, and later had an emissions increase that would trigger a New Source Review event, the facility would need to purchase offsets in the open market.SCAQMD staff responded to a similar comment in the staff report for PARs 2001 and 2002, which were adopted by the Governing Board at the October 5, 2018 Governing Board Meeting.

Response to Comment 3-4

Monitoring and reporting requirements are contained in subdivision (e) of the proposed rule, and recordkeeping requirements are contained in subdivision (g). RECLAIM facilities will be required to continue monitoring, reporting, and recordkeeping practices under the provisions of Rule 2012 until they exit RECLAIM. Upon exit from RECLAIM the facility will be required to meet the monitoring and reporting requirements contained in paragraph (e)(4). The proposed rule does not specifically reference Proposed Rule 113 because it has not yet been adopted. The concern raised in this comment regarding complying with MRR requirements in Rule 113 is premature as that Rule is not being considered at this timethe specific requirements of that rule have not been determined. During any period in which existing RECLAIM MRR provisions are still part of the SIP, a facility may continue to comply with them if it is concerned about U.S. EPA or citizen enforcement, which is very rare.

Response to Comment 3-5

Comments about piecemealing CEQA and socioeconomic impacts were addressed in SCAQMD's response letter to BizFed on April 25, 2018, a copy of which is attached below.SCAQMD staff responded to a similar comment in the staff report for PARs 2001 and 2002, which were adopted by the Governing Board at the October 5, 2018 Governing Board Meeting.

SCAQMD Response to BizFed (Response to Comment 3-4)



Hilary Norton

April 25, 2018

volume. In other words, the environmental impacts of the entire RECLAIM Transition project, as referenced by the commenter, were analyzed in the 2016 AQMP and the associated PEIR, which was a program level analysis. The commentator has not identified any additional impact areas, mitigation, or project alternatives from the RECLAIM Transition that were excluded from analysis in the 2016 AQMP PEIR. In any event, the time to challenge the 2016 AQMP PEIR has passed. (Pub. Res. Code §§ 21167, 21167.2.)

Since the SCAQMD has already prepared a program-level CEQA analysis for the 2016 AQMP, including the RECLAIM Transition, no additional program-level analysis is required and further analysis will be tiered off the 2016 AQMP PEIR. (CEQA Guidelines § 15168; Al Larson Boat Shop, Inc. v. Board of Harbor Commissioners (1993) 18 Cal.App.4th 729, 740-41.) The SCAQMD has and will continue to evaluate each individual RECLAIM Transition rule that is developed pursuant to the 2016 AQMP, to determine if any additional CEQA review is required. (CEQA Guidelines § 15168.) Additional analysis could include the preparation of a project-level EIR or Subsequent EIR to the 2016 AQMP PEIR. (CEQA Guidelines §§ 15161, 15162.) Streamlined environmental review pursuant to a Program EIR is expressly allowed in CEQA and is not considered piecemealing. (CEQA Guidelines §§ 15165, 15168.) Furthermore, any such review would include consideration of potential cumulative impacts with other RECLAIM Transition rules, as well as other activities. (CEQA Guidelines § 15355.)

Similarly, the Final Socioeconomic Report for the 2016 AQMP fully analyzed the socioeconomic impacts for the 2016 AQMP, including the entire RECLAIM Transition project. The commenter notes that a single 2016 AQMP policy directive controls the entire RECLAIM transition project. That policy directive, CMB-05, was presented in the socioeconomic report where the potential cost of reducing 5 tpd NOx emissions were estimated and the associated regional economic impacts projected. Specifically, the costs presented were scaled from a thorough BARCT assessment conducted as part of the 2015 NOx RECLAIM Amendments, and the analysis conservatively assumed that the estimated cost per ton of NOx emission reduction would be 50 percent higher than the cost-per-ton estimate of installing all BARCT control equipment identified in the 2015 NOx RECLAIM Amendments. The analysis comports with applicable Governing Board resolutions and statutory requirements.

If you have any questions or would like to discuss these issues, please contact me at 909-396-3131, <u>wnastri@aqmd.gov</u>, or Dr. Philip Fine, Deputy Executive Officer, Planning, Rule Development and Area Sources, at 909-396-2239, <u>pfine@aqmd.gov</u>.

Sincerely,

Wayne Nastri Executive Officer

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Hilary Norton	April 25, 2018
ce: Jill Whynot, SCAQMD Philip Fine, SCAQMD Barbara Baird, SCAQMD Veera Tyagi, SCAQMD Susan Nakamura, SCAQMD Michael Krause, SCAQMD	
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Comment Letter 4

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March 13, 2019

VIA E-MAIL (see attached distribution)

Governing Board South Coast Air Quality Management District 21865 Copley Drive Diamond Bar, CA 91765

Re: Proposed Amended Rule 1134

Dear SCAQMD Governing Board Member:

We are submitting these comments on behalf of our client the Regulatory Flexibility Group ("RFG") regarding Proposed Amended Rule 1134 ("PAR 1134"). The RFG is an industry coalition comprised of companies in the refining, utility and aerospace sectors that operate facilities within the jurisdiction of the South Coast Air Quality Management District ("SCAQMD"). RFG member facilities are subject to the Regional Clean Air Incentives Market ("RECLAIM") program and will be seriously affected by the transition to a command-andcontrol regulatory structure that is currently underway. The RFG participated in the development of the RECLAIM program from its inception and has been an active participant in all major amendments to the program, including those currently underway.

The PAR 1134 rulemaking raises a number of issues that have been raised previously with staff and Governing Board members in written and verbal comments at working group meetings, public workshops and hearings. Nevertheless, staff continues to proceed with RECLAIM transition rulemaking in the same flawed manner. Following is a brief summary of each of the issues about which we have concerns, and attached to this letter are more detailed comment letters previously submitted to the SCAQMD on these issues.

Mandating Equipment Replacement Exceeds The SCAQMD's Authority

As it has in previous rulemakings, SCAQMD staff takes the position that a best available retrofit control technology ("BARCT") standard may require total replacement of the emitting piece of equipment.¹ As we have explained in previously filed comments, mandating replacement projects exceeds the authority of the SCAQMD to adopt BARCT standards for

¹ PAR 1134 Draft Staff Report, March 2019, Chapter 2.

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4-1 (cont.)

SCAQMD Governing Board Members March 13, 2019 Page 2

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existing sources, as set forth in the California Health & Safety Code, and, therefore, runs afoul of the well-established legal principle that a regulatory agency must act within the scope of the authority delegated to it by the legislature.

As illustrated by PAR 1134, staff's interpretation that a BARCT standard may require complete replacement of the subject equipment leads to nonsensical results. With respect to four out of the six equipment categories identified in PAR 1134, the Draft Staff Report describes the proposed standards as "[t]he initial BARCT recommendation for both new installations and retrofits..."² It does not make any sense to establish a BARCT standard for new installations because BARCT does not apply to new installations. New installations are subject to "best available control technology" (BACT) requirements. As explained elsewhere in the Draft Staff Report:

> The use of the word "retrofit" serves to distinguish an emission limit that is imposed on existing sources, and which under the statutory definition must consider economic and other factors, from the emissions limit imposed on new sources. The limit for new sources must be met if it has been achieved in practice, regardless of cost. See definition of "best available control technology" [BACT] in section 40405, which includes "the most stringent emission limitation that is achieved in practice by that class or category of source."³

Thus, it is not at all clear what staff means when it refers to BARCT for new installations. New installations will be subject to BACT requirements that will be determined at the time the new installation is permitted and which may or may not be the same as the proposed BARCT standards "for new installations" contained in the Draft Staff Report. Furthermore, this confusing approach masks the true costs of compliance for those units that must be replaced. Staff's cost-effectiveness analysis looks only at the costs of installing selective catalytic reduction ("SCR") to meet the proposed BARCT standards. The costs of installing an entirely new piece of equipment that meets BACT standards that could be more stringent than the proposed BARCT standards could be much higher.

Our concerns regarding the BARCT update process to compel installation of new emissions units are addressed in more detail in the following attachments:

- · August 24, 2018 comments from Latham & Watkins LLP on behalf of RFG
- · November 1, 2018 comments from Latham & Watkins LLP on behalf of RFG

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² Draft Staff Report, Chapter 2.

³ Draft Staff Report, Chapter 2.

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Staff's Proposed NOx BARCT Standards Do Not Adequately Consider Other Pollutants

Staff's BARCT analysis focuses almost exclusively on proposed standards for NOx, including what is currently being achieved, and what might be achieved with identified control technologies. What staff often fails to adequately consider are trade-offs that can occur in terms of emissions of other pollutants, including particulate matter resulting from ammonia emissions. Use of ammonia in selective catalytic reduction ("SCR"), which is the preferred approach for achieving the NOx standards in PAR 1134, results in ammonia emissions that form particulates. Furthermore, the more stringent the NOx standard is, the more difficult it becomes to limit ammonia slip. In its evaluation of what is currently being achieved, staff often fails to acknowledge that the lowest emissions of NOx are being achieved with units that have high or non-existent limits on ammonia slip. Staff is then recommending NOx standards that are at or below the lowest levels currently being achieved, and then, to avoid impacts associated with increases in particulate emissions, is imposing stringent limits on ammonia. This approach ignores the inherent technological trade-off between these two pollutants and results in combinations of standards that may not be achievable, and certainly not at the costs identified by staff.

Staff Has Failed To Provide Information That Forms The Bases Of Its BARCT Recommendations

We are deeply concerned that staff is not making available to the public certain information upon which it is relying as the basis of its proposed BARCT standards. This is a significant deviation from the manner in which the SCAQMD has conducted BARCT determinations in the past and contrary to California Health & Safety Code ("H&S Code") requirements. H&S Code Section 40440(e) makes H&S Code Section 40703 applicable to SCAQMD rulemaking and requires that when adopting any regulation "the district shall consider, pursuant to Section 40922, and make available to the public, its findings related to the cost-effectiveness of a control measure, as well as the basis for the findings and the consideration involved." (emphasis added). Thus, the SCAQMD is required by statute, to make public the basis of its findings that the proposed and adopted BARCT standards are cost-effective.

It is not possible for the public to critically evaluate the basis of staff's recommendations if it does not have access to the information upon which staff is relying. Conclusory assertions contained in staff reports, without access to the underlying information that purportedly supports the assertions, is not sufficient to provide for meaningful evaluation and comment. Furthermore, because this information is not contained in the public record, it is not clear that it is being provided to the Governing Board. As a result, not only are certain staff recommendations unsupported by anything in the record, Governing Board action on those recommendations are equally unsupported.

When describing the technology assessment undertaken by staff, the PAR Draft Staff Report Staff states simply that staff "reviewed scientific literature, vendor information, and

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strategies utilized in practice."⁴ Not all of the information reviewed by staff is included in the PAR Draft Staff Report, and there are no specific references or citations to the sources of the information. It is impossible for the public to know precisely what staff has reviewed, or to critically evaluate the information in any way. This is particularly troubling because, in virtually every case, staff has proposed standards that are as stringent or more stringent than the most stringent existing standards, and well below the emission rates currently being met by most or all of the existing units in the class of equipment. Throughout the Draft Staff Report, staff justifies its proposals with the simple phrase "the technology assessment found." Thus, staff's recommendations are being driven primarily by information that is currently unavailable to the public.

We have addressed this concern regarding the adequacy of the rulemaking record in more detail in the following comments:

· March 4, 2019 comments from Latham & Watkins LLP on behalf of RFG and WSPA

New Source Review Issues Must Be Addressed Comprehensively And Expeditiously

While there has been additional discussion of new source review ("NSR") issues in recent RECLAIM Working Group meetings, none of the fundamental issues have yet been resolved. Furthermore, although SCAQMD staff has indicated that it is communicating with U.S. Environmental Protection Agency ("USEPA") staff regarding the nature of the NSR program that will apply to RECLAIM facilities once they exit the program, we are not aware of the specifics of those communications. Addressing fundamental programmatic issues, such as NSR, early in the transition process will result in a more orderly and efficient transition. This issue is addressed in more detail in the following attachment:

· September 7, 2018 comments from Latham & Watkins LLP on behalf of WSPA

The California Environmental Quality Act Analysis For The Transition Project Is Piecemealed

It is a fundamental principle of California Environmental Quality Act ("CEQA") review that all environmental impacts for the whole of the project be analyzed together. In this case, the "project" is the RECLAIM transition as a whole as required by Control Measure CMB-05 as adopted in the 2016 AQMP. Yet, staff is conducting the CEQA review through a series of Supplemental Environmental Assessments ("SEA") that analyze only the impacts associated with the particular landing rule under consideration. Staff argues that this approach is acceptable because each SEA "tiers off" the March 2017 Final Program Environmental Impact Report for the 2016 AQMP and several other earlier certified CEQA documents, which analyzed the transition as a whole. However, the March 2017 Final Program EIR for the 2016 AQMP, which was completed in January 2018, did not analyze the transition of the RECLAIM program because the transition was not part of Control Measure CMB-05 as proposed at that time.

⁴ PAR 1134 Draft Staff Report, March 2019, Chapter 2.

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4-3 (cont.)

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Therefore, tiering off of the earlier CEQA documents to support rule amendments that seek to implement the transition is not possible because there is no comprehensive analysis in the earlier documents. In the absence of a program level CEQA analysis that includes the whole of the RECLAIM transition, staff's segmented analysis of each proposed rulemaking action constitutes classic "piecemealing" in violation of CEQA. This issue is addressed in more detail in the following attachment:

· September 7, 2018 comments from Latham & Watkins LLP on behalf of WSPA

Incremental Socioeconomic Assessment

By analyzing the socioeconomic impacts associated with the transition in an incremental fashion in the context of each rulemaking, as opposed to a comprehensive analysis of the entire transition, staff is either underestimating the cumulative impacts or failing to identify them at all. An illustration of this problem can be found in the two sets of amendments to Rules 2001 and 2002 in 2018. In the January 2018 amendments to these rules, staff did not even address the impact that the removal of 38 facilities from the RECLAIM program that would then be eligible to take advantage of offset exemptions in Rule 1304 might have on the internal offset bank. In contrast, the Staff Report supporting the October 2018 amendments to these same rules expressed serious concerns about the potential impacts to the internal bank. Either staff erred in January by failing to analyze the potential impacts on the internal bank, or it overstated the potential impacts associated with the October amendments. In either case, this inconsistency illustrates the problem with undertaking analysis of the impacts associated with the RECLAIM transition in an incremental fashion. This issue is addressed in more detail in the following attachment:

September 7, 2018 comments from Latham & Watkins LLP on behalf of WSPA

Inappropriate Cost-Effectiveness Methodology

RFG objects to certain aspects of the cost-effectiveness methodology that SCAQMD staff is using to determine BARCT requirements for the landing rules currently under development. First, staff typically assumes a useful life for equipment of 25 years even though rulemaking requires replacement of technology much sooner. Use of a 25-year assumption makes the control equipment appear more cost-effective by diluting the significant capital costs of required projects over a much longer time period than is likely to occur. Second, staff utilizes the discounted cash flow ("DCF") method instead of the levelized cash flow ("LCF") method as used by several other air districts. The LCF method is a better representation of costeffectiveness than the DCF method. Finally, staff utilizes a \$50,000 per ton cost-effectiveness threshold for determining BARCT, which is much higher than that applied by other air quality agencies, and, in some cases, staff has concluded that controls with a cost-effectiveness above \$50,000 per ton constitute BARCT. This issue is addressed in more detail in the following attachment:

July 3, 2018 comments from WSPA

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4-5 (cont.)

SCAQMD Governing Board Members March 13, 2019 Page 6

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Thank you for your attention to these comments. We are available to discuss these issues with you and/or your Governing Board Assistant at any time.

Best regards,

& Carroll pue Michael J. Carroll of LATHAM & WATKINS LLP

Attachments

cc: Clerk of the Boards, SCAQMD Wayne Nastri, SCAQMD Philip Fine, SCAQMD Barbara Baird, SCAQMD Robert Wyman, Latham & Watkins LLP John Heintz, Latham & Watkins LLP RFG Members

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{Remaining attachments to letter to be inserted}

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AUGUST 24, 2018 ATTACHMENT

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August 24, 2018

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VIA EMAIL

Dr. Philip Fine Deputy Executive Officer South Coast Air Quality Management District 21865 Copley Drive Diamond Bar, CA 91765

Re: SCAQMD Staff Proposal to Require Equipment Replacement as BARCT

Dear Dr. Fine:

We are submitting these comments on behalf of our client the Regulatory Flexibility Group ("RFG"). The RFG is an industry coalition comprised of companies in the refining, utility and aerospace sectors that operate facilities within the jurisdiction of the South Coast Air Quality Management District ("SCAQMD"). RFG member facilities are subject to the Regional CLean Air Incentives Market ("RECLAIM") program, and will be seriously affected by the transition to a command-and-control regulatory structure that is currently underway. The RFG participated in the development of the RECLAIM program from its inception, and has been an active participant in all major amendments to the program, including those currently underway.

Introduction

These comments are focused on recent assertions by SCAQMD staff that a best available retrofit control technology ("BARCT") standard may require total replacement of the emitting piece of equipment. SCAQMD staff has asserted this position in various meetings and documents pertaining to the RECLAIM transition and development of command-and-control BARCT rules. The most detailed explanation of the staff's position that we are aware of is contained in the July 2018 Draft Staff Report in support of proposed amendments to SCAQMD Rule 1135 ("Rule 1135 Staff Report") at pages 2-1 through 2-2, wherein staff makes two arguments in support of its position. First, it cites to dictionary definitions of "retrofit" and concludes that "replacement" is not specifically excluded from those definitions. Second, it cites to a California Supreme Court case, *American Coatings Ass'n v. South Coast Air Quality Mgt. Dist.*, 54 Cal 4th 446 (2012), for the proposition that a BARCT standard may require replacement of the emitting equipment in its entirety.

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The RFG concurs with the comments of the Western States Petroleum Association ("WSPA") submitted on August 15, 2018 pertaining to this issue ("WSPA Comments"). We hereby supplement those comments with further analysis of the relevant statutory provisions, which illustrates that the staff's interpretation is inconsistent with the whole of Division 26 of the California Health & Safety Code, which addresses Air Resources, and runs contrary to standard principles of statutory construction. In addition, we provide additional analysis distinguishing SCAQMD Rule 1113, which is the subject of the *American Coatings* case, from the BARCT rules currently under development to replace the RECLAIM program.

Relevant Statutory Provisions

At question is the scope of the SCAQMD's authority to require the use of BARCT for existing sources. That authority is both granted and limited by Health & Safety Code Section 40440(b)(1), which provides, in relevant part:

> (b) The rules and regulations adopted pursuant to subdivision (a) [authorizing SCAQMD board to adopt rules and regulations to carry out air quality management plan] shall do all of the following:

 Require the use of best available control technology for new and modified sources and the use of best available retrofit control technology for existing sources.

Health & Safety Code Section 40406 defines BARCT as follows:

As used in this chapter, "best available retrofit control technology" means an emission limitation that is based on the maximum degree of reduction achievable, taking into account environmental, energy, and economic impacts by each class or category of source.

Finally, Health & Safety Code Section 40920.6, specifies the procedures the SCAQMD is required to follow when establishing a BARCT standard, and provides, in part:

(a) Prior to adopting rules or regulations to meet the requirement for best available retrofit control technology pursuant to Sections 40918, 40919, 40920 and 40920.5, or for a feasible measure pursuant to Section 40914, districts shall, in addition to other requirements of this division, do all of the following:

 Identify one or more potential control options which achieves the emission reduction objectives for the regulation.

(2) Review the information developed to assess the cost-effectiveness of the potential control option. For purposes of this paragraph, "cost-effectiveness" means the cost, in dollars, of

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the potential control option divided by emission reduction potential, in tons, of the potential control option.

(3) Calculate the incremental cost-effectiveness for the potential control options identified in paragraph (1). To determine the incremental cost-effectiveness under this paragraph, the district shall calculate the difference in the dollar costs divided by the difference in the emission reduction potentials between each progressively more stringent potential control option as compared to the next less expensive control option.

(4) Consider, and review in a public meeting, all of the following:

(A) The effectiveness of the proposed control option in meeting the requirements of this chapter and the requirements adopted by the state board pursuant to subdivision (b) of Section 39610.

(B) The cost-effectiveness of each potential control option as assessed pursuant to paragraph (2).

(C) The incremental cost-effectiveness between the potential control options as calculated pursuant to paragraph (3).

(5) Make findings at the public hearing at which the regulation is adopted stating the reasons for the district's adoption of the proposed control option or options.

Interpreting The Meaning Of BARCT

Staff's "Common Sense Definition" Argument Is Flawed

In the Rule 1135 Staff Report, staff sets forth what it refers to as a "common sense definition" argument in which it reaches the conclusion that the term "retrofit" as used in Section 40406 encompasses "replacement" because "replacement" is not specifically excluded from the cited definitions of "retrofits." At first blush, this argument appears similar to a basic rule of statutory construction known as the "plain meaning rule," which means giving words their ordinary meaning. However, the staff's "common sense definition" argument is directly contrary to the "plain meaning rule" which is codified in the California Code of Civil Procedure as follows: "In the construction of a statute or instrument, the office of the Judge is simply to ascertain and declare what is in terms or in substance contained therein, *not to insert what has been omitted*, or to omit what has been inserted . . ." See Cal. Civ. Proc. Code § 1858 (emphasis added). "Replacement" has been very clearly and specifically omitted from Section 40406, and that ends the analysis under the "plain meaning rule." Staff's argument violates that rule by seeking to insert "replacement" where it simply does not exist.

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"Control Options" Connote "Retrofits;" Not "Replacements"

Use of the phrases "control option" and "control options" in Health & Safety Code Section 40920.6 is informative. Those phrases are used elsewhere in Health & Safety Code Division 26, which pertains to Air Resources, in ways that make it clear that they refer to emission controls to be applied to the underlying source (i.e., retrofits). For example, Section 40440.11(a) provides:

"In establishing the best available control technology . . . 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." (emphasis added).

Thus, when Health & Safety Code Section 40920.6 uses the phrases "control option" and "control options" repeatedly to specify the procedures the SCAQMD is required to follow when establishing a BARCT standard it is referring to measures *to be applied to* the emitting source, not replacement of the emitting source in its entirety.

When The Legislature Means "Replacement," It Says "Replacement"

There are many provisions in Division 26 where the terms "replace" or "replacement" are used, indicating that when the legislature means "replace" it states so explicitly. Furthermore, the terms "replace" or "replacement" are frequently used in conjunction with "retrofit" or terms similar to "retrofit," such as "modify" or "alter" (or variations thereof). This makes it clear that there is a distinction between actions that result in changes to an existing emissions source, and actions that result in its elimination altogether.

For example, Section 43021(a) provides:

"... the retirement, *replacement*, *retrofit*, or repower of a selfpropelled commercial motor vehicle ... shall not be required until the later of the following:" (emphasis added).

Similarly, Section 44281(a) which identifies projects eligible to participate in the Carl Moyer Program, provides:

"Emission-reducing *retrofit* of covered engines, *or replacement* of old engines powering covered sources with newer engines . . ." (emphasis added).

Use of the term "replacement" in the provisions cited above illustrates that when the legislature means "replacement" it states so explicitly. Furthermore, use of both "replacement"

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and "retrofit" illustrates that the legislature intends to distinguish between the two terms, and that that "retrofit" does not encompass "replacement" as suggested by staff's interpretation of the definition of BARCT in Section 40406. If staff's interpretation was correct, then the use of both terms in the cited provisions would be redundant. Generally, if the legislature chose to include language, it must be given some meaning, and statutes are to be interpreted in a manner that avoids rendering some words surplusage, null or absurd. See Ingredient Communications Council, Inc. v. Lungren, 2 Cal. App. 4th 1480, 1492, 4 Cal. Rptr. 2d 216, 224 (3d Dist. 1992), rev. denied (April 23, 1992).

The Legislature Has Defined "Retrofit" And Distinguished It From "Replacement"

Finally, Division 26 includes a specific definition of "retrofit" in Sections 44275(a)(19) and 44299.80(o), which provide:

"Retrofit" means making modifications to the engine and fuel system so that the retrofitted engine does not have the same specifications as the original engine.

This definition makes clear that in the case of a "retrofit," the existing emissions source continues to exist following the retrofit, but in an altered state. Furthermore, while Division 26 does not include a definition of "replacement," it frequently makes distinctions between the terms "retrofit" and "repower," which is defined in Sections 44274(a)(18) and 44299.80(n) (immediately preceding the definitions of "retrofit") as follows:

"Repower" means replacing an engine with a different engine."

Thus, in the context of Division 26, "repower" and "replace" are synonymous, and very specifically and explicitly distinguished from "retrofit." The legislature was very deliberate in its use of these terms throughout the air quality statute. To suggest, as staff does, that "retrofit" as used in Section 40406, implicitly encompasses "replacement" flies in the face of the numerous distinctions between these terms made in the statute, and violates accepted rules of statutory construction.

Distinguishing American Coatings

As correctly pointed out in the WSPA comments, there is nothing in the holdings of the *American Coatings* decision that supports the proposition that BARCT may include replacement of the emitting equipment in its entirety; that question wasn't even before the court. Furthermore, even if the decision supported staff's position, which it does not, it would be distinguishable based on the fundamental differences between SCAQMD Rule 1113, which was the subject of the case, and the BARCT rules currently under development to replace the RECLAIM program.

SCAQMD Rule 1113 regulates architectural coatings, and the control strategy is reformulation of the covered coatings over time to reduce the VOC content. The rule does not impose limits on emitting equipment, and emission control equipment (i.e., hardware) is not required by, or even mentioned in the rule. In contrast, the BARCT rules currently under

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development to replace the RECLAIM program would impose emission limits on process or production equipment to be achieved through add-on emission control equipment (or, according to staff's current theory, replacement of the process of production equipment). There are fundamental differences between these two types of rules that make it impossible to draw any parallels between them. Thus, even if there was something in the *American Coatings* decision that supported staff's position, and again there is not, it would be of no relevance to the rules currently under development.

In the case of coatings reformulation, the control strategy involves research and development that can be undertaken completely independent of ongoing production. The work is undertaken in laboratories, and ongoing production processes and equipment are unaffected. Once the reformulated coating has been developed, production switches to the new coating with no need to modify the production equipment, and in most cases, no lost production time. Thus, there is little or no risk to ongoing production while the control strategy is implemented or if the control strategy proves to be infeasible (i.e., effective reformulations that meet the lower limits cannot be developed). Furthermore, while coating reformulation can require a significant investment of time and money, it does not typically involve the manufacture of modified production equipment, and physical installation of modified or new equipment.

By contrast, control strategies that rely on physical modification of emitting equipment and/or installation of new add-on control equipment, which also typically involve a research and development stage, also require the manufacture of new equipment, permitting prior to commencing installation of the new equipment, and a physical modification or installation process. Thus, the lead times and costs associated with implementing this type of control strategy are typically much longer and higher. Furthermore, implementation of such strategies can seldom be accomplished without significant disruption to the operation of the facility, particularly at complicated facilities such as those currently covered by the RECLAIM program. And if the control strategy proves to be ineffective in achieving desired emission levels, significant investments of time, money, and lost production may have been for naught.

Trying to draw any parallels between a "technology-forcing" reformulation rule, such as SCAQMD Rule 1113, and the "landing rules" currently under development misses the fundamental differences between these two types of BARCT rules. Furthermore, as stated at the outset, staff has not drawn any parallels that would support its position that BARCT standards may compel replacement of the underlying production equipment even if such parallels could be drawn.

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Thank you for considering these comments. We look forward to continuing to work with you on these rulemakings which are critically important to stakeholders as well as the regional economy. If you have any questions, please contact me at (714) 401-8105 or by email at michael.carroll@lw.com.

Sincerely,

Michael J. Carroll Of LATHAM & WATKINS LLP

cc: Robert Wyman, L&W John Heintz, L&W RFG Members

NOVEMBER 1, 2018 ATTACHMENT

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November 1, 2018

VIA EMAIL

Bayron T. Gilchrist, General Counsel Barbara Baird, Chief Deputy Counsel South Coast Air Quality Management District 21865 Copley Drive Diamond Bar, CA 91765

Re: SCAQMD Staff Proposal to Require Equipment Replacement as BARCT

Dear Bayron and Barbara:

Thank you for your October 3, 2018 letter responding to our August 15, 2018 comments submitted on behalf of the Western States Petroleum Association ("WSPA"), and our August 24, 2018 comments submitted on behalf of the Regulatory Flexibility Group ("RFG"), regarding South Coast Air Quality Management District ("SCAQMD") staff's position that a best available retrofit control technology ("BARCT") standard may require total replacement of the emitting piece of equipment. Portions of your response reassert arguments that staff has made in the past in support of its position; namely, that neither the statutory definition of BARCT nor common dictionary definitions of "retrofit" specifically exclude replacements, and that the *American Coatings Ass'n v. South Coast Air Quality Mgt. Dist.*, 54 Cal 4th 446 (2012) case ("*American Coatings*") is supportive of staff's position. We responded to those arguments in our previous comment letters and will not revisit them here. This letter responds on behalf of WSPA and RFG to your assertions that the staff's position is supported by public policy considerations, and that we have failed to present any policy rationale for our position.

Staff asserts that requiring replacements under certain circumstances is supported by policy justifications, and, therefore, public policy supports an expansive interpretation of its authority that would include the authority to mandate replacements. This reasoning is contrary to two important public policies that are also well enshrined in administrative law. The first is that regulatory agencies must act within the scope of the authority delegated to them by the legislature, even if that means the agency may not undertake certain actions that it might otherwise view as sound public policy. The second is that public agencies may not substitute their own judgment for that of the legislature as reflected in the statutory grant of authority. These public policies and legal requirements support our position that staff cannot mandate replacements as BARCT.

Bayron T. Gilchris∜Barbara Baird November 1, 2018 Page 2

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Public policy and well established law dictate that the SCAQMD act within the scope of authority granted to it by the legislature.

An agency can adopt, administer or enforce a regulation only if it is within the scope of authority conferred on it by other provisions of law. Cal Gov. Code § 11342.1. No regulation is valid unless it is consistent and not in conflict with the statute conferring authority to the agency. Cal Gov. Code § 11342.2. As explained in our previous comment letters, the statutory provisions defining BARCT and the SCAQMD's authority to adopt and implement BARCT standards are clear. "In the construction of a statute or instrument, the office of the Judge is simply to ascertain and declare what is in terms or in substance contained therein, *not to insert what has been omitted*, or to omit what has been inserted . . ." Cal. Civ. Proc. Code § 1858 (emphasis added). The role of an agency charged with implementing a statute is no different. In this case, staff seeks to insert what has been omitted by arguing that the term "retrofit" encompasses replacement, notwithstanding that there are numerous examples of the distinction between those terms throughout the statute.

Finding ambiguity where there is none, staff then invokes "public policy" to support an expansive interpretation of its authority. Relying on the example of replacing engines on Santa Catalina Island, staff argues that because the replacements would further the broader statutory purpose of reducing emissions, a mandate to do so is sound public policy, and, therefore, public policy supports an expansive interpretation of the agency's authority to impose such a mandate.

According to staff's reasoning, the scope of the agency's authority should be interpreted to encompass any action which the agency deems sound public policy, regardless of the specific language contained in the statutory grant of authority. In fact, you argue in your letter, citing *American Coatings*, that the agency's authority is essentially unbounded as long as the requirement is not arbitrary and capricious, or without reasonable or rational basis, or lacking in evidentiary support. However, as the cases relied upon in *American Coatings* make clear, a critical consideration in evaluating whether or not an agency action meets this standard is whether or not the action is within the scope of the agency's delegated authority. As stated in *Yamaha Corp. of America v. State Bd. of Equalization* (1998) 19 Cal.4th 1, citing *Wallace Berri & Co. v. State Bd. of Equalization* (1985) 40 Cal.3d 60, 65: " [I]n reviewing the legality of a regulation adopted pursuant to a delegation of legislative power, the judicial function is limited to determining whether the regulation (1) is "within the scope of the authority conferred" [citation] and (2) is "reasonably necessary to effectuate the purpose of the statute" [citation]."

The scope of authority delegated to an agency may not authorize it to take any and all actions that the agency deems sound public policy in light of its overall mission. In fact, acting as it does from a broader perspective, and balancing a broader range of policy considerations, the very reason the legislature imposes limitations on the authority of regulatory agencies is to prevent them from undertaking actions that they might otherwise be inclined to take because they deem them sound public policy. The fact that a proposed action may reflect sound public policy in the view of the agency does not mean that it is within the scope of the authority granted by the legislature.

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Staff's position is contrary to the legislature's policy considerations embedded in the relevant statutory provisions.

By including economic impacts as one of the factors in the definition of BARCT, and by specifying the process for evaluating the cost-effectiveness of proposed BARCT standards, it is clear that one of the policies of the legislature was to balance the goal of achieving additional emission reductions from existing sources against the costs of achieving those reductions, and to impose limits on the costs that would be borne by existing sources to further control emissions.¹ The legislature determined that stationary sources should bear the cost of implementing cost-effective retrofits. If cost-effective retrofits are determined to be unavailable, then that is the end of the inquiry. There may be specific cases where the outcome results in foregone emission reductions, but it was the judgment of the legislature that this regulatory scheme struck the proper public policy balance between achieving air quality goals and imposing additional costs on regulated sources. It is not the place of the agency to substitute its own public policy considerations for those of the legislature when the language of the statute is clear, as it is here.

Furthermore, the fact that a replacement project may be cost-effective in a situation where available retrofits are not is irrelevant. Staff seems to suggest that if a replacement project would cost no more than a cost-effective retrofit project (if one existed), then the cost to the source is no greater than what the legislature intended, and, therefore, requiring replacement in such situations does not undercut any economic considerations that the legislature may have had in mind when adopting the statute. However, in situations where there are no available costeffective retrofits, the legislature determined that the cost to the source for installing additional controls would be zero. Therefore, staff's determination that it can mandate replacement when there are no cost-effective retrofits, as long as the replacement is cost-effective, imposes costs on existing sources that go beyond what the legislature contemplated. The fact that the cost of a replacement may be less than, or more cost-effective than, available retrofits does not mean that the agency is entitled to mandate replacements.

Conclusion

SCAQMD staff is attempting to use policy rationale to read something into the statute that simply is not there. That approach is not only poor public policy, it is contrary to the law. Whether or not a particular course of action may be good public policy in the judgment of the agency does not mean it is within the authority of the agency to mandate it. Furthermore, in this case, that rationale elevates the judgment of the agency over that of the legislature with regards to the appropriate balance between furthering air quality objectives and maintaining a viable economy. There are limits on the rulemaking authority of the SCAQMD, and those limits may well preclude it from pursuing what it might otherwise view as good public policy in order to accomplish the broader policy objectives of the legislature.

¹ Health & Safety Code Sections 40406 and 40920.6.

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Bayron T. Gilchrist/Barbara Baird 'November 1, 2018 Page 4

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Thank you for considering these comments. We look forward to continuing to work with you on these rulemakings which are critically important to stakeholders as well as the regional economy. If you have any questions, please contact me at (714) 755-8105 or by email at michael.carroll@lw.com.

Sincerely,

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Michael J. Carroll of LATHAM & WATKINS LLP

cc: Robert Wyman, Latham & Watkins LLP John Heintz, Latham & Watkins LLP RFG Members Bridget McCann, WSPA

MARCH 4, 2019 ATTACHMENT

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March 4, 2019

VIA EMAIL

Dr. Philip Fine Deputy Executive Officer South Coast Air Quality Management District 21865 Copley Drive Diamond Bar, CA 91765

Re: Availability Of Information Relied Upon To Support RECLAIM Rulemaking

Dear Dr. Fine:

We are submitting these comments on behalf of our clients the Regulatory Flexibility Group ("RFG") and the Western States Petroleum Association ("WSPA").

The RFG is an industry coalition comprised of companies in the refining, utility and aerospace sectors that operate facilities within the jurisdiction of the South Coast Air Quality Management District ("SCAQMD"). RFG member facilities are subject to the Regional Clean Air Incentives Market ("RECLAIM") program and will be seriously affected by the transition to a command-and-control regulatory structure that is currently underway. The RFG participated in the development of the RECLAIM program from its inception and has been an active participant in all major amendments to the program, including those currently underway.

WSPA is a non-profit trade association representing companies that explore for, produce, refine, transport and market petroleum, petroleum products, natural gas and other energy supplies in five western states, including California. WSPA has been an active participant in air quality planning issues for over 30 years. WSPA-member companies operate petroleum refineries and other facilities in the South Coast Air Basin that will be impacted by the transition out of the RECLAIM program.

The RFG and WSPA are deeply concerned that staff is not making available to the public certain information upon which it is relying as the basis of its proposed best available retrofit control technology ("BARCT") standards. This is a significant deviation from the manner in which the SCAQMD has conducted BARCT determinations in the past and contrary to California Health & Safety Code ("H&S Code") requirements. H&S Code Section 40440(e) makes H&S Code Section 40703 applicable to SCAQMD rulemaking and requires that when adopting any regulation "the district shall consider, pursuant to Section 40922, and make available to the public, its findings related to the cost-effectiveness of a control measure, as well

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as the basis for the findings and the consideration involved." (emphasis added). Thus, the SCAQMD is required by statute, to make public the basis of its findings that the proposed and adopted BARCT standards are cost-effective.

It is not possible for the public to critically evaluate the basis of staff's recommendations if it does not have access to the information upon which staff is relying. Conclusory assertions contained in staff reports, without access to the underlying information that purportedly supports the assertions, is not sufficient to provide for meaningful evaluation and comment. Furthermore, because this information is not contained in the public record, it is not clear that it is being provided to the Governing Board. As a result, not only are certain staff recommendations unsupported by anything in the record, Governing Board action on those recommendations are equally unsupported.

The recent adoption of amendments to the Rule 1146 series of rules is illustrative of the problem identified above. Draft staff reports contained numerous references to information upon which staff relied in making its proposed BARCT recommendations, but the referenced information was not included in the staff report. Among the types of information referenced was vendor data and data from facilities located within and outside of SCAQMD. When industry representatives requested the subject information, they were told that it could only be obtained by filing California Public Records Act ("CPRA") requests. This is highly unusual, and the SCAQMD has not taken this position in the hundreds of BARCT rules it has adopted in the past.

In response, the consulting firm Ramboll filed eight CPRA requests on November 8, 2018 seeking the following information:

- PAR1146 WGM#7 Slide 7 states that "980 units located within SJVAPCD are able to comply with 7 ppm limit without use of mitigation fee option." Please provide copies of all data and any District analyses used to support this finding. Please include control type for each unit reviewed.
- PAR1146 WGM#7 Slide 7 states that ">1000 ST results from both SCAQMD and SJVAPCD support the feasibility of 7 ppm BARCT." Please provide copies of all data and any District analyses used to support this finding. Please include control type (ex. SCR, ULNB) for each unit reviewed.
- 3. The Draft Staff Report for PAR1146, 1146.1 and 1146.2 states: "Permit limits from thermal fluid heaters located within SCAQMD were also analyzed.... From analysis of existing permitted limits, the unit with the lowest permitted emission limit was identified to be located in SJVAPCD with a permitted limit of 5 ppm utilizing only ULNB technology. The unit was permitted as new equipment subject to BACT. The analysis was able to show that the lowest achieved controlled emission from thermal fluid heaters utilizing burner replacements was 12 ppm." (page 2-4). Please provide copies of all data and the District analysis referenced by this statement.

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- 4. The Draft Staff Report for PAR1146, 1146.1 and 1146.2 states: "From vendor provided installation lists and source test data, one new natural gas fired unit was identified in SJVAPCD with a permitted limit of 5 ppm with only ULNB. One new natural gas fired unit was identified within SCAQMD with permit limit of 7 ppm utilizing only ULNB as control technology." (page 2-3). Please provide copies of all data and any District analyses referenced by this statement.
- The Draft Staff Report for PAR1146, 1146.1 and 1146.2 states: "Facility submitted 5. source test results were analyzed to determine the technical feasibility of establishing a lower BARCT limit. Within SCAQMD, there is a total of 1,072 non-RECLAIM units subject to Rule 1146.1, 1,068 non-RECLAIM units subject to Rule 1146, and 259 units subject to RECLAIM rules. A total of 196 units was surveyed for real world emissions via facility submitted source test reports. Total units surveyed make up for 8.2% of total units located in SCAQMD with 105 units from the non-RECLAIM universe and 91 units from the RECLAIM universe. Source tests were obtained from SCAQMD database which consists of reports submitted by facilities to demonstrate compliance to various monitoring and testing requirements. SCAQMD requires equipment source tests to be conducted in an "as found" condition and emissions results are an average of the testing period. Some source test are conducted at different "loads" at a set time span. To account for source tests conducted at multiple load settings, the highest emission result was used for the analysis." (Page 2-4). Please provide copies of the referenced source test reports and any District analyses of such source test reports which were used to support the above statements and/or conclusions.
- 6. The Draft Staff Report for PAR1146, 1146.1 and 1146.2 states: "Results displayed in Table 2 show that it is technically feasible for Rule 1146 Group III and Group II units to achieve an emission limit of 7 ppm with burner replacements; and Rule 1146 units equipped with SCR to achieve an emission limit of 4 ppm, both providing a 10% buffer for possible compliance demonstration. Table 2 also shows that it is not technically feasible for Rule 1146 atmospheric units to achieve an emission level of 9 ppm with burner replacements." (Page 2-5). Please provide copies of the source data referenced in Table 2, as well as any District analyses of that data used to support the above statements and/or conclusions.
- 7. The Draft Staff Report for PAR1146, 1146.1 and 1146.2 states: "Based on the information obtained through vendor discussions, lower NOx emissions with ultra-low NOx burners are feasible for burner replacements and new installations. For certain applications and for new installations, achieving 5 ppm NOx limit with an ultra-low NOx burner without SCR is feasible. Based on discussions with three vendors, burner replacements on existing units could potentially meet 7 ppm or less. With the exception of one vendor, 7 ppm or less with ultra-low NOx burners are limited to fire-tube boilers and not currently available for water-tube boilers. The difference between water-tube and fire-tube boilers is that a water-tube boiler circulates water through a series of tubes, the tubes are heated externally by the combustion gas, and the surrounding hot gases heat the water in the steam-generating tubes; whereas a fire-tube boiler passes combustion



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gases inside a series of tubes that are surrounded by a closed vessel of water that is heated to produce steam. Two of the three vendors stated they would be able to provide 7 ppm ultra-low NOx burner replacements for existing units with a rated heat input capacity greater than 2 MMBtu/hr and up to 30 MMBtu/hr for one vendor and 60 MMBtu/hr for the other. The third vendor that could provide 7 ppm ultra-low NOx burner replacements specified a rated heat input capacity of at least 8.4 MMBtu/hr, since a minimum furnace size would be required, and up to 50 MMBtu/hr. In addition to these size requirements, based on discussions with the third vendor, the proper back and steam pressure, as well as the age of the unit would be factors in whether an existing unit could achieve a NOx emission limit of 7 ppm or less with a burner replacement. Additionally, for existing units to achieve 7 ppm or less with ultra-low NOx burner replacements additional controls, such as variable frequency drive (VFD) and oxygen trim are also needed. In addition to the information gather from vendor discussions, the source test results summarized above show that it is technically feasible for existing Rule 1146 Group II and Group III and Rule 1146.1 units to achieve an emission limit of 7 ppm or less with burner replacements." (Pages 2-11 and 2-12). Please provide the following information:

A. Data or other information "obtained through vendor discussions" concerning ULNB burners which was used to support the above statements and/or conclusions.

B. Data or other information and/or District analysis which was used to support the District's statement that "burner replacements on existing units could potentially meet 7 ppm or less," including any information concerning performance differences between water-tube boilers versus fire-tube boilers.

Data or other information and/or District analysis related to the following C. statement: "Two of the three vendors stated they would be able to provide 7 ppm ultralow NOx burner replacements for existing units with a rated heat input capacity greater than 2 MMBtu/hr and up to 30 MMBtu/hr for one vendor and 60 MMBtu/hr for the other. The third vendor that could provide 7 ppm ultra-low NOx burner replacements specified a rated heat input capacity of at least 8.4 MMBtu/hr, since a minimum furnace size would be required, and up to 50 MMBtu/hr. In addition to these size requirements, based on discussions with the third vendor, the proper back and steam pressure, as well as the age of the unit would be factors in whether an existing unit could achieve a NOx emission limit of 7 ppm or less with a burner replacement. Additionally, for existing units to achieve 7 ppm or less with ultra-low NOx burner replacements additional controls, such as variable frequency drive (VFD) and oxygen trim are also needed. In addition to the information gather from vendor discussions, the source test results summarized above show that it is technically feasible for existing Rule 1146 Group II and Group III and Rule 1146.1 units to achieve an emission limit of 7 ppm or less with burner replacements."

 Concerning the Draft Staff Report for PAR1146, 1146.1 and 1146.2, please provide copies of all data, information and/or the District analyses concerning the cost effectiveness of Ultra Low NOx Burner (ULNB) technology used to support the

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District's cost effectiveness analysis as summarized in the Draft Staff Report. Please include both capital cost estimates and installation cost estimates for all sizes of units assessed.

As of the date of Governing Board adoption of the staff recommendations on the Rule 1146 series, December 7, 2018, none of the requested information had been made available to the public. It was not until January 9, 2019, more than one month after Governing Board adoption of the staff proposal, that staff responded to the CPRA requests. Obviously, any information that might have been provided at that point would have been of limited value since the rulemaking action was already complete. However, staff failed to provide any substantive information in response to any of the CPRA requests. Staff indicated that the information requested in CPRA request #1 above would not be provided because the subject documents belonged to the San Joaquin Valley Air Pollution Control District, and SCAQMD did not have authority to release documents belonging to a sister agency.1 With respect to CPRA requests #2 through #8 above, staff responded that all of the requested information was exempt from disclosure based on assertions of confidentiality.2 Staff's BARCT recommendations, and the Governing Board's adoption thereof, are based on determinations regarding the maximum level of control that meets the cost-effectiveness threshold. All of the information sought in the CPRA requests identified above pertains to the basis of those findings of cost-effectiveness. This lack of transparency and failure to create a public record that supports staff's recommendations and Governing Board action is deeply troubling and contrary to applicable law.

We respect that some of the information on which SCAQMD relied during the Rule 1146 series rulemaking, including some of the information requested in requests #2 through #8 above, is considered confidential business information. While it may require some effort, we respectfully request that SCAQMD review all documents relied upon in its Rule 1146 series rulemaking and provide to the public all information that is not confidential.

Draft staff reports for future proposed rulemaking contain references to information relied upon by staff that are similar to those identified above with respect to the Rule 1146 series amendments, and for which the underlying information has not been made public. We have no reason to believe that staff will proceed in a manner that is in any way different than it did in the case of the Rule 1146 series amendments, or that the Governing Board will insist on supporting information being made public before it acts on staff recommendations. As evidenced by what occurred with respect to the Rule 1146 series amendments, because of timing issues, the CPRA process is not an adequate remedy to address this serious deficiency in the rulemaking process. If staff intends to require CPRA requests to obtain supporting documents, then it must build sufficient time into the rulemaking schedule to allow the CPRA process to play out, including resolution of any claims that requested information is exempt from disclosure according to the SCAQMD's Guidelines for Implementing the California Public Records Act.

¹ E-mail communication from Stacey Walkowiak, SCAQMD Public Records Act Office, January 9, 2019.

² E-mails and personal communications between Stacey Walkowiak, SCAQMD Public Records Office, and Ramboll, January 9 and 17, 2019.

Dr. Philip Fine March 4, 2019 Page 6

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We are hopeful that in future RECLAIM rulemakings staff will publicly disclose all nonconfidential information upon which it relies in arriving at proposed BARCT determinations as it is required to do by law. If you would like to discuss our concerns, please contact me at (714) 755-8105 or by email at <u>michael.carroll@lw.com</u>.

Sincerely,

Michael & Carroll I pue

Michael J. Carroll of LATHAM & WATKINS LLP

cc: Wayne Nastri, SCAQMD Barbara Baird, SCAQMD SCAQMD Governing Board SCAQMD Clerk of the Board RFG Members Bridget McCann, WSPA Tom Umenhofer, WSPA Patty Senecal, WSPA Robert Wyman, Latham & Watkins LLP John Heintz, Latham & Watkins LLP

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SEPTEMBER 7, 2018 ATTACHMENT

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September 7, 2018

VIA EMAIL

Dr. Philip Fine Deputy Executive Officer South Coast Air Quality Management District 21865 Copley Drive Diamond Bar, CA 91765

Re: Proposed Amended Rules 2001 and 2002

Dear Dr. Fine:

We are submitting these comments on behalf of our client Western States Petroleum Association ("WSPA") on the most recent round of proposed amendments to South Coast Air Quality Management District ("SCAQMD") Rules 2001 and 2002. The amendments are being proposed in connection with the transition of the Regional Clean Air Incentives Market ("RECLAIM") program to a command-and-control regulatory structure. WSPA is a non-profit trade association representing companies that explore for, produce, refine, transport and market petroleum, petroleum products, natural gas and other energy supplies in five western states including California. WSPA has been an active participant in air quality planning issues for over 30 years. WSPA-member companies operate petroleum refineries and other facilities in the South Coast Air Basin that will be impacted by the transition out of the RECLAIM program.

General Comments

The proposed amendments to Rules 2001 and 2002 are primarily interim measures intended to establish new eligibility criteria for exiting RECLAIM, provide opt-out procedures, and address, on a temporary basis, unresolved issues surrounding compliance of new source review ("NSR") for former RECLAIM facilities once they have transitioned out of the RECLAIM program. As WSPA and others have expressed in numerous meetings, workshops and hearings conducted in connection with the RECLAIM transition, we have serious concerns about the lack of clarity surrounding NSR in a post-RECLAIM regime.

We believe current SCAQMD staff's ("staff") proposed approach is premature, as staff has not addressed all of the underlying issues surrounding a RECLAIM sunset. RECLAIM is a comprehensive, complex program that was adopted as a whole. In the development of RECLAIM, staff not only determined current and future effective best available retrofit control

Specific Comments on Proposed Amended Rule 2002(f)(11) - "Stay-In" Provision

The proposed amendments to Rule 2002 would allow facilities to remain in the RECLAIM program, and thereby avail themselves of the RECLAIM NSR program set forth in SCAQMD Rule 2005 for some period of time. Our understanding, which was confirmed by staff during the RECLAIM Working Group meeting on August 9, 2018, is that the decision of whether or not to remain in the RECLAIM program is completely within the discretion of the facility (assuming the facility meets the specified criteria). Some of the language in the proposed amendments could be read to grant the Executive Officer discretion (beyond merely confirming that the facility meets the specified criteria) to decide whether or not the facility may remain in the program. The following proposed changes are intended to better reflect staff's intent.

- (11) An owner of <u>or</u> operator of a RECLAIM facility that receives an initial determination notification may elect <u>that</u> for the facility to remain in RECLAIM <u>by submitting</u> if a request to the Executive Officer to remain in RECLAIM is <u>submitted</u>, <u>together with</u> including any equipment information required pursuant to paragraph (f)(6).
 - (A) Upon receiving a request to remain in <u>RECLAIM and any equipment information</u> required pursuant to paragraph (f)(6), written approval by the Executive Officer shall notify the owner or operator in writing that the facility shall remain in RECLAIM subject to the following:
 - (i) The facility shall remain in RECLAIM until a subsequent notification is issued to the facility that it must exit by a date no later than December 31, 2023.
 - (ii) The facility is required to submit any updated information within 30 days of the date of the subsequent notification.
 - (iii) The facility shall comply with all requirements of any non-RECLAIM rule that does not exempt NOx emissions from RECLAIM facilities.

Specific Comments on Proposed Amended Rule 2002(f)(10) - "Opt-Out" Provision

Proposed Amended Rule 2002 includes an "opt-out" provision for those facilities that may be ready to voluntarily exit RECLAIM prior to the time that they might otherwise be transitioned out. The current staff proposal differs from previous proposals in that it places

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minimal and large price fluctuations in the NOx RTC market are unlikely to result directly from the potential exit of the 38 directly affected facilities out of the NOx RECLAIM program. Therefore, PAR 2002 would have minimal impacts on the existing facilities that are not yet ready to exit the NOx RECLAIM program. (January 5 Final Staff Report, p. 12.)

To support its conclusion that exiting the initial round of facilities from the program would have minimal impacts as a result of foregone market demand for RTCs, staff analyzed three scenarios in which NOx emissions from the subject facilities were: i) 5% below 2015 NOx emissions; ii) the same as 2015 NOx emissions; and iii) 5% above 2015 NOx emissions. (January 5 Final Staff Report, p. 11). Staff determined that foregone market demand for RTCs associated with exiting the initial group of facilities under each of the three scenarios would be 0.073 tons per day (TPD), 0.080 TPD, and 0.086 TPD, respectively. Based on this analysis, staff concluded that the anticipated future demand for NOx RTCs associated with the exiting facilities was minimal, and that eliminating that demand would not materially impact the remaining market. In other words, staff concluded that the exiting facilities would have a negligible demand for RTCs in the future, including RTCs required to satisfy NSR requirements. As stated in the Summary of the Proposal:

Considering the past market behavior by these facilities, staff concludes that the potential impact of PAR 2002 on the demand and supply of NOx RTC market is expected to be minimal and large price fluctuations in the NOx RTC market are unlikely to result directly from the potential exit of these facilities out of the NOx RECLAIM program. (Summary of Proposal, Agenda Item No. 18, January 5, 2018, p. 3.)

Notably, staff did not even address the impact that the January 2018 amendments might have on the internal bank even though those amendments were intended to result in precisely the situation about which staff is now expressing concern – the removal of 38 facilities from the RECLAIM program that would then be eligible to take advantage of offset exemptions in Rule 1304 like any other RECLAIM facility.

In contrast with the January 2018 Final Staff Report, the July 2018 Preliminary Draft Staff Report expresses serious concerns about the potential for increased NOx emissions from facilities exiting the program, stating that "[e]ven among the first 37 facilities identified that may be eligible to exit, any impacts from potential emissions increases are unknown and if significant enough, can approach or surpass the cumulative emissions increase thresholds of Rule 1315." (July 2018 Preliminary Draft Staff Report, p. 8).

Clearly, the conclusions reached by staff in the January 2018 Final Staff Report, upon which the Governing Board relied when it adopted the current versions of Rules 2001 and 2002, are inconsistent with the concerns being raised by staff in the current proposal. Either staff erred in January by underestimating the impacts on the RECLAIM market and failing to even analyze

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the 2016 AQMP and the potential environmental impacts associated with the 2016 AQMP, including CMB-05, were analyzed in the Final Program EIR certified in March 2017. This Draft SEA relies on the analysis in the March 2017 Final Program EIR for the 2016 AQMP." (Draft SEA, p. 2-5).

The proposed amendments to Rules 2001 and 2002 implement that portion of control measure CMB-05, written after the Governing Board's adoption of the 2016 AQMP that calls for the transition of the RECLAIM program to a command and control regulatory structure. As stated in the July 2018 Preliminary Draft Staff Report, "Proposed Amended Rules 2001 and 2002 will continue the efforts to transition RECLAIM facilities to a command-and-control regulatory structure . .." (July 2018 Preliminary Draft Staff Report, p. 2). The problem with the proposal to tier the CEQA analysis for the currently proposed amendments to Rules 2001 and 2002 off from the March 2017 Final Program EIR for the 2016 AQMP is that control measure CMB-05 as proposed at the time the March 2017 Final Program EIR was prepared did not include a transition out of the RECLAIM program. That language was added well after the CEQA analysis was complete. Furthermore, no additional CEQA analysis was conducted to address the changes to CMB-05.

The Final Draft 2016 AQMP, which was ultimately presented to the SCAQMD Governing Board, was released in December 2016. Control measure CMB-05 called for an additional five tons per day of NOx reductions from sources covered by the RECLAIM program by the year 2031. CMB-05 also called for convening a Working Group to consider replacing the RECLAIM program with a more traditional command-and-control regulatory program, but did not include a mandate to undertake such a transition. SCAQMD Governing Board action on the Final Draft 2016 AQMP was noticed for February 3, 2017. When the 2016 AQMP item came up on the agenda, SCAQMD staff made a presentation, as is typical. No substantive questions were asked of the staff by Board Members, and no Board Members indicated an intention to offer amendments to the staff proposal. The public was then provided an opportunity to comment, and approximately five hours of public comment ensued.

Following the close of the public comment period, Board Member Mitchell stated her intention to introduce amendments to the staff proposal for control measure CMB-05 that would: i) accelerate the additional five TPD of reductions to 2025 from 2031; and ii) transition to a command-and-control program as soon as practicable. Board Member Mitchell did not provide any specific proposed language and did not make a formal motion to amend the staff proposal. For reasons that are not relevant here, action on the item was continued to the March 3, 2017 Governing Board hearing. The Governing Board stated its intention not to take additional public comment on the item at the March 3, 2017 hearing.

At the hearing on March 3, 2017, Board Member Mitchell introduced the following amendments to CMB-05 that included a direction to staff to develop a transition out of the RECLAIM program:

LATHAM&WATKINS

In the draft SEA, staff claims that it is speculative to determine what BARCT may be for all the various sources under the RECLAIM program. This underscores the fact that a comprehensive program transitioning RECLAIM sources to command and control rules was never developed or analyzed. Rather, staff is piecemealing the analysis of the RECLAIM transition. Such an approach has been rejected by the courts: "Instead of itself providing an analytically complete and coherent explanation, the FEIR notes that a full analysis of the planned conjunctive use program must await environmental review of the Water Agency's zone 40 master plan update, which was pending at the time the FEIR was released. The Board's findings repeat this explanation. To the extent the FEIR attempted, in effect, to tier from a *future* environmental document, we reject its approach as legally improper under CEQA." *Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* (2007) 40 Cal.4th 412, 440 [emphasis in origina]].

Furthermore, RECLAIM is an emissions trading program. It allows facilities to choose to implement specific controls or to purchase emissions credits. Staff's piecemealing of the analysis does not account for those facilities that have implemented other means to comply with the program and the additional impacts the transition to individual command and control rules may have on these facilities. Additionally, these impacts cannot be captured in a single rule analysis. Rather, staff's piecemealing further ignores the impacts on facilities that are subject to multiple BARCT determinations.

Health & Safety Code Section 39616

The current staff proposal for amending Rule 2002 to prevent former RECLAIM facilities from accessing offset exemptions in Rule 1304 would place former RECLAIM facilities at a significant disadvantage relative to other non-RECLAIM facilities. California Health & Safety Code Section 39616(c)(7) prohibits imposing disproportionate impacts, measured on an aggregate basis, on those stationary sources included in the RECLAIM program compared to other permitted stationary sources. Creating a new category of sources without access to either RTCs or Rule 1304 offset exemptions to satisfy NSR requirements runs afoul of this prohibition.

Statement Pertaining to SCAQMD Rule 1306

The July 2018 Preliminary Draft Staff Report contains the following statement: "Moreover, Rule 1306 – Emission Calculations would calculate emission increases of exiting RECLAIM facilities based on actual to potential emissions, thereby further exacerbating the need for offsets." (Preliminary Draft Staff Report, p. 8). It is not clear why this would be the case. Furthermore, it is premature to make such assertions outside the context of an overall analysis of what the NSR requirements for former RECLAIM facilities might be. This is a critical issue that must be addressed in the overall development of the NSR program for former RECLAIM facilities.

JULY 3, 2018 ATTACHMENT



July 3, 2018

Dr. Philip Fine Deputy Executive Officer South Coast Air Quality Management District 21865 Copley Drive Diamond Bar, CA 91765 Via e-mail at: pfine@aqmd.gov

Re: WSPA Comments on RECLAIM Transition Project Rules

- Proposed Amended Rule 1135 (NO_x Emissions from Electric Power Generating Systems)
- Proposed Amended Rule 1134 (NO_x Emissions from Stationary Gas Turbines)
- Proposed Rule 1109.1 (Refinery Equipment)

Dear Dr. Fine:

Western States Petroleum Association (WSPA) appreciates this opportunity to provide feedback on the transition of the Regional Clean Air Incentives Market (RECLAIM) program to a command-and-control regulatory structure (RECLAIM Transition Project). WSPA is a non-profit trade association representing companies that explore for, produce, refine, transport and market petroleum, petroleum products, natural gas and other energy supplies in five western states including California. WSPA has been an active participant in air quality planning issues for over 30 years. WSPA-member companies operate petroleum refineries and other facilities in the South Coast Air Basin that are within the purview of the RECLAIM program administered by the South Coast Air Quality Management District (District or SCAQMD) and they will be impacted by the RECLAIM Transition Project. We have several comments concerning pending rulemakings to implement new Best Available Retrofit Control Technology (BARCT) requirements.

WSPA and its members are active participants in the working groups related to the RECLAIM Transition Project. We respectfully offer the following comments on Proposed Amended Rule (PAR) 1135, NO_X Emissions from Electric Power Generating Systems, PAR 1134, NO_X Emissions from Stationary Gas Turbines, and Proposed Rule (PR) 1109.1, Refinery Equipment.

 BARCT must be established, for each class and category of equipment. BARCT determinations for one class may be different than another class. Caution should be exercised when referencing or applying BARCT determinations from other classes within a category.

The California Health and Safety Code (CHSC) defines BARCT as follows:

"Best available retrofit control technology means an emission limitation that is based on the maximum degree of reduction achievable, taking into account environmental, energy, and economic impacts <u>by each class or category of source</u>."¹ [Emphasis added]

Under District BARCT rules, an equipment category may consist of multiple classes. These classes may be defined by different design criteria or operational factors. Examples might include throughput ratings, duty cycles, or usage level (e.g., low v. high use). Such classifications within a category are necessary to establish what is technologically feasible and cost effective as required in the determination of BARCT.

The District is presently considering BARCT rules for a number of equipment types within the RECLAIM Transition Project. Due to their inclusion in the RECLAIM program, many of these equipment types have not undergone an evaluation for command-and-control BARCT since the RECLAIM program's launch in 1993, at least with respect to equipment situated at RECLAIM facilities. In many cases, an equipment category is comprised of several different classes and therefore addressed under several different rules. Some notable examples include:

- Stationary gas turbines, which will be covered under a number of different classes pursuant to PAR 1134, PAR 1135 and PR 1109.1.
- Process heaters and boilers, which will be addressed under a number of different classes pursuant to PAR 1146, PAR 1146.1, PAR 1146.2, and PR 1109.1.

Despite similarities within the broader categories, BARCT determinations must be conducted specific to each class of equipment within a category. Take for example a stationary gas turbine; a given make/model of turbine might be deployed in a refinery cogeneration system, or an electric generating facility (EGF). However, operational design differences would place this equipment in different classes. That classification could be defined based on differences in fuel type (e.g., refinery fuel gas and/or utility quality natural gas), or duty (e.g., baseload vs. demand response, etc.).

We appreciate that the District is in the process of conducting a thorough BARCT analysis for these sources across the different proposed rules including PR 1109.1. Such BARCT analyses for refinery sources must be specific to refinery applications and BARCT determinations for similar types of equipment in non-refinery application may not be relevant because what is technologically feasible and cost effective in one application may not be in another application. For this reason, caution should be exercised when referencing or applying BARCT determinations from other classes within a category.

2. If a technically feasible endpoint is not cost effective, it cannot be considered BARCT since cost effectiveness is a fundamental requirement of BARCT. Some

CHSC §40406.

endpoints presented by SCAQMD Staff to recent RECLAIM landing rule working groups exceed the District's \$50,000 per ton NOx reduced cost effectiveness threshold.²

In establishing BARCT, a district must do all of the following:³

- Identify one or more potential control options which achieves the emission reduction objectives for the regulation.
- 2) Review the information developed to assess the cost-effectiveness of the potential control option. For purposes of this paragraph, "cost-effectiveness" means the cost, in dollars, of the potential control option divided by emission reduction potential, in tons, of the potential control option.
- 3) Calculate the incremental cost-effectiveness for the potential control options. To determine the incremental cost-effectiveness under this paragraph, the district shall calculate the difference in the dollar costs divided by the difference in the emission reduction potentials between each progressively more stringent potential control option as compared to the next less expensive control option.
- 4) Consider the effectiveness of the proposed control option, the costeffectiveness of each potential control option, and the incremental costeffectiveness between the potential control options.

In short, BARCT must represent an emission limitation which is both technologically feasible and cost effective.

We note that District Staff recently presented at least one preliminary BARCT recommendation which Staff's (preliminary) analysis indicated was not cost effective. Staff presented the PAR 1135 Working Group with a "BARCT Recommendation" for "Combined-Cycle Turbines" as 2 ppm NO_X, despite data suggesting that every affected unit in the class would exceed the District's cost effectiveness threshold.⁴ Given that data, BARCT cannot be 2 ppm NO_X for the class/category and the District's BARCT recommendation would require revision.

BARCT must be established at a class/category level. Device-level limitations are not appropriate unless the source class/category is classified to include a single device.

As noted above, BARCT must represent an emission limitation which is both technologically feasible <u>and</u> cost effective for each class/category of source.⁵ In one instance, the District Staff presented a working group with a preliminary BARCT recommendation that would effectively establish device-level throughput limits as part of the BARCT rule.⁶ The District Staff's analysis for the category (i.e., EGF Utility Boilers) clearly indicated that the Staff's proposed BARCT level was not cost effective for the class/category. As part of that (preliminary) determination, Staff proposed "low use

² SCAQMD presentation to Proposed Amended Rule 1135 Working Group Meeting, 13 June 2018. Slides 30-46

³ CHSC §40920.6.

SCAQMD presentation to Proposed Amended Rule 1135 Working Group Meeting, 13 June 2018. Slides 27 and 30

⁵ CHSC §40406.

⁶ SCAQMD presentation to Proposed Amended Rule 1135 Working Group Meeting, 13 June 2018. Slides 40-43.

exemptions" would be imposed in the form of new operating limits for each of the individual devices to be calculated as a function of cost effectiveness. Such devicelevel limitations are not appropriate for a BARCT determination when the class/category consists of multiple devices. If the District wishes to establish a low-use exemption, it must set a class/category threshold above which the BARCT recommendation would be cost effective for the class/category.

4. Requirements which effectively force retirement of basic equipment must be accounted for in the cost effectiveness analysis for the proposed rule. Such a requirement would also need to be accounted for in the District's socioeconomic analysis for the Proposed Rule.

In the recent working group meetings for PAR 1135 and PAR 1134, District Staff indicated they are considering a "replacement requirement" for older equipment.7.8 In both cases, the concept of a replacement requirement appeared to be driven by Staff's desire to impose a control level that was not demonstrated to be cost effective. BARCT is by definition a retrofit standard that applies to existing sources. The requirement that BARCT standards be both technologically achievable and cost effective is an acknowledgement that it may not be possible to achieve the same level of control on an existing source as might be possible with a new source. If there are no more stringent controls that are cost effective for a class or category of source, then that source is at BARCT and the analysis is concluded. To instead require replacement of that source (perhaps without any regard to the technological feasibility or cost effectiveness) with a new source (presumably equipped with best available control technology) renders the technological feasibility and cost effectiveness limitations in the BARCT definition meaningless. The Health and Safety Code grants the District authority to impose best available control technology (BACT) on new and modified sources and BARCT on existing sources.9 We are not aware of any authority that allows the District to compel replacement of an existing source when it finds that there are no cost effective retrofit controls. We do, however, support measures that would make it easier for a facility to replace aging equipment if it elects to do so on a voluntary basis, including streamlined new source review and available sources of emission offsets.

5. The timetable for transition to command-and-control BARCT could materially affect what is achievable, and whether it is cost effective.

Under RECLAIM's market-based design, covered facilities have successfully reduced aggregate program emissions for NOx and SOx in accordance with the program's declining RTC caps. Facilities have implemented custom compliance strategies to meet these caps, which included installing emissions controls on equipment where it was cost effective and using the compliance market where physical changes were not cost effective. The District is now planning to transition RECLAIM facilities to command-andcontrol (under various directives).

Due to program design, RECLAIM facilities within a given sector may have pursued widely varied strategies and now find themselves in widely varied situations with respect

SCAQMD presentation to Proposed Amended Rule 1135 Working Group Meeting, 13 June 2018. Slide 48.

SCAQMD presentation to Proposed Amended Rule 1134 Working Group Meeting, 13 June 2018. Slide 42.

⁹ CHSC §40440(b)(1).

to their basic equipment and currently installed emissions controls. The investments and construction needed to achieve command-and-control BARCT limits have not yet been defined. Given these varied starting points, the implementation schedule for command-and-control BARCT rules could be an important factor in defining what is achievable or cost effective as BARCT. We recommend that BARCT discussions need to include consideration of both what will be required (i.e., the emission limit) and when (i.e., the schedule). This is especially true for refinery sector facilities where such investments must be coordinated with turnaround schedules and capital projects that require long planning and engineering timetables.

Thank you for considering these comments. We look forward to continuing to work with you and your Staff on these rulemakings which are critically important to stakeholders as well as the regional economy.

If you have any questions, please contact me at (310) 808-2146 or by email at bmccann@wspa.org.

Sincerely,

Plans

cc: Wayne Nastri, SCAQMD Susan Nakamura, SCAQMD Michael Morris, SCAQMD Michael Krause, SCAQMD Patty Senecal, WSPA

WSPA 970 W. 190th Street, Suite 304, Torrance, California 90502

Response to Comment 4-1

See Response to Comment 3-2. Detailed technical and economic information and analyses upon which the technical feasibility and cost-effectiveness are provided in chapters 2 and 4 of the staff report. The other documents that staff relied upon are noted and contained in this report's references section, including U.S. EPA's "Catalog of CHP Technologies" and "Air Pollution Control Cost Estimation Spreadsheet for Selective Catalytic Reduction" and the Office of Energy Efficiency and Renewable Energy's "Catalytic Combustion". See also Response to Comment 4-4. Incremental cost-effectiveness between control options is included in chapter 4 of the staff report. This information is presented in this report which is released at least 30 days before any hearing. Cost-effectiveness and technical feasibility information has been identified and presented during working group meetings and the Public Workshop during rule development as well.

Response to Comment 4-2

The term "new installations" has been modified to "existing units" to better indicate that these turbines were installed after 1989 and not subject to Rule 1134. Staff originally used the term "new installations" to refer to those newly installed after 1989, which were not subject to Rule 1134, as distinguished from units installed before 1989 which were subject to Rule 1134. However, this term has proved confusing. The commenter is correct that all "new installations" as commonly understood, i.e. units "new" today or in the future would be subject to BACT limits which would at least as stringent as those limits proposed in PAR 1134. "New installations" in the sense of units installed after 1989 would have been subject to BACT at the time they were installed but are now being subject to BARCT as existing sources. The commenter is also correct that BARCT limits will be applicable to retrofits. The language in the staff report had been edited accordingly. A detailed response to requiring replacement as part of the rule development process is included in chapter 2 of the staff report.

Response to Comment 4-3

A discussion of a particulate matter increase of 0.16 tons per day as a result of the proposed rule is included in chapter 4 of the staff report. A listing of the applicable ammonia emission limits is included in chapter 2 of the staff report. Staff evaluated the corresponding ammonia limit in conjunction with the proposed NOx limit for each class and category of turbine. In the cases of OCS produced gas turbines and compressor gas turbines, allowances were made for to acknowledge the trade-off. In the case of the OCS produced gas turbine, the NOx limit can be met without having to utilize SCR control equipment because of the difficulty and risk of using ammonia on an offshore platform. For compressor gas turbines, the ammonia limit is 10 ppm reflecting the range and variations of gas flow for that class of turbines.

Response to Comment 4-4

Staff has made available the information for which it relies upon in making the BARCT assessment both in working group meetings and as part of the staff report. Information on turbines, including NOx and ammonia permit limits, size, output, and category are included in chapter 2 of this staff report. The limits in BAAQMD and SJVAPCD for similar equipment are also provided in the same chapter. The other documents that staff relied upon are noted and contains in this report's references section, including U.S. EPA's "Catalog of CHP Technologies" and "Air Pollution Control Cost Estimation Spreadsheet for Selective Catalytic Reduction" and the Office of Energy Efficiency and Renewable Energy's "Catalytic Combustion". The commenter states that staff's recommendations are driven by information that is currently unavailable to the public. Staff disagrees and has provided detailed information in chapter 2 clearly depicting how the technology assessment was conducted and the conclusions derived.

Response to Comment 4-5

See Response to Comment 3-3

Response to Comment 4-6

See Response to Comment 3-5

Response to Comment 4-7

See Response to Comment 3-5

Response to Comment 4-8

The major parameters in cost-effectiveness include capital and installation costs, operating, and maintenance costs, interest rates, and project life. DCF is based on a conversion of future expenditures (including annual costs) to a present value basis using a present value factor. LCF is different in that fixed capital expenditures are converted into an equivalent annual amount using a capital recovery factor. LCF generally yields numbers that are 20 to 30% higher than DCF. DCF is more versatile than LCF in that DCF can easily deal with non-constant annual operating and maintenance costs and those costs occurring longer than the standard one-year interval (e.g., catalyst replacement every five years). Second, DCF allows non-uniform emission reductions over the project life. Finally, DCF is neutral on how a project is financed by individual businesses.

In addition, the most important criteria in applying a cost-effectiveness methodology is to maintain consistency. That is, if past rulemaking projects are based on DCF, then it would be prudent to continue using DCF for future projects. The Governing Board approved the use of DCF in 1989. Likewise, it has been used for BACT determinations since 1995 and rule development since 1996. Using the LCF method for this analysis would result in the inability to compare cost-effectiveness for new BARCT with past rules.



Karin Fickerson Air Quality Team Lead

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March 20, 2019

Mr. Mike Morris South Coast Air Quality Management District 21865 Copley Drive Diamond Bar, CA 91765

Sent via email: <u>mmorris@aqmd.gov</u>

RE: Comments on Proposed Amended Rule 1134 – Emissions of Oxides of Nitrogen from Stationary Gas Turbines and Draft Staff Report for Proposed Amended Rule 1134

Dear Mr. Morris:

We are submitting these comments on behalf of SoCalGas and San Diego Gas and Electric (SDG&E); SoCalGas and SDG&E are collectively referred to herein as the Utilities regulated by the California Public Utility Commission (CPUC). SoCalGas operates a total of seven facilities subject to the Regional Clean Air Incentives Market (RECLAIM) program and is impacted by the transition to a command-and-control regulatory structure. SDG&E owns and SoCalGas operates the Moreno Valley Compressor Station within the jurisdiction of the South Coast Air Quality Management District (SCAQMD). SoCalGas owns and operates the Aliso Canyon Storage Field in the SCAQMD. The Utilities have been actively engaged in the development of Proposed Amended Rule (PAR) 1134 Emissions of Oxides of Nitrogen (NOx) from Stationary Gas Turbines. This letter provides our comments related to PAR 1134 (March 5, 2019 version) and the Draft Staff Report (March 6, 2019 version) for PAR 1134. We have attached copies of our prior comment letters dated January 22, 2019, August 30, 2018, and June 7, 2018.

Existing Facility Equipment

The Utilities have reviewed the Draft Staff Report and noticed that Chapter 2 discusses seven compressor gas turbines and Table 2-6 lists the specific units. The first three units listed in the table (NG SS1, NG SS2, and NG SS3) located at the Aliso Canyon Storage Field were removed from service last year. An administrative permit amendment was filed with the SCAQMD to remove the equipment from the permit with an effective date of November 1, 2018. The three units were rendered non-operational November 1, 2018 and disassembly of the units began in 2018.

5-1

5-2

March 20, 2019 Page 2

With this update to Table 2-6, the total actual NOx emissions in 2015 associated with the equipment in this class/category should not include the 164.8 tpy that were associated with NG SS1, NG SS2, and NG SS3 in 2015. Instead, Table 2-6 should only include the existing equipment (NG SS4, NG SS5, NG SS6, and NG SS7) and associated 2015 emissions of 15.6 tpy.

Additionally, the Utilities would like to note that the correct year of installation for the remaining four units located at the Moreno Valley Compressor Station was 1972 for units NG SS4, NG SS5, NG SS6, and NG SS7, rather than 1980, 1990, 2002, and 1987 shown in Table 2-6.

BARCT Emission Limits for Compressor Gas Turbines

The Draft Staff Report discusses two new installations to support the development of the Best Available Retrofit Control Technology (BARCT) emission limits for NOx and ammonia for compressor gas turbines provided in PAR 1134 Table II. However, neither of these installations on the east coast have been constructed yet and one of the two projects has been cancelled. The proposed project in Virginia has a permit limit of 3.75 parts per million by volume on a dry basis (ppmvd) NOx at 15% oxygen (3-hour average) and no ammonia limit.

Existing equipment in this class/category in other air districts in California have a limit of 8 ppmvd NOx during normal operations and 12 ppmvd during transitional operations at 15% oxygen with ammonia slip limits ranging between 10 and 20 ppm. These NOx emissions limits for existing units in operation in California are based on a 3-hour average. The Utilities documented this information in a letter to SCAQMD dated June 7, 2018.

5-3

5-2 cont

For existing units, NG SS4, NG SS5, NG SS6, and NG SS7, the BARCT proposed emission rates are not achievable by retrofitting the equipment. The manufacturer does not have an option for dry low NOx technology so water injection would need to be used in conjunction with selective catalytic reduction (SCR). However, the District is basing BARCT on emission limits which are the equivalent to applying NOx emission reductions of 95% to the permit limits (68 ppm vs. 3.5 ppm NOx at 15% O2). The control device, SCR in conjunction with water injection, has not been demonstrated to achieve 95% NOx reductions on this class/category of units that operate at variable loads including low loads.

The technology assessment details provided by SCAQMD in the Draft Staff Report do not seem to support the PAR 1134 Table II emission limits of 3.5 ppmv NOx at 15% oxygen on a dry basis (60-minute average) and ammonia limit of 10 ppm. As described above, and based on our exhaustive research, these emission limits and averaging times have never been achieved in practice for this class/category and have never been warrantied by equipment vendors.

BARCT Cost Effectiveness for Compressor Gas Turbines

The Draft Staff Report provides the cost effectiveness calculation results associated with the BARCT emission limits for compressor gas turbines in Table 2-19. As mentioned previously, the first three units listed in the table (NG SS1, NG SS2, and NG SS3) were removed from service in 2018 and should not be included in this analysis.

5-4

March 20, 2019 Page 3

The cost to retrofit the four existing units, NG SS4, NG SS5, NG SS6, and NG SS7, to achieve the emission limits associated with this class/category in other air districts in California (i.e., 8 ppmvd NOx normal operations and 12 ppmvd transitional operations at 15% oxygen with ammonia slip limit of 15 ppm would be approximately \$50,000 per ton NOx reduced.

The cost to retrofit the existing four units, NG SS4, NG SS5, NG SS6, and NG SS7, to try to achieve the BARCT limits in PAR 1134 Table II, would increase to approximately \$78,000 per ton of NOx reduced since a dual ammonia injection grid would need to be included and catalysts would need to be replaced about every six months. This would be an experiment since the BARCT limits in PAR 1134 Table II have never been demonstrated for this class/category. The cost effectiveness results for this retrofit are higher than the SCAQMD threshold of \$50,000 per ton of NOx reduced.

To try to achieve the BARCT emission limits proposed in PAR 1134 Table II, that have never been demonstrated for this class/category, the existing compressor gas turbines will need to be replaced. The cost effectiveness calculations in Table 2-19 should represent those associated with the installation of new gas turbine compressors. The replacement costs are much higher than the costs associated with retrofit installation of SCR. The costs provided in Table 2-19 are based only on the installation of SCR on existing units. The cost to replace the four existing units will easily exceed \$100 million due to the associated infrastructure changes that will be required to accommodate the new equipment at the Moreno Valley Compressor Station.

The cost effectiveness results in Table 2-19 are not representative of the costs to replace the existing units, NG SS4, NG SS5, NG SS6, and NG SS7. The cost effectiveness results for replacements will be much higher (over 100 times greater) than the SCAQMD threshold of \$50,000 per ton of NOx reduced. The SCAQMD should include the costs associated with replacement in its cost effectiveness analysis.

The Utilities appreciate your consideration of these comments and recommendations. We would be pleased to discuss the above comments and answer any questions. I can be reached at 805.681.8013 or <u>kfickerson@semprautilities.com</u>.

Sincerely,

Vain Richerson

Karin Fickerson Air Quality Team Lead

Enclosures: January 22, 2019 letter to Michael Morris, SCAQMD August 30, 2018 letter to Michael Morris, SCAQMD June 7, 2018 letter to Michael Morris, SCAQMD

cc: Phil Fine, SCAQMD Susan Nakamura, SCAQMD Darrell Johnson, SoCalGas 5-4 cont. ATTACHMENTS



Daniel R. McGivney Environmental Affairs Program Manager

Tel: 951-225-2958 dmcgivney@semprautilities.com

January 22, 2019

Michael Morris, Program Manager Planning, Rule Development & Area Sources South Coast Air Quality Management District 21865 Copley Drive Diamond Bar, CA 91765

RE: Comments on December 18, 2018 Public Workshop version of draft Proposed Amended Rule 1134 (v120318)

Dear Mr. Morris:

Southern California Gas Company (SoCalGas) and San Diego Gas and Electric Company (SDG&E; SDG&E and SoCalGas are collectively referred to herein as the Utilities) appreciate the opportunity to provide comments to the South Coast Air Quality Management District (AQMD) regarding AQMD Proposed Amended Rule 1134 – Emissions of Oxides of Nitrogen from Stationary Gas Turbines (PAR 1134), version 120318, distributed at the December 18, 2018 public workshop.

Background

On December 18, 2018, the AQMD held a public workshop regarding PAR 1134. At the workshop, the AQMD distributed a draft rule (version 120318) to facilitate the discussion. The Utilities have existing turbines and are considering installation of new turbines which would be affected by these rule amendments.

Comments

After reviewing this proposed draft rule, the Utilities have the following comments and requests:

Alternative Emission Limits

As proposed, PAR 1134 (v120318), section (h) Exemptions, sub-section (6), would allow natural gas pipeline gas turbines to comply with emission limits specified in the turbine permit(s) as of January 1, 2024 (rather than the Table 1 limits proposed in the draft rule), provided the ammonia limit specified in the permit does not exceed 10 parts per million by volume (ppmv). The Utilities support this proposed exemption and requests that it be retained in the final rule.

The AQMD has proposed NOx (8 ppm) and NH₃ (5 ppm) limits for pipeline turbines in PAR 1134. During discussions held with rulemaking staff, and in comments submitted to the AQMD (attached), the Utilities presented data detailing both current adopted BARCT (San Joaquin County Air Pollution Control District) for pipeline turbines and the difficulty in meeting lower

NOx concentrations due to the wide range in operational loads (reference attachment, BARCT Technical Justification, page 3) that the Utilities' turbines experience, made especially difficult by the requirement of an ammonia slip limit of 5 ppm. Throughout the development of PAR 1134, the Utilities have noted that pipeline turbine operation differs significantly from other applications (e.g. power generation) due to wide operating ranges, varying from 30-95 percent load. This results in the need for an avenue to develop alternative emission limits should the proposed limits not be achievable across all turbine operating conditions. Emission limits in PAR 1134 should be consistent with those that have been demonstrated by this class and category of turbines (e.g. natural gas pipeline gas turbines). A mechanism should be provided within the rule to remedy potential technological failures that may occur to avoid putting the Utilities' in compliance jeopardy. As proposed, the exemption provided in version 120318, section (h)(6), would provide a path which would ensure the Utilities have an option where it can achieve continuous compliance with AQMD requirements across the equipment's entire operating range.

Request: Maintain the current exemption (h)(6), as proposed in PAR 1134 version 120318, in the final Rule 1134.

30-Day Source Test Results Submittal Time Frame

Existing Rule 1134, section (f)(4) [and PAR 1134 versions 120318 & 120618, section (g)(4)], require that source test results be submitted to the AQMD within 30 days after the source test is completed. While Rule 1134 addresses specific turbines (those identified as of August 4, 1989), other existing and future new turbines will be affected by PAR 1134 once adopted. The Utilities are concerned that turbines that have Volatile Organic Compounds (VOC) limits, will have difficulty meeting a 30-day turn-a-round on VOC test results. Currently, a 60-day period is more typical [reference Rule 1110.2 (f)(1)(C)(vi)] for submittal of emissions test results, especially those sources that must test and report VOC data. Considering VOCs have a longer analysis time, data quality assurance/control that must be done, report preparation and review, it will be difficult to meet a 30-day submittal deadline.

Request: The Utilities request that the AQMD modify the current 30-day submittal deadline contained in Rule 1134/PAR 1134 for submittal of emissions test data, to a 60-day period, thereby providing an attainable time frame for the analysis and reporting of constituents (VOCs, etc.) other than NOx.

Use of "Pipeline Turbine" Terminology

Early in the development of PAR 1134, the Utilities used the phrase "Natural Gas Pipeline Turbines" to distinguish the use of turbine-driven compressors in the natural gas system (versus other industries) and the use of this terminology by other local air agencies in California. At the time, and currently, these "pipeline" gas turbines are the only units currently operating at the Utilities' facilities within the South Coast air basin, as the turbine-driven compressors previously at the Aliso Canyon natural gas storage facility had been replaced by electric-driven compressors. As part of the Utilities' continued efforts to modernize existing equipment and infrastructure at other facilities, and to reduce emissions in support of the Regional Clean Air Incentives Market (RECLAIM) transition to a command and control program, the use of natural gas turbine-driven compressors is being considered for other facilities. These new turbines may be located at a natural gas storage facility. Although natural gas storage is part of the Utilities' pipeline system, the use of the term "pipeline" turbine may not accurately reflect this use. So,

the Utilities are proposing that the use of "<u>Compressor</u> Turbine" would be more appropriate and cover turbines used at both natural gas transmission <u>and</u> storage facilities.

Request: Currently, the AQMD uses the term "Natural Gas – Pipeline Gas Turbine" in PAR 1134. The Utilities request that the AQMD modify this terminology to "Natural Gas – Pipeline Compressor Turbine."

Conclusion

The Utilities request that the AQMD consider and adopt the Utilities' recommendations regarding maintaining current language in version 120318 [e.g. PAR 1134 (h)(6)], providing an alternative option for developing emission limits for natural gas compressor turbines, revising the 30-day emission test results submittal deadline to 60-days, and modifying the existing terminology of "pipeline" turbine to "compressor" turbine.

The Utilities appreciate your consideration of these comments and recommendations. We would be pleased to discuss the above comments and answer any questions. You may contact me at 951-225-2958 or at <u>dmcgivney@semprautilities.com</u>.

Sincerely,

Daniel R. McGivney

Daniel R. McGivney Environmental Affairs Program Manager Southern California Gas Company

cc: Phil Fine, SCAQMD Susan Nakamura, SCAQMD



Daniel R. McGivney Environmental Affairs Program Manager

Tel: 951-225-2958 dmcgivney@semprautilities.com

August 30, 2018

Michael Morris, Program Manager Planning, Rule Development & Area Sources South Coast Air Quality Management District 21865 Copley Drive Diamond Bar, CA 91765

RE: Retrofit & Replacement Cost Effectiveness Analyses for Application of Best Available Retrofit Control Technology to Natural Gas Pipeline Turbines

Dear Mr. Morris:

Southern California Gas Company (SoCalGas) and San Diego Gas and Electric Company (SDG&E; SDG&E and SoCalGas are collectively referred to herein as the Utilities) appreciate the opportunity to provide to the South Coast Air Quality Management District (AQMD) Best Available Retrofit Control Technology (BARCT) cost effectiveness analyses for both retrofit and replacement options for natural gas pipeline turbines. Theses analyses are for consideration by AQMD regarding Proposed Amended Rule (PAR) 1134 - Emissions of Oxides of Nitrogen from Stationary Gas Turbines, in determining recommended BARCT oxides of nitrogen (NOx) and ammonia (NH₃) emission limits for natural gas pipeline turbines.

Background

SDG&E operates four natural-gas fueled pipeline turbines at its Moreno Valley Compressor Station located east of the City of Moreno Valley (Moreno). In a letter (attached) sent to the AQMD, dated June 7, 2018, the Utilities requested AQMD to establish a new class and category for Natural Gas Pipeline Turbines for inclusion in PAR 1134 and adopt BARCT standards achieved in practice for natural gas pipeline turbines as noted below in Table 1.

SoCalCas Pr	Table 1 oposed BARCT Achieved ir	Practice Standards
Socardas i i	for Existing NG Pipeline Tu	
and the second	Limit 15% O2)	NH ₃ Slip Limit (ppmvd @ 15% O2)
Steady State	Transitional	All Conditions
8	12	15

SoCalGas BARCT Cost-Effectiveness Results

Recently, AQMD requested that SoCalGas prepare cost effectiveness analyses for two scenarios: a retrofit option for the existing Moreno turbines, and a second option involving replacement of the existing turbines with new turbines using Dry Low NOx technology to control NOx emissions to 8 parts per million (ppm).¹ It is the Utilities' understanding that the results from these analyses will be used by AQMD to evaluate incremental cost effectiveness of the retrofit and replacement scenarios.

AQMD requested that both scenarios be based on an NH₃ slip limit of 5 ppm. As noted above, SoCalGas has proposed an NH₃ slip limit of 15 ppm. This 15 ppm limit has been achieved in practice on pipeline turbines and is feasible, while the 5 ppm NH₃ limit has not. If AQMD pursues an NH₃ slip limit of 5 ppm for pipeline turbines in PAR 1134, the Utilities, respectfully request that AQMD provide a regulatory provision for the Utilities to perform a demonstration project to determine either that the AQMD-proposed NOx emission limit contained in the rule is attainable with a 5 ppm NH₃ slip limit, or otherwise demonstrate what NOx emission limit is achievable with a 5 ppm NH₃ slip limit.

In Table 2 below, SoCalGas presents the cost effectiveness results of the two scenarios, along with the incremental cost effectiveness result.

Table 2 Retrofit/Replacement Cost Effectiveness Results			
Scenario	Retrofit Option ²	Replacement Option	
Proposed Emission Limits	NOx - 8 ppm; NH ₃ - 5 ppm;	NOx - 8 ppm; NH3 - 5 ppm;	
Cost Effectiveness S/ton NOx Reduced)	\$60,434	\$190.373	
Incremental Cost Effectiveness	\$129,939		

As demonstrated in Table 2, the retrofit cost effectiveness is \$60,434, the replacement option is \$190.373 and the incremental cost effectiveness is \$129,939. These results demonstrate that neither the retrofit option nor the replacement option are cost effective. Furthermore, it should be noted that the replacement option well exceeds any reasonable definition of cost effective or feasible.

¹ SoCalGas is providing these estimates for both retrofit and replacement of the gas turbines in good faith in response to AQMD's request. This analysis should not be interpreted as implicit agreement with AQMD's stated position in Proposed Amended Rule 1135 and other landing rules under development that replacement of equipment can be required as BARCT.

² Implementing this option will require a demonstration study to determine achievable NOx emission rates while maintaining a 5 ppm NH3 slip limit.

Pursuant to our previous discussions and communications with AQMD, the Utilities continue to recommend a BARCT standard for pipeline turbines consisting of 8 ppm NOx (steady-state) and 12 ppm NOx (transitional) with a 15 ppm NH₃ slip limit, as the cost-effective and feasible option.

BARCT Cost Effectiveness Analyses

In preparing the cost effectiveness analyses, SoCalGas utilized the following:

- the discounted cash flow method (DCF);
- a 25-year equipment life;
- a 4 percent interest rate;
- and a 1.5 multiplier to capital costs to determine engineering, procurement, permitting and construction costs.

The above is consistent with AQMD practices for cost effectiveness analysis.

Below please find additional information regarding the two modeled scenarios:

- SoCalGas used calendar year 2017 data (operating hours, fuel throughput, NOx emissions) for the analyses.
- As Solar Saturn turbines are not available with dry low NOx, SoCalGas used a larger turbine for the replacement scenario. This larger turbine capacity was large enough to assume the entire brake horsepower output of the existing four turbines.
- Because the new replacement scenario needed only one turbine to replace the output of the existing four units, system reliability is at risk. Currently, if one turbine has a breakdown, there are still three turbines operating, thereby limiting the operational capacity loss to only 25 percent. In the replacement option, if the single turbine breaks down, the loss would be 100 percent of the turbine output. Hence, a second turbine is required to maintain reliability and has been included in the replacement scenario.
- While the new turbines units come equipped with dry low NOx enabling these units to
 attain a NOx emission rate in the range of 8-9 ppm, the units cannot maintain this level of
 control while operating at low load conditions (the Moreno turbines routinely operate at
 conditions below 50 percent load). Therefore, application of selective catalytic reduction
 (SCR) was included in the replacement scenario to ensure the ability to maintain
 emissions control at all operating conditions.
- The addition of a new building and associated infrastructure will be necessary for the
 replacement scenario, as the existing turbine units would have to remain in service while
 the new units are built to maintain pipeline reliability and throughput. While the 1.5
 multiplier would include some of those related costs, the Utilities believe that it does not
 include the entire cost.
- Currently, the Moreno facility does not have the additional power supply necessary to support either the retrofit or replacement scenarios. Therefore, on-site power generation was added to both scenarios.
- Maintenance costs were calculated per USEPA cost effectiveness guidance (https://www.epa.gov/sites/production/files/2017-12/documents/sercostmanualchapter7thedition_2016revisions2017.pdf).
- The analyses included costs for performing a demonstration study to identify an achievable NOx emission rate while maintaining the AQMD's requested 5 ppm NH₃ slip limit.

Demonstration Study

As noted in the AQMD's August 10, 2018 PAR 1134 Working Group presentation (slide 17) regarding pipeline turbines, and in the Utilities' June 7, 2018 letter (referenced above), the lowest achieved in practice NOx emission rate for existing pipeline gas turbines (BACT or BARCT) is 8 ppm NOx with an NH₃ slip limit between 10 and 20 ppm. The AQMD has proposed an NH₃ slip limit of 5 ppm for all turbine categories in PAR 1134. Unfortunately, there are no pipeline turbines that have achieved a 5 ppm NH₃ slip limit and there is no data available documenting what NOx emission rate natural gas pipeline turbines can achieve while maintaining this limit.

The Utilities respectfully request that the AQMD condition any PAR 1134 NOx emission rate for natural gas pipeline turbines, that includes an NH3 slip limit below 15 ppm (currently 5 ppm as proposed by the AQMD), with a regulatory provision requiring a demonstration study to be performed. This demonstration study would result in the identification of an achievable NOx emission rate while maintaining the 5 ppm NH3 slip limit and under typical turbine operating conditions. Once identified, the initial rule limit would be replaced with the final NOx emission rate identified by the study.

Conclusion

Based on the cost effectiveness analyses presented above, the retrofit and replacement turbine options are not cost effective. The Utilities propose a BARCT emission standard of 8 ppm NOx and 15 ppm NH₃ be established for the natural gas pipeline turbine class and category in concert with a regulatory provision to perform a demonstration study to determine final NOx and NH₃ emission limits that can be continuously met through-out the pipeline turbine's entire operational range.

SoCalGas and SDG&E appreciate your consideration of these cost effectiveness analyses and recommendations. We would be pleased to discuss the above analyses and results and answer any questions. You may contact me at 951-225-2958 or at <u>dmcgivney@semprautilities.com</u>.

Sincerely,

Daniel R. McGinney

Daniel R. McGivney Environmental Affairs Program Manager Southern California Gas Company

ee: Phil Fine, SCAQMD Susan Nakamura, SCAQMD



Daniel McGivney Environmental Affairs Program Manager

Tel: 951-225-2958 dmcgivney@semprautilities.com

June 7, 2018

Michael Morris, Program Manager Planning, Rule Development & Area Sources South Coast Air Quality Management District 21865 Copley Drive Diamond Bar, CA 91765

Best Available Retrofit Control Technology (BARCT) for Natural Gas Pipeline Turbines

Dear Mr. Morris:

RE:

I am writing on behalf of both Southern California Gas Company (SoCalGas) and San Diego Gas and Electric Company (SDG&E). We appreciate the opportunity to provide our assessment of Best Available Retrofit Control Technology (BARCT) for Natural Gas Pipeline Turbines as requested during the workgroup process for the Proposed Amendments to Rule 1134 – Emissions of Oxides of Nitrogen from Stationary Gas Turbines (PAR 1134).

SoCalGas and SDG&E operate several natural-gas fueled pipeline turbines at our facilities within the South Coast Air Basin. We have years of experience operating Natural Gas Pipeline Turbines with air pollution equipment like Selective Catalytic Reduction (SCR) to control oxides of nitrogen (NOx). As the South Coast Air Quality Management District (SCAQMD) transitions to command and control rules due to the sunset of the Regional Clean Air Incentives Market (RECLAIM) program, we request that a new class and category for Natural Gas Pipeline Turbines be included in PAR 1134. Natural-gas fueled pipeline turbines have not previously been considered in Rule 1134 rulemakings and these units operate differently than other types of turbines.

There are natural-gas fueled pipeline turbines in California owned and operated by SoCalGas and SDG&E in the SCAQMD and in the San Joaquin Valley Air Pollution Control District (SJVAPCD), and by Pacific Gas & Electric Company (PG&E) in the SJVAPCD. Please note that SJVAPCD has established both Best Available Control Technology (BACT) and BARCT for Natural Gas Pipeline Turbines. The SJVAPCD BACT Guidelines 3.4.1 (Attachment 1), as well as BARCT per SJVAPCD Rule 4703 – Stationary Gas Turbines (Rule 4703), Table 5-3(b) are summarized in Table 1 below. We request that SCAQMD create a specific class and category for Natural Gas Pipeline Turbines, consistent with SJVAPCD Rule 4703 as shown in Table 1:

Summary of SJVA	Tab PCD BACT/BARCT ar		SCAQMD BARCT
Pollutant	SJVAPCD BACT (Gas Turbine ≥ 47 MMBtu/hr., variable load, without heat recovery	SJVAPCD BARCT (3 MW to 10 MW pipeline gas turbine)	SoCalGas Proposed SCAQMD BARCT (Natural Gas Pipeline Turbines)
NOx ppmvd (@ 15% O2)	8 during steady state and 12 during non-steady state	8 during steady state and 12 during non-steady state	8 during steady state and 12 during non-steady state

BARCT is defined in the Health & Safety Code as "an emission limitation that is based on the maximum degree of reduction achievable, taking into account environmental, energy, and economic impacts by each class or category of source."¹

During the workgroup process to date, SCAQMD presented data for seven simple cycle turbines installed in SCAQMD with permitted levels below 10 parts per million (ppm) NOx², and twelve units with permitted levels greater than 10-ppm NOx. It is our understanding the units with permitted NOx less than 10-ppm are peaker turbines generally run only during peak-demand periods for electrical generation at power plants. SoCalGas and SDG&E's Natural Gas Pipeline Turbines, however, operate very differently than peaker turbines at power plants.

We request SCAQMD create a specific class and category for Natural Gas Pipeline Turbines, consistent with SJVAPCD Rule 4703³, with the following BARCT emission limits⁴:

- Steady state: 8-ppm volume (ppmv) NOx at 15 percent oxygen, 3-hour rolling average
- Non-steady state³ (transitional): 12-ppmv NOx at 15 percent oxygen, 3-hour rolling average
- Ammonia slip: 15-ppmv, 3-hour rolling average

To fully understand why these proposed limits are appropriate, the following is a review of the history of the BACT determination for SoCalGas' Wheeler Ridge Compressor Station Natural Gas Pipeline Turbines together with technical justification for our requested BARCT.

¹ Cal. Health & Safety Code Section 40406

² Permitted limits between 2.5 and 9 parts per million NOx

³ See Table 5-3 (b) in Rule 4703; available at: https://www.arb.ca.gov/drdb/sju/curhtml/R4703.PDF

⁴ Based on SJVAPCD BACT Guideline 3.4.1 for Gas Turbines ≥47 MMBtu/hr., variable load, without heat recovery

⁵ SJVAPCD Rule 4703 "Non-Steady State Period: any 15-minute period in which the fuel rate to the turbine differs from the reference fuel rate by more than +/- 3,000 standard cubic feet per 15-minute period, where, a 15-minute Non-Steady State Period shall be zero (0) to 15 minutes after the hour, 15 to 30 minutes after the hour, 30 to 45 minutes after the hour, or 45 to 60 minutes after the hour." SoCalGas refers to this as transitional.

Wheeler Ridge Compressor Station BACT Determination with EPA Region IX

From 1994 to 2000, SoCalGas' Wheeler Ridge Compressor Station struggled to meet EPA's BACT Clearinghouse limit of 5-ppmv NOx that was established for base-loaded cogeneration turbines utilizing SCR technology. As it turned out, our Natural Gas Pipeline Turbines with high-temperature exhaust, variable loads, and frequent cycling (starts and stops) could not meet the 5-ppmv NOx limit.

After using the SCR control system unsuccessfully for six years, necessitating several variances along the way, SoCalGas worked with Engelhard Corporation, SJVAPCD and EPA Region IX on a demonstration project to establish a procedure to predict an achievable limit for this class and category of turbine. It took two years of engineering effort to find a control system that would work effectively in controlling NOx emissions from the Natural Gas Pipeline Turbines. Considering the tremendous effort expended to meet the 8-ppmv/12-ppmv tiered NOx limits at Wheeler Ridge, we strongly urge SCAQMD to adopt the BARCT limits above as they are the appropriate retrofit emissions levels for this class and category of turbine.

BARCT Technical Justification

The load on Natural Gas Pipeline Turbines varies greatly compared to peaker turbines. SoCalGas and SDG&E supply fuel to both baseline electrical-generating stations as well as peaker turbines. This is a challenge during scorching summer days as many peaker plants come online to meet air conditioning demand. In addition, purchasers of natural gas who use the combined SoCalGas/SDG&E natural gas system to deliver gas to their respective facilities create even greater variability with respect to the operation of our Natural Gas Pipeline Turbines. Customers decide where the gas will be received into our combined system based on the price they paid for the gas. As a result, certain compressor stations may be need to cycle more than others depending on gas delivery points along California's border.

While both peaker and Natural Gas Pipeline Turbines operate at variable load, peaker turbines most often operate at high loads, over 90 percent⁶, while Natural Gas Pipeline Turbines have wider variability ranging from 30 to 95 percent load. Another operational difference is peaker turbines operate at fixed speed while Natural Gas Pipeline Turbines operate at variable speeds. These operational and physical differences are summarized in Table 2 below:

^a Based on conversations with peaker turbine operators, peaker turbines usually only operate a couple of hours per day depending on the season, but at high loads (90-95 percent). The peaker turbines come online quickly when there is a need for additional electricity generation, such as during the hottest part of the day as air conditioning use ramps up, or to make up for the loss of solar energy in the late afternoon.

Table 2 Peaker Turbines versus Natural Gas Pipeline Turbines			
Characteristic	Pipeline	Peaker	
Cycle	Simple	Simple	
Load	Variable	Variable	
Load range	30-95%	90-95%	
Speed	Variable	Fixed	
Cycling On/Off	Highly variable from multiple times per day to weekly	Most often daily	
Shaft	Double	Single	

Operational and design data for some of our Natural Gas Pipeline Turbines are included in Attachments 2 A-C:

- A) Wheeler Ridge load data from Continuous Emissions Monitoring System (CEMS)
- B) Design Example 1 load distribution chart
- C) Design Example 2 load distribution chart

Attachment 2A is a histogram of actual load data for approximately the last year and a half from our Wheeler Ridge Compressor Station, while the design examples provided in Attachments 2B and 2C are not representative of actual operating data. The design examples are reflective of recent SoCalGas' engineering efforts to design Natural Gas Pipeline Turbine and compressor replacements at two of our compressor stations. These histograms show how a new Natural Gas Pipeline Turbine might be loaded to handle historical capacity, while also leaving extra capacity at higher loads to handle peak loads. While energy peaks happen infrequently, the availability of Natural Gas Pipeline Turbines must remain continuous and unabated, so that natural gas service is not curtailed whenever natural gas purchasers and shippers utilize our gas pipeline system. Industrial, commercial, and residential customers throughout Southern California rely on natural gas fuel for power generation and heating, among many other uses.

Load variability in Natural Gas Pipeline Turbines warrants higher NOx limits for transition periods. SCR systems require tuning to perform properly. This includes ensuring the proper distribution of ammonia in the gas stream and uniform gas velocity through the catalyst, as well as determining the proper ammonia flow to meet the NOx emissions limit for all process conditions. The ammonia-flow control system adjusts for changes in NOx mass emissions caused by load changes. As compression needs change so does the fuel flow rate. Higher load results in higher fuel rates, causing higher exhaust flow-rates at higher temperatures, and higher NOx concentration. Thus, the ammonia control system must continuously respond to these changes. For example, as load varies, the control system must respond to both to the fuel supply signal (feedforward) and the CEMS NOx signal (feedback).

The Wheeler Ridge Compressor Station BACT determination includes a higher transitional NOx limit due to the Natural Gas Pipeline Turbines' significant load variability. Since the limit is based on a three-hour rolling average, for three hours after a fuel transition (plus or minus), the NOx limit is 12-ppmv rather than 8-ppmv. Note that the Wheeler Ridge ammonia injection system almost always achieves less than 8-ppmv, even after load transitions, but the higher limit is to assure compliance during infrequent events.

An example from SoCalGas' Wheeler Ridge Compressor Station is shown in Attachment 3 from March of this year. The load in this period, as shown by a blue trend, was between about 2,600 and 4,200 horsepower which corresponds to about 52% to 84% of rated load at site conditions (elevation and temperature). The control system did a suitable job of maintaining NOx emissions below the 8-ppmv limit, although some variation in NOx can be observed that correlates to some larger load changes. The 12-ppmv transition limit was not needed in this example. Much more variability is observed in the ammonia slip after a transition.

Natural Gas Pipeline Turbines require higher Ammonia Slip levels to achieve lower NOx levels. Ammonia slip is the ammonia that passes through the SCR catalyst unreacted. Since more ammonia is needed to achieve lower NOx levels, there is a trade-off between NOx and ammonia exhaust emissions. Ammonia slip exhibits more variability than NOx, and as the catalyst ages more ammonia is needed to maintain the same NOx reduction. Therefore, defining the appropriate level for the ammonia slip limit is critical for compliance with the NOx emissions limit.

Wheeler Ridge has a permit limit of 20-ppmv ammonia slip. This is higher than the 10-ppmv limit at PG&E's Kettleman City Compressor Station. The PG&E Natural Gas Pipeline Turbines are equipped with Dry-Low NOx combustion controls, while those at Wheeler Ridge are not. Dry-Low NOx combustion controls lower the NOx prior to the SCR catalyst; therefore, less ammonia is needed to control NOx. SoCalGas and SDG&E's Natural Gas Pipeline Turbines that will be subject to PAR 1134 do not have Dry-Low NOx combustion controls; therefore, a higher ammonia slip limit must be considered. Further, the manufacturers of our Natural Gas Pipeline Turbines' do not make Dry-Low NOx control systems for them. If SCAQMD sets a NOx limit lower than 8-ppmv and 12-ppmv (transitional) for BARCT, the ammonia slip limit will have to be much higher than discussed in this letter.

The Wheeler Ridge Compressor Station CEMS data in Attachment 3, shows these Natural Gas Pipeline Turbines cannot meet an ammonia slip limit of 5-ppmv. The data shows that, except for a few spikes, most of the three-hour ammonia slip data is below 15-ppmv. Despite this, SoCalGas believes that a modern retrofit SCR-system will perform better. Other than a few spikes, 15-ppmv for a three-hour rolling average is the most reasonable ammonia slip limit.

Ammonia Catalyst

While we understand there are new ammonia catalysts to lower ammonia slip, there is limited experience with them. Catalyst selectivity to convert ammonia into nitrogen rather than NOx is very sensitive. We understand that normal catalyst performance-degradation can change selectivity such that ammonia is converted into NOx. Additionally, we are not aware of an installation on a pipeline turbine, thus there is no available performance data as the catalyst ages, nor experience indicating how an ammonia catalyst might behave on a turbine with a highly

variable load. Therefore, SoCalGas believes ammonia catalysts cannot be determined to be BARCT. Because there are no installations on a pipeline turbine, there is no data (performance as the catalyst ages) nor experience indicating how an ammonia catalyst might behave on a turbine with a highly variable load.

Conclusion

Based on SoCalGas' experience operating the 8-ppmv/12-ppmv tiered NOx limits at our Wheeler Ridge Compressor Station, we believe it is unrealistic to set a maximum retrofit limit based on that achieved by replacement turbines that operate very differently than Natural Gas Pipeline Turbines.

Moreover, Natural Gas Pipeline Turbines have never been considered in previous Rule 1134 rulemakings. We respectfully request that SCAQMD create a specific class and category for Natural Gas Pipeline Turbines, consistent with SJVAPCD Rule 4703 with the following BARCT emission limits:

- Steady state: 8-ppm volume (ppmv) NOx at 15 percent oxygen, 3-hour rolling average
- Non-steady state (transitional): 12-ppmv NOx at 15 percent oxygen, 3-hour rolling average
- Ammonia slip: 15-ppmv, 3-hour rolling average

SoCalGas and SDG&E appreciate your consideration of these comments and recommendations. We look forward to continuing to work with staff regarding the proposed rule amendments. Please contact me if there are any questions.

Sincerely,

Daniel McGivney

Daniel McGivney Environmental Affairs Program Manager Southern California Gas Company

Attachment 1

San Joaquin Valley Unified Air Pollution Control District

Best Available Control Technology (BACT) Guideline 3.4.1* Last Update: October 1, 2002**

Emissions Unit: Gas Turbine - ≥ 47 MMBtu/hr, Variable Load, Without Heat Recovery

Pollutant	Achieved in Practice or contained in SIP	Technologically Feasible	Alternate Basic Equipment
VOC	0.007 lb/MMBtu, (Oxidation catalyst and natural gas fuel, or equal)		
SOx	PUC quality natural gas fuel		
NOx	8 ppmvd @ 15% O2 (Steady State) and 12 ppmv @ 15% O2 (Transitional State) (High-Temperature SCR, or equal)		
CO	0.024 lb/MMBtu, (Oxidation catalyst and natural gas fuel, or equal)		
PM10	0.015 lb/MMBtu and less than 5% opacity at lube oil vents, (Air inlet filter cooler, lube oil vent coalescer and natural gas fuel, or equal)		

** Achieved in Practice entries updated 10/01/02 based on operation of S-1792-5-X.

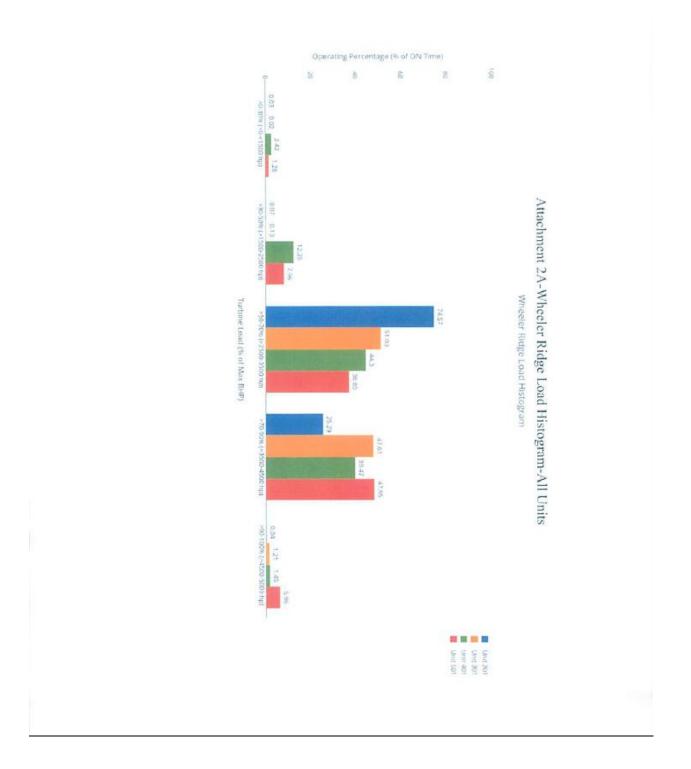
Addition information related to this BACT determination provided by SoCal Gas Company:

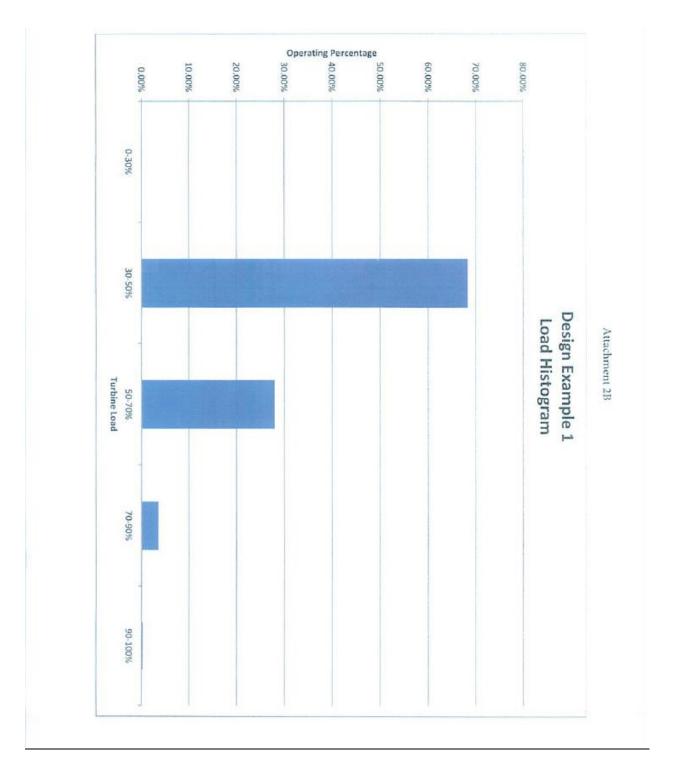
A three hour rolling average is used to determine NOx and ammonia slip compliance. Steady State and Transitional State conditions are determined by a change in fuel flow rate during 15 minute period of approximately 10% of the average from the previous 15 minute period.

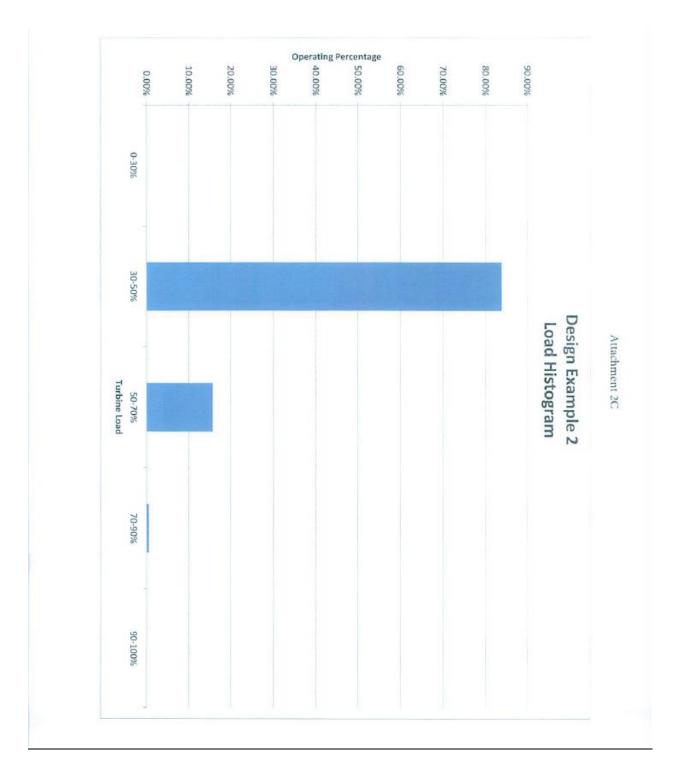
The permit includes a 20 ppm ammonia slip limit at stack oxygen concentration. NOx compliance is not possible without ample ammonia slip allowance as catalyst ages.

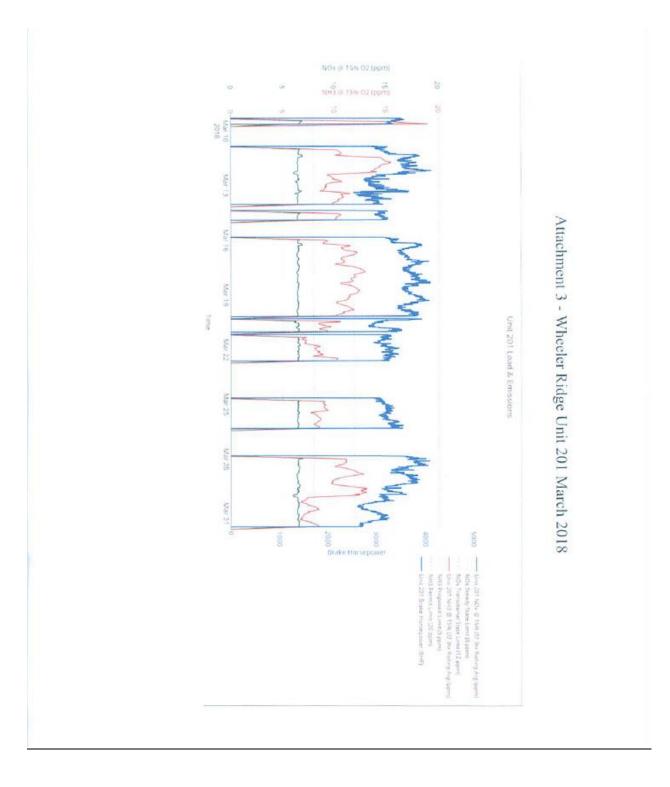
*This is a Summary Page for this Class of Source - Permit Specific BACT Determinations on Next Page(s)

3.4.1









Response to Comment 5-1

Staff is aware that three of the gas compressor turbines were recently removed from service and replaced with electric turbines resulting in approximately 164.8 tons per year of NOx emission reductions using 2015 baseline emissions. The staff report will include a footnote to Table 2-6 indicating such. Table 2-6 will also be updated to reflect the correct year of installation for the remaining four turbines.

Response to Comment 5-2

The two new installations of compressor gas turbines were provided as evidence that for this specific class and category, an emission limit of 3.5 ppmv NOx at 15% oxygen on a dry basis has been proposed by other facilities and permitted by other air agencies. A 10 ppm ammonia slip was used as the basis for the ammonia emissions associated with the control equipment.

The commenter refers to a BARCT assessment conducted by San Joaquin Valley Air Pollution Control District establishing BARCT at 8 ppmv at 15% oxygen on a dry basis during normal operations and 12 ppmv at 15% oxygen on a dry basis during transitional periods. That BARCT assessment was conducted in 2007 and staff has found more recent information, including the recent permitting of the similar compressor gas turbines noted above, as evidence that a new BARCT assessment is warranted.

The commenter asserts that the proposed emission rates are not achievable by retrofitting the equipment because selective catalytic reduction, combined with water injection, has not been demonstrated to achieve 95% NOx reductions on this class/category of units. However, selective catalytic reduction alone can achieve 95% NOx reductions. The higher ammonia emission limit, 10 ppmv at 15% oxygen on a dry basis, is provided to account for the variable and low loads.

Staff has provided an alternative schedule for the facility to meet the proposed limits with 12 additional months allowed to demonstrate the NOx emissions limit and 36 additional months to demonstrate the ammonia emissions limit.

Response to Comment 5-3

The staff report will include a footnote to Table 2-19 indicating that the three turbines were removed from service in late 2018. The cost to retrofit the remaining four turbines varies between \$11,000 and \$13,000 per ton of NOx reduced. Cost-effectiveness was determined using the U.S. EPA's "Air Pollution Control Cost Estimation Spreadsheet for Selective Catalytic Reduction" with a control efficiency of 95% NOx reduction to meet the proposed NOx emissions limit. No evidence has been provided that a dual ammonia injection grid or frequent catalyst replacement would be necessary. However, if a dual ammonia injection grid and increase catalyst replacement is included as asserted by the commenter, U.S. EPA's control cost spreadsheet indicates that the average cost-effectiveness would be approximately \$21,300 per ton of NOx reduced.

Replacement costs of the gas compressor turbines were not calculated because replacement is not necessary to achieve the requirements of PAR 1134 and the commenter has not committed to replacement. The U.S. EPA's "Catalog of CHP Technologies" estimates the cost of new turbines to range between \$1 and \$3 million per MW, including construction, installation, and associated

infrastructure costs. The remaining four compressor turbines combine for a total output of 3.6 <u>MW meaning the replacement cost would range between \$3.6 and \$10.8 million; substantially</u> lower than the infrastructure costs of \$100 million or more stated by the commenter.

ATTACHMENT I

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

Final Socioeconomic Impact Assessment for Proposed Amended Rule 1134 - Emissions of Oxides of Nitrogen from Stationary Gas Turbines

April 2019

Deputy Executive Officer Planning, Rule Development, and Area Sources Philip M. Fine, Ph.D.

Assistant Deputy Executive Officer

Planning, Rule Development, and Area Sources Sarah L. Rees, Ph.D.

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EXECUTIVE SUMMARY

A socioeconomic analysis was conducted to assess the potential impacts of Proposed Amended Rule (PAR) 1134 – Emissions of Oxides of Nitrogen from Stationary Gas Turbines on the fourcounty region of Los Angeles, Orange, Riverside, and San Bernardino. A summary of the analysis and findings is presented below.

Elements of	PAR 1134 applies to RECLAIM and non-RECLAIM stationary gas turbines			
	11			
Proposed	that are not subject to SCAQMD Rule 1135 - Emissions of Oxides of			
Amendments	Nitrogen from Electricity Generating Facilities or located at petroleum			
	refineries, landfills, or publicly owned treatment works.			
	PAR 1134 would: (1) expand its applicability to include stationary gas			
	turbines that were not previously required to comply with Rule 1134; (2)			
	update the NOx and ammonia emission limits for stationary gas turbines to			
	comply with Best Available Retrofit Control Technology (BARCT); (3)			
	update monitoring, reporting, and recordkeeping requirements (MRR); (4)			
	establish new exemptions for low-use equipment, certain existing combined			
	cycle gas turbines, and emergency standby gas turbines; (5) provide relief			
	from having to comply with ammonia requirements for turbines that do not			
	use ammonia for controlling NOx emissions; and (6) revise existing			
	exemptions to remove obsolete provisions.			
	Implementation of the proposed amendments is estimated to reduce NOx			
	emissions by 2.8 tons per day after implementation of the BARCT limits,			
	which is expected to be achieved by retrofitting existing stationary gas			
	turbines with air pollution control equipment (e.g., selective catalytic			
	reduction (SCR) technology/systems installation), or repowering or replacing			
	existing stationary gas turbines.			
Affected	There are 35 facilities that are potentially impacted by PAR 1134. ¹ There are			
Facilities and	73 turbines at these 35 facilities: 6 turbines already operate at the proposed			
Industries	emissions limits, 23 would be exempt, and 11 would qualify for the low-use			
	provisions. The remaining 33 turbines will need to be replaced, repowered,			
	or retrofitted to come into compliance with PAR 1134. These 33 turbines are			
	located across 19 facilities.			
	Among the 19 affected facilities, four are in the coal gasification at mine site			
	sector (NAICS 211111), four are in the electric power generation, fossil fuel			
	(e.g., coal, oil, gas) sector (NAICS 221112), two are in booster pumping			
	station, natural gas transportation sector (NAICS 486210), two are in the			
	academies, college or university sector (NAICS 611310), two are classified			
	as private hospitals (NAICS 622110), two are state and local government			
	facilities (NAICS 921190), and there is a single facility located in aircraft			

¹ This analysis does not consider four facilities with emergency turbines only. PAR 1134 does not propose changes to emergency turbines, and therefore these facilities are unaffected.

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	hangar rental (NAICS 488119), absorbent paper stock manufacturing (NAICS 322121), and adrenal medicinal manufacturing (NAICS 325412). Of these 19 facilities, 11 (with 20 turbines) are located in Los Angeles County, three (with four turbines) are in Orange County, two (with five turbines) is in Riverside County, and the remaining three facilities (with four turbines) are located in San Bernardino County.
Assumptions of Analysis	The main requirements of PAR 1134 for affected facilities include one-time costs and annual recurring costs. The one-time costs would include capital costs of SCR retrofits and one-time permit modifications. Annual recurring cost estimates include the annual operating costs of SCRs including reagent, catalyst replacement, electricity, and maintenance costs. Staff has used the U.S. EPA Air Pollution Control Cost Manual to estimate costs of capital, installation, and operating and maintenance of SCRs.
	Total one-time capital costs for an SCR retrofit include direct and indirect costs associated with purchasing and installing SCR equipment. These costs include the equipment cost for the SCR system itself, the cost of auxiliary equipment, direct and indirect installation costs, and additional costs due to installation such as asbestos removal. The size and costs of the SCR are based primarily on the boiler size or heat input, the type of fuel burned, the required level of NOx reduction, reagent consumption rate, and catalyst costs. In addition, all 19 affected facilities will incur a one-time cost to have their permits modified.
	Total annual costs include the purchase of reagent and electrical power, as well as operating and supervisory labor cost, maintenance cost, and catalyst replacement cost.
	 The annual maintenance labor and material cost is assumed to be 0.5% of the total capital costs in dollars. The annual cost of reagent purchases is estimated using the reagent volume flow rate, the operating time per year, and the cost of reagent in dollars per gallon. Electrical power consumption is estimated for SCR equipment, ammonia vaporization, water vaporization, and additional fan power. Annual catalyst replacement cost is based on estimating the total volume of catalyst, the total number of catalyst layers, and the number of layers replaced annually.
Compliance Costs	The average annual total cost of PAR 1134 is projected to be $$4.85.5 - $5.86.7$ million (in 2018 dollars) between 2019 and 2045, for the 1% and 4% real interest rate scenarios, respectively.
	Average annual capital cost is estimated to be $$2.83.2 - $3.84.4$ million per year across all affected facilities. Per unit capital costs are broken down as follows:

	 Capital costs associated with SCR retrofits range from \$470,000 - \$12.7 million per unit. 		
	 One-time permit fees are assumed to be \$24,000 per unit. 		
	Average annual operating and maintenance cost is projected to be $\frac{2.02.3}{2.02.3}$		
	million across all affected facilities. Per unit annual costs are broken dow as follows:		
	 Annual maintenance costs range from \$2,400 - \$31,000 per unit. Annual reagent costs from \$1,000 - \$124,000 per unit. Estimates for the annual electricity costs range from \$1,000 - \$68,000 per unit. Annual per unit catalyst replacement costs range from \$1,000 - \$21,000. 		
	\$21,000.		
Jobs and Other	The majority of the overall annual compliance costs are expected to be incurred by the coal gasification at mine site sector (3833%) , electric power generation - fossil fuel (e.g., coal, oil, gas) (1721%) , booster pumping station - natural gas transportation (1513%) , state and local government (11%) , absorbent paper stock manufacturing $(322121)(87\%)$, academies, college or university sector (76%) , state and local government (5%) , and private hospitals (43%) .		
Socioeconomic Impacts	1 / 1		
	Early in the time horizon, the REMI modeling analysis projects positive job impacts from the expenditures made by the affected facilities. The engine, turbine, and power transmission equipment manufacturing sector (NAICS 3336) and the management, scientific, and technical consulting services sector (NAICS 5416) are projected to gain jobs from additional demand for equipment installation from the affected facilities on average.		
	In subsequent years, the direct costs of compliance lead to jobs foregone in the educational services - private sector (NAICS 621), the oil and gas extraction sector (NAICS 211), state and local government (NAICS 92), and the electric power generation, transmission and distribution sector (NAICS 2211). The reduction in disposable income would dampen the demand for goods and services in the local economy, thus resulting in a relatively large number of jobs forgone projected in sectors such as construction (NAICS 23), transportation and warehousing (NAICS 48,492-493), administrative, support, waste management, and remediation services (NAICS 56), and retail trade (NAICS 44 - 45).		

Competitiveness	The additional cost brought on by PAR 1134 would increase the cost of services rendered by the affected industries in the region. The magnitude of the impact depends on the size, diversification, and infrastructure in a local economy as well as interactions among industries.
	It is projected that the oil and gas extraction sector (NAICS 211), which includes four affected facilities (with nine turbines), would experience a rise in its relative cost of production of 0.039% in 2025 for the 4% real interest rate scenario. The oil and gas extraction sector is also expected to experience an increase in its delivered price by 0.010% in 2025 for the 4% real interest rate scenario. In the pipeline transportation sector (NAICS 486), which includes two affected facilities (with seven turbines), the relative cost of production and relative delivered price are expected to increase by 0.172% and 0.048% in 2025, respectively. Finally, the electric power generation, transmission, and distribution sector (NAICS 2211), which includes four affected facilities (with four turbines), the relative cost of production and relative delivered price are expected to increase by 0.0172% and 0.005007% in 2025, respectively.
CEQA Alternatives	There are three CEQA alternatives associated with the proposed amendments to PAR 1134. Alternative A, the no project alternative, means that the current version of Rule 1134 would remain in effect. Under Alternative B, the requirements would be equivalent to the proposed project but the compliance date for meeting the NOx and ammonia emission limits would be one year earlier, December 31, 2022, which would allow three years to comply with PAR 1134. Under Alternative C, the requirements would be equivalent to the proposed project, but the compliance dates for meeting the NOx and ammonia emission limits would be equivalent to the proposed project, but the compliance dates for meeting the NOx and ammonia emission limits would vary depending on fuel type, as follows: (1) liquid fuel (outer continental shelf): December 31, 2023, (2) natural gas (combined cycle): June 30, 2023; (3) natural gas (compressor gas turbine): December 31, 2023; (4) natural gas (simple cycle): December 31, 2022; (5) produced gas: December 31, 2023; (6) produced gas (outer continental shelf): December 31, 2023; and (7) Other: December 31, 2023.
	Assuming a 4% real interest rate, average annual compliance costs for the CEQA alternatives range from $\frac{6.06.9}{5.06.9} - \frac{6.17.0}{5.00}$ million between 2019 and 2045. Average annual jobs forgone for the CEQA alternatives range from $\frac{40}{48} - \frac{42}{50}$ between 2019 and 2045.
Potential NOx	If PAR 1134 is adopted, 18 facilities are expected to receive an initial
RTC Market	determination notification because, according to staff's evaluation, all of their
Impacts	permitted RECLAIM NOx source equipment will be subject to these rules once adopted. Facilities that received initial determination notifications and
	meet the proposed criteria to exit, would not receive a final determination
	notification to exit RECLAIM until key elements such as NSR and permitting
	are resolved. However, these facilities may request to opt-out of RECLAIM
	before these key elements are resolved, upon meeting specific conditions
	specified in subdivision (g) of Rule 2001.

The 18 facilities currently account for 4.4% of annual NOx emissions and 2.1% of the NOx RTC holdings in the NOx RECLAIM universe for
compliance year 2019. The simultaneous transition of the 18 facilities out of the NOx RECLAIM program would have a very small impact, if any, on the
demand and supply of NOx RTC market. Specifically, the transition of these
facilities is unlikely to result in large price fluctuations in the NOx RTC market, nor is the transition expected to significantly affect the remaining
NOx RECLAIM facilities that are not yet ready to exit.

INTRODUCTION

Control measure CMB-05 from the SCAQMD's 2016 Air Quality Management Plan (AQMP) and its adoption resolution establish a timeline to transition facilities from NOx RECLAIM to a command-and-control regulatory structure. Additionally, California State Assembly Bill (AB) 617, approved by the Governor on July 26, 2017, requires air districts to develop an expedited schedule for the implementation of Best Available Retrofit Control Technology (BARCT) no later than December 31, 2023 for facilities that are in the state greenhouse gas cap-and-trade program. PAR 1134 applies to RECLAIM and non-RECLAIM stationary gas turbines that are not subject to SCAQMD Rule 1135 - Emissions of Oxides of Nitrogen from Electricity Generating Facilities or located at petroleum refineries, landfills, or publicly owned treatment works.

PAR 1134 is proposing to: 1) expand its applicability to include stationary gas turbines that were not previously required to comply with Rule 1134; 2) update the NOx and ammonia emission limits for stationary gas turbines to comply with BARCT; 3) update monitoring, reporting, and recordkeeping requirements $(MRR)^2$; 4) establish new exemptions for low-use equipment, certain existing combined cycle gas turbines, and emergency standby gas turbines; 5) provide relief from having to comply with ammonia requirements for turbines that do not use ammonia for controlling NOx emissions; and 6) revise existing exemptions to remove obsolete provisions.

Implementation of the proposed amendments is estimated to reduce NOx emissions by 2.8 tons per day after implementation of the BARCT limits, which is expected to be achieved by retrofitting existing stationary gas turbines with air pollution control equipment (e.g., selective catalytic reduction (SCR) technology/systems installation), or repowering or replacing existing stationary gas.

LEGISLATIVE MANDATES

The socioeconomic impact assessments at SCAQMD have evolved over time to reflect the benefits and costs of regulations. The legal mandates directly related to the assessment of the proposed amended rule include the SCAQMD Governing Board resolutions and various sections of the California Health & Safety Code.

SCAQMD Governing Board Resolutions

On March 17, 1989 the SCAQMD Governing Board adopted a resolution that calls for an economic analysis of regulatory impacts that includes the following elements:

- Affected industries
- Range of probable costs
- Cost-effectiveness of control alternatives
- Public health benefits

² SCAQMD staff is working on a new Proposed Rule 113 - MRR Requirements for NOx and SOx Sources. If PR 113 is adopted by the Board, then reporting requirements for PAR 1134 facilities will be transitioned to PR 113.

Health & Safety Code Requirements

The state legislature adopted legislation that reinforces and expands the Governing Board resolutions for socioeconomic impact assessments. Health and Safety Code sections 40440.8(a) and (b), which became effective on January 1, 1991, require a socioeconomic analysis be prepared for any proposed rule or rule amendment that "will significantly affect air quality or emissions limitations."

Specifically, the scope of the analysis should include:

- Type of affected industries
- Impact on employment and the regional economy
- Range of probable costs, including those to industry
- Availability and cost-effectiveness of alternatives to the rule
- Emission reduction potential
- Necessity of adopting, amending or repealing the rule in order to attain state and federal ambient air quality standards

Health and Safety Code section 40728.5, which became effective on January 1, 1992, requires the SCAQMD Governing Board to actively consider the socioeconomic impacts of regulations and make a good faith effort to minimize adverse socioeconomic impacts. It also expands socioeconomic impact assessments to include small business impacts, specifically:

- Type of industries or business affected, including small businesses
- Range of probable costs, including costs to industry or business, including small business

Finally, Health and Safety Code section 40920.6, which became effective on January 1, 1996, requires incremental cost-effectiveness be performed for a proposed rule or amendment that imposes BARCT or "all feasible measures" requirements relating to ozone, carbon monoxide (CO), oxides of sulfur (SOx), oxides of nitrogen (NOx), and their precursors.

Incremental cost-effectiveness is defined as the difference in costs divided by the difference in emission reductions between a control alternative and the next more stringent control alternative. The necessity analysis and the analysis of control alternatives and their incremental cost-effectiveness are presented in the Staff Report prepared for the proposed amendments.

REGULATORY HISTORY

Rule 1134 was adopted in 1989. The rule applied to stationary gas turbines rated at 0.3 MW and larger that were issued a permit to operate by the SCAQMD prior to August 4, 1989. The origin of the rule can be traced to a 1979 United States Environmental Protection Agency (EPA) New Source Performance Standard for Stationary Gas Turbines. In 1981, the California Air Resources Board (CARB) adopted a Suggested Control Measure for this same equipment.

Rule 1134 was subsequently amended three times; each to provide regulatory flexibility. In December 1995, Rule 1134 was amended to exempt gas turbines located on San Clemente Island and the South East Desert Air Basin. In April 1997, Rule 1134 was amended to increase the NOx concentration limit for turbines utilizing sewage digester gas. In August 1997, Rule 1134 was amended to clarify the need for continuous emission monitoring systems (CEMS) on turbines with a power output of 2.9 MW or larger. EPA approved Rule 1134 into the State Implementation Plan (SIP) on August 1, 2000.

Stationary Gas Turbines and RECLAIM

Beginning in 1994, a large number of utilities and third-party-owned cogenerators were included in the RECLAIM program and as such were not required to meet the NOx concentration limits imposed by Rule 1134. However, gas turbines permitted prior to August 4, 1989 and used at publicly-owned treatment works, landfills, hospitals and other public facilities, and sources which were not covered under RECLAIM, were still required to meet the concentration limits in Rule 1134 through application of various control technologies. New turbines installed at non-RECLAIM facilities after August 4, 1989 are not subject to Rule 1134. PAR 1134 will apply to all stationary gas turbines located at non-RECLAIM and RECLAIM facilities (excluding those subject to Rule 1135 or located at a petroleum refinery, landfill, or sewage treatment facility), regardless of the date they were permitted.

AFFECTED INDUSTRIES

There are 35 facilities that are potentially impacted by Proposed Amended Rule 1134 – Emissions of Oxides of Nitrogen from Stationary Gas Turbines (PAR 1134). Of these 35 facilities, 19 are currently in the NOx RECLAIM program. The remaining facilities are not in the RECLAIM program; 8 are currently subject to SCAQMD Rule 1134. Eight facilities are not subject to RECLAIM or Rule 1134 because of applicability requirement of RECLAIM and the turbines were built after 1989.

There are 73 turbines at these 35 facilities: 6 turbines are at the proposed emissions limits, 23 would be exempt, and 11 would qualify for the low-use provisions. The remaining 33 turbines will need to be replaced, repowered, or retrofitted to come into compliance with PAR 1134. These 33 turbines are located across 19 facilities. Among these 33 turbines, 10 are natural gas (combined cycle), 13 are natural gas (simple cycle), four are natural gas (compressor gas turbine), and six are produced gas. There are 7 turbines that already utilize SCR but will increase their ammonia usage by an estimated 30% to meet the proposed emissions limits. Twenty-six turbines do not currently utilize SCR.

Among the 19 affected facilities, four are in the coal gasification at mine site sector (NAICS 21111), four are in the electric power generation, fossil fuel (e.g., coal, oil, gas) sector (NAICS 221112), two facilities are in the booster pumping station, natural gas transportation sector (NAICS 486210), two are in the academies, college or university sector (NAICS 611310), two are classified as private hospitals (NAICS 622110), two are state and local government facilities (NAICS 921190), and there is a single facility located in aircraft hangar rental (NAICS 488119), absorbent

paper stock manufacturing (NAICS 322121), and adrenal medicinal manufacturing (NAICS 325412).

Of these 19 facilities, 11 (with 20 turbines) are located in Los Angeles County, three (with four turbines) are in Orange County, two (with five turbines) is in Riverside County, and the remaining three facilities (with four turbines) are located in San Bernardino County.

Small Businesses

SCAQMD defines a "small business" in Rules 102 and 301, for purposes of fees, as one which employs 10 or fewer persons and which earns less than \$500,000 in gross annual receipts. SCAQMD also defines "small business" for the purpose of qualifying for access to services from SCAQMD's Small Business Assistance Office as a business with an annual receipt of \$5.0 million or less, or with 100 or fewer employees.

In addition to SCAQMD's definition of a small business, the federal Clean Air Act Amendments (CAAA) of 1990 and the federal Small Business Administration (SBA) also provide definitions of a small business. The CAAA classifies a business as a "small business stationary source" if it: (1) is owned or operated by a person who employs 100 or fewer individuals; (2) is a small business as defined under the federal Small Business Act (15 U.S.C. Sec. 631, et seq.); and (3) emits less than 10 tons per year of any single pollutant and less than 20 tons per year of all pollutants. The SBA definitions of small businesses vary by six-digit North American Industrial Classification System (NAICS) codes. In general terms, a small business must have no more than 500 employees for most manufacturing industries, and no more than \$7.0 million in average annual receipts for most nonmanufacturing industries.³ For example, a business classified in the fossil fuel electric power generation sector (NAICS 221112) with fewer than 750 employees is considered a small business by SBA. A private hospital (NAICS 621111) with revenue less than \$11 million is classified as a small business by the SBA.

Revenue and employee data was available for 15 of the 19 affected facilities in the Dun and Bradstreet Enterprise Database.⁴ Under SCAQMD's more restrictive definition of a small business (Rule 102), there are three small businesses potentially affected by PAR 1134. Under SCAQMD's less restrictive definition of a small business (Small Business Assistance Office), there are six small businesses potentially affected by PAR 1134. Using the sector-specific SBA definitions, 12 of the facilities are classified as small businesses. Under the CAAA definition of small business, eight of the facilities are considered small businesses.

COMPLIANCE COST

The main requirements of PAR 1134 for affected facilities include one-time costs and annual recurring costs. The one-time costs would include capital costs of SCR retrofits and one-time

³ The latest SBA definition of small businesses by industry can be found at http://www.sba.gov/content/table-small-business-size-standards.

⁴ Dun & Bradstreet Enterprise Database, 2019.

permit modifications.⁵ Annual recurring cost estimates include the annual operating costs of SCRs including reagent, catalyst replacement, electricity, and maintenance costs.

Staff has used the U.S. EPA Air Pollution Control Cost Manual to estimate costs of capital, installation, and operating and maintenance of SCRs.^{6,7} Required modifications (and associated costs) to facilities in order to meet the updated BARCT NOx concentration limits in PAR 1134 are detailed below.

Total one-time capital costs for an SCR retrofit include direct and indirect costs associated with purchasing and installing SCR equipment. These costs include the equipment cost for the SCR system itself, the cost of auxiliary equipment, direct and indirect installation costs, and additional costs due to installation such as asbestos removal. The size and costs of the SCR are based primarily on the boiler size or heat input, the type of fuel burned, the required level of NOx reduction, reagent consumption rate, and catalyst costs. For the 27 natural gas turbines affected by PAR 1134, total capital costs associated with SCR retrofits range from \$470,000 - \$12.7 million. For the six affected produced gas turbines, total capital costs are \$930,000 per unit.

In addition, all 19 affected facilities will be required to have their permits modified as a result of PAR 1134. Permit fees for each piece of equipment will result in a one-time cost ranging from \$3,000 - \$24,000. For this cost analysis, we assume all affected units incur a one-time permit cost of \$24,000 in Year 2024.

Total annual costs account for purchase of reagent and electrical power, as well as operating and supervisory labor cost, maintenance cost, and catalyst replacement cost. In general, operation of an SCR system requires only minimal, operating or supervisory labor.

The annual maintenance labor and material cost is assumed to be 0.5% of the total capital costs in dollars. Annual maintenance costs range from \$2,400 - \$31,000 for natural gas turbines. For produced gas turbines, annual maintenance cost is \$4,600 per unit.

The annual cost of reagent purchases is estimated using the reagent volume flow rate, the operating time per year, and the cost of reagent in dollars per gallon. Annual reagent costs for natural gas turbines range from \$1,000 - \$124,000, and from \$1,000 - \$7,000 for produced gas turbines.

Electrical power consumption is estimated for SCR equipment, ammonia vaporization, water vaporization, and additional fan power. Estimates for the annual electricity costs for natural gas turbines range from \$1,000 - \$68,000. Annual electricity costs for produced gas turbines range from \$1,000 - \$4,000.

⁵ Retrofit of SCR on an existing unit has higher capital costs than SCR installed on a new system.

⁶ U.S. EPA Air Pollution Control Cost Manual, Selective Catalytic Reduction available at:

 $https://www.epa.gov/sites/production/files/201712/documents/scrcostmanualchapter7thedition_2016 revisions 2017.pdf$

⁷ SCR cost calculation spreadsheet available at:

https://www3.epa.gov/ttn/ecas/docs/scr_cost_manual_spreadsheet_2016_vf.xlsm

Annual catalyst replacement cost is based on estimating the total volume of catalyst, the total number of catalyst layers, and the number of layers replaced annually. Annual catalyst replacement costs for natural gas turbines range from \$1,000 - \$21,000. For produced gas turbines affected by 1134, annual catalyst replacement costs are estimated to be \$1,000 per unit.

		- Present We	-	Average Annual Cost	
Industry (NAICS)	Number of Facilitics	1% Discount Rate	4% Discount Rate	1% Real Interest Rate	4% Real Interest Rate
Coal gasification at mine site (211111)	4	\$43,952,135	\$33,615,710	\$1,840,815	\$2,195,831
Electric power generation, fossil fuel (e.g., coal, oil, gas) (221112)	4	\$18,490,473	\$15,026,326	\$757,932	\$971,173
Absorbent paper stock manufacturing (322121)	1	\$9,382,882	\$7,249,173	\$390,041	\$473,855
Adrenal medicinal manufacturing (325412)	4	\$2,660,553	\$2,165,150	\$109,013	\$139,894
Booster pumping station, natural gas transportation (486210)	2	\$18,043,247	\$13,588,807	\$755,124	\$893,496
Aircraft hangar rental (488119)	1	\$4,599,491	\$3,504,491	\$191,907	\$229,809
Academies, college or university sector (611310)	2	\$8,290,414	\$6,355,976	\$3 4 5,338	\$4 16,203
Hospitals; private (622110)	2	\$4,279,455	\$3,321,182	\$177,679	\$216,873
State and local government (921190)	2	\$5,614,032	\$4,482,075	\$231,280	\$290,820
Total	19	\$115,312,682	\$89,308,890	\$4,799,129	\$5,827,953

 Table 1:

 Annual Estimated Costs of PAR 1134 Series by Industry

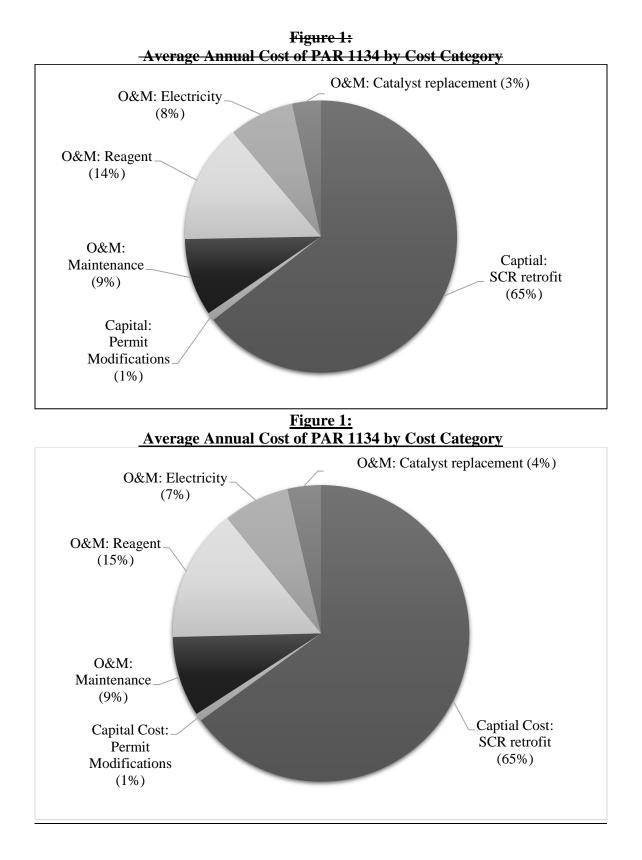
	<u>Number</u>	- <u>Present Worth Value</u>		- <u>Average Annual Cost</u>	
Industry (NAICS)	<u>of</u> <u>Facilities</u>	<u>1% Real</u> Interest Rate	<u>4% Real</u> Interest Rate	<u>1% Real</u> Interest Rate	<u>4% Real</u> <u>Interest Rate</u>
Coal gasification at mine site (211111)	<u>4</u>	<u>\$43,952,135</u>	<u>\$33,615,710</u>	<u>\$1,840,815</u>	<u>\$2,195,831</u>
Electric power generation, fossil fuel (e.g., coal, oil, gas) (221112)	<u>4</u>	<u>\$27,400,097</u>	<u>\$22,350,802</u>	<u>\$1,104,841</u>	<u>\$1,419,982</u>
Absorbent paper stock manufacturing (322121)	<u>1</u>	<u>\$9,382,882</u>	<u>\$7,249,173</u>	<u>\$390,041</u>	<u>\$473,855</u>
Adrenal medicinal manufacturing (325412)	<u>1</u>	<u>\$2,660,553</u>	<u>\$2,165,150</u>	<u>\$109,013</u>	<u>\$139,894</u>
Booster pumping station, natural gas transportation (486210)	<u>2</u>	<u>\$18,043,247</u>	<u>\$13,588,807</u>	<u>\$755,124</u>	<u>\$893,496</u>
Aircraft hangar rental (488119)	<u>1</u>	<u>\$4,599,491</u>	<u>\$3,504,491</u>	<u>\$191,907</u>	<u>\$229,809</u>
Academies, college or university sector (611310)	<u>2</u>	<u>\$8,290,414</u>	<u>\$6,355,976</u>	<u>\$345,338</u>	<u>\$416,203</u>
Hospitals; private (622110)	<u>2</u>	<u>\$4,279,455</u>	<u>\$3,321,182</u>	<u>\$177,679</u>	<u>\$216,873</u>
State and local government (921190)	<u>2</u>	<u>\$14,195,228</u>	<u>\$10,824,994</u>	<u>\$592,142</u>	<u>\$709,715</u>
<u>Total</u>	<u>19</u>	<u>\$132,803,503</u>	<u>\$102,976,285</u>	<u>\$5,506,899</u>	<u>\$6,695,656</u>

<u>Table 1:</u>Annual Estimated Costs of PAR 1134 by Industry

The average annual total cost of PAR 1134 is estimated to be \$4.85.5 - \$5.86.7 million (in 2018 dollars) between 2019 and 2045, for the 1% and 4% real interest rate scenarios, respectively.⁸ Table 1 presents a breakdown of total costs by industry. The majority of the overall annual compliance costs is expected to be incurred by the coal gasification at mine site sector (3833%), electric power generation_-, fossil fuel (e.g., coal, oil, gas) (4721%), booster pumping station_-, natural gas transportation (135%), state and local government (11%), booster pumping station, natural gas transportation (8%), absorbent paper stock manufacturing (7%), academies, college or university sector (76%), state and local government (5%), and hospitals_-; private (43%).

Figure 1 and Table 2 present the distribution of the overall costs by selected cost categories. The majority of costs of PAR 1134 (\$3.84.4 million annually) stem from the capital costs associated with SCR retrofits (65%). The additional capital costs for permit modifications are estimated to cost \$57,000 annually (or 1% of total average annual costs). The recurring costs total \$2.02.3 million annually, comprised of the annual costs of reagent (154%), maintenance (9%), electricity (\$7%), and catalyst replacement (34%).

⁸ SCAQMD uses both 1% and 4% real interest rates to provide a range of potential compliance cost estimates for the proposed amendments.



-	Present Wortl	h Value (2019)	Annual Average (2019-2045)		
Cost Categories	1% Discount Rate4% Discount Rate		1% Real Interest Rate	4 % Real Interest Rate	
One-Time Costs	-	-	-	-	
SCR retrofit	\$68,042,426	\$58,924,617	\$2,746,189	\$3,759,752	
Permit modifications	\$1,027,297	\$887,435	\$41,349	\$56,610	
Recurring Costs	-	-	-	-	
Maintenance	\$12,359,023	\$7,887,136	\$537,548	\$537,548	
Reagent	\$18,951,798	\$12,088,918	\$824,409	\$824,409	
Electricity	\$10,359,665	\$6,608,193	\$450,648	\$450,648	
Catalyst replacement	\$4,572,473	\$2,912,592	\$198,985	\$198,985	
Total	\$115,312,682	\$89,308,890	\$4,799,129	\$5,827,953	

 Table 2:

 Annual Estimated Costs of the PAR 1134 Series by Cost Categories

<u>Table 2:</u>
Annual Estimated Costs of the PAR 1134 Series by Cost Categories

_	Present Wortl	n Value (2019)	Annual Average (2019-2045)	
<u>Cost Categories</u>	<u>1% Discount</u> <u>Rate</u>	<u>4% Discount</u> <u>Rate</u>	<u>1% Real</u> <u>Interest Rate</u>	<u>4% Real</u> <u>Interest Rate</u>
One-Time Costs	_	-	-	-
SCR retrofit	<u>\$79,232,746</u>	<u>\$68,591,416</u>	<u>\$3,179,519</u>	<u>\$4,353,014</u>
Permit Modifications	<u>\$1,027,297</u>	<u>\$887,435</u>	<u>\$41,349</u>	<u>\$56,610</u>
Recurring Costs	_	_	-	_
<u>Maintenance</u>	<u>\$13,471,644</u>	<u>\$8,593,611</u>	<u>\$586,012</u>	<u>\$586,012</u>
Reagent	<u>\$22,338,403</u>	<u>\$14,239,293</u>	<u>\$971,925</u>	<u>\$971,925</u>
Electricity	<u>\$11,146,387</u>	<u>\$7,107,734</u>	<u>\$484,917</u>	<u>\$484,917</u>
Catalyst replacement	<u>\$5,587,025</u>	\$3,556,797	<u>\$243,178</u>	<u>\$243,178</u>
<u>Total</u>	<u>\$132,803,503</u>	<u>\$102,976,285</u>	<u>\$5,506,899</u>	<u>\$6,695,656</u>

JOBS AND OTHER SOCIOECONOMIC IMPACTS

The REMI model (PI+ v2.2.8) was used to assess the total socioeconomic impacts of a regulatory change (i.e., the proposed rule).⁹ The model links the economic activities in the counties of Los Angeles, Orange, Riverside, and San Bernardino, and for each county, it is comprised of five interrelated blocks: (1) output and demand, (2) labor and capital, (3) population and labor force, (4) wages, prices and costs, and (5) market shares.¹⁰

The assessment herein is performed relative to a baseline ("business as usual") where the proposed amendments would not be implemented. The proposed amendments would create a regulatory scenario under which the affected facilities would incur an average annual compliance costs totaling 4.85.5 - 5.86.7 million. Direct effects of the proposed amendments have to be estimated and used as inputs to the REMI model in order for the model to assess secondary and induced impacts for all actors in the four-county economy on an annual basis and across a user-defined horizon (2019 - 2045). Direct effects of the proposed amendments include additional costs to the affected entities and additional sales, by local vendors, of equipment, devices, or services that would meet the proposed requirements.

While compliance expenditures may increase the cost of doing business for affected facilities, the purchase and installation of additional equipment combined with spending on operating and maintenance, may increase sales in other sectors. Table 3 lists the industry sectors modeled in REMI that would either incur a cost or benefit from the compliance expenditures.

Improved public health due to reduced air pollution emissions may also result in a positive effect on worker productivity and other economic factors; however, public health benefit assessment requires the modeling of air quality improvements at a regional scale. The most recent regional analysis was conducted for the 2016 Air Quality Management Plan (AQMP) which found significant health benefits if federal air quality standards are met. PAR 1134 would result in approximately 2% of the NOx control strategy to meet the 2023 attainment goals in the 2016 AQMP.

On average, PAR 1134 is expected to result in approximately $28 \cdot 33 - 38 \cdot 46$ jobs forgone annually, between 2019 and 2045, depending on the real interest rate assumed (1% - 4%). The projected job loss impacts represent about 0.0002500029% - 0.0003400041% of the total employment in the four-county region. Table 4 presents the job impacts across multiple sectors of the regional economy for selected years in the planning horizon.

⁹ Regional Economic Modeling Inc. (REMI). Policy Insight® for the South Coast Area (160 sector model). Version 2.2.8, 2018.

¹⁰ Within each county, producers are made up of 156 private non-farm industries, three government sectors, and a farm sector. Trade flows are captured between sectors as well as across the four counties and the rest of U.S. Market shares of industries are dependent upon their product prices, access to production inputs, and local infrastructure. The demographic/migration component has 160 ages/gender/race/ethnicity cohorts and captures population changes in births, deaths, and migration. (For details, please refer to REMI online documentation at http://www.remi.com/products/pi.)

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Source of Compliance Costs	REMI Industries Incurring Compliance Costs (NAICS)	REMI Industries Benefitting from Compliance Spending (NAICS)
SCR retrofit		<i>One-time Capital Cost:</i> Engine, turbine, and power transmission equipment manufacturing (3336), Construction (23), Management, scientific, and technical consulting services (5416)
Permit modifications	generation, transmission, and distribution (2211),Public adm (92)Pulp, paper, and paperboard mills (3221),One-time C (92)Pharmaceutical and medicine manufacturing (3254), Scenic andManageme and technic servicessightseeing transportation and support activities for transportation (487-488), Educational services - private (61), Hospitals;One-time C Basic cherr manufactur	<i>One-time Capital Cost:</i> Public administration (92)
Maintenance		<i>One-time Capital Cost:</i> Management, scientific, and technical consulting services
Reagent		<i>One-time Capital Cost:</i> Basic chemical manufacturing (3251)
Electricity	private (622), State and local government (92)	Recurring Cost: Electric power generation, transmission, and distribution (2211)
Catalyst replacement		Recurring Cost: Basic chemical manufacturing

 Table 3:

 Industries Incurring vs. Benefitting from Compliance Costs/Spending

	1	- JOD I	mpace	S OI P/	<u>AR 113</u>	4		
Industry (NAICS)	2023	2025	2030	2035	2045	Average Annual Jobs (2019- 2045)	Average Annual Baseline (2019– 2045)	% Change f rom Baseline Jobs
Construction (23)	155	-15	-19	-11	-5	-4	471,648	-0.00086%
Management, scientific, and technical consulting services (5416)	94	4	4	1	θ	4	137,452	0.00315%
Retail trade (44-45)	34	-4	-6	-6	-5	-3	986,426	- 0.00035%
Administrative, support, waste management, and remediation services (56)	27	-2	-4	-4	-3	-2	818,786	-0.00026%
State and Local Government (92)	2 4	-2	<u>-9</u>	<u>-9</u>	-7	-5	908,258	- 0.00055%
Food services and drinking places (722)	19	-1	-3	-4	-4	-2	731,231	- 0.00029%
Transportation and warehousing (48,492- 493)	15	-3	-5	-4	-3	-3	502,311	- 0.00054%
Wholesale trade (42)	13	-2	-3	-2	-2	-1	4 79,1 44	-0.00028%
Engine, turbine, and power transmission equipment manufacturing (3336)	7	θ	θ	θ	θ	θ	1,060	0.02445%
Educational services – private (61)	5	-2	-3	3	-2	-2	271,055	- 0.00078%
Electric power generation, transmission and distribution (2211)	θ	-1	-1	-1	-1	-1	9,994	- 0.00815%
Oil and gas extraction (211)	-1	-5	-7	-7	-5	-5	23,472	- 0.02146%
All Other Industries	134	-17	-24	-22	-23	-14	5,952,80 4	-0.00024%
Total	526	-53	<u>-83</u>	-72	-60	-38	11,293,642	-0.00034%

Table 4:Job Impacts of PAR 1134*

* Assumes a 4% real interest rate

In earlier years of the regional simulation positive job impacts from the expenditures made by the affected facilities would more than offset the jobs forgone from the additional cost of doing business. The engine, turbine, and power transmission equipment manufacturing sector (NAICS 3336) and the management, scientific, and technical consulting services sector (NAICS 5416) are projected to gain jobs from additional demand for equipment installation from the affected facilities on average. In 2023, <u>526-579</u> additional jobs are expected to be created as a result of the increased demand.

	r	JOL) impa	CLS OI	PAR 1	134		
<u>Industry (NAICS)</u>	<u>2023</u>	<u>2025</u>	<u>2030</u>	<u>2035</u>	<u>2045</u>	<u>Average</u> <u>Annual</u> <u>Jobs</u> (<u>2019 -</u> <u>2045</u>)	<u>Average</u> <u>Annual</u> <u>Baseline</u> (2019 - 2045)	<u>% Change</u> <u>from</u> <u>Baseline</u> <u>Jobs</u>
Construction (23)	178	-17	-21	-12	<u>-5</u>	-4	471,648	-0.00089%
Management, scientific, and technical consulting services (5416)	<u>94</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>0</u>	<u>4</u>	<u>137,452</u>	<u>0.00323%</u>
Retail trade (44-45)	<u>38</u>	-4	<u>-7</u>	-7	<u>-6</u>	-4	<u>986,426</u>	<u>-0.00040%</u>
Administrative, support, waste management, and remediation services (56)	<u>29</u>	<u>-3</u>	<u>-5</u>	<u>-4</u>	<u>-4</u>	<u>-3</u>	<u>818,786</u>	<u>-0.00037%</u>
State and Local Government (92)	<u>23</u>	<u>-7</u>	<u>-13</u>	<u>-13</u>	<u>-10</u>	<u>-8</u>	<u>908,258</u>	<u>-0.00093%</u>
Food services and drinking places (722)	<u>21</u>	<u>-1</u>	<u>-4</u>	<u>-4</u>	<u>-4</u>	<u>-2</u>	<u>731,231</u>	<u>-0.00032%</u>
Transportation and warehousing (48,492- 493)	<u>16</u>	<u>-4</u>	<u>-5</u>	<u>-4</u>	<u>-3</u>	<u>-3</u>	<u>502,311</u>	<u>-0.00059%</u>
Wholesale trade (42)	15	-2	-3	-2	-2	-1	479,144	-0.00031%
Engine, turbine, and power transmission equipment manufacturing (3336)	<u>10</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>1,060</u>	0.03493%
Educational services; private (61)	<u>5</u>	<u>-2</u>	<u>-3</u>	<u>-3</u>	<u>-3</u>	<u>-2</u>	<u>271,055</u>	<u>-0.00082%</u>
Electric power generation, transmission and distribution (2211)	<u>0</u>	<u>-1</u>	<u>-2</u>	<u>-2</u>	<u>-1</u>	<u>-1</u>	<u>9,994</u>	<u>-0.01075%</u>
Oil and gas extraction (211)	<u>-1</u>	<u>-5</u>	<u>-7</u>	<u>-7</u>	<u>-5</u>	<u>-5</u>	<u>23,472</u>	<u>-0.02162%</u>
All Other Industries	<u>177</u>	-21	-29	-28	-28	<u>-17</u>	5,952,804	<u>-0.00029%</u>
<u>Total</u>	<u>579</u>	<u>-65</u>	<u>-96</u>	<u>-83</u>	<u>-69</u>	<u>-46</u>	11,293,642	<u>-0.00041%</u>

<u>Table 4:</u> Job Impacts of PAR 1134^{*}

* Assumes a 4% real interest rate

In subsequent years, the positive impact of increased spending subsides and jobs forgone are expected to begin. Direct costs of compliance lead to jobs foregone in the educational services - private sector (NAICS 621), the oil and gas extraction sector (NAICS 211), state and local government (NAICS 92), and the electric power generation, transmission and distribution sector

(NAICS 2211). The remainder of the projected reduction in employment would be across all major sectors of the economy from secondary and induced impacts of the proposed amendments. The reduction in disposable income would dampen the demand for goods and services in the local economy, thus resulting in a relatively large number of jobs forgone projected in sectors such as construction (NAICS 23), transportation and warehousing (NAICS 48,492-493), administrative, support, waste management, and remediation services (NAICS 56), and retail trade (NAICS 44 - 45). A smaller number of jobs foregone are expected in the wholesale trade sector (NAICS 42), and the food services and drinking places sector (NAICS 722).

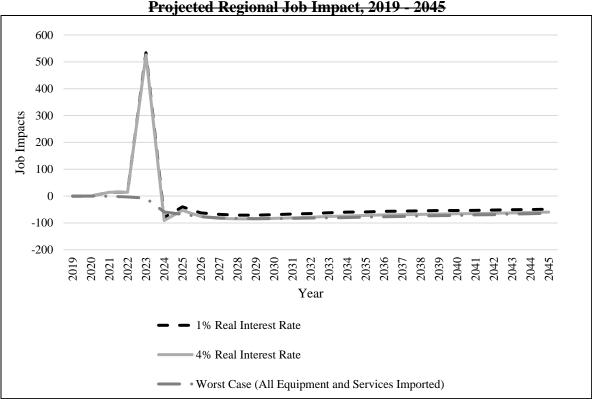


Figure 2: Projected Regional Job Impact, 2019 - 2045

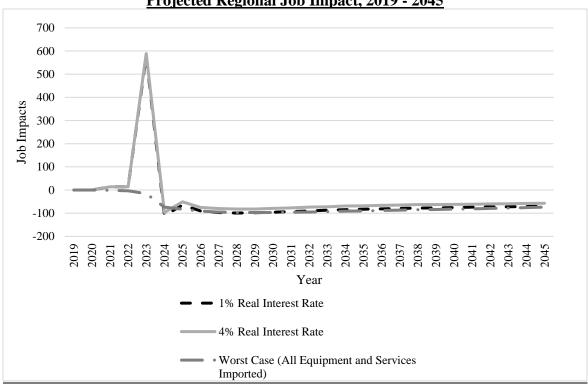


Figure 2: Projected Regional Job Impact, 2019 - 2045

Staff has analyzed an alternative scenario (worst case) where the affected facilities would not purchase any control or service from providers within the South Coast Air Basin. This scenario would result in an average of 61-72 jobs forgone annually. Figure 2 presents a trend of job gain and losses over the 2019 - 2045 time frame for the 1% real interest rate, 4% real interest rate, and the worst case scenarios.

Competitiveness

The additional cost brought on by PAR 1134 would increase the cost of services rendered by the affected industries in the region. The magnitude of the impact depends on the size, diversification, and infrastructure in a local economy as well as interactions among industries. A large, diversified, and resourceful economy would absorb the impact described above with relative ease.

Changes in production/service costs would affect prices of goods produced locally. The relative delivered price of a good is based on its production cost and the transportation cost of delivering the good to where it is consumed or used. The average price of a good at the place of use reflects prices of the good produced locally and imported elsewhere.

It is projected that the oil and gas extraction sector (NAICS 211), which includes four affected facilities (with nine turbines), would experience a rise in its relative cost of production of 0.039% in 2025 for the 4% real interest rate scenario. The oil and gas extraction sector is also expected to experience an increase in its delivered price by 0.010% in 2025 for the 4% real interest rate

scenario. In the pipeline transportation sector (NAICS 486), which includes two affected facilities (with seven turbines), the relative cost of production and relative delivered price are expected to increase by 0.172% and 0.048% in 2025, respectively. Finally, the electric power generation, transmission, and distribution sector (NAICS 2211), which includes four affected facilities (with four turbines), the relative cost of production and relative delivered price are expected to increase by 0.0125% and 0.0075% in 2025, respectively.¹¹

Delivered prices that a facility may charge for specific goods or services may increase at a greater rate than predicted, allowing incurred costs to be passed through to downstream industries and end-users. The remaining sectors are likely to experience increases in the relative cost of production and relative delivered price with respect to their counterparts in the rest of the U.S.

CEQA ALTERNATIVES

There are three CEQA alternatives associated with the proposed amendments to PAR 1134. Alternative A, the no project alternative, means that the current version of Rule 1134 would remain in effect. Under Alternative B, the requirements would be equivalent to the proposed project but the compliance date for meeting the NOx and ammonia emission limits would one year earlier, December 31, 2022, which would allow three years to comply with PAR 1134. The earlier compliance date under Alternative B is more stringent than the proposed project. Under Alternative C, the requirements would be equivalent to the proposed project, but the compliance dates for meeting the NOx and ammonia emission limits would vary depending on fuel type, as follows: (1) liquid fuel (outer continental shelf): December 31, 2023, (2) natural gas (combined cycle): June 30, 2023; (3) natural gas (compressor gas turbine): December 31, 2023; (4) natural gas (simple cycle): December 31, 2022; (5) produced gas: December 31, 2023; (6) produced gas (outer continental shelf): December 31, 2023; (6) produced gas (outer continental shelf): December 31, 2023; (6) produced gas (outer continental shelf): December 31, 2023; (7) Other: December 31, 2023. The earlier compliance dates for the natural gas - combined cycle and natural gas - simple cycle categories under Alternative C are more stringent than the proposed project but less stringent than Alternative B for the natural gas - combined cycle category.

Assuming a 4% real interest rate, average annual compliance costs for the CEQA alternatives range from 6.0-9 - 6.17.0 million between 2019 and 2045, as shown in Table 5. Jobs forgone for the CEQA alternatives range from 40-48 - 42-50 between 2019 and 2045.¹²

¹¹ Compliance costs are not equally shared amongst individual facilities within affected industry sectors. Therefore, increases in delivered prices and/or the relative cost of production may differ amongst the facilities within a given sector.

¹² Alternative B and Alternative C have the same cost-effectiveness as the proposed amendments and both would achieve the same emission reductions. Even though Alternative B and C have earlier compliance dates the cost-effectiveness evaluation is time neutral.

Average Annual Cost and Job I	mpacts of CEQA	Alternatives [*]		
	Average Annual, 2019 - 2045			
Alternatives	Cost	Job Impacts		
Proposed Amendments	<u>\$6,695,656</u> \$5,827,953	- 38<u>46</u>		
Alternative A - No Project	-	-		
Alternative B - Implementation by December 31, 2022	<u>\$6,989,775</u> \$6,083,803	-42 <u>50</u>		
Alternative C - Phased Implementation	<u>\$6,908,458</u> \$5,996,473	-4 <u>048</u>		

Table 5:

Assumes a 4% real interest rate

UPDATED COST IMPACTS ASSESSMENT FOR COMPLIANCE WITH **RULE 2002**

Potential Impacts for NOx RECLAIM Facilities Ready to Exit

Rule 2002(f)(10) prohibits a RECLAIM facility from selling any future compliance year NOx RECLAIM Trading Credits (RTCs) upon receipt of a final determination notification that it is ready to exit the NOx RECLAIM program. If PAR 1134 is adopted, 18 facilities are expected to receive an initial determination notification because, according to staff's evaluation, all of their permitted RECLAIM NOx source equipment will be subject to these rules once adopted. Facilities that received initial determination notifications and meet the proposed criteria to exit, would not receive a final determination notification to exit RECLAIM until key elements such as NSR and permitting are resolved. However, these facilities may request to opt-out of RECLAIM before these key elements are resolved, upon meeting specific conditions specified in subdivision (g) of Rule 2001.

Thirteen out of the 18 facilities were allocated NOx RTCs (no cost or fee when RTCs were allocated) at the outset of the NOx RECLAIM program. The initial allocations for the 13 facilities amounted to approximately 1.129 tons per day (TPD). Due to past adjustments including reductions in allocations or "shaves," and more importantly, the sale of these initial allocations as infinite-year block (IYB) RTCs to other NOx RECLAIM facilities and brokers/investors, the total NOx RTCs currently held by all 18 facilities is 1.018 TPD for compliance years 2019 and later.¹³ At the same time, total NOx emissions from these same facilities declined to 0.868 TPD in 2016.

¹³ According to the NOx RTC holdings data as of July 31, 2018 and excluding any transactions that may have occurred after this date.

If these 18 facilities receive final determination notifications in 2019, they will not be able to sell their NOx RTCs for compliance year 2019 and onwards. For the purpose of this analysis, it is assumed that none of the 18 facilities would acquire additional NOx RTCs or sell their current NOx RTC holdings of 1.018 TPD before receiving a final determination notification. However, it is foreseeable that at least some of these NOx RTC holdings may be sold or transferred before they are frozen due to anticipation of receiving a final determination notification. Lastly, as they pertain to SCAQMD, RTCs are not property rights. It is known to all market participants that purchasing RTCs beyond the current compliance year is accompanied by known investment risks that are embedded within the RECLAIM programs.¹⁴

It is estimated that, out of the total 1.018 TPD of future compliance year NOx RTCs currently held by the 18 facilities, at least 0.122 TPD were acquired by some of the affected facilities in addition to their initial allocations, either through purchases with positive prices or transfers at no cost. If these facilities continue to stay in the NOx RECLAIM program and their NOx emissions remain between 5% above and below their 2016 levels,¹⁵ then 0.071 TPD of these additionally acquired RTCs are estimated to be used for compliance purposes, with the remaining 0.050 TPD being potential surplus RTCs available for sale or transfer.¹⁶ Applying the most recent 12-month rolling average NOx RTC price for compliance year 2017 of \$3,786 per ton,¹⁷ the total value of all potential surplus RTCs would be approximately \$70,000 in RECLAIM compliance year 2019 and all subsequent RECLAIM compliance years. These facilities can elect to transfer or sell these RTCs prior to receiving a final determination notification. If the facility is holding these RTCs at or after the issuance of a final determination notification they will not be able to sell, use, or transfer the RTCs.

In addition, 12 facilities are estimated to have insufficient NOx RTC holdings if they were to remain in the NOx RECLAIM program and their NOx emissions remain between 5% above and below their 2016 levels. By exiting the NOx RECLAIM program, these facilities would avoid the need to acquire about 0.449 - 0.529 TPD of NOx RTCs which, if valued at \$3,786 per ton, would imply potential total cost-savings worth approximately \$620,000 - \$730,000 in RECLAIM compliance year 2019 and for all subsequent RECLAIM compliance years.^{18,19}

¹⁴ The risk factors include, but may not be limited to, programmatic allocation shaves, potential RTC trade freezes, and the eventual sunset of either RECLAIM program.

¹⁵ In order to estimate the number of RTCs needed for compliance in future years, it is necessary to project the emissions levels of all affected facilities. We analyze three scenarios; 1) emissions are 5% below 2016 levels; 2) emissions remain at 2016 levels; and 3) emissions are 5% above 2016 levels.

¹⁶ Since there were no costs associated with the initially allocated NOx RTCs for a RECLAIM facility, the facilities would not incur financial losses as a result of complying with Rule 2002(f)(10) if their frozen future compliance year NOx RTC holdings are at or below their respective adjusted initial allocations.

¹⁷ 12-month rolling average of Compliance Year 2018 NOx RTCs, as calculated from Jan 2018 to Jan 2019. See Table I of "Twelve-Month and Three-Month Rolling Average Price of Compliance Years 2018 and 2019 NOx and SOx RTCs," available athttp://www.aqmd.gov/docs/default-source/reclaim/nox-rolling-average-reports/nox-and-sox-rtcs-rolling-avg-price-cy-2018-19-jan-2019.pdf

¹⁸ Cost savings vary based on the projected emissions in compliance year 2019. The range in cost savings presented represents 5% below/above 2016 emission levels.

¹⁹ The dollar figures for the potential costs and savings for facilities exiting RECLAIM are highly sensitive to the assumed RTC price of \$3,786 per ton. In general, RTC prices are highly variable, with prices typically decreasing as their expiration dates approach and during the 60 days after expiration during which they can be traded. This general trend has been repeated every year since 1994 except for compliance years 2000 and 2001 (during the California

Totential impacts on NOX KTC Market Demand and Suppry				
	NOx Emission Scenarios for Future Compliance Years			
	5% Below 2016 NOx Emissions	Same as 2016 NOx Emissions	5% Above 2016 NOx Emissions	
Acquired RTCs potentially for sale if remain (TPD)	0.050	0.050	0.050	
Potential RTC sales foregone if exiting	\$69,657	\$69,657	\$69,657	
RTCs need for compliance if remain (TPD)	0.449	0.489	0.529	
Potential cost-savings by exiting	\$620,228	\$675,392	\$730,556	
Net compliance year savings	\$550,571	\$605,735	\$660,899	

 Table 6:

 Potential Impacts on NOx RTC Market Demand and Supply

Table 6 presents potential foregone sales of surplus RTCs, potential cost-savings for those facilities needed to acquire RTCs for compliance purposes, and the net savings for compliance year 2019 and onwards for three emission scenarios. The first scenario assumes future NOx emissions of the 18 facilities would be 5% below their respective 2016 levels; the second scenario assumes the same emission levels as in 2016; and the third scenario assumes their future NOx emissions would be 5% above their respective 2016 levels. These scenarios are consistent with the variations of overall NOx emissions from the RECLAIM universe, which had a maximum year-over-year difference of approximately 5% during the period of 2011 - 2016.

Potential NOx RTC Market Impacts

Since the SCAQMD Governing Board's March 2017 adoption of the 2016 AQMP, which includes the sunset of NOx RECLAIM, the number of NOx IYB trades has decreased significantly. The IYB price has also declined rapidly, from a 12-month rolling average of \$380,057 per ton in January 2017 to \$20,103 per ton in July 2018, which largely reflects the remaining years of the NOx RECLAIM program life that is expected by the market participants. However, the short-term price impact of facility exit on the discrete-year RTC market may not go hand-in-hand with the overall impact of the NOx RECLAIM program transition on the IYB market, as evidenced by the

energy crisis). Prices for NOx RTCs that expired in calendar year 2017 also followed this general trend. The general declining trend of RTC prices nearing and just past expiration indicates there was an adequate supply to meet RTC demand during the final reconciliation period following the end of the compliance years.

surge in discrete-year NOx RTC prices in 2017. The potential exit of the 18 facilities from the NOx RECLAIM program could possibly affect the demand and supply in the NOx RTC market for compliance year 2019 and beyond, as well as the future prevailing NOx RTC prices. Therefore, the remaining NOx RECLAIM facilities may be indirectly impacted as a result.

The foregone market demand, as estimated by the shortage of a facility's future compliance year NOx RTC holdings for NOx emissions reconciliation, would be about 0.449 - 0.529 TPD. At the same time, the potential foregone market supply from all facilities with potential surplus RTC holdings is estimated at 0.086 - 0.093 TPD. However, some of these facilities with potential surplus NOx RTCs have never sold or transferred NOx RTCs to another NOx RECLAIM facility since the NOx RECLAIM program began in 1994. Therefore, it is reasonable to assume that they will not participate in the market even if they continue to stay in the NOx RECLAIM program. When estimated by the potential surplus NOx RTC holdings from only the facilities with a historical record of NOx RTC sales and/or transfers, the market supply is estimated to be lower at 0.080 - 0.081 TPD. Table 7 reports the potentially foregone market demand and supply for three different NOx emission scenarios.

Given the analysis above and the fact that the 18 facilities currently account for 4.4% of annual NOx emissions and 2.1% of the NOx RTC holdings in the NOx RECLAIM universe in compliance year 2019, the simultaneous transition of the 18 facilities out of the NOx RECLAIM program would have a very small impact, if any, on the demand and supply of NOx RTC market. Specifically, the net decrease in market demand expected to result from the transition of the 18 facilities could potentially assert downward pressure on the discrete-year NOx RTC prices. However, facility exit is unlikely to result in large price fluctuations in the NOx RTC market, nor is the transition expected to significantly affect the remaining NOx RECLAIM facilities that are not yet ready to exit.²⁰

²⁰ There are currently procedures in place to intervene if the NOx RTC price becomes excessively high. Rule 2002(f)(1)(H) specifies that in the event that the NOx RTC price exceeds \$22,500 per ton based on the 12-month rolling average, or exceeds \$35,000 per ton based on the 3-month rolling average calculated pursuant to subparagraph (f)(1)(E), the Executive Officer will report the determination to the Governing Board. If the Governing Board finds that the 12-month rolling average RTC price exceeds \$22,500 per ton or the 3-month rolling average RTC price exceeds \$35,000 per ton, then the Non-tradable/Non-usable NOx RTCs, as specified in subparagraphs (f)(1)(B) and (f)(1)(C) valid for the period in which the RTC price is found to have exceeded the applicable threshold, shall be converted to Tradable/Usable NOx RTCs upon Governing Board concurrence.

		NOx Emission	NOx Emission Scenarios for Future Compliance Years			
		5% Below 2016 NOx Emissions	Same as 2016 NOx Emissions	5% Above 2016 NOx Emissions		
A	Foregone Market Demand	0.449	0.489	0.529		
В	Foregone Market Supply – From All Facilities with Surplus RTC Holdings	0.093	0.090	0.086		
С	Net Foregone Market Demand (= A - B)	0.356	0.399	0.443		
	Percent Difference: (Demand - Supply)/Demand (= C/A)	79%	82%	84%		
D	Foregone Market Supply – From Facilities with Surplus RTC Holdings & Historical Record of RTC Sales/Transfers	0.081	0.081	0.080		
E	Net Foregone Market Demand (= A - D)	0.368	0.408	0.449		
	Percent Difference: (Demand - Supply)/Demand (= E/A)	82%	83%	85%		

 Table 7:

 Potential Impacts on NOx RTC Market Demand and Supply

Note: The supply and demand of NOx RTCs are expressed in TPD and rounded to the nearest thousandth. Percent differences are rounded to the nearest integer.

It is possible that the vast majority of facilities will opt to remain in RECLAIM following the adoption of the PAR 1134. The decision to remain in RECLAIM coincides with more favorable NSR provisions and those facilities with surplus RTCs may wish to remain in order to sell excess credits. Conversely, those facilities with insufficient RTC holdings have incentive to opt out of RECLAIM and forego acquiring the necessary RTCs to comply with RECLAIM requirements. Under this scenario, the adoption of the PAR 1134 could potentially result in a net cost savings as it pertains to the RTCs currently held by RECLAIM facilities.

ATTACHMENT J

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

Final Subsequent Environmental Assessment for Proposed Amended Rule 1134 – Emissions of Oxides of Nitrogen from Stationary Gas Turbines

March 2019

SCAQMD No. 01292019RB State Clearinghouse No. 2016071006

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PREFACE

This document constitutes the Final Subsequent Environmental Assessment (SEA) for Proposed Amended Rule 1134 – Emissions of Oxides of Nitrogen from Stationary Gas Turbines. A Draft SEA was circulated for a 45-day public review and comment period from Tuesday, January 29, 2019 to Friday, March 15, 2019 and four comment letters were received. The comment letters and responses relative to the Draft SEA have been included in Appendix G of this Final SEA.

Analysis of PAR 1134 in the Draft SEA indicated that while reducing NOx emissions is an environmental benefit, secondary significant adverse environmental impacts were also expected for the topic area of hazards and hazardous materials. Since significant adverse impacts were identified, an alternatives analysis and mitigation measures are required and are included in the Final SEA. [CEQA Guidelines Section 15252].

In addition, subsequent to the release of the Draft SEA for public review and comment, minor modifications were made to PAR 1134. The minor modifications include: 1) the addition, revision, and removal of definitions for clarification; 2) rewording and renumbering of rule language; 3) the addition of provisions for compressor gas turbines; 4) the addition of a compliance date extension from the emissions limits specified in the rule for owners or operators of compressor gas turbines who submit a request for a time extension, and 5) the inclusion of a new effective date for compressor gas turbines to comply with the emission limits set forth in PAR 1134 three years after a permit to construct is issued if the permit application is submitted before July 1, 2021. To facilitate identification of the changes between the Draft SEA and the Final SEA, modifications to the document are included as <u>underlined text</u> and text removed from the document is indicated by strikethrough. To avoid confusion, minor formatting changes are not shown in underline or strikethrough mode.

Staff has reviewed the modifications to PAR 1134 and concluded that none of the revisions: 1) constitute significant new information; 2) constitute a substantial increase in the severity of an environmental impact; or, 3) provide new information of substantial importance relative to the Draft SEA. In addition, revisions to the proposed project in response to verbal or written comments during the rule development process would not create new, avoidable significant effects. As a result, these revisions do not require recirculation of the Draft SEA pursuant to CEQA Guidelines Sections 15073.5 and 15088.5. Therefore, the Draft SEA has been revised to include the aforementioned modifications such that it is now the Final SEA for PAR 1134.

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CHAPTER 1

EXECUTIVE SUMMARY

Introduction

California Environmental Quality Act

Previous CEQA Documentation

Intended Uses of this Document

Areas of Controversy

Executive Summary

INTRODUCTION

The California Legislature created the South Coast Air Quality Management District (SCAQMD) in 1977¹ as the agency responsible for developing and enforcing air pollution control rules and regulations in the South Coast Air Basin (Basin) and portions of the Salton Sea Air Basin (SSAB) and Mojave Desert Air Basin. In 1977, amendments to the federal Clean Air Act (CAA) included requirements for submitting State Implementation Plans (SIPs) for nonattainment areas that fail to meet all federal ambient air quality standards (CAA Section 172), and similar requirements exist in state law (Health and Safety Code Section 40462). The federal CAA was amended in 1990 to specify attainment dates and SIP requirements for ozone, carbon monoxide (CO), nitrogen dioxide (NO2), and particulate matter with an aerodynamic diameter of less than 10 microns (PM10). In 1997, the United States Environmental Protection Agency (U.S. EPA) promulgated ambient air quality standards for particulate matter with an aerodynamic diameter less than 2.5 microns (PM2.5). The U.S. EPA is required to periodically update the national ambient air quality standards (NAAQS).

In addition, the California Clean Air Act (CCAA), adopted in 1988, requires the SCAQMD to achieve and maintain state ambient air quality standards for ozone, CO, sulfur dioxide (SO2), and NO2 by the earliest practicable date. (Health and Safety Code Section 40910.) The CCAA also requires a three-year plan review, and, if necessary, an update to the SIP. The CCAA requires air districts to achieve and maintain state standards by the earliest practicable date and for extreme non-attainment areas, to include all feasible measures pursuant to Health and Safety Code Sections 40913, 40914, and 40920.5. The term "feasible" is defined in the California Environmental Quality Act (CEQA) Guidelines² Section 15364, as a measure "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors."

By statute, the SCAQMD is required to adopt an air quality management plan (AQMP) demonstrating compliance with all federal and state ambient air quality standards for the areas under the jurisdiction of the SCAQMD³. Furthermore, the SCAQMD must adopt rules and regulations that carry out the AQMP⁴. The AQMP is a regional blueprint for how the SCAQMD will achieve air quality standards and healthful air and the 2016 AQMP⁵ contains multiple goals promoting reductions of criteria air pollutants, greenhouse gases (GHGs), and toxic air contaminants (TACs). In particular, the 2016 AQMP states that both oxides of nitrogen (NOx) and volatile organic compounds (VOC) emissions need to be addressed, with the emphasis that NOx emission reductions are more effective to reduce the formation of ozone and PM2.5. Ozone is a criteria pollutant shown to adversely affect human health and is formed when VOCs react with NOx in the atmosphere. NOx is a precursor to the formation of ozone and PM2.5, and NOx emission reductions are necessary to achieve the ozone standard attainment. NOx emission reductions also contribute to attainment of PM2.5 standards.

In October 1993, the SCAQMD Governing Board adopted Regulation XX – Regional Clean Air Incentives Market (RECLAIM) to reduce NOx and oxides of sulfur (SOx) emissions from high

¹ The Lewis-Presley Air Quality Management Act, 1976 Cal. Stats., Ch. 324 (codified at Health and Safety Code Section 40400-40540).

² The CEQA Guidelines are codified at Title 14 California Code of Regulations Section 15000 *et seq*.

³ Health and Safety Code Section 40460(a).

⁴ Health and Safety Code Section 40440(a).

⁵ SCAQMD, Final 2016 Air Quality Management Plan, March 2017. <u>http://www.aqmd.gov/home/library/clean-air-plans/air-quality-mgt-plan/final-2016-aqmp</u>

emitting facilities. The RECLAIM program was designed to take a market-based approach to achieve emission reductions, as an aggregate. The RECLAIM program was created to be equivalent to achieving emissions reductions under a command-and-control approach, but by providing facilities with the flexibility to seek the most cost-effective solution to reduce their emissions. The market-based approach used in RECLAIM was based on using a supply-and-demand concept, where the cost to control emissions and reduce a facility's emissions would eventually become less than the diminishing supply of NOx RECLAIM trading credits (RTCs). However, analysis of the RECLAIM program over the long term has shown that the ability to achieve actual NOx emission reductions has diminished, due to a large amount of RTCs resulting from shutdowns being re-introduced into the market prior to amendments to Rule 2002 in October 2016 to address this issue.

In the 2016 AQMP, Control Measure CMB-05 - Further NOx Reductions from RECLAIM Assessment, committed to additional NOx emission reductions of five tons per day to occur by 2025. Also, the SCAQMD Governing Board directed staff to implement an orderly sunset of the RECLAIM program to achieve the additional five tons per day. Thus, CMB-05 committed to a process of transitioning NOx RECLAIM facilities to a command-and-control regulatory structure and ensure that the applicable equipment will meet Best Available Retrofit Control Technology (BARCT) level equivalency as soon as practicable.

On July 26, 2017, California State Assembly Bill (AB) 617 was approved by the Governor, which addresses community monitoring and non-vehicular air pollution (criteria pollutants and toxic air contaminants). AB 398, a companion to AB 617, was also approved, and extends California's cap-and-trade program for reducing greenhouse gas (GHG) emissions from stationary sources. AB 617 also contains an expedited schedule for implementing BARCT for cap-and-trade facilities. Industrial source RECLAIM facilities that are in the cap-and-trade program are subject to the requirements of AB 617. Under AB 617, Districts are required to develop by January 1, 2019, an expedited schedule for the implementation of BARCT no later than December 31, 2023, with the highest priority given to older, higher-polluting units that will need retrofit controls installed.

As a result of control measure CMB-05 from the 2016 AQMP as well as ABs 617 and 398, SCAQMD staff has been directed by the Governing Board to begin the process of transitioning the current regulatory structure for NOx RECLAIM facility emissions to an equipment-based command-and-control regulatory structure per SCAQMD Regulation XI – Source Specific Standards. Thus, SCAQMD staff conducted a programmatic analysis of the RECLAIM equipment at each facility to determine if there are appropriate and up-to-date BARCT NOx limits within existing SCAQMD command-and-control rules for all RECLAIM equipment. This analysis concluded that command-and-control rules would need to be adopted and/or amended to reflect current BARCT and provide implementation timeframes for achieving BARCT. Consequently, SCAQMD staff determined that RECLAIM facilities should not exit unless their NOx emitting equipment is subject to an adopted future BARCT rule.

As such, SCAQMD staff has proposed amendments to Rule 1134 – Emissions of Oxides of Nitrogen from Stationary Gas Turbines, to facilitate the transition of affected equipment subject to the NOx RECLAIM program to a command-and-control regulatory structure and to implement Control Measure CMB-05. PAR 1134 applies to RECLAIM and non-RECLAIM stationary gas turbines that are not subject to SCAQMD Rule 1135 – Emissions of Oxides of Nitrogen from Electricity Generating Facilities or located at petroleum refineries, landfills, or publicly owned treatment works. PAR 1134 is proposing to: 1) expand its applicability to include stationary gas turbines that were not previously required to comply with Rule 1134; 2) update the NOx and

ammonia emission limits for stationary gas turbines to comply with Best Available Retrofit Control Technology (BARCT); 3) transition all monitoring, reporting, and recordkeeping requirements (MRR) in Rule 1134 to new SCAQMD Rule 113 MRR Requirements for NOx and SOx Sources, upon its adoption; 4) establish new exemptions for low-use equipment, certain existing combined cycle gas turbines, and emergency standby gas turbines; 54) provide relief from having to comply with ammonia requirements for turbines that do not use ammonia for controlling NOx emissions; and 65) revise existing exemptions to remove obsolete provisions. Implementation of the proposed project is estimated to reduce NOx emissions by 2.8 tons per day after implementation of the BARCT limits, which is expected to be achieved by retrofitting existing stationary gas turbines with air pollution control equipment (e.g., selective catalytic reduction (SCR) technology/systems installation), or repowering or replacing existing stationary gas turbines.

CALIFORNIA ENVIRONMENTAL QUALITY ACT

The California Environmental Quality Act (CEQA) requires that all potential adverse environmental impacts of proposed projects be evaluated and that methods to reduce or avoid identified significant adverse environmental impacts of these projects be implemented, if feasible. The purpose of the CEQA process is to inform the SCAQMD Governing Board, public agencies, and interested parties of potential adverse environmental impacts that could result from implementing the proposed project and to identify feasible mitigation measures or alternatives, when an impact is significant.

Public Resources Code Section 21080.5 allows public agencies with regulatory programs to prepare a plan or other written documents in lieu of a negative declaration or environmental impact report once the secretary of the resources agency has certified the regulatory program. The SCAQMD's regulatory program was certified by the secretary of resources agency on March 1, 1989 and has been adopted as SCAQMD Rule 110 – Rule Adoption Procedures to Assure Protection and Enhancement of the Environment. Pursuant to Rule 110 (the rule which implements the SCAQMD's certified regulatory program), the SCAQMD typically prepares an Environmental Assessment (EA) to evaluate the environmental impacts for rule projects proposed for adoption or amendment.

PAR 1134 is considered a "project" as defined by CEQA. PAR 1134 will transition affected stationary gas turbines at NOx RECLAIM facilities to a command-and-control regulatory structure. NOx RECLAIM facilities with equipment subject to PAR 1134 will be required to meet the NOx emission limits as specified in PAR 1134, unless those facilities qualify for an exemption. In addition, a subset of stationary gas turbines at non-RECLAIM facilities will be required to meet new NOx emission limits in accordance with the compliance schedule in PAR 1134. The decision to transition from NOx RECLAIM into a source-specific command-and-control regulatory structure was approved by the SCAQMD Governing Board as a control measure CMB-05 in the 2016 AQMP and the potential environmental impacts associated with the 2016 AQMP, including CMB-05, were analyzed in the Final Program Environmental Impact Report (Program EIR) certified in March 2017⁶.

The March 2017 Final Program EIR for the 2016 AQMP determined that the overall implementation of CMB-05 has the potential to generate adverse environmental impacts in seven

⁶ SCAQMD, Final Program Environmental Impact Report for the 2016 Air Quality Management Plan, March 2017. <u>http://www.aqmd.gov/home/research/documents-reports/lead-agency-scaqmd-projects/scaqmd-projects---year-2017</u>

topic areas – air quality, energy, hazards and hazardous materials, hydrology and water quality, noise, solid and hazardous waste, and transportation. More specifically, the March 2017 Final Program EIR evaluated the impacts from installation and operation of additional control equipment and selective catalytic reduction (SCR) or selective non-catalytic reduction (SNCR) equipment potentially resulting in construction emissions, increased electricity demand, hazards from additional ammonia transport and use, increase in water use and wastewater discharge, changes in noise volume, generation of solid waste from construction and disposal of old equipment, and catalysts replacements, as well as changes in traffic patterns and volume. For the entire 2016 AQMP, the analysis concluded that significant and unavoidable adverse environmental impacts from the project are expected to occur after implementing mitigation measures for the following environmental topic areas: 1) aesthetics from increased glare and from the construction and operation of catenary lines and use of bonnet technology for ships; 2) construction-related air quality and GHGs; 3) energy (due to increased electricity demand); 4) hazards and hazardous materials due to (a) increased flammability of solvents; (b) storage, accidental release, and transportation of ammonia, (c) storage and transportation of liquefied natural gas (LNG); and (d) proximity to schools; 5) hydrology (water demand); 6) construction noise and vibration; 7) solid construction waste and operational waste from vehicle and equipment scrapping; and 8) transportation and traffic during construction and during operation on roadways with catenary lines and at the harbors. Since significant adverse environmental impacts were identified, mitigation measures were identified and applied. However, the March 2017 Final Program EIR concluded that the 2016 AQMP would have significant and unavoidable adverse environmental impacts even after mitigation measures were identified and applied. As such, mitigation measures were made a condition of project approval and a Mitigation Monitoring and Reporting Plan was adopted. Findings were made and a Statement of Overriding Considerations was prepared and adopted for that project.

BARCT is statutorily required in California Health and Safety Code section 40406 to be based on "environmental, energy, and economic impacts." A BARCT analysis was conducted and completed as part of the rule development process for PAR 11347. PAR 1134 revises NOx emission limits to reflect current BARCT for stationary gas turbines. In particular, PAR 1134 is proposing to: 1) expand its applicability to include stationary gas turbines that were not previously required to comply with Rule 1134; 2) update the NOx and ammonia emission limits for stationary gas turbines to comply with Best Available Retrofit Control Technology (BARCT); 3) transition all monitoring, reporting, and recordkeeping requirements (MRR) in Rule 1134 to new SCAQMD Rule 113 - MRR Requirements for NOx and SOx Sources, upon its adoption; 4) establish new exemptions for low-use equipment, certain existing combined cycle gas turbines, and emergency standby gas turbines; 54) provide relief from having to comply with ammonia requirements for turbines that do not use ammonia for controlling NOx; and 65) revise existing exemptions to remove obsolete provisions. The proposed project is estimated to reduce NOx emissions by 2.8 tons per day after implementation of BARCT limits and will provide an overall environmental benefit to air quality. While reducing emissions of NOx and other contaminants will create an environmental benefit, activities that facility operators may undertake to comply with PAR 1134 may also create secondary adverse environmental impacts in the topic area of hazards and hazardous materials.

SCAQMD staff has determined that PAR 1134 contains new information of substantial importance which was not known and could not have been known at the time the Final Program EIR was

⁷ SCAQMD's rule development webpage for PAR 1134 contains all of the documentation relied upon for the BARCT analysis and can be found here: <u>http://www.aqmd.gov/home/rules-compliance/rules/scaqmd-rule-book/proposed-rules#1134</u>.

certified for the March 2017 adoption of the 2016 AQMP (referred to herein as the March 2017 Final Program EIR).

However, PAR 1134 is expected to have: 1) significant effects that were not discussed in the March 2017 Final Program EIR (CEQA Guidelines Section 15162(a)(3)(A)); and 2) significant effects that were previously examined that will be substantially more severe than what was discussed in the March 2017 Final Program EIR for the 2016 AQMP (CEQA Guidelines Section 15162(a)(3)(B)).

Thus, analysis of the proposed project indicates that the type of CEQA document appropriate for the proposed project is a Subsequent Environmental Assessment (SEA), in lieu of an EA. The SEA is a substitute CEQA document prepared in lieu of a Subsequent Environmental Impact Report with significant impacts (CEQA Guidelines Section 15162(b)), pursuant to the SCAQMD's Certified Regulatory Program (CEQA Guidelines Section 15251(1); codified in SCAQMD Rule 110). The SEA is also a public disclosure document intended to: 1) provide the lead agency, responsible agencies, decision makers and the general public with information on the environmental impacts of the proposed project; and 2) be used as a tool by decision makers to facilitate decision making on the proposed project.

Because new potentially significant adverse effects to hazards and hazardous materials that may result from implementing PAR 1134 were not analyzed at the project level in the March 2017 Final Program EIR for the 2016 AQMP, and because PAR 1134 contains new information that was not previously considered, the SCAQMD, as lead agency for the proposed project has prepared this SEA with significant impacts pursuant to its Certified Regulatory Program. Because PAR 1134 may have statewide, regional, or areawide significance, a CEQA scoping meeting is required pursuant to Public Resources Code Section 21083.9(a)(2) and was held at the SCAQMD's Headquarters in conjunction with the Public Workshop on December 18, 2018. There were no CEQA-related comments made at the Public Workshop/CEQA scoping meeting relative to PAR 1134. Further, pursuant to CEQA Guidelines Section 15252, since significant adverse impacts have been identified, an alternatives analysis and mitigation measures are required.

The <u>A</u> Draft SEA is-wasbeing released and circulated for a 45-day public review and comment period from Tuesday, January 29, 2019 to Friday, March 15, 2019. <u>Any Four comments letters</u> were received during the public comment period relative toon the analysis presented in this the Draft SEA. The comment letters and the responses are included in Appendix G of the Final <u>SEA</u>. received during the public comment period will be responded to and included in the Final SEA.

The March 2017 Final Program EIR for the 2016 AQMP, upon which this Draft SEA relies, is available from the SCAQMD's website at: <u>http://www.aqmd.gov/home/research/documents-reports/lead-agency-scaqmd-projects/scaqmd-projects---year-2017</u>. This document may also be obtained by visiting the Public Information Center at SCAQMD Headquarters located at 21865 Copley Drive, Diamond Bar, CA 91765; or by contacting Fabian Wesson, Public Advisor by phone at (909) 396-2039 or by email at <u>PICrequests@aqmd.gov</u>.

Subsequent to the release of the Draft SEA for public review and comment, minor modifications were made to PAR 1134. The minor modifications include: 1) the addition, revision, and removal of definitions for clarification; 2) rewording and renumbering of rule language; 3) the addition of provisions for compressor gas turbines; 4) the addition of a compliance date extension from the emissions limits specified in the rule for owners or operators of compressor gas turbines who

submit a request for a time extension, and 5) the inclusion of a new effective date for compressor gas turbines to comply with the emission limits set forth in PAR 1134 three years after a permit to construct is issued if the permit application is submitted before July 1, 2021. Staff has reviewed the modifications to PAR 1134 and concluded that none of the revisions: 1) constitute significant new information; 2) constitute a substantial increase in the severity of an environmental impact; or 3) provide new information of substantial importance relative to the Draft SEA. The Draft SEA concluded significant adverse hazards and hazardous materials impacts for the storage and use of aqueous ammonia and the revisions to PAR 1134 in response to verbal or written comments from the rule development process would not create new/additional or avoidable significant effects or make the aforementioned hazards and hazardous materials impacts worse. As a result, these minor revisions do not require recirculation of the Draft SEA pursuant to CEQA Guidelines Sections 15073.5 and 15088.5. Therefore, the Draft SEA has been revised to include the aforementioned modifications such that it is now the Final SEA for PAR 1134.

Prior to making a decision on the adoption of PAR 1134, the SCAQMD Governing Board must review and certify the Final SEA, including responses to comments, as providing adequate information on the potential adverse environmental impacts that may occur as a result of adopting PAR 1134.

PREVIOUS CEQA DOCUMENTATION

This Draft–Final_SEA is a comprehensive environmental document that analyzes potential environmental impacts from PAR 1134. SCAQMD rules, as ongoing regulatory programs, have the potential to be revised over time due to a variety of factors (e.g., regulatory decisions by other agencies, new data, and lack of progress in advancing the effectiveness of control technologies to comply with requirements in technology forcing rules, etc.). Rule 1134 was adopted in August 1989 and amended in December 1995, April 1997, and August 1997. Several previous CEQA documents have been prepared that analyzed the past amendments to Rule 1134. Also, the 2016 AQMP was adopted in March 2017 and an environmental analysis for the entire 2016 AQMP, including control measure CMB-05, was addressed in the March 2017 Final Program EIR.

The following summarizes the contents of the CEQA documents prepared for the previous versions of Rule 1134 and for the 2016 AQMP in reverse chronological order and are included for informational purposes. For CEQA documents that were prepared after January 1, 2000, a link for downloading files from the SCAQMD's website is provided immediately following the summaries. In addition, hardcopies of these CEQA documents can be obtained by submitting a Public Records Act request to the SCAQMD's Public Records Unit.

Final Program Environmental Impact Report for the 2016 Air Quality Management Plan; March 2017 (SCH No. 2016071006): The 2016 AQMP identified control measures and strategies to bring the region into attainment with the revoked 1997 8-hour NAAQS (standard) (80 ppb) for ozone by 2024; the 2008 8-hour ozone standard (75 ppb) by 2032; the 2012 annual PM2.5 standard ($12 \mu g/m3$) by 2025; the 2006 24-hour PM2.5 standard ($35 \mu g/m3$) by 2019; and the revoked 1979 1-hour ozone standard (120 ppb) by 2023. The 2016 AQMP consists of three components: 1) the SCAQMD's Stationary, Area, and Mobile Source Control Measures; 2) State and Federal Control Measures provided by the California Air Resources Board; and 3) Regional Transportation Strategy and Control Measures provided by the Southern California Association of Governments. The 2016 AQMP includes emission inventories and control measures for stationary, area and mobile sources, the most current air quality setting, updated growth projections, new modeling techniques, demonstrations of compliance with state and federal Clean Air Act requirements, and

an implementation schedule for adoption of the proposed control strategy. A Final Program EIR was prepared for the project which identified potential adverse impacts that may result from implementing the project for the following environmental topic areas: 1) aesthetics; 2) air quality and GHGs; 3) energy; 4) hazards and hazardous materials; 5) hydrology and water quality; 6) noise; 7) solid and hazardous waste; and 8) transportation and traffic. The analysis concluded that significant and unavoidable adverse environmental impacts from the project are expected to occur after implementing mitigation measures for the following environmental topic areas: 1) aesthetics from increased glare and from the construction and operation of catenary lines and use of bonnet technology for ships; 2) construction air quality and GHGs; 3) energy (due to increased electricity demand); 4) hazards and hazardous materials due to: (a) increased flammability of solvents; (b) storage, accidental release and transportation of ammonia; (c) storage and transportation of liquefied natural gas (LNG); and (d) proximity to schools; 5) hydrology (water demand); 6) construction noise and vibration; 7) solid construction waste and operational waste from vehicle and equipment scrapping; and 8) transportation and traffic during construction and during operation on roadways with catenary lines and at the harbors. Since significant adverse environmental impacts were identified, an alternatives analysis was required by CEQA and prepared. The March 2017 Final Program EIR concluded that the project would have significant and unavoidable adverse environmental impacts even after mitigation measures were identified and applied. As such, mitigation measures were made a condition of the approval of the project and a Mitigation Monitoring and Reporting Plan was adopted. Findings were made and a Statement of Overriding Considerations was prepared and adopted. The SCAQMD Governing Board certified the Final Program EIR and approved the project on March 3, 2017. This document can be obtained by visiting the following website at: http://www.aqmd.gov/docs/defaultsource/ceqa/documents/aqmd-projects/2016/2016aqmpfpeir.pdf.

Notice of Exemption from CEQA for Proposed Amended Rule 1134 – Emission of Oxides of Nitrogen From Stationary Gas Turbines; August 1997: The August 1997 amendments to Rule 1134 clarified that a Continuous Emissions Monitoring System (CEMS) is only required for combined cycle units with a power output of 2.9 megawatts or larger. The August 1997 amendments established consistency between Rule 1134, SCAQMD practice in 1997, and the Rule 1134 Administrative Record. Also included in the August 1997 amendments were recordkeeping amendments to correct SIP deficiencies. The project was reviewed pursuant to CEQA Guidelines Section 15002(k)(1) and SCAQMD staff concluded that it could be seen with certainty that there was no possibility that the project had the potential to create any significant adverse impacts on the environment. Therefore, the SCAQMD determined that the project was exempt from CEQA pursuant to CEQA Guidelines Section 15061(b)(3) – Review for Exemption. The project was approved on August 8, 1997 and a Notice of Exemption was filed with the county clerks of Los Angeles, Orange, Riverside, and San Bernardino counties.

Final Supplemental Environmental Assessment for Proposed Amended Rule 1134 – Emissions of Oxides of Nitrogen From Stationary Gas Turbines; April 1997 (SCAQMD No. 970124TT): The April 1997 amendments to Rule 1134 addressed state implementation plan (SIP) deficiencies identified by the United States Environmental Protection Agency (U.S. EPA); that included minor language clarifications and raised the NOx concentration limit for facilities that use digester gas fuel in selective catalytic reduction controlled gas turbine units. The April 1997 amendments increased the NOx emission limit from nine parts per million to 25 parts per million. The April 1997 amendments resulted in a loss of anticipated of emission reductions of NOx of approximately 127 pounds per day. The SCAQMD prepared a Draft Supplemental Environmental Assessment for the April 1997 amendments to Rule 1134, which identified significant adverse

environmental impacts for air quality. The Draft Supplemental Environmental Assessment for Rule 1134 was a supplement to the December 1995 Final Supplemental Environmental Assessment (SCAQMD No. 951207TM) prepared for Rule 1134 and was circulated for a 45-day public review and comment period. The Final Supplemental Environmental Assessment was certified by the SCAQMD Governing Board on April 11, 1997. Findings were made and a Statement of Overriding Considerations was also adopted for this project. A Mitigation, Monitoring, and Reporting Plan was not prepared since no feasible mitigation measures or alternatives were identified in the April 1997 Final Supplemental Environmental Assessment for Rule 1134.

Final Supplemental Environmental Assessment for Proposed Amended Rule 1134 -Emissions of Oxides of Nitrogen From Stationary Gas Turbines; December 1995 (SCAQMD No. 951207TM): The December 1995 amendments to Rule 1134 exempted some existing stationary gas turbines from the NOx limits contained in the rule. The exempted stationary gas turbines included those operated in the Salton Sea Air Basin (SSAB) and the Mojave Desert Air Basin (MDAB) formally known as the Southeast Desert Air Basin (SEDAB) and on San Clemente Island. In addition, the December 1995 amendments eliminated the requirement to account for variations in ambient temperature, pressure, and humidity by continuously correcting the reference NOx emission limits to the International Standards Organization (ISO) standard. The SCAQMD prepared a Draft Supplemental Environmental Assessment for the December 1995 amendments to Rule 1134, which identified significant adverse environmental impacts for air quality. The Draft Supplemental Environmental Assessment for Rule 1134 was a supplement to the August 1989 Final EIR (SCH No. 86121708) prepared for Rule 1134 and was circulated for a 45-day public review and comment period. Findings were made and a Statement of Overriding Considerations was adopted for the project. A Mitigation, Monitoring, and Reporting Plan was not prepared since no feasible mitigation measures or alternatives were identified in the December 1995 Final Supplemental Environmental Assessment for Rule 1134. The Final Supplemental Environmental Assessment was certified by the SCAQMD Governing Board on December 7, 1995.

Final Environmental Impact Report for Proposed Rule 1134 – Emissions of Oxides of Nitrogen From Stationary Gas Turbines; August 1989 (SCH No. 86121708): The SCAQMD prepared a series of CEQA documents for the August 1989 adoption of Rule 1134 as follows: 1) a Draft EIR 1134 was circulated for a 45-day public review and comment period on October 17, 1987; 2) Draft Final EIR was circulated for a 45-day public review and comment period on March 21, 1988; 3) a Revised Draft EIR was circulated for a 45-day public review and comment period on September 6, 1988; and 4) a Supplement to the Revised Draft EIR was circulated for a 45-day public review and comment period on May 14, 1989. Findings were made and a Statement of Overriding Considerations was adopted for the project. A Mitigation, Monitoring, and Reporting Plan was prepared and included as Attachment 1 to the Board Resolution for the Final EIR for Rule 1134. Each of the aforementioned documents were incorporated by reference into the Final EIR which was certified by the SCAQMD Governing Board on August 4, 1989.

INTENDED USES OF THIS DOCUMENT

In general, a CEQA document is an informational document that informs a public agency's decision-makers and the public generally of potentially significant adverse environmental effects of a project, identifies possible ways to avoid or minimize the significant effects, and describes reasonable alternatives to the project (CEQA Guidelines Section 15121). A public agency's decision-makers must consider the information in a CEQA document prior to making a decision

on the project. Accordingly, this SEA is intended to: a) provide the SCAQMD Governing Board and the public with information on the environmental effects of the proposed project; and b) be used as a tool by the SCAQMD Governing Board to facilitate decision-making on the proposed project.

Additionally, CEQA Guidelines Section 15124(d)(1) requires a public agency to identify the following specific types of intended uses of a CEQA document:

- 1. A list of the agencies that are expected to use the SEA in their decision-making;
- 2. A list of permits and other approvals required to implement the project; and
- 3. A list of related environmental review and consultation requirements required by federal, state, or local laws, regulations, or policies.

In addition to the SCAQMD's Governing Board which will consider the SEA for PAR 1134 in their decision-making, the California Air Resources Board (CARB), a state agency, and the U.S. EPA, a federal agency, will be reviewing PAR 1134 and all supporting documents, including the SEA, as part of the process for considering the inclusion of PAR 1134 into the SIP. Moreover, PAR 1134 is not subject to any other related environmental review or consultation requirements.

To the extent that local public agencies, such as cities, county planning commissions, et cetera, are responsible for making land use and planning decisions related to projects that must comply with the requirements in PAR 1134, they could possibly rely on this SEA during their decision-making process. Similarly, other single purpose public agencies approving projects that utilize compliant equipment subject to PAR 1134 may rely on this SEA.

AREAS OF CONTROVERSY

CEQA Guidelines Section 15123(b)(2) requires a public agency to identify the areas of controversy in the CEQA document, including issues raised by agencies and the public. Over the course of developing the proposed project, no concerns regarding PAR 1134 were expressed by representatives of industry and environmental groups, either in public meetings or in written comments.

Pursuant to CEQA Guidelines Section 15131(a), "[e]conomic or social effects of a project shall not be treated as significant effects on the environment." CEQA Guidelines Section 15131(b) states further, "[e]conomic or social effects of a project may be used to determine the significance of physical changes caused by the project." Physical changes that may be caused by PAR 1134 have been evaluated in Chapter 4 of this SEA. No direct or indirect physical changes resulting from economic or social effects have been identified as a result of implementing PAR 1134.

To date, no other controversial issues relevant to the CEQA analysis were raised as a part of developing the proposed project.

EXECUTIVE SUMMARY

CEQA Guidelines Section 15123 requires a CEQA document to include a brief summary of the proposed actions and their consequences. In addition, areas of controversy must also be included in the executive summary (see preceding discussion). This SEA consists of the following chapters: Chapter 1 – Executive Summary; Chapter 2 – Project Description; Chapter 3 – Existing Setting, Chapter 4 – Potential Environmental Impacts and Mitigation Measures; Chapter 5 – Project

Alternatives; and various appendices. The following subsections briefly summarize the contents of each chapter.

Summary of Chapter 1 – Executive Summary

Chapter 1 includes an introduction of the proposed project and a discussion of the legislative authority that allows the SCAQMD to amend and adopt air pollution control rules, identifies general CEQA requirements and the intended uses of this CEQA document, and summarizes the remaining four chapters that comprise this SEA.

Summary of Chapter 2 – Project Description

SCAQMD staff has been directed by the Governing Board to begin the process of transitioning equipment at facilities that are currently subject to facility permit requirements per SCAQMD Regulation XX - RECLAIM for NOx to instead be subject to an equipment-based command-andcontrol regulatory structure per SCAQMD Regulation XI. To date, several rules have been amended in accordance with the Governing Board's direction. Currently, SCAQMD staff is continuing this transition process by proposing amendments to Rule 1134. PAR 1134 reflects the proposed project which is a culmination of recommendations made throughout the public engagement process including four working group meetings held at SCAQMD headquarters in Diamond Bar on February 22, 2018, April 26, 2018, June 13, 2018, and August 10, 2018. The working group is composed of representatives from the manufacturers, trade organizations, permit stakeholders, businesses, environmental groups, public agencies, consultants, and other interested parties. In addition, staff also discussed concepts for PAR 1134 at the RECLAIM working group meetings held on November 8, 2017, January 11, 2018, February 8, 2018, March 8, 2018, April 12, 2018, June 14, 2018, July 12, 2018, November 8, 2018, and December 13, 2018. A Public Workshop and CEQA Scoping Meeting was held December 18, 2018. PAR 1134 will transition affected stationary gas turbines at NOx RECLAIM facilities to a command-and-control regulatory structure. PAR 1134 revises NOx emission limits to reflect current BARCT for stationary gas turbines. In particular, PAR 1134 is proposing to: 1) expand its applicability to include stationary gas turbines that were not previously required to comply with Rule 1134; 2) update the NOx and ammonia emission limits for stationary gas turbines to comply with BARCT; 3) transition all monitoring, reporting, and recordkeeping requirements (MRR) in Rule 1134 to new SCAQMD Rule 113, upon its adoption; 4) establish new exemptions for low-use equipment, certain existing combined cycle gas turbines, and emergency standby gas turbines; 5) provide relief from having to comply with ammonia requirements for turbines that do not use ammonia for controlling NOx emissions; and 6) revise existing exemptions to remove obsolete provisions. Other minor changes are also proposed for clarity and consistency throughout the rule. The proposed project is estimated to reduce NOx emissions by 2.8 tons per day after implementation of BARCT limits and will provide an overall environmental benefit to air quality. While reducing emissions of NOx and other contaminants will create an environmental benefit, activities that facility operators may undertake to comply with PAR 1134 may also create secondary potentially significant adverse environmental impacts the topic area of hazards and hazardous materials for the storage and use of aqueous ammonia.

A copy of PAR 1134 can be found in Appendix A of this Draft-Final SEA.

Summary of Chapter 3 – Existing Setting

Pursuant to CEQA Guidelines Section 15125, Chapter 3 – Existing Setting includes a description of the environmental topic areas that are potentially adversely affected by the proposed project. While the analysis of the proposed project indicated that additional potentially significant adverse

hazards and hazardous material impacts will occur, the focus of the analysis in this SEA is limited to the environmental topic of and hazards and hazardous materials. However, because physical modifications are expected to occur that may cause adverse, but less than significant, air quality impacts as a result of implementing PAR 1134, this chapter also includes the topic of air quality.

The following discussion briefly highlights the existing setting for the topics of air quality and hazards and hazardous materials.

<u>Air Quality</u>

Air quality in the area of the SCAQMD's jurisdiction has shown substantial improvement over the last two decades. Nevertheless, some federal and state air quality standards are still exceeded frequently and by a wide margin. Of the NAAQS established for seven criteria pollutants (ozone, lead, sulfur dioxide, nitrogen dioxide, carbon monoxide, PM10 and PM2.5), the area within the SCAQMD's jurisdiction is only in attainment with the NAAQS for carbon monoxide, sulfur dioxide, and nitrogen dioxide. Chapter 3 provides a brief description of the existing air quality setting for each criteria pollutant, as well as the human health effects resulting from exposure to each criteria pollutant.

Hazards and Hazardous Materials

The 2016 AQMP contains control measures intended to improve overall air quality; however, the implementation of some control measures, such as CMB-05, may result in adverse hazards and hazardous materials impacts, either directly or indirectly. Hazard concerns are related to the potential for fires, explosions or the release of hazardous materials/substances in the event of an accident or upset conditions. The potential for hazards exist in the production, use, storage, and transportation of hazardous materials. Hazardous materials may be found at industrial production and processing facilities. Some facilities produce hazardous materials as their end product, while others use such materials as an input to their production process. Examples of hazardous materials used as consumer products include gasoline, solvents, and coatings/paints. Hazardous materials are stored at facilities that produce such materials and at facilities where hazardous materials are a part of the production process. Specifically, storage refers to the bulk handling of hazardous materials before and after they are transported to the general geographical area of use. Currently, hazardous materials are transported throughout the Basin in large quantities via all modes of transportation including rail, highway, water, air, and pipeline. Incidents of harm to human health and the environment associated with hazardous materials have created a public awareness of the potential for adverse effects from careless handling and/or use of these substances. As a result, a number of federal, state, and local laws have been enacted to regulate the use, storage, transportation, and management of hazardous materials and wastes. Chapter 3 discusses the existing hazards and hazardous materials setting.

Summary of Chapter 4 – Environmental Impacts

CEQA Guidelines Section 15126(a) requires a CEQA document to identify and focus on the "significant environmental effects of the proposed project." Direct and indirect significant effects of the project on the environment shall be clearly identified and described, giving due consideration to both the short-term and long-term effects. In addition, CEQA Guidelines Section 15126(b) requires a CEQA document to identify the significant environmental effects that cannot be avoided if the proposed project is implemented. CEQA Guidelines Section 15126(c) also requires a CEQA document to consider and discuss the significant irreversible environmental changes that would be involved if the proposed project is implemented. Further, CEQA Guidelines Section 15126(e) requires a CEQA document to consider and discuss the significant irreversible environmental changes that would be involved if the proposed project is implemented. Further, CEQA Guidelines Section 15126(e) requires a CEQA document to consider and discuss mitigation measures proposed to minimize the significant effects. Finally, CEQA Guidelines Section 15130 requires a

CEQA document to discuss whether the proposed project has cumulative impacts. Chapter 4 considers and discusses each of these requirements.

Potential Environmental Impacts Found To Be Significant

Hazards and hazardous materials is the only environmental topic area that has been identified in this SEA as having potentially significant adverse impacts if the proposed project is implemented. In addition, because physical modifications are expected to occur that may cause adverse, but less than significant, air quality impacts as a result of implementing PAR 1134, this chapter also analyzes the topic of air quality.

Potential Environmental Impacts Found Not To Be Significant

Because this SEA is a subsequent CEQA document to the March 2017 Final Program EIR for the 2016 AQMP, this SEA relies on the conclusions reached in this document as evidence for environmental areas where impacts were found not to be significant. The previous CEQA document reviewed approximately 17 environmental topic areas and analyzed whether the respective projects would create potentially significant adverse impacts.

The analysis in the March 2017 Final Program EIR for the 2016 AQMP concluded that significant and unavoidable adverse environmental impacts from the project are expected to occur after implementing mitigation measures for the following environmental topic areas: 1) aesthetics from increased glare and from the construction and operation of catenary lines and use of bonnet technology for ships; 2) construction air quality and GHGs; 3) energy (due to increased electricity demand); 4) hazards and hazardous materials due to: (a) increased flammability of solvents; (b) storage, accidental release and transportation of ammonia; (c) storage and transportation of liquefied natural gas (LNG); and (d) proximity to schools; 5) hydrology (water demand); 6) construction noise and vibration; 7) solid construction waste and operational waste from vehicle and equipment scrapping; and, 8) transportation and traffic during construction and during operation on roadways with catenary lines and at the harbors. It is important to note, however, that for these environmental topic areas, not all of the conclusions of significance are applicable to the currently proposed project, PAR 1134. Please see Chapter 4, Table 4-16, for a summary of the significant and unavoidable adverse environmental impacts identified in the March 2017 Final Program EIR and which ones apply to the proposed project.

PAR 1134 is expected to have: 1) significant effects that were not discussed in the previous March 2017 Final Program EIR for the 2016 AQMP (CEQA Guidelines Section 15162(a)(3)(A)); and 2) significant effects that were previously examined that may be substantially more severe than what was discussed in the March 2017 Final Program EIR for the 2016 AQMP (CEQA Guidelines Section 15162(a)(3)(B)).

By preparing a SEA for the proposed project, since the topics of air quality and hazards and hazardous materials are the only environmental topic areas that would be affected by PAR 1134, no other environmental topic areas have been evaluated in this SEA. Thus, the conclusions reached in this SEA are consistent with the conclusions reached in the previously certified CEQA document (e.g., the March 2017 Final Program EIR for the 2016 AQMP) that aside from the topics air quality during construction and <u>of</u> hazards and hazardous materials, there would be no other significant adverse effects from the implementation of the proposed project. Thus, the proposed project would have no significant or less than significant direct or indirect adverse effects on the following environmental topic areas:

• aesthetics

- air quality and greenhouse gases
- agriculture and forestry resources
- biological resources
- cultural resources
- energy
- geology and soils
- hydrology and water quality
- land use and planning
- mineral resources
- noise
- population and housing
- public services
- recreation
- solid and hazardous waste
- transportation and traffic

The March 2017 Final Program EIR for the 2016 AQMP can be found using the link referenced in Chapter 2.

Other CEQA Topics

CEQA documents are also required to consider and discuss the potential for growth-inducing impacts (CEQA Guidelines Section 15126(d)) and to explain and make findings about the project's relationship between short-term and long-term environmental goals. [CEQA Guidelines Section 15065(a)(2).] Additional analysis confirms that the proposed project would not result in irreversible environmental changes or the irretrievable commitment of resources, foster economic or population growth or the construction of additional housing. Further, implementation of the proposed project is not expected to achieve short-term goals to the disadvantage of long-term environmental goals.

Summary Chapter 5 - Alternatives

CEQA Guidelines Section 15126(e) requires a CEQA document to consider and discuss alternatives to the proposed project. Three alternatives to the proposed project are summarized in Table 1-2: 1) Alternative A – No Project; 2) Alternative B – Earlier Compliance Date; and 3) Alternative C – Phased Compliance Dates. Pursuant to the requirements in CEQA Guidelines Section 15126.6(b) to mitigate or avoid the significant effects that a project may have on the environment, a comparison of the project's potentially adverse impacts, but less than significant air quality impacts and the potentially significant adverse hazards and hazardous materials impacts to each of the project alternatives for the individual rule components that comprise the proposed project is provided in Table 1-3. Aside from potentially significant adverse impacts to hazards and hazardous materials from the catastrophic failure of an aqueous ammonia tank, no other potentially significant adverse impacts were identified for the proposed project. The proposed project is considered to provide the best balance between achieving NOx emission reductions and the secondary adverse environmental impacts that may occur due to activities associated with the

storage of hazardous materials associated with operating air pollution control equipment (e.g., SCRs) while meeting the overall objectives of the project. Therefore, the proposed project is preferred over the project alternatives.

Summary of the Proposed Project Alternatives							
PROPOSED PROJECT Compliance Date 12/31/2023 ¹			ALTERN. No Pro		ALTERN Earlier Comj 12/31/	pliance Date	ALTERNATIVE C Phased Compliance Dates ⁶
Fuel Type	NOx Limit (ppmv)	Ammonia Limit (ppmv)	NOx Limit (ppmv)	Ammonia Limit (ppmv)	NOx Limit (ppmv)	Ammonia Limit (ppmv)	Phased compliance dates with equivalent NOx & Ammonia limits to the Proposed Project
Liquid Fuel – Outer Continental Shelf ²	30	5			30	5	Compliance Date: December 31, 2023
Natural Gas – Combined Cycle	2	5			2	5	Compliance Date: June 30, 2023
Natural Gas – Pipeline <u>Compressor</u> Gas Turbine ²	<u>83.5</u>	5 <u>10</u>			<u>83.5</u>	5 <u>10</u>	Compliance Date: December 31, 2023
Natural Gas – Simple Cycle	2.5	5			2.5	5	Compliance Date: December 31, 2022
Produced Gas	5 9	5			5 9	5	Compliance Date: December 31, 2023
Produced Gas – Outer Continental Shelf ³	15	5			15	5	Compliance Date: December 31, 2023
Other	12.5	5			12.5	5	Compliance Date: December 31, 2023

 Table 1-1

 Summary of the Proposed Project Alternatives

PAR 1134 applies to all stationary gas turbines located at non-RECLAIM and RECLAIM facilities (excluding those subject to Rule 1135 or those located at a petroleum refinery, landfills, or publically owned treatment works), regardless of the date they were permitted.

^{2,3} Stationary gas turbines located in the outer continental shelf (defined in Title 40 CFR Part 55 – Outer Continental Shelf Air Regulations) are off-shore facilities and are not accessible via on-road vehicles.

⁴ For Alternative A, RECLAIM facilities will continue to comply with their annual facility-wide NOx allocations; there are no specific NOx Limits applicable to stationary gas turbines.

⁵ For Alternative A, non-RECLAIM facilities: The August 1997 version of Rule 1134 and the following NOx limits will remain in effect: gas turbines without SCR have a NOx limit that ranges between 12 and 25 ppmv and gas turbines with SCR have a NOx limit of nine ppmv.

⁶ Phased compliance dates are based on the total NOx inventory for turbines subject to PAR 1134 with earlier compliance dates for equipment with larger NOx emission inventories.

7 The effective date for compressor gas turbines is two years after a permit to construct is issued by the Executive Officer or three years after a permit to construct is issued if the permit application is submitted before July 1, 2021. Only four existing compressor gas turbines are subject to PAR 1134.

	Comparison of Auverse Environmental Impacts of the Proposed Project and Auternatives						
CATEGORY	PROPOSED PROJECT	ALTERNATIVE A No Project	ALTERNATIVE B Earlier Compliance Date 12/31/2022	ALTERNATIVE C Phased Compliance Dates			
Air Quality	Expected to result in NOx emission reductions of 2.8 tons per day. Stationary gas turbines at affected RECLAIM facilities will transition to a command-and-control regulatory structure. The affected stationary gas turbines are expected to be retrofitted with SCR technology, or repowered or replaced. Stationary gas turbines operated at non- RECLAIM facilities are expected to be retrofitted with SCR technology, or repowered, or replaced. Upon project implementation, all stationary gas turbines at RECLAIM and non-RECLAIM facilities will achieve BARCT equivalency for NOx.	No NOx emission reductions will occur because RECLAIM facilities would not transition to a command- and control regulatory structure such that their stationary gas turbines will not be retrofitted with air pollution control equipment, repowered, or replaced. Non-RECLAIM stationary gas turbines will continue to meet the existing NOx limits in the current version of Rule 1134.	Expected to result in NOx emission reductions of 2.8 tons per day, which is equivalent to the proposed project but achieved one year earlier than the proposed project. Upon project implementation, all stationary gas turbines at RECLAIM and non- RECLAIM facilities will achieve BARCT equivalency for NOx.	Expected to result in equivalent NOx emission reductions of 2.8 tons per day, which is equivalent to the proposed project; the quantity of emission reductions will occur incrementally due to the phased compliance dates. A portion of the overall NOx emission reductions will be achieved one year earlier (e.g., by 12/31/2022) for simple cycle gas turbines either equipped with or without SCR technology. The remaining stationary gas turbines will achieve the remaining portion of the overall NOx emission reductions by 12/31/23. Upon project implementation, all stationary gas turbines at RECLAIM and non- RECLAIM facilities will achieve BARCT equivalency for NOx.			

 Table 1-2

 Comparison of Adverse Environmental Impacts of the Proposed Project and Alternatives

CATEGORYPROPOSED PROJECTNo ProjectEarlier Compliance Date 12/31/2022Phased Compliance DatesLess than Significant:No exceedances of the SCAQMD's air quality significance thresholds for any pollutant are expected to occur either during construction, during construction with overlapping operational impacts, or during operation after all construction isNot Significant: Alternative A would not result in an exceedance of any SCAQMD air quality significance thresholdsSignificant: compliance date when compared to result in an exceedance of any SCAQMD air quality significance thresholdsSignificant: compliance date when compared to result in an exceedance of any SCAQMD air quality significance thresholds during construction or operation because noSignificant: compliance date when compared to result in an exceedance of any SCAQMD air quality significance thresholds during construction or operation because noSignificant: compliance date when compared to result in an exceedance of any SCAQMD air quality significance thresholds during construction or operation because noSignificant: compliance date when compared to result in an exceedance of the proposed project, the construction under Alternative B would be expected to occur over a shorter period time such that more facilities time such that more facilities would be			ALTERNATIVE A	ALTERNATIVE B	ALTERNATIVE C
of the SCAQMD's air quality significance thresholds for any pollutant are expected to occur either during construction, during construction with during operation after all construction isAlternative A would not result in an exceedance of any SCAQMD air quality significance thresholdscompliance date when compared to the proposed project, the construction schedules of the affected facilities under Alternative B would be expected to occur over a shorter period time such that more facilitiescompliance dates for gas turbines equipped with and without SCRs, the construction schedules of the affected facilities under Alternative C would be expected to occur over a shorter period time such that more facilities	CATEGORY			12/31/2022	
Significance of Air Quality Impactsmodifications to retrofit existing stationary gas turbines, emissions from construction are expected to occur. As facilities transition their existing stationary gas turbines to achieve BARCT emission levels over the 4-year compliance period, some facilities will have completed construction, which will reductions, an air quality benefit (see Appendix F). Upon completion of constructions.would be expected to occur. that would create construction are expected to occur. As facilities transition their existing stationary gas turbines to achieve BARCT emission levels over the 4-year compliance period, some facilities will have completed construction, which will reductions, an air quality benefit (see Appendix F). Upon completion of constructions.would be expected to occur. that would create construction of ozone); thus, attainment for the SCAQMD for ozone is unlikely to occur.construction on a peak day. As such, an exceedance of the SCAQMD's air quality significance through overlapping construction of more SCR systems and more retrofit, repower or replacement of stationary gas turbines to achieve BARCT emission reductions, an air quality benefit (see Appendix F). Upon completion of construction set all affected facilities, an overall benefit to operational air quality will occur due to the project's overall Nox emission reductions.would be expected to occur. that would create construction of more SCAQMD will not achieve any emissions reductions, an air quality benefit. Upon completion of construction, which will create incremental NOx emission reductions, an air quality benefit. Upon completion of construction at all affected facilities, an overall NOx emission reductions.peak day. As such, an exceedance of the SCAQMD's air	Air Quality	of the SCAQMD's air quality significance thresholds for any pollutant are expected to occur either during construction, during construction with overlapping operational impacts, or during operation after all construction is completed. As facilities implement modifications to retrofit existing stationary gas turbines with air pollution control equipment (e.g., SCR technology/systems installation), or repower or replace existing stationary gas turbines, emissions from construction are expected to occur. As facilities transition their existing stationary gas turbines to achieve BARCT emission levels over the 4-year compliance period, some facilities will have completed construction, which will create incremental NOx emission reductions, an air quality benefit (see <u>Appendix F</u>). Upon completion of construction at all affected facilities, an overall benefit to operational air quality will occur due to the project's overall	Alternative A would not result in an exceedance of any SCAQMD air quality significance thresholds during construction or operation because no physical modifications would be expected to occur that would create construction emissions or reduce overall NOx emissions from the affected equipment. The SCAQMD will not achieve any emissions reductions of NOx (a pre-cursor to the formation of ozone); thus, attainment for the SCAQMD for ozone is	compliance date when compared to the proposed project, the construction schedules of the affected facilities under Alternative B would be expected to occur over a shorter period time such that more facilities would be expected to undergo construction on a peak day. As such, an exceedance of the SCAQMD's air quality significance threshold for NOx is expected to occur during overlapping construction of more SCR systems and more retrofit, repower or replacement of stationary gas turbines on a peak day, than the proposed project. As facilities transition their existing stationary gas turbines to achieve BARCT emission levels over the 3-year compliance period, some facilities will have completed construction, which will create incremental NOx emission reductions, an air quality benefit. Upon completion of construction at all affected facilities, an overall benefit to operational air quality will occur sooner due to the project's	compliance dates for gas turbines equipped with and without SCRs, the construction schedules of the affected facilities under Alternative C would be expected to occur over a shorter period time such that more facilities would be expected to undergo construction on a peak day. As such, exceedances of the SCAQMD's air quality significance threshold for NOx is expected to occur during overlapping construction of more SCR systems and more retrofit, repower or replacement of stationary gas turbines stationary gas turbines on a peak day, than the proposed project. As facilities transition their existing stationary gas turbines to achieve BARCT emission levels over the 3- year compliance period for gas turbines equipped with and without SCRs and over the 4-year compliance period for the remaining gas turbines, some facilities will have completed construction, which will create incremental NOx emission reductions, an air quality benefit. Upon completion of construction at all affected facilities, an overall benefit to

 Table 1- 2

 Comparison of Adverse Environmental Impacts of the Proposed Project and Alternatives (continued)

CATEGORY	PROPOSED PROJECT	ALTERNATIVE A No Project	ALTERNATIVE B More Stringent Compliance Deadline	ALTERNATIVE C Phased Compliance Deadline
Hazards and Hazardous Materials	Some of the affected stationary gas turbines are expected to be retrofitted with SCR technology, which requires ammonia for operation. Thus, the analysis assumes that one new ammonia storage tank will be needed for each SCR system installed at each facility. Ammonia is considered to be a hazardous material.	None of the affected facilities will be required to achieve BARCT level equivalency through compliance with the proposed project. As such, no stationary gas turbines will be retrofitted with SCR technology. Thus, no new ammonia storage tanks will be needed.	Some of the affected stationary gas turbines are expected to be retrofitted with SCR technology, which requires ammonia for operation. Thus, the analysis assumes that one new ammonia storage tank will be needed for each SCR system installed at each facility. Ammonia is considered to be a hazardous material.	Some of the affected stationary gas turbines are expected to be retrofitted with SCR technology, which requires ammonia for operation. Thus, the analysis assumes that one new ammonia storage tank will be needed for each SCR system installed at each facility. Ammonia is considered to be a hazardous material.
Significance of Hazards and Hazardous Materials Impacts	Significant: Based on the analysis, using EPA RMP*Comp, the estimated distance of the toxic endpoint from the catastrophic failure of an aqueous ammonia storage tank to sensitive receptors could result in significant impacts for any facility that installs a new ammonia storage tank, depending on the location of where the storage tank is installed, relative to the location of the offsite receptor. If the toxic endpoint is outside of a facility's boundaries, mitigation measures will be required.	Not Significant: The construction of SCR systems would not be necessary; thus, there would be no need to use ammonia or build new ammonia storage tanks. No significant hazards or hazardous materials impacts would be expected to occur.	Significant: Based on the analysis, using EPA RMP*Comp, the estimated distance of the toxic endpoint from the catastrophic failure of an aqueous ammonia storage tank to sensitive receptors could result in significant impacts for any facility that installs a new ammonia storage tank, depending on the location of where the storage tank is installed, relative to the location of the offsite receptor. If the toxic endpoint is outside of a facility's boundaries, mitigation measures will be required. The number of affected facilities would be the same as the proposed project. The level of significance in Alternative B would be equivalent to the proposed project.	Significant: Based on the analysis, using EPA RMP*Comp, the estimated distance of the toxic endpoint from the catastrophic failure of an aqueous ammonia storage tank to sensitive receptors could result in significant impacts for any facility that installs a new ammonia storage tank, depending on the location of where the storage tank is installed, relative to the location of the offsite receptor. If the toxic endpoint is outside of a facility's boundaries, mitigation measures will be required. The number of affected facilities would be the same as the proposed project. The level of significance in Alternative C would be equivalent to the amount in the proposed project.

 Table 1- 2

 Comparison of Adverse Environmental Impacts of the Proposed Project and Alternatives (concluded)

CHAPTER 2

PROJECT DESCRIPTION

Project Location Project Background Project Objectives Project Description Summary of Affected Equipment Technology Overview

PROJECT LOCATION

PAR 1134 applies to RECLAIM and non-RECLAIM stationary gas turbines that are not subject to Rule 1135 or located at petroleum refineries, landfills, or publicly owned treatment works. The SCAQMD has jurisdiction over an area of approximately 10,743 square miles, consisting of the four-county South Coast Air Basin (Orange County and the non-desert portions of Los Angeles, Riverside and San Bernardino counties), and the Riverside County portions of the Salton Sea Air Basin (SSAB) and Mojave Desert Air Basin (MDAB). The Basin, which is a subarea of SCAQMD's jurisdiction, is bounded by the Pacific Ocean to the west and the San Gabriel, San Bernardino, and San Jacinto mountains to the north and east. It includes all of Orange County and the non-desert portion of the SSAB is bounded by the San Jacinto Mountains in the west and spans eastward up to the Palo Verde Valley. A federal nonattainment area (known as the Coachella Valley Planning Area) is a subregion of Riverside County and the SSAB that is bounded by the San Jacinto Mountains to the west and the eastern boundary of the Coachella Valley to the east (see Figure 2-1).



Figure 2-1 Southern California Air Basins

PROJECT BACKGROUND

Rule 1134 was adopted in 1989 and applied to stationary gas turbines rated at 0.3 MW and larger that were issued a permit to operate by the SCAQMD prior to August 4, 1989. The rule was developed as of result of the U.S. EPA's 1979 adoption of New Source Performance Standards for Stationary Gas Turbines and CARB's 1981 adoption of a Suggested Control Measure for Stationary Gas Turbines. Rule 1134 established NOx emission limits based on stationary gas turbine size megawatt rating. After adoption of the Rule in 1989, Rule 1134 was subsequently amended three times. The December 1995 amendment exempted gas turbines located on San Clemente Island and the South East Desert Air Basin. The April 1997 amendment increased the NOx concentration limit for turbines that utilized sewage digester gas. And lastly, the August 1997 amendment clarified the need for continuous emission monitoring systems (CEMS) on turbines with a power output of 2.9 MW or larger.

In the 2016 AQMP, control measure CMB-05 – Further NOx Reductions from RECLAIM Assessment, committed to achieving NOx emission reductions of five tons per day by 2025, along with achieving BARCT level equivalency for all facilities through a command-and-control regulatory structure, while alleviating facilities from installing technology that would quickly become obsolete or serve as an intermediate technology. The process of transitioning NOx RECLAIM facilities to a command-and-control regulatory structure will ensure that the affected equipment will meet BARCT level equivalency as soon as practicable. As a result of control measure CMB-05 from the 2016 AQMP and ABs 617 and 398, SCAQMD staff has been directed by the Governing Board to begin the process of transitioning equipment at NOx RECLAIM facilities from a facility permit structure to an equipment-based command-and-control regulatory structure per SCAQMD Regulation XI – Source Specific Standards. SCAQMD staff has proposed amendments to Rule 1134 to transition equipment from the NOx RECLAIM program to a command-and-control regulatory structure, while achieving BARCT. PAR 1134 will assist in the transition of 18 facilities out of the RECLAIM program.

PROJECT OBJECTIVES

The main objectives of PAR 1134 are to: 1) reduce NOx emissions from stationary gas turbines and transition these equipment that are currently permitted under the NOx RECLAIM program to a command-and-control regulatory structure; and 2) implement Control Measure CMB-05 by updating the NOx limits and incorporating new ammonia (NH3) emission limits to reflect current BARCT.

PROJECT DESCRIPTION

If adopted, PAR 1134 would: 1) expand its applicability to include stationary gas turbines that were not previously required to comply with Rule 1134; 2) update the NOx and NH3 emission limits for stationary gas turbines to comply with BARCT; 3) transition all monitoring, reporting, and recordkeeping requirements (MRR) in Rule 1134 to new SCAQMD Rule 113 - MRR Requirements for NOx and SOx Sources, upon its adoption; 4) establish new exemptions for low-use equipment, certain existing combined cycle gas turbines, and emergency standby gas turbines; 54) provide relief from having to comply with ammonia requirements for turbines that do not use ammonia for controlling NOx emissions; and 65) revise existing exemptions to remove obsolete provisions. Implementation of the proposed project is estimated to reduce NOx emissions by 2.8 tons per day after implementation of BARCT limits.

The following is a detailed summary of key elements contained in PAR 1134. A copy of PAR 1134 can be found in Appendix A.

PAR 1134

Purpose – Subdivision (a)

PAR 1134 proposes new subdivision (a) to establish the rule's purpose, which is to reduce emissions of oxides of nitrogen from stationary gas turbines.

Applicability – Subdivision (b)

PAR 1134 proposes to clarify that the rule applies to all stationary gas turbines rated at 0.3 MW or larger and are located at non-RECLAIM and RECLAIM facilities, except those subject to Rule 1135 or are located at landfills, petroleum refineries, or publicly owned treatment works, regardless of the date they were permitted.

Definitions – Subdivision (c)

PAR 1134 proposes to delete obsolete definitions, add new definitions, and modify existing definitions to clarify and explain key concepts.

The following definitions are obsolete and are proposed to be deleted:

Chemical Processing Gas Turbine Emission Control Plan <u>Higher Heating Value of Fuel (HHV)</u> Lower Heating Value of Fuel (LLV) Peaking Gas Turbine Unit <u>Sewage Digester Gas</u> Southeast Desert Air Basin (SEDAB)

The following are existing definitions which are proposed to be modified:

Cogeneration <u>Gas</u> Turbine Combined Cycle Gas Turbine <u>Compressor Gas Turbine (formerly Pipeline Gas Turbine Unit)</u> Emergency Standby Gas Turbine Existing Gas Turbine Higher Heating Value of Fuel (HHV) Lower Heating Value of Fuel (LLV)

Stationary Gas Turbine

The following are new definitions which are proposed to be added:

Annual Capacity Factor Duct Burner Former RECLAIM NOx Facility Landfill Natural Gas Non-RECLAIM NOx Facility Oxides of Nitrogen (NOx) Emissions **Outer Continental Shelf** Petroleum Refinerv Produced Gas Publicly Owned Treatment Works **RECLAIM NOx Facility** Shutdown Simple Cycle Gas Turbine Start-up Tuning

Emissions Limitations – Renumbered Subdivision (d)

Subdivision (c) is proposed to be renumbered to subdivision (d). Due to the proposed deletion of the term "unit" throughout PAR 1134, any reference to unit is also proposed to be deleted from subdivision (d) and replaced with the terms "stationary gas turbine" or "gas turbine", as appropriate.

Modified paragraph (d)(1) proposes to add a provision of applicability to existing turbines currently subject to Rule 1134 on an interim basis until the existing gas turbine can comply with the limits set forth in Table 1 of paragraph (d)(3) or by January 1, 2024, whichever comes first. Turbines that are a RECLAIM NOx source or a former RECLAIM NOx source are not subject to paragraph (d)(1).

To help achieve the emission reduction goals of the 2016 AQMP and AB 617 requirement of BARCT implementation, PAR 1134 paragraphs (d)(1) and (d)(2) set the compliance date for electric generating units as January 1, 2024.

New paragraph (d)(3) proposes to add the following emissions limits for stationary gas turbines with a compliance date of no later than January 1, 2024. It is important to note that the NOx emission limit in Table 1 would not apply during start up, shutdown, and tuning.

Fuel Type	NO _X (ppmv)	Ammonia (ppmv)	Oxygen Correction (%, dry)
Liquid – Turbines Located on Outer Continental Shelf	30	5	15
Natural Gas – Combined Cycle <u>Turbine</u>	2	5	15
Natural Gas Pipeline Gas Turbine	8	5	15
Natural Gas – Simple Cycle <u>Turbine</u>	2.5	5	15
Produced Gas	<u>59</u>	5	15
Produced Gas – Turbines Located on Outer Continental Shelf	15	5	15
Other	12.5	5	15

PAR 1134, Table 11: Emissions Limits for Stationary Gas Turbines

New paragraph (d)(4) proposes to add the following emissions limits for compressor gas turbines with an effective date 24 months after a permit to construct is issued by the Executive Officer or three years after a permit to construct is issued if the permit application is submitted before July 1, 2021.

PAR 1134, Table II: Emissions Limits for Compressor Gas Turbines

Fuel Type	<u>NOx</u>	<u>Ammonia</u>	Oxygen Correction
	(ppmv)	(ppmv)	(%, dry)
Natural Gas – Compressor Gas Turbine	<u>3.5</u>	<u>10</u>	<u>15</u>

New paragraph (d)(45) proposes to include requirements for start-up, shutdown, and tuning periods in each stationary gas turbine's permit. The requirements will specify duration, mass emissions, and number of start-ups, shutdowns, and, if applicable, tunings. Requirements for start-up, shutdown, and tuning of existing electric generating units are currently in the permits for that equipment. Additionally, start-up, shutdown, and tuning are unique to each unit and evaluated during the permitting process. Therefore, PAR 1134 does not specify specific start-up, shutdown, and tuning requirements, but instead states that the requirements will be put in each stationary gas turbine's permit.

New subparagraph (d)($\underline{56}$)(B) proposes to allow the emissions limits of turbines that are installed after [*Date of Adoption*] to be averaged over a 60-minute rolling average. For stationary gas turbines installed before [*Date of Adoption*], new subparagraph (d)($\underline{56}$)(A) allows the option for turbines to retain their current averaging time. Compressor gas turbines will require the emission limits to be averaged over a 3-hour rolling average.

New paragraph (d)(67) proposes to prohibit the use of liquid fuel in a stationary gas turbine except for Outer Continental Shelf gas turbines which do not have access to natural gas. Outer Continental Shelf gas turbines burning 10 percent or less liquid fuel will be subject to the produced gas limit.

New paragraph (d)(78) proposes to require the facility owner or operator of a stationary gas turbine to submit applications to reconcile their permits with Rule 1134 by July 1, 2022. As facilities

transition out of RECLAIM to Rule 1134, their permits will need to be revised to remove references to RECLAIM rules and include references to Rule 1134.

New paragraph (d)(9) proposes to allow an owner or operator of a compressor gas turbine to request an extension of up to one year for compliance with the NOx emissions limits in Table II and a three year extension for compliance with the ammonia emissions limits in Table II. If an owner or operator of a compressor gas turbine elects to submit a request for a time extension, that owner or operator is required to submit a request at least 30 days before the compliance deadline, as specified in paragraph (d)(4). Part of the information to be submitted as part of an extension request includes a demonstration that the actual facility NOx emissions will decrease by at least 25 percent averaged over three years beginning December 31, 2023 in comparison to 2017 facility emissions. Any extension requested in excess of 12 months requires the compressor gas turbine to be equipped with an ammonia continuous emission monitoring system certified under an approved SCAQMD protocol. For extension requests greater than 24 months, the facility must demonstrate that the compressor gas turbine is operating less than 1,000 hours per year. The Executive Officer will approve or disapprove all requests for time extensions and will determine if an extension circumstance necessitates additional time to complete implementation.

Monitoring and Source Testing – Subdivision (e)

SCAQMD has committed to developing a new, separate rule, to be named Rule 113, to address monitoring, recordkeeping, and reporting requirements (MRR) for NOx and SOx emissions. Once amended Rules 113–218 and 218.1 is are adopted, all Rule 1134 equipment will be required to transition to complying with the MRR requirements in Rule 113218 and 218.1. For the interim period, the intention of the PAR 1134 MRR is to maintain current MRR for all facilities and minimize the RECLAIM reporting requirements. Turbines that are non-RECLAIM NOx sources already comply with Rule 218 – Continuous Emission Monitoring (Rule 218) in addition to other MRR requirements. Therefore, requiring compliance with Rule 218 will not affect these units.

Paragraph (e)(1) applies to gas turbines 2.9 MW and larger located at non-RECLAIM NOx facilities and proposes to require compliance with SCAQMD Rule 218 – Continuous Emission Monitoring.

Subparagraph (e)(2)(A) proposes to require the owner or operator of any existing gas turbine located at a non-RECLAIM NOx source not operating with a continuous emission monitoring systems to conduct a source test to demonstrate compliance with NOx and carbon monoxide concentration and demonstrated perfect efficiency (ERR) if applicable.

New subparagraph (e)(2)(B) proposes to require stationary gas turbines operating with a catalytic control device to conduct source testing to determine compliance with the ammonia concentration emission limit. Alternatively, a certified ammonia CEMS may be used to determine compliance in lieu of source testing.

Subparagraph clause (e)(2)(C)(i) proposes to determine compliance with NOx concentration limits for turbines not equipped with NOx CEMS using source tests that shall be conducted every calendar year. Clause (e)(2)(C)(ii) proposes to allow turbines that emit less than 25 tons per year of NOx to source test at least once every three calendar years. Additionally, clause (e)(2)(C)(ii) proposes to allow for turbines not equipped with ammonia CEMS to source test quarterly when initially installed and after an annual test is failed. After four consecutive compliant ammonia

source tests, source testing of ammonia may be conducted every calendar year. Turbines currently testing for ammonia annually may retain that schedule until an annual test is failed.

New paragraph (e)(3) applies to RECLAIM facilities and requires that current MRR be maintained until the facility leaves RECLAIM.

New paragraph (e)(4) applies to former RECLAIM facilities. To demonstrate compliance with the NOx emissions limits, these facilities will be required to comply with SCAQMD Rule 2012 with the exception of the following provisions that reference reporting requirements or that do not apply to stationary gas turbines:

- Rule 2012 paragraphs (c)(3) through (c)(8), reporting and Super Compliant facilities;
- Rule 2012 subparagraphs (d)(2)(B) through (d)(2)(E), reporting and emission factors;
- Rule 2012 subdivision (e) NOx Process Units;
- Rule 2012 paragraphs (g)(5) through (g)(8), reporting;
- Rule 2012 paragraphs (h)(1), (h)(2), and (h)(4) through (h)(6), reporting and mass emissions; (F)
- Rule 2012 subdivisions, (i), (k), and (l), Recordkeeping, Exemptions, Appeals; and
- Rule 2012 Reported Data and Transmitting/Reporting Frequency requirements from Appendix A "Protocol for Monitoring, Reporting and Recordkeeping for Oxides of Nitrogen (NOx) Emissions."

Test Methods – Subdivision (f)

Subdivision (f) proposes to add SCAQMD Method 207.1 to determine ammonia concentration during source testing.

Recordkeeping – Subdivision (g)

Paragraph (g)(3) proposes to require the use of a data acquisition system as a replacement for monthly reporting.

Exemptions – Subdivision (h)

PAR 1134 proposes to remove several exemptions as follows: Subparagraph (h)(1)(C) is proposed to be removed since those units must comply with applicable limits in Proposed Rule 1109.1 – Refinery Equipment; Subparagraph (h)(1)(D) and (h)(2)(B) is proposed to be removed since the Southeast Desert Air Basin is outside the SCAQMD; and Subparagraph (h)(2)(C) is proposed to be removed since there are no turbines located on San Clemente Island and therefore the exemption is unnecessary.

Paragraph (h)(3) proposes to exempt existing combined cycle gas turbines at 2.5 ppmv NOx at 15% oxygen on a dry basis from the emissions limitations in paragraph (d)(3), with the condition that the units keep their NOx and ammonia limits, start-up, shutdown, and tuning requirements, and averaging times on the current permit.

To address low-use stationary gas turbines, a low-use provision, paragraph (h)(4) proposes to allow low-use equipment to continue operating without retrofit provided that they: do not exceed annual capacity factor limits; include annual capacity factor limits in their permit; and keep the NOx and ammonia limits, start-up, shutdown, and tuning requirements, and averaging times on the current

permit. The annual capacity factor, paragraph (c)(1), is defined as the ratio between the actual annual input and the annual maximum heat input if operated continuous over one year. The annual capacity factor limits for gas turbines in subparagraph (h)(4)(A) is less than twenty-five percent in one calendar year and less than ten percent averaged over three years. In order to obtain the low-use exemption, subparagraph (h)(4)(B) requires that an application for the low-use exemption be submitted by July 1, 2022. Subparagraph (h)(4)(C) requires that annual capacity factor to be determined annually and submitted to the Executive Officer no later than March 1 following the reporting year. If a unit exceeds the annual capacity factor, subparagraph (h)(4)(D) states the owner or operator is subject to a notice of violation for each year of exceedance and for each annual and/or three-year exceedance. Clause (h)(4)(D)(ii) requires that after two years of the date of reported exceedance, the unit must come into compliance with the emissions limits in Table 1. There are also interim milestone requirements in clauses (h)(4)(D)(i) and (h)(4)(D)(ii): submitting a permit application within six months from the date of reported exceedance and a CEMS plan within six months from the date of permit application submittal.

Paragraph (h)(5) proposes to exempt stationary gas turbines that do not use selective catalytic reduction or other processes that add ammonia into the exhaust gas from ammonia concentration limits and source testing requirements.

SUMMARY OF AFFECTED EQUIPMENT

Among the 34-<u>39</u> facilities subject to PAR 1134 there are approximately 12 RECLAIM facilities and four non-RECLAIM facilities for a total of 16 facilities that are expected to be affected by PAR 1134. The Final Staff Report indicates that 73 stationary gas turbines at 39 facilities would subject to PAR 1134. However, for the CEQA analysis, 30 stationary gas turbines at 16 facilities were analyzed as these represent stationary gas turbines that will require physical changes such as modification or the replacement of an existing stationary gas turbine and/or an increase in ammonia usage for a SCR system. The remaining facilities contain stationary gas turbines that either currently meet the proposed emission limits (six)-or, are eligible for exemptions from the emission limits in PAR 1134 (24), qualify for low-use provisions (11), have been shut down, or have modified, retrofitted, or repowered their stationary gas turbines prior to the adoption of PAR 1134. Therefore, only 30 stationary gas turbines are included in the CEQA analysis.

Amongst the 16 facilities that are affected by PAR 1134, approximately 30 stationary gas turbines would need to be replaced, repowered, or retrofitted with air pollution control equipment in order to comply with the NOx limits in PAR 1134. Upon full implementation of BARCT, PAR 1134 is estimated to reduce NOx emissions by approximately 2.8 tons per day. Table 2-1 identifies the industry sectors, as classified by the North American Industry Classification System (NAICS) code, and the number of respective stationary gas turbines at facilities that would be subject to the requirements in PAR 1134.

NAICS Codes	Description of Industry	Number of Units
423830	Industrial Machinery and Equipment Merchant Wholesalers	1
622110	General Medical and Surgical Hospitals	1
622110	General Medical and Surgical Hospitals	2
611310	Colleges, Universities, and Professional Schools	2
211111	Crude Petroleum and Natural Gas Extraction	2
486210	Pipeline Transportation of Natural Gas	4
221112	Fossil Fuel Electric Power Generation	1
488111	Air Traffic Control	2
221112	Fossil Fuel Electric Power Generation	1
922140	Correctional Institutions	1
921190	Other General Government Support	1
611310	Colleges, Universities, and Professional Schools	1
211111	Crude Petroleum and Natural Gas Extraction	3
211111	Crude Petroleum and Natural Gas Extraction	3
325412	Pharmaceutical Preparation Manufacturing	2
211111	Crude Petroleum and Natural Gas Extraction	1
211111	Crude Petroleum and Natural Gas Extraction	2

Table 2-1Affected Industries Subject to PAR 1134

Table 2-2 identifies the number of stationary gas turbines that would require modifications to comply with BARCT for the 16 affected facilities. The following list describes stationary gas turbines that would require modifications in order to meet the updated BARCT NOx and NH3 concentration limits in PAR 1134:

- 1) Stationary Gas Turbines with SCR: seven stationary gas turbines may need modifications in order to comply with PAR 1134 if they continue operating. Compliance with PAR 1134 would require modifications to the existing SCR systems, additional ammonia deliveries, or replacement or repowering of the existing SCR system. The analysis in this SEA applies the most conservative assumptions to represent a "worst-case" scenario therefore it is assumed that these seven stationary gas turbines would replace their existing SCR systems to comply with PAR 1134.
- 2) Stationary Gas Turbines without SCR: Of the 30 stationary gas turbines, 17 units currently are not equipped with SCR post-combustion technology for NOx reduction and are expected to need modifications in order to comply with PAR 1134 if they continue operating. Compliance with PAR 1134 for these 17 stationary gas turbines would require installation of post-combustion technology which is likely to be an SCR system that would also include installation of an ammonia or urea tank and ammonia or urea deliveries once the SCR system is operational.
- 3) Stationary Gas Turbines located in the Outer Continental Shelf (OCS): There are six stationary gas turbines located in the OCS that may need modifications in order to comply

with PAR 1134 if they continue operating. Typically for a stationary gas turbine when deciding the most effective NOx controls, installing an SCR system would be the primary post-combustion technology for NOx reduction however, there is no way to safely deliver and store aqueous ammonia for stationary gas turbines located in the OCS due to space constraints on the platforms and risk of exposure during catastrophic failure of an ammonia tank to workers. Thus, as determined in the technology assessment in the Staff Report⁸ replacement or repowering of the existing stationary gas turbines with equipment utilizing pre-combustion technology is the most likely scenario to ensure OCS stationary gas turbines meet BARCT for NOx.

Table 2-2 Summary of Stationary Gas Turbines and Expected Modifications

Description of Modifications	Total
Gas Turbines expected to install new <u>or modify</u> <u>existing SCR</u>	24
Gas Turbines expected to be replaced	6
Total Number of Affected Stationary Gas Turbines	30

Note: Amongst the affected facilities the size of stationary gas turbines varies between approximately 1 MW and $\frac{50.60}{MW}$. Thus, modifications required to comply with PAR 1134 will vary based on the scale of NOx reductions needed and the size of the affected equipment.

The 2015 NOx emission inventory for turbines that will be subject to PAR 1134 is 3.33.2 tons per day as presented in Table 2-3.

Equipment Type	2015 NOx Emission Inventory (tons per day)	Electriciuty Generation Capacity (MWh)
Combined Cycle Turbines	0.9	210 258
Simple Cycle Turbines	1.7<u>1.2</u>	534<u>540</u>
Produced Gas Turbines	0.2 <0.1	60<u>161</u>
Outer Continental Shelf Gas Turbines	0.5	15
Compressor Gas Turbines	<u>0.6</u>	<u>37</u>
TOTAL	3.3<u>3.2</u>	<u>8191,011</u>

Table 2-3NOx Emission Inventory and Electricity Generation Capacity

Key: MWh = megawatt-hour

⁸ SCAQMD, Preliminary Draft Staff Report for Proposed Amended Rule 1134, December 2018. <u>http://www.aqmd.gov/docs/default-source/rule-book/Proposed-Rules/1134/par-1134---pdsr---final.pdf</u>

TECHNOLOGY OVERVIEW

Combustion is a high temperature chemical reaction resulting from burning a gas, liquid, or solid fuel (e.g., natural gas, diesel, fuel oil, gasoline, propane, and coal) in the presence of air (oxygen and nitrogen) to produce: 1) heat energy; and 2) water vapor or steam. An ideal combustion reaction is when the entire amount of fuel needed is completely combusted in the presence of air so that only carbon dioxide (CO2) and water are produced as by-products. However, since fuel contains other components such as nitrogen and sulfur plus the amount of air mixed with the fuel can vary, in practice, the combustion of fuel is not a "perfect" reaction. As such, uncombusted fuel plus smog-forming by-products such as NOx, SOx, carbon monoxide (CO), and soot (solid carbon) can be discharged into the atmosphere.

Of the total NOx emissions that can be generated, there are two types of NOx formed during combustion: 1) thermal NOx; and 2) fuel NOx. Thermal NOx is produced from the reaction between the nitrogen and oxygen in the combustion air at high temperatures while fuel NOx is formed from a reaction between the nitrogen already present in the fuel and the available oxygen in the combustion air. The amount of fuel NOx generated is dependent on fuel type and boilers, engines, and gas turbines all generate thermal NOx as a combustion by-product. The following provides a brief description of the various types of existing combustion equipment that may be affected by PAR 1134 and subsequently retrofitted with NOx control equipment.

Turbines: Gas turbines convert energy stored in a fluid into mechanical energy by channeling the fluid through a system of stationary and moving vanes. The moving vanes are attached to a rotor to turn either a shaft, producing work output in the form of torque, or to generate velocity and pressure energy in a jet. Gas turbines can be used in combined-cycle cogeneration and simple-cycle arrangements. Combined cycle systems are typically used for very large systems and generally have higher capital costs than simple cycle gas turbines. Gas turbines are used to produce both electricity and steam. Gas turbines can operate on both gaseous (e.g., natural gas) and liquid fuels (e.g., diesel). For the purpose of the analysis in this SEA, controlling NOx emissions from gas turbines is assumed to be accomplished with post-combustion SCR technology or precombustion Dry Low-NOx for stationary gas turbines located in the OCS.

One portion of the BARCT assessment for PAR 1134 evaluated technologically feasible NOx emissions control technologies specific to stationary gas turbines. The BARCT assessment identified the following technologies that could be employed to achieve BARCT compliance in the event that a facility operator chooses to install new or modify their existing air pollution control equipment to reduce NOx emissions from electric power generating units: 1) dry low-NOx or lean premix emission combustors for natural gas, landfill gas, and produced gas turbines; 2) water or steam injection for natural gas, landfill gas, sewage digester gas, and produced gas turbines; 3) catalytic combustion for natural gas and produced gas turbines; 4) selective catalytic reduction (SCR) for natural gas, landfill gas, sewage digester gas, and produced gas turbines; and 6) catalytic absorption systems for natural gas turbines. PAR 1134 is expected to result in 17-16 facilities either installing new or modifying existing air pollution control equipment as part of meeting updated BARCT and reducing NOx emissions. The type of air pollution control equipment that is commonly used at a facility to reduce NOx emissions is dependent upon a variety of factors such as the age of the existing air pollution control equipment, the size of the stationary gas turbine, the amount of NOx emission reductions that can be achieved, and whether the stationary gas turbine is: 1) designed with pre-combustion technologies or features that help minimize the formation of NOx; 2) equipped with post-combustion air pollution control equipment; or 3)

equipped with a combination of pre- and post-combustion control technologies. The following summarizes the technology assessment of pre- and post-combustion technologies that were analyzed as part of the BARCT assessment for PAR 1134.

Pre-Combustion Technologies

Dry Low-NOx or Lean Premix Emission Combustors (Natural Gas, Landfill Gas, Produced Gas Turbines)

Prior to combustion, gaseous fuel and compressed air are pre-mixed, minimizing localized hot spots that produce elevated combustion temperatures and therefore, less NOx is formed. Atmospheric nitrogen from the combustion air is mixed with air upstream of the combustor at deliberately fuel-lean conditions. Approximately twice as much air is supplied as is actually needed to burn the fuel. This excess air is a key to limiting NOx formation, as very lean conditions cannot produce the high temperatures that create thermal NOx. Using this technology, NOx emissions, without further controls, have been demonstrated at single digits (< 9 ppmv at 15% oxygen, dry). The technology is engineered into the combustor that becomes an intrinsic part of the turbine design. Fuel staging or air staging is utilized to keep the flame within its operating boundaries. It is not available as a "retrofit" technology and must be designed for each turbine application.

<u>Water or Steam Injection for Turbines (Natural Gas, Landfill Gas, Sewage Digester Gas,</u> <u>Produced Gas Turbines)</u>

Demineralized water is injected into the combustor through the fuel nozzles to lower flame temperature and reduce NOx emissions. Water or steam provides a heat sink that lowers flame temperature. Imprecise application leads to some hot zones so NOx is still created. NOx levels in natural gas turbines can be lowered by 80% to 25 ppmv at 15% oxygen on a dry basis. Addition of water or steam increases mass flow through the turbine and creates a small amount of additional power. The addition of water increases carbon monoxide emissions and there is added cost to demineralize the water. Turbines using water or steam injection has increased maintenance due to erosion and wear.

Catalytic Combustion (Natural Gas, Produced Gas Turbines)

A catalytic process is used instead of a flame to combust the natural gas. Flameless combustion lowers combustion temperature resulting in reduced NOx formation. The overriding constraints are operating efficiency over a wide operating range of the turbine. Initial engine demonstrations have shown that catalytic combustion reducing NOx emissions. In its first commercial installation, NOx concentrations were lowered from approximately 20 ppmv to below 3 ppmv at 15% O2 oxygen on a dry basis without post-combustion controls. Several turbine manufacturers are in the development stage to incorporate this technology.

Post-Combustion Technologies

<u>Selective Catalytic Reduction (Natural Gas, Landfill Gas, Sewage Digester Gas, Produced</u> <u>Gas Turbines)</u>

Selective Catalytic Reduction is the primary post-combustion technology for NOx reduction and is widely used in turbines. The technology can reduce NOx emissions 95 percent or greater. In many cases the NOx reduction is limited by the release of other pollutants (ammonia and carbon monoxide), space constraints, or reaches the practical limit of the NOx measuring device. Many stationary gas turbines already utilize selective catalytic reduction. Further reductions could be

possible by adding catalyst modules. From observations made during site visits, space is not readily available to add catalyst modules and would require construction.

Ammonia is injected into the flue gas and reacts with NOx to form nitrogen and water. Catalysts are made from ceramic materials and active catalytic components of base metals, zeolites, or precious metals. The catalyst may be configured into plates but many new systems are configured into honeycombs to ensure uniform dispersion and reduce ammonia emissions to below 5 ppmv. The reductant, ammonia, is available as anhydrous ammonia, aqueous ammonia, or urea. Anhydrous ammonia is toxic and SCAQMD does not permit new installations of anhydrous ammonia storage tanks. Urea is an alternative but requires conversion to ammonia to be used. Most new selective catalytic reduction installations utilize aqueous ammonia in a 19 percent solution.

To perform optimally, the gas temperature in the control device should be between 400 degrees Fahrenheit and 800 degrees Fahrenheit. During start-up and shutdown, the temperature will be below optimal range greatly reducing the effectiveness. Thus, NOx concentration limits are generally not applicable during start-up or shutdown. Newer stationary gas turbines reduce the low temperature periods where emissions are out of control.

The catalyst is susceptible to "poisoning" if the flue gas contains contaminants including sulfur compounds, particulates, reagent salts, or siloxanes. These contaminants are readily found in landfill gas, sewage digester gas, and other biogas. Poisoned catalysts require cleaning or replacement resulting in additional costs and extended periods of non-operation for the stationary gas turbine. In those cases, filtering may be used to reduce the impacts on the catalyst.

Catalytic Absorption Systems for Turbines

Catalytic absorption is based on an integration of catalytic oxidation and absorption technology resulting in similar control efficiency as selective catalytic reduction without the use of ammonia. Carbon monoxide and nitrogen oxide catalytically oxidize to carbon dioxide and nitrogen dioxide and the nitrogen dioxide molecules are absorbed onto the catalyst. The catalyst is a platinum-based substrate with a potassium carbonate coating. The catalyst tends to be very sensitive to sulfur (e.g., can be poisoned by sulfur causing failure), even the small amounts in pipeline natural gas. Initial issues regarding catalyst failures have been addressed by conducting more frequent and extensive catalyst washing. At one facility, NOx emission levels were best achieved when all three catalyst layers are washed about every four months. During the wash process, the turbine is non-operational for about three days.

CHAPTER 3

EXISTING SETTING

Introduction

Existing Setting

Air Quality

Hazards and Hazardous Materials

INTRODUCTION

In order to determine the significance of the impacts associated with a proposed project, it is necessary to evaluate the project's impacts against the backdrop of the environment as it exists at the time the environmental analysis is commenced. The CEQA Guidelines define "environment" as "the physical conditions that exist within the area which will be affected by a proposed project including land, air, water, minerals, flora, fauna, ambient noise, and objects of historical or aesthetic significance." (CEQA Guidelines Section 15360; *see also* Public Resources Code Section 21060.5.) Furthermore, a CEQA document must include a description of the physical environment in the vicinity of the project, as it exists at the time the environmental analysis is commenced, from both a local and regional perspective. (CEQA Guidelines Section 15125.) Therefore, the "environment" or "existing setting" against which a project's impacts are compared consists of the immediate, contemporaneous physical conditions at and around the project site. (Remy, et al; 1996.)

The following sections summarize the existing setting for control measure CMB-05 and the existing rules that will be affected by the proposed project (e.g., PAR 1134) as well as the regional existing setting for air quality and hazards and hazardous materials which were the only environmental topics identified that may be adversely affected by the proposed project.

The March 2017 Final Program EIR for the 2016 AQMP also contains comprehensive information on existing and projected regional environmental settings for the topic of air quality and hazards and hazardous materials. The March 2017 Final Program EIR for the 2016 AQMP can be obtained by visiting the following website at: <u>http://www.aqmd.gov/docs/default-source/ceqa/documents/aqmd-projects/2016/2016aqmpfProgram EIR.pdf</u>.

Hard copies of the above referenced document as well as the other documents referenced in the following sections are also available by visiting the SCAQMD's Public Information Center at SCAQMD Headquarters located at 21865 Copley Drive, Diamond Bar, CA 91765; by contacting Fabian Wesson, Public Advisor by calling (909) 396-2039 or by emailing at <u>PICrequests@aqmd.gov</u>.

EXISTING SETTING

In general, Rule 1134, was developed to reduce NOx emissions stationary gas turbines. Control measure CMB-05 in the 2016 AQMP was also developed to identify a series of approaches that can be explored to ensure equivalency with equipment-based command-and-control regulations implementing BARCT, and to generate further NOx emission reductions at RECLAIM facilities. The following summarizes the existing setting for control measure CMB-05 as well as the current version of Rule 1134.

CMB-05 - Further NOx Reductions from RECLAIM Assessment

The 2016 AQMP identifies control measures and strategies to bring the region into attainment with the revoked 1997 8-hour NAAQS (standard) (80 parts per billion (ppb)) for ozone by 2024; the 2008 8-hour ozone standard (75 ppb) by 2032; the 2012 annual PM2.5 standard (12 microgram per cubic meter (μ g/m3) by 2025; the 2006 24-hour PM2.5 standard (35 μ g/m3) by 2019; and the revoked 1979 1-hour ozone standard (120 ppb) by 2023. The 2016 AQMP consists of three components: 1) the SCAQMD's Stationary, Area, and Mobile Source Control Measures; 2) State and Federal Control Measures provided by the CARB; and 3) Regional Transportation Strategy and Control Measures provided by the Southern California Association of Governments. The 2016

AQMP includes emission inventories and control measures for stationary, area and mobile sources, the most current air quality setting, updated growth projections, new modeling techniques, demonstrations of compliance with state and federal Clean Air Act requirements, and an implementation schedule for adoption of the proposed control strategy. Control measure CMB-05, one of several components in the 2016 AQMP, was developed to identify a series of approaches that can be explored to ensure equivalency with command-and-control regulations implementing BARCT, and to generate five tons per day of further NOx emission reductions at RECLAIM facilities as soon as feasible, and no later than 2025, and to transition to a command-and-control regulatory structure requiring BARCT level controls as soon as practicable. Because many of the RECLAIM program's original advantages appeared to be diminishing, CMB-05 prescribed an orderly sunset of the RECLAIM facilities, while also achieving more actual and SIP creditable emissions reductions.

Rule 1134

Rule 1134 was adopted in 1989. The rule applies to stationary gas turbines rated at 0.3 MW and larger that were issued a permit to operate by the SCAQMD prior to August 4, 1989. The origin of the rule can be traced to a New Source Performance Standard for Stationary Gas Turbines that was promulgated by the U.S. EPA in 1979. In 1981, the CARB adopted a Suggested Control Measure for this same equipment. Rule 1134 was subsequently amended three times to provide regulatory flexibility. In particular, in December 1995, Rule 1134 was amended to exempt gas turbines located on San Clemente Island and the South East Desert Air Basin. In April 1997, Rule 1134 was amended to increase the NOx concentration limit for turbines utilizing sewage digester gas. In August 1997, Rule 1134 was amended to clarify the need for continuous emission monitoring systems (CEMS) on turbines with a power output of 2.9 MW or larger. U.S. EPA approved Rule 1134 into the SIP on August 1, 2000.

Beginning in 1994, a large number of utilities and third-party-owned cogenerators were included in the RECLAIM program and as such were not required to meet the NOx concentration limits contained in Rule 1134. However, gas turbines permitted prior to August 4, 1989 and used at publicly-owned treatment works (POTWs), landfills, hospitals and other public facilities, and sources which were not subject to the RECLAIM program, were still required to meet the concentration limits in Rule 1134. In addition, new turbines installed at non-RECLAIM facilities after August 4, 1989 were also not subject to Rule 1134.

AIR QUALITY

It is the responsibility of SCAQMD to ensure that state and federal ambient air quality standards are achieved and maintained in its geographical jurisdiction. Health-based air quality standards have been established by California and the federal government for the following criteria air pollutants: ozone, CO, NO2, PM10, PM2.5, SO2, and lead. These standards were established to protect sensitive receptors with a margin of safety from adverse health impacts due to exposure to air pollution. The California standards are more stringent than the federal standards and in the case of PM10 and SO2, far more stringent. California has also established standards for sulfates, visibility reducing particles, hydrogen sulfide, and vinyl chloride. The state and NAAQS for each of these pollutants and their effects on health are summarized in Table 3-1. SCAQMD monitors levels of various criteria pollutants at 38 monitoring stations. The 2016 air quality data (the latest data available) from SCAQMD's monitoring stations are presented in Table 3-2.

Pollutant	Averaging Time	State Standard ^a	Federal Primary Standard ^ь	Most Relevant Effects
	1-hour	0.09 ppm (180 μg/m ³)	0.12 ppm	(a) Short-term exposures: 1) Pulmonary function decrements and localized lung
Ozone (O3)	8-hour	0.070 ppm (137 μg/m ³)	0.070 ppm (137 μg/m ³)	edema in humans and animals; and 2) Risk to public health implied by alterations in pulmonary morphology and host defense in animals; (b) Long-term exposures: Risk to public health implied by altered connective tissue metabolism and altered pulmonary morphology in animals after long-term exposures and pulmonary function decrements in chronically exposed humans; (c) Vegetation damage; and (d) Property damage.
Suspended	24-hour	50 μg/m ³	150 μg/m ³	(a) Excess deaths from short-term exposures and exacerbation of symptoms in sensitive patients with respiratory disease; and (b) Excess seasonal declines in pulmonary
Particulate Matter (PM10)	Annual Arithmetic Mean	20 μg/m ³	No Federal Standard	function, especially in children.
	24-hour	No State Standard	35 µg/m ³	 (a) Increased hospital admissions and emergency room visits for heart and lung disease; (b) Increased respiratory symptoms and disease; and (c) Decreased lung
Suspended Particulate Matter (PM2.5)	Annual Arithmetic Mean	12 μg/m ³	12 μg/m3	functions and premature death.
	1-Hour	20 ppm (23 mg/m ³)	35 ppm (40 mg/m ³)	 (a) Aggravation of angina pectoris and other aspects of coronary heart disease; (b) Decreased exercise tolerance in persons with peripheral vascular disease and lung disease; (c) Impairment of central nervous
Carbon Monoxide (CO)	8-Hour	9 ppm (10 mg/m ³)	9 ppm (10 mg/m ³)	system functions; and (d) Possible increased risk to fetuses.

 Table 3-1

 State and Federal Ambient Air Quality Standards

Pollutant	Averaging Time	State Standard ^a	Federal Primary Standard ^b	Most Relevant Effects
Nitrogen Dioxide	1-Hour	0.18 ppm (339 μg/m ³)	0.100 ppm (188 μg/m ³)	(a) Potential to aggravate chronic respiratory disease and respiratory symptoms in sensitive groups; (b) Risk to public health implied by pulmonary and extra-pulmonary biochemical
(NO2)	Annual Arithmetic Mean	0.030 ppm (57 μg/m ³)	0.053 ppm (100 μg/m ³)	and cellular changes and pulmonary structural changes; and (c) Contribution to atmospheric discoloration.
Sulfur Dioxide	1-Hour	0.25 ppm (655 μg/m ³)	75 ppb (196 μg/m ³)-	Broncho-constriction accompanied by symptoms which may include wheezing, shortness of breath and chest tightness, during
(SO2)	24-Hour	0.04 ppm (105 μg/m ³)	No Federal Standard	exercise or physical activity in persons with asthma.
Sulfates	24-Hour	25 μg/m ³	No Federal Standard	 (a) Decrease in ventilatory function; (b) Aggravation of asthmatic symptoms; (c) Aggravation of cardio-pulmonary disease; (d) Vegetation damage; (e) Degradation of visibility; and (f) Property damage
Hydrogen Sulfide (H2S)	1-Hour	0.03 ppm (42 μg/m ³)	No Federal Standard	Odor annoyance.
	30-Day Average	1.5 μg/m ³	No Federal Standard	
Lead (Pb)	Calendar Quarter	No State Standard	1.5 μg/m ³	(a) Increased body burden; and (b) Impairment of blood formation and nerve conduction.
	Rolling 3- Month Average	No State Standard	0.15 μg/m ³	
Visibility Reducing Particles	8-Hour	Extinction coefficient of 0.23 per kilometer - visibility of ten miles or more due to particles when relative humidity is less than 70 percent.	No Federal Standard	The statewide standard is intended to limit the frequency and severity of visibility impairment due to regional haze. This is a visibility based standard not a health based standard. Nephelometry and AISI Tape Sampler; instrumental measurement on days when relative humidity is less than 70 percent.
Vinyl Chloride	24-Hour	0.01 ppm (26 μg/m ³)	No Federal Standard	Highly toxic and a known carcinogen that causes a rare cancer of the liver.
	n parts of air, by volume on parts of air, by volum			ams per cubic meter ms per cubic meter

Table 3-1 (concluded) State and Federal Ambient Air Quality Standards

^a The California ambient air quality standards for O3, CO, SO2 (1-hour and 24-hour), NO2, PM10, and PM2.5 are values not to be exceeded. All other California standards shown are values not to be equaled or exceeded.

^b The national ambient air quality standards, other than O3 and those based on annual averages are not to be exceeded more than once a year. The O3 standard is attained when the expected number of days per calendar year with maximum hourly average concentrations above the standards is equal to or less than one.

	CARBON MON	OXIDE (CO) ^a		
Source Receptor Area No.	Location of Air Monitoring Station	No. Days of Data	Max. Conc. in ppm 1-hour	Max. Conc. in ppm 8-hour
LOS ANGELES	COUNTY	I I		1
1	Central Los Angeles	361	1.9	1.4
2	Northwest Coastal Los Angeles County	366	2.2	1.1
3	Southwest Coastal Los Angeles County	362	1.6	1.3
4	South Coastal Los Angeles County 1			
4	South Coastal Los Angeles County 2			
4	South Coastal Los Angeles County 3	363	3.3	2.2
4	I-710 Near Road ^{##}			
6	West San Fernando Valley	366	2.4	1.9
8	West San Gabriel Valley	366	1.5	1
9	East San Gabriel Valley 1	366	1.3	1.2
9	East San Gabriel Valley 2	364	1.1	1
10	Pomona/Walnut Valley	361	1.7	1.3
11	South San Gabriel Valley	366	2.8	1.7
12	South Central Los Angeles County	366	4.4	3.9
13	Santa Clarita Valley	366	1.3	1.1
ORANGE COUN	NTY			
16	North Orange County	366	3.1	1.5
17	Central Orange County	355	2.6	2.1
17	I-5 Near Road ^{##}	360	3.7	2.2
18	North Coastal Orange County	366	2.1	1.7
19	Saddleback Valley	353	1.3	0.7
RIVERSIDE CO	UNTY			
22	Corona/Norco Area			
23	Metropolitan Riverside County 1	359	1.7	1.3
23	Metropolitan Riverside County 3	366	1.9	1.4
24	Perris Valley			
25	Elsinore Valley	298*	1.2	0.6
26	Temecula Valley			
29	San Gorgonio Pass			
30	Coachella Valley 1**	361	3.1	1.5
30	Coachella Valley 2**			
30	Coachella Valley 3**			
SAN BERNARD	INO COUNTY			
32	Northwest San Bernardino Valley	366	1.7	1.3
33	I-10 Near Road ^{##}	366	1.7	1.3
33	CA-60 Near Road ^{##}			
34	Central San Bernardino Valley 1	359	1.7	1
34	Central San Bernardino Valley 2	358	2.2	1.7
35	East San Bernardino Valley			
37	Central San Bernardino Mountains			
38	East San Bernardino Mountains			
DISTRICT MAX			4.4	3.9
SOUTH COAST	AIR BASIN		4.4	3.9
opm = parts per million = Pollutant not m ## = Four pear-road	onitored	**Salton Sea Ai *Incomplete Da or NO2 are operating nea	ta	

 Table 3-2

 2016 Air Quality Data – South Coast Air Quality Management District

^a The federal 8-hour standard (8-hour average CO > 9 ppm) and state 8-hour standard (8-hour average CO > 9.0 ppm) were not exceeded. The federal and state 1-hour standards (35 ppm and 20 ppm) were not exceeded either.

Table 3-2 (Continued)2016 Air Quality Data – South Coast Air Quality Management District

			OZONE (03)						
							No. Days	Standard	Exceeded	
		No.	Max.	Max.	4th		Federal			ate
Source	Location of Air	Days	Conc. in	Conc.	High	Old	Current	2008	Current	Currer
Receptor	Monitoring Station	of	ppm	in	Conc.	> 0.124	> 0.070	>	> 0.09	> 0.07
Area No.		Data	1-hr	ppm 8-hr	ppm 8-hr	ppm	ppm	0.075	ppm	ppm
				0-III	0-III	1-hr	8-hr*	ppm 8-hr	1-hr	8-hr
LOS ANG	ELES COUNTY							0		
1	Central LA	364	0.103	0.078	0.071	0	4	1	2	4
2	Northwest Coastal LA County	365	0.085	0.073	0.066	0	2	0	0	2
3	Southwest Coastal LA County	361	0.087	0.08	0.067	0	2	1	0	3
4	South Coastal LA County 1									
4	South Coastal LA County 2									
4	South Coastal LA County 3	365	0.079	0.059	0.055	0	0	0	0	0
4	I-710 Near Road ^{##}									
6	West San Fernando Valley	364	0.122	0.098	0.086	0	23	14	9	23
8	West San Gabriel Valley	358	0.126	0.09	0.082	1	18	15	12	19
9	East San Gabriel Valley 1	366	0.146	0.106	0.095	4	39	25	30	40
9	East San Gabriel Valley 2	362	0.148	0.114	0.098	6	52	31	38	55
10	Pomona/Walnut Valley	360	0.127	0.092	0.087	1	26	14	20	29
11	South San Gabriel Valley	359	0.111	0.081	0.074	0	6	2	9	6
12	South Central LA County	365	0.098	0.071	0.064	0	1	0	1	1
13	Santa Clarita Valley	366	0.13	0.115	0.1	2	57	35	29	59
ORANGE	COUNTY									
16	North Orange County	365	0.103	0.078	0.075	0	6	3	3	7
17	Central Orange County	354	0.103	0.074	0.071	0	4	0	2	4
17	I-5 Near Road ^{##}									
18	North Coastal Orange County	366	0.09	0.069	0.065	0	0	0	0	0
19	Saddleback Valley	365	0.122	0.093	0.079	0	13	6	5	13
	DE COUNTY			1	1	1	1		1	-
22	Corona/Norco Area									
23	Metropolitan Riverside County 1	357	0.142	0.104	0.097	1	69	47	33	71
23	Metropolitan Riverside County 3	365	0.14	0.106	0.095	1	65	43	34	70
24	Perris Valley	366	0.131	0.098	0.092	1	55	30	23	56
25 26	Elsinore Valley	360	0.124	0.093	0.087	0	44	25	15	45
26 20	Temecula Valley	355	0.092	0.081	0.077	0	19	6 39		20
29	San Gorgonio Pass	358	0.128	0.106	0.094	1	52		26	54
30	Coachella Valley 1**	363	0.103	0.092	0.087	0	46	20 12	6	48 29
30 30	Coachella Valley 2** Coachella Valley 3**	331	0.099	0.089	0.081	0	27	12	3	
	NARDINO COUNTY									
32	Northwest San Bernardino Valley	366	0.156	0.116	0.11	10	88	65	53	89
33	I-10 Near Road ^{##}									
33	CA-60 Near Road ^{##}									
34	Central San Bernardino Valley 1	362	0.139	0.105	0.098	3	49	39	34	52
34	Central San Bernardino Valley 2	366	0.158	0.118	0.114	10	106	76	70	108
35	East San Bernardino Valley	364	0.145	0.119	0.103	3	97	71	55	100
37	Central San Bernardino Mountains	365	0.163	0.121	0.116	9	101	80	64	103
38	East San Bernardino Mountains									
	T MAXIMUM		0.163	0.121	0.116	10	106	80	70	108
	OAST AIR BASIN		0.163	0.121	0.116	17	132	103	83	132
		1								

Table 3-2 (Continued)2016 Air Quality Data – South Coast Air Quality Management District

	NITROGEN DI	OXIDE (NO2) ^b			
Source Receptor Area No.	Location of Air Monitoring Station	No. Days of Data	1-hour Max. Conc. ppb, 1,	1-hour 98 th Percentile Conc. ppb,	Annual Average AAM Conc ppb
LOS ANGELES CO	DUNTY			11 /	
1	Central LA	366	64.7	61	20.8
2	Northwest Coastal LA County	366	54.5	49.3	11.6
3	Southwest Coastal LA County	348	81.5	54.7	10.1
4	South Coastal LA County 1				
4	South Coastal LA County 2				
4	South Coastal LA County 3	366	75.6	66.3	18.5
4	I-710 Near Road ^{##}	366	95.3	76.6	23.9
6	West San Fernando Valley	355	55.5	45.9	12.9
8	West San Gabriel Valley	366	71.9	58.4	15.4
9	East San Gabriel Valley 1	366	74.2	58.3	16.6
9	East San Gabriel Valley 2	365	65.4	45.7	11.6
10	Pomona/Walnut Valley	360	69.3	62.5	20.1
11	South San Gabriel Valley	361	63.2	60.1	20
12	South Central LA County	366	63.7	58.4	15.6
13	Santa Clarita Valley	361	46.4	39.4	10.2
ORANGE COUNT	Y				
16	North Orange County	359	60.4	51.5	14.7
17	Central Orange County	354	64.3	56.7	14.8
17	I-5 Near Road ^{##}	357	75.2	60.1	23.4
18	North Coastal Orange County	349	59.8	51.2	10.1
19	Saddleback Valley				
RIVERSIDE COUN	NTY				
22	Corona/Norco Area				
23	Metropolitan Riverside County 1	366	73.1	52.2	14.9
23	Metropolitan Riverside County 3	366	64.9	48.3	13.6
24	Perris Valley				
25	Elsinore Valley	345*	51.3	35.6	8.1
26	Temecula Valley				
29	San Gorgonio Pass	348	46.9	42.6	7.9
30	Coachella Valley 1**	363	42.6	34.4	6
30	Coachella Valley 2**				
30	Coachella Valley 3**				
SAN BERNARDIN					
32	Northwest San Bernardino Valley	366	70.1	55.1	16.5
33	I-10 Near Road ^{##}	362	93.4	74.3	29.3
33	CA-60 Near Road ^{##}	361	89.8	71.3	31
34	Central San Bernardino Valley 1	357	71.7	56.4	18.2
34	Central San Bernardino Valley 2	355	60.1	51.4	16.6
35	East San Bernardino Valley				
37	Central San Bernardino Mountains				
38	East San Bernardino Mountains				
DISTRICT MAXIM	IUM		95.3	76.6	31
SOUTH COAST AI			95.3	76.6	31
ppb = parts per billion AAM = Annual Arithmeti		= Pollutant not monitore **Salton Sea Air Basin	ed		

^b The NO2 federal 1-hour standard is 100 ppb and the annual standard is annual arithmetic mean NO2 > 0.0534 ppm (53.4 ppb). The state 1-hour and annual standards are 0.18 ppm (180 ppb) and 0.030 ppm (30 ppb).

SULFUR DIOXIDE (SO2) ^c							
Source Receptor Area No.	Location of Air Monitoring Station	No. Days of Data	Maximum Conc. ppb, 1-hour	99 th Percentile Conc. ppb, 1-hour			
LOS ANGELES CO	UNTY	I	1	1			
1	Central LA	366	13.4	2.5			
2	Northwest Coastal LA County						
3	Southwest Coastal LA County	363	9.7	5.7			
4	South Coastal LA County 1						
4	South Coastal LA County 2						
4	South Coastal LA County 3	366	17.8	12			
4	I-710 Near Road ^{##}						
6	West San Fernando Valley						
8	West San Gabriel Valley						
9	East San Gabriel Valley 1						
9	East San Gabriel Valley 2						
10	Pomona/Walnut Valley						
11	South San Gabriel Valley						
12	South Central LA County						
13	Santa Clarita Valley						
ORANGE COUNTY	7						
16	North Orange County						
17	Central Orange County						
17	I-5 Near Road ^{##}						
18	North Coastal Orange County	366	3.3	2.1			
19	Saddleback Valley						
RIVERSIDE COUN	-						
22	Corona/Norco Area						
23	Metropolitan Riverside County 1	366	5.6	2			
23	Metropolitan Riverside County 3						
24	Perris Valley						
25	Elsinore Valley						
26	Temecula Valley						
29	San Gorgonio Pass						
30	Coachella Valley 1**						
30	Coachella Valley 2**						
30	Coachella Valley 3**						
SAN BERNARDING	-						
32	Northwest San Bernardino Valley						
32	I-10 Near Road ^{##}						
33	CA-60 Near Road ^{##}						
34	Central San Bernardino Valley 1	363	6.3	2			
34	Central San Bernardino Valley 2						
35	East San Bernardino Valley						
33	Central San Bernardino Mountains						
38	East San Bernardino Mountains						
DISTRICT MAXIM							
			17.8	12			
SOUTH COAST AI	K BAJIN		17.8	12			

Table 3-2 (Continued)2016 Air Quality Data – South Coast Air Quality Management District

^c The federal SO2 1-hour standard is 75 ppb (0.075 ppm). The state standards are 1-hour average SO2 > 0.25 ppm (250 ppb) and 24-hour average SO2 > 0.04 ppm (40 ppb).

	CUCDENDE	П ДА ДТІ		MATTER PM1	٥d	
	SUSPENDE	UTAKII	CULAIE			
Source Receptor Area No.	Location of Air Monitoring Station	No. Days of Data	Max. Conc. μg/m ³ , 24-hour	No. (%) Samples Federal > 150 μ g/m ³ , 24-hour	Exceeding Standard State $> 50 \ \mu g/m^3$, 24-hour	Annual Averag AAM Conc. ^e µg/m ³
LOS ANGELES CO	UNTY					
1	Central LA	277*	67	0	18(6%)	32.4
2	Northwest Coastal LA County					
3	Southwest Coastal LA County	60	43	0	0(0%)	21.6
4	South Coastal LA County 1					
4	South Coastal LA County 2	60	56	0	3(5%)	27.8
4	South Coastal LA County 3	59	75	0	8(14%)	31.9
4	I-710 Near Road ^{##}					
6	West San Fernando Valley					
8	West San Gabriel Valley					
9	East San Gabriel Valley 1	60	74	0	12(20%)	33.7
9	East San Gabriel Valley 2	362	74	0	21(6%)	29.8
10	Pomona/Walnut Valley					
11	South San Gabriel Valley					
12	South Central LA County					
13	Santa Clarita Valley	60	96	0	1(2%)	23.4
ORANGE COUNTY	2					
16	North Orange County					
17	Central Orange County	353	74	0	3(1%)	24.4
17	I-5 Near Road ^{##}					
18	North Coastal Orange County					
19	Saddleback Valley	59	59	0	1(2%)	21
RIVERSIDE COUN						
22	Corona/Norco Area	51*	62	0	7(14%)	31.7
23	Metropolitan Riverside County 1	302*	82	ů 0	58(19%)	36.9
23	Metropolitan Riverside County 3	356+	116	ů 0	175(49%)	49
24	Perris Valley	57	76	ů 0	5(9%)	32.2
25	Elsinore Valley	366	99	0	4(1%)	21.4
26	Temecula Valley					
29	San Gorgonio Pass	57	65	0	3(5%)	24
30	Coachella Valley 1**	355+	113	0	6(2%)	20.8
30	Coachella Valley 2**	313*+	137	0	56(18%)	36.9
30	Coachella Valley 3**	272*+	150	0	76(28%)	43
SAN BERNARDING			100	ů	/ 0(20/0)	10
32	Northwest San Bernardino Valley	363	72	0	5(1%)	25
33	I-10 Near Road ^{##}					
33	CA-60 Near Road ^{##}					
34	Central San Bernardino Valley 1	61	94	0	15(25%)	38.1
34	Central San Bernardino Valley 2	333*	91	0	33(10%)	33.1
35	East San Bernardino Valley	56	72	0	4(7%)	27.8
37	Central San Bernardino Mountains	61	46	0	0(0%)	17.1
38	East San Bernardino Mountains					
DISTRICT MAXIM			 150+	 0 ⁺	 175 ⁺	 49.0+
SOUTH COAST AI			150 ⁺	0 ⁺	1/5	<u>49.0*</u> 49.0*
		## - Four			181 ne pollutants PM2.5, CO, and/o	
ug/m ³ = micrograms pe AAM = Annual Arithm				s: I-1, I-10, CA-60, and I-7		a 1102 are operating it
= Pollutant not m		+ = High	PM10 (≥ 155 µg	g/m3) data recorded in Coa	chella Valley (due to high win	· · · ·
**Salton Sea Air Basin		Indep	endence Day fire	works) are excluded in acc	ordance with the U.S. EPA Exc	eptional Event Rule.
*Incomplete Data						

Table 3-2 (Continued) 2016 Air Quality Data – South Coast Air Quality Management District

^d Federal Reference Method (FRM) PM10 samples were collected every 6 days at all sites except for Stations 4144 and 4157, where samples were collected every 3 days. PM10 statistics listed above are for the FRM data only. Federal Equivalent Method (FEM) PM10 continuous monitoring instruments were operated at some of the above locations. Max 24-hour average PM10 at sites with FEM monitoring was 152 µg/m3, at Indio.

Table 3-2 (Continued) 2016 Air Quality Data – South Coast Air Quality Management District

			Max.	98 th Percentile	No. (%) Samples	
Source	Location of Air	No.	Conc.	Conc. in	Exceeding Federal Std	Annual Average AAM
Receptor	Monitoring Station	Days of	$\mu g/m^3$,	$\mu g/m^3$	$> 35 \mu g/m^3$,	$Conc.^{g} \mu g/m^3$
Area No.		Data	24-hour	24-hr	24-hour	10
LOS ANGE	LES COUNTY					
1	Central LA	357	44.39	27.3	2(0.6%)	11.83
2	Northwest Coastal LA County					
3	Southwest Coastal LA County					
4	South Coastal LA County 1	356	29.37	23.56	0	10.36
4	South Coastal LA County 2	350	28.93	22.05	0	9.62
4	South Coastal LA County 3					
4	I-710 Near Road ^{##}	352	33.31	26.09	0	12.03
6	West San Fernando Valley	113	30.05	24.59	0	9.23
8	West San Gabriel Valley	119	29.21	25.38	0	9.59
9	East San Gabriel Valley 1	122	32.17	29.01	0	10.15
9	East San Gabriel Valley 2					
10	Pomona/Walnut Valley					
11	South San Gabriel Valley	120	46.59	25.13	2(1.7%)	11.75
12	South Central LA County	115	36.35	26.35	1(0.9%)	11.13
13	Santa Clarita Valley					
ORANGE C						
16	North Orange County					
17	Central Orange County	349	44.45	24.02	1(0.3%)	9.47
17	I-5 Near Road ^{##}					
18	North Coastal Orange County					
19	Saddleback Valley	117	24.79	13.41	0	7.36
	E COUNTY					
22	Corona/Norco Area					
23	Metropolitan Riverside County 1	357+	39.12	31.65	4(1.1%)	12.54
23	Metropolitan Riverside County 3	352+	45.64	35.14	6(1.7%)	14.02
24	Perris Valley					
25	Elsinore Valley					
26	Temecula Valley					
29	San Gorgonio Pass					
30	Coachella Valley 1**	112	14.71	12.43	0	5.53
30	Coachella Valley 2**	115	25.84	15.04	0	7.74
30	Coachella Valley 3**					
	ARDINO COUNTY					
32	Northwest San Bernardino Valley					
33	I-10 Near Road ^{##}					
33	CA-60 Near Road ^{##}	347*+	44.14	33.02	6(1.7%)	14.73
34	Central San Bernardino Valley 1	111+	30.45	26.25	0	12.04
34	Central San Bernardino Valley 2	113+	32.54	27.12	0	10.84
35	East San Bernardino Valley					
37	Central San Bernardino Mountains					
38	East San Bernardino Mountains	55	28.42	22.14	0	6.83
DISTRICT	MAXIMUM		46.6 ⁺	35.1+	6+	14.73+
SOUTH CO	AST AIR BASIN		46.6 ⁺	35.1+	9+	14.73 ⁺
$g/m^3 = micros$	rams per cubic meter of air				nore of the pollutants PM2.5, CO	, and/or NO2 are operating n
AM = Annua	l Arithmetic Mean			eways: I-1, I-10, CA-60		aich winde) on tate Devi (
= Polluta	nt not monitored	+ =	rugn PM10 (≥ 1	.ss μg/m ²) data record	ed in Coachella Valley (due to l	ingii winus) and the Basin (d

f PM2.5 samples were collected every 3 days at all sites except for station numbers 072, 077, 087, 3176, 4144 and 4165, where samples were taken daily, and station number 5818 where samples were taken every 6 days. PM2.5 statistics listed above are for the FRM data only. FEM PM2.5 continuous monitoring instruments were operated at some of the above locations for special purposes studies.

 g $\,$ Both federal and state standards are annual average (AAM) $> 12.0~\mu g/m^3.$

		LEAI) ^h	SULFATES (SOx) ⁱ		
Source Receptor Area No.	Location of Air Monitoring Station	Max. Monthly Average Conc. ^{m)} µg/m ³	Max. 3-Month Rolling Average ^{m)} µg/m ³	No. Days of Data	Max. Conc. µg/m ² 24-hour	
LOS ANGEI	LES COUNTY			·		
1	Central LA	0.016	0.01	58	5.8	
2	Northwest Coastal LA County					
3	Southwest Coastal LA County	0.006	0.01	58	6.2	
4	South Coastal LA County 1					
4	South Coastal LA County 2	0.008	0.01	59	6.3	
4	South Coastal LA County 3			57	7.4	
4	I-710 Near Road ^{##}					
6	West San Fernando Valley					
8	West San Gabriel Valley					
9	East San Gabriel Valley 1			58	9.5#	
9	East San Gabriel Valley 2					
10	Pomona/Walnut Valley					
11	South San Gabriel Valley	0.011	0.01			
12	South Central LA County	0.016	0.01			
13	Santa Clarita Valley			59	4.1	
ORANGE C						
16	North Orange County					
17	Central Orange County			59	5.3#	
17	I-5 Near Road ^{##}					
18	North Coastal Orange County					
19	Saddleback Valley			58	3.7	
RIVERSIDE				20	011	
22	Corona/Norco Area			50	8.2#	
23	Metropolitan Riverside County 1	0.007	0.01	114	15.2#	
23	Metropolitan Riverside County 3			114	13.6#	
23	Perris Valley			55	6.0#	
25	Elsinore Valley					
26	Temecula Valley					
20	San Gorgonio Pass			56	4.0#	
30	Coachella Valley 1**			51	3.9	
30	Coachella Valley 2**			113	4.1	
30	Coachella Valley 3**				4.1	
	ARDINO COUNTY					
32	Northwest San Bernardino Valley	0.007	0.01			
32	I-10 Near Road ^{##}	0.007	0.01			
33	CA-60 Near Road ^{##}					
33				 59	17.1#	
34	Central San Bernardino Valley 1 Central San Bernardino Valley 2	0.01	0.01	55	17.1° 16.0 [#]	
34 35	East San Bernardino Valley	0.01	0.01	55 56	10.0" 12.1 [#]	
33 37	Central San Bernardino Mountains			59	3.9 [#]	
38	East San Bernardino Mountains			39	3.7	
		0.016++	0.01++		 17.1 [#]	
DISTRICT N						
ug/m ³ = micro =Pollut **Salton Sea *Incomplete I ## = Fo the pollutants	Data ur near-road sites measuring one or more of PM2.5, CO, and/or NO2 are operating near	0.016 ⁺⁺ + = High PM10 (≥ winds) and in accordance with the ++ = Higher lead cor immediately and 3-month rolling a	the Basin (due to In e U.S. incentrations were in downwind of stat	ndependence Day EPA Exception recorded at near-s	fireworks) are exclud onal Event Rule. source monitoring sit es. Maximum month	
	PM2.5, CO, and/or NO2 are operating near freeways: I-1, I-10, CA-60, and I-710.	<u>8</u> "		·····	F	

Table 3-2 (Concluded)2016 Air Quality Data – South Coast Air Quality Management District

the following freeways: I-1, I-10, CA-60, and I-710.
 ^h Federal lead standard is 3-months rolling average > 0.15 μg/m³; state standard is monthly average ≥ 1.5 μg/m³. Lead standards were not exceeded.

ⁱ Sulfate data is not available at this time. State sulfate standard is 24-hour $\ge 25 \ \mu g/m3$. There is no federal standard for sulfate.

Carbon Monoxide

CO is a primary pollutant, meaning that it is directly emitted into the air, not formed in the atmosphere by chemical reaction of precursors, as is the case with ozone and other secondary pollutants. Ambient concentrations of CO in the Basin exhibit large spatial and temporal variations due to variations in the rate at which CO is emitted and in the meteorological conditions that govern transport and dilution. Unlike ozone, CO tends to reach high concentrations in the fall and winter months. The highest concentrations frequently occur on weekdays at times consistent with rush hour traffic and late night during the coolest, most stable portion of the day.

Individuals with a deficient blood supply to the heart are the most susceptible to the adverse effects of CO exposure. The effects observed include earlier onset of chest pain with exercise and electrocardiograph changes indicative of worsening oxygen supply to the heart.

Inhaled CO has no direct toxic effect on the lungs but exerts its effect on tissues by interfering with oxygen transport by competing with oxygen to combine with hemoglobin present in the blood to form carboxyhemoglobin (COHb). Hence, conditions with an increased demand for oxygen supply can be adversely affected by exposure to CO. Individuals most at risk include patients with diseases involving heart and blood vessels, fetuses, and patients with chronic hypoxemia (oxygen deficiency) as seen in high altitudes.

Reductions in birth weight and impaired neurobehavioral development have been observed in animals chronically exposed to CO resulting in COHb levels similar to those observed in smokers. Recent studies have found increased risks for adverse birth outcomes with exposure to elevated CO levels. These include preterm births and heart abnormalities.

CO concentrations were measured at 25 locations in the Basin and neighboring Salton Sea Air Basin areas in 2016. CO concentrations did not exceed the standards in 2016. The highest 1-hour average CO concentration recorded (4.4 ppm in the South Central Los Angeles County area) was 13 percent of the federal 1-hour CO standard of 35 ppm and 22 percent of the state 1-hour standard of 20 ppm. The highest 8-hour average CO concentration recorded (3.9 ppm in the South Central Los Angeles County area) was 43 percent of the federal and state 8-hour CO standard of 9.0 ppm.

In 2004, SCAQMD formally requested the U.S. EPA to re-designate the Basin from nonattainment to attainment with the CO NAAQS. On March 24, 2007, U.S. EPA published in the Federal Register its proposed decision to re-designate the Basin from non-attainment to attainment for CO. The comment period on the re-designation proposal closed on March 16, 2007 with no comments received by the U.S. EPA. On May 11, 2007, U.S. EPA published in the Federal Register its final decision to approve SCAQMD's request for re-designation from non-attainment to attainment for CO, effective June 11, 2007.

On August 12, 2011, U.S. EPA issued a decision to retain the existing NAAQS for CO, determining that those standards provided the required level of public health protection. However, U.S. EPA added a monitoring requirement for near-road CO monitors in urban areas with population of one million or more, utilizing stations that would be implemented to meet the 2010 NO2 near-road monitoring requirements. The two new CO monitors are at the I-5 near-road site, located in Orange County near Anaheim, and the I-10 near-road site, located near Etiwanda Avenue in San Bernardino County near Ontario, Rancho Cucamonga, and Fontana.

Ozone

Ozone (O3), a colorless gas with a sharp odor, is a highly reactive form of oxygen. High ozone concentrations exist naturally in the stratosphere. Some mixing of stratospheric ozone downward through the troposphere to the earth's surface does occur; however, the extent of ozone transport is limited. At the earth's surface in sites remote from urban areas ozone concentrations are normally very low (e.g., from 0.03 ppm to 0.05 ppm).

The propensity of ozone for reacting with organic materials causes it to be damaging to living cells and ambient ozone concentrations in the Basin are frequently sufficient to cause health effects. Ozone enters the human body primarily through the respiratory tract and causes respiratory irritation and discomfort, makes breathing more difficult during exercise, and reduces the respiratory system's ability to remove inhaled particles and fight infection.

Individuals exercising outdoors, children, and people with preexisting lung disease, such as asthma and chronic pulmonary lung disease, are considered to be the most susceptible subgroups for ozone effects. Short-term exposures (lasting for a few hours) to ozone at levels typically observed in Southern California can result in breathing pattern changes, reduction of breathing capacity, increased susceptibility to infections, inflammation of the lung tissue, and some immunological changes. In recent years, a correlation between elevated ambient ozone levels and increases in daily hospital admission rates, as well as mortality, has also been reported. An increased risk for asthma has been found in children who participate in multiple sports and live in high ozone communities. Elevated ozone levels are also associated with increased school absences.

Ozone exposure under exercising conditions is known to increase the severity of the above mentioned observed responses. Animal studies suggest that exposures to a combination of pollutants which include ozone may be more toxic than exposure to ozone alone. Although lung volume and resistance changes observed after a single exposure diminish with repeated exposures, biochemical and cellular changes appear to persist, which can lead to subsequent lung structural changes.

In 2016, SCAQMD regularly monitored ozone concentrations at 29 locations in the Basin and the Coachella Valley portion of the Salton Sea Air Basin. Maximum ozone concentrations (fourth highest concentration ppm 8-hour) for all areas monitored were below the stage 1 episode level (0.20 ppm) and below the health advisory level (0.15 ppm) (see Table 3-2). All counties in the Basin, as well as the Coachella Valley, exceeded the level of the new 2015 (0.070 ppm), the former 2008 (0.075 ppm), and/or the 1997 (0.08 ppm) 8-hour ozone NAAQS in 2016. While not all stations had days exceeding the previous 8-hour standards, all monitoring stations except two (South Coastal LA County 3 and North Coastal Orange County) had at least one day over the 2015 federal ozone standard (70 ppb).

In 2016, the maximum ozone concentrations in the Basin continued to exceed federal standards by wide margins. Maximum 1-hour and 8-hour average ozone concentrations were 0.163 ppm and 0.121 ppm, respectively (the maximum 1-hour and 8-hour average was recorded in the Central San Bernardino Mountain area). The maximum 8-hour concentration of 0.121 ppm was 173 percent of the new federal standard (0.070 ppm). The maximum 1-hour concentration was 181 percent of the 1-hour state ozone standard of 0.09 ppm. The 8-hour average concentration was 173 percent of the 8-hour state ozone standard of 0.070 ppm.

Nitrogen Dioxide

NO2 is a reddish-brown gas with a bleach-like odor. Nitric oxide (NO) is a colorless gas, formed from the nitrogen (N2) and oxygen (O2) in air under conditions of high temperature and pressure which are generally present during combustion of fuels; NO reacts rapidly with the oxygen in air to form NO2. NO2 is responsible for the brownish tinge of polluted air. The two gases, NO and NO2, are referred to collectively as NOx. In the presence of sunlight, NO2 reacts to form nitric oxide and an oxygen atom. The oxygen atom can react further to form ozone, via a complex series of chemical reactions involving hydrocarbons. Nitrogen dioxide may also react to form nitric acid (HNO3) which reacts further to form nitrates, components of PM2.5 and PM10.

Population-based studies suggest that an increase in acute respiratory illness, including infections and respiratory symptoms in children (not infants), is associated with long-term exposures to NO2 at levels found in homes with gas stoves, which are higher than ambient levels found in Southern California. Increase in resistance to air flow and airway contraction is observed after short-term exposure to NO2 in healthy subjects. Larger decreases in lung functions are observed in individuals with asthma and/or chronic obstructive pulmonary disease (e.g., chronic bronchitis, emphysema) than in healthy individuals, indicating a greater susceptibility of these subgroups. More recent studies have found associations between NO2 exposures and cardiopulmonary mortality, decreased lung function, respiratory symptoms, and emergency room asthma visits.

In animals, exposure to levels of NO2 considerably higher than ambient concentrations results in increased susceptibility to infections, possibly due to the observed changes in cells involved in maintaining immune functions. The severity of lung tissue damage associated with high levels of ozone exposure increases when animals are exposed to a combination of ozone and NO2.

In 2016, nitrogen dioxide concentrations were monitored at 27 locations. No area of the Basin or SSAB exceeded the federal or state standards for NO2. The Basin has not exceeded the federal standard for NO2 (0.0534 ppm) since 1991, when the Los Angeles County portion of the Basin recorded the last exceedance of the standard in any county within the United States. The current 1-hour average NO2 NAAQS (100 ppb) was last exceeded on two days in 2014 in the South Coastal Los Angeles County area at the Long Beach-Hudson air monitoring station. However, the 98th percentile form of the standard was not exceeded, and the 2013-2015 design value is not in violation of the NAAQS. The higher relative concentrations in the Los Angeles area are indicative of the concentrated emission sources, especially heavy-duty vehicles. NOx emission reductions continue to be necessary because it is a precursor to both ozone and PM (PM2.5 and PM10) concentrations.

With the revised NO2 federal standard in 2010, near-road NO2 measurements were required to be phased in for larger cities. The four near-road monitoring stations are: (1) I-5 near-road, located in Orange County near Anaheim; (2) I-710 near-road, located at Long Beach Blvd. in Los Angeles County near Compton and Long Beach; (3) SR-60 near-road, located west of Vineyard Avenue near the San Bernardino/Riverside County border near Ontario, Mira Loma, and Upland; and (4) I-10 near-road, located near Etiwanda Avenue in San Bernardino County near Ontario, Rancho Cucamonga, and Fontana.

The longest operating near-road station in the Basin, adjacent to I-5 in Orange County, has not exceeded the level of the 1-hour NO2 NAAQS (100 ppb) since the measurements began on January 1, 2014. The peak 1-hour NO2 concentration at that site in 2014 was 78.8 ppb and the peak concentration for 2015 was 70.2 ppb. This can be compared to the annual peak values measured

at the nearest ambient monitoring station in Central Orange County (Anaheim station), where the 2014 and 2015 peaks were 75.8 and 59.1, respectively.

Sulfur Dioxide

SO2 is a colorless gas with a sharp odor. It reacts in the air to form sulfuric acid (H2SO4), which contributes to acid precipitation, and sulfates, which are components of PM10 and PM2.5. Most of the SO2 emitted into the atmosphere is produced by burning sulfur-containing fuels.

Exposure of a few minutes to low levels of SO2 can result in airway constriction in some asthmatics. All asthmatics are sensitive to the effects of SO2. In asthmatics, increase in resistance to air flow, as well as reduction in breathing capacity leading to severe breathing difficulties, is observed after acute higher exposure to SO2. In contrast, healthy individuals do not exhibit similar acute responses even after exposure to higher concentrations of SO2.

Animal studies suggest that despite SO2 being a respiratory irritant, it does not cause substantial lung injury at ambient concentrations. However, very high levels of exposure can cause lung edema (fluid accumulation), lung tissue damage, and sloughing off of cells lining the respiratory tract.

Some population-based studies indicate that the mortality and morbidity effects associated with fine particles show a similar association with ambient SO2 levels. In these studies, efforts to separate the effects of SO2 from those of fine particles have not been successful. It is not clear whether the two pollutants act synergistically or one pollutant alone is the predominant factor.

No exceedances of federal or state standards for sulfur dioxide occurred in 2016 at any of the six locations monitored the Basin. The maximum 1-hour SO2 concentration was 17.8 ppb, as recorded in the South Coastal Los Angeles County area. The 99th percentile of 1-hour SO2 concentration was 12 ppb, as recorded in South Coastal Los Angeles County area. Though SO2 concentrations remain well below the standards, SO2 is a precursor to sulfate, which is a component of fine particulate matter, PM10, and PM2.5. Historical measurements showed concentrations to be well below standards and monitoring has been discontinued.

Particulate Matter (PM10 and PM2.5)

Of great concern to public health are the particles small enough to be inhaled into the deepest parts of the lung. Respirable particles (particulate matter less than about 10 micrometers in diameter (PM10)) can accumulate in the respiratory system and aggravate health problems such as asthma, bronchitis, and other lung diseases. Children, the elderly, exercising adults, and those suffering from asthma are especially vulnerable to adverse health effects of PM10 and PM2.5.

A consistent correlation between elevated ambient fine particulate matter (PM2.5) levels and an increase in mortality rates, respiratory infections, number and severity of asthma attacks, and the number of hospital admissions has been observed in different parts of the United States and various areas around the world. Studies have reported an association between long-term exposure to air pollution dominated by PM2.5 and increased mortality, reduction in life-span, and an increased mortality from lung cancer.

Daily fluctuations in fine particulate matter concentration levels have also been related to hospital admissions for acute respiratory conditions, to school and kindergarten absences, to a decrease in

respiratory function in normal children, and to increased medication use in children and adults with asthma. Studies have also shown lung function growth in children is reduced with long-term exposure to particulate matter. In addition to children, the elderly and people with preexisting respiratory and/or cardiovascular disease appear to be more susceptible to the effects of PM10 and PM2.5.

SCAQMD monitored PM10 concentrations at 23 locations in 2016. The federal 24-hour PM10 standard (150 μ g/m3) was not exceeded in 2016. The Basin has remained in attainment of the PM10 NAAQS since 2006. The maximum three-year average 24-hour PM10 concentration of 150 μ g/m3 was recorded in the Coachella Valley area and was 100 percent of the federal standard and 300 percent of the much more stringent state 24-hour PM10 standard (50 μ g/m3). The state 24-hour PM10 standard was exceeded at several of the monitoring stations. The maximum annual average PM10 concentration of 49 μ g/m3 was recorded in Metropolitan Riverside County. The federal annual PM10 standard has been revoked. The much more stringent state annual PM10 standard (20 μ g/m3) was exceeded in most stations in each county in the Basin and in the Coachella Valley.

In 2016, PM2.5 concentrations were monitored at 19 locations throughout the Basin. U.S. EPA revised the federal 24-hour PM2.5 standard from 65 μ g/m3 to 35 μ g/m3, effective December 17, 2006. In 2016, the maximum PM2.5 concentrations in the Basin exceeded the new federal 24-hour PM2.5 standard in seven out of 19 locations. The maximum 24-hour PM2.5 concentration of 46.6 μ g/m3 was recorded in the South San Gabriel Valley area. The 98th percentile 24-hour PM2.5 concentration of 35.1 μ g/m3 was recorded in the Metropolitan Riverside County, which barely exceeds the federal standard of 35 μ g/m3. The maximum annual average concentration of 14.73 μ g/m3 was recorded in San Bernardino County, which represents 98 percent of the 2006 federal standard of 15 μ g/m3.

On December 14, 2012, U.S. EPA strengthened the annual NAAQS for PM2.5 to $12 \mu g/m3$ and, as part of the revisions, a requirement was added to monitor near the most heavily trafficked roadways in large urban areas. Particle pollution is expected to be higher along these roadways as a result of direct emissions from cars and heavy-duty diesel trucks and buses. SCAQMD has installed the two required PM2.5 monitors by January 1, 2015, at locations selected based upon the existing near-roadway NO2 sites that were ranked higher for heavy-duty diesel traffic. The locations are: (1) I-710, located at Long Beach Blvd. in Los Angeles County near Compton and Long Beach; and (2) SR-60, located west of Vineyard Avenue near the San Bernardino/Riverside County border near Ontario, Mira Loma, and Upland. These near-road sites measure PM2.5 daily with FRM filter-based measurements.

Lead

Lead in the atmosphere is present as a mixture of a number of lead compounds. Leaded gasoline and lead smelters have been the main sources of lead emitted into the air. Due to the phasing out of leaded gasoline, there was a dramatic reduction in atmospheric lead in the Basin over the past three decades.

Fetuses, infants, and children are more sensitive than others to the adverse effects of lead exposure. Exposure to low levels of lead can adversely affect the development and function of the central nervous system, leading to learning disorders, distractibility, inability to follow simple commands, and lower intelligence quotient. In adults, increased lead levels are associated with increased blood pressure. Lead poisoning can cause anemia, lethargy, seizures, and death. It appears that there are no direct effects of lead on the respiratory system. Lead can be stored in the bone from early-age environmental exposure, and elevated blood lead levels can occur due to breakdown of bone tissue during pregnancy, hyperthyroidism (increased secretion of hormones from the thyroid gland), and osteoporosis (breakdown of bone tissue). Fetuses and breast-fed babies can be exposed to higher levels of lead because of previous environmental lead exposure of their mothers.

The state standards for lead were not exceeded in any area of the SCAQMD in 2016. There have been no violations of these standards at SCAQMD's regular air monitoring stations since 1982, as a result of removal of lead from gasoline. However, monitoring at two stations immediately adjacent to stationary sources of lead recorded exceedances of the standard in Los Angeles County over the 2007-2009-time period. These data were used for designations under the revised standard that also included new requirements for near-source monitoring. As a result, a nonattainment designation was finalized for much of the Los Angeles County portion of the Basin when the current standard was implemented.

The current lead concentrations in Los Angeles County are now below the NAAQS. The maximum quarterly average lead concentration (0.01 μ g/m3 at several monitoring) was seven percent of the federal quarterly average lead standard (0.15 μ g/m3). The maximum monthly average lead concentration (0.016 μ g/m3 in South Central Los Angeles County) was one percent of the state monthly average lead standard. As a result of the 2012-2014 design value below the NAAQS, SCAQMD will be requesting that U.S. EPA re-designate the nonattainment area as attaining the federal lead standard. Stringent SCAQMD rules governing lead-producing sources will help to ensure that there are no future violations of the federal standard. Furthermore, one business that had been responsible for the highest measured lead concentrations in Los Angeles County has closed and is in the process of demolition and site clean-up.

Sulfates

Sulfates are chemical compounds which contain the sulfate ion and are part of the mixture of solid materials which make up PM10. Most of the sulfates in the atmosphere are produced by oxidation of SO2. Oxidation of sulfur dioxide yields sulfur trioxide (SO3), which reacts with water to form sulfuric acid, which then contributes to acid deposition. The reaction of sulfuric acid with basic substances such as ammonia yields sulfates, a component of PM10 and PM2.5.

Most of the health effects associated with fine particles and SO2 at ambient levels are also associated with sulfates. Thus, both mortality and morbidity effects have been observed with an increase in ambient sulfate concentrations. However, efforts to separate the effects of sulfates from the effects of other pollutants have generally not been successful.

Clinical studies of asthmatics exposed to sulfuric acid suggest that adolescent asthmatics are possibly a subgroup susceptible to acid aerosol exposure. Animal studies suggest that acidic particles such as sulfuric acid aerosol and ammonium bisulfate are more toxic than nonacidic particles like ammonium sulfate. Whether the effects are attributable to acidity or to particles remains unresolved.

The most current preliminary data available for sulfates is for 2016. In 2016, the state 24-hour sulfate standard ($25 \mu g/m3$) was not exceeded in any of the 19 monitoring locations in the Basin. The maximum 24-hour sulfate concentration was 17.1 ppb, as recorded in the Central San Bernardino Valley. There are no federal sulfate standards.

Vinyl Chloride

Vinyl chloride is a colorless, flammable gas at ambient temperature and pressure. It is also highly toxic and is classified by the American Conference of Governmental Industrial Hygienists (ACGIH) as A1 (confirmed carcinogen in humans) and by the International Agency for Research on Cancer (IARC) as 1 (known to be a human carcinogen). (Air Gas, 2010.) At room temperature, vinyl chloride is a gas with a sickly-sweet odor that is easily condensed. However, it is stored as a liquid. Due to the hazardous nature of vinyl chloride to human health there are no end products that use vinyl chloride in its monomer form. Vinyl chloride is a chemical intermediate, not a final product. It is an important industrial chemical chiefly used to produce polymer polyvinyl chloride (PVC). The process involves vinyl chloride liquid fed to polymerization reactors where it is converted from a monomer to a polymer PVC. The final product of the polymerization process is PVC in either a flake or pellet form. Billions of pounds of PVC are sold on the global market each year. From its flake or pellet form, PVC is sold to companies that heat and mold the PVC into end products such as PVC pipe and bottles.

In the past, vinyl chloride emissions have been associated primarily with sources such as landfills. Risks from exposure to vinyl chloride are considered to be localized impacts rather than regional impacts. Because landfills in the SCAQMD are subject to Rule 1150.1 – Control of Gaseous Emissions from Municipal Solid Waste Landfills, which contain stringent requirements for landfill gas collection and control, potential vinyl chloride emissions are expected to be below the level of detection. Therefore, SCAQMD does not monitor for vinyl chloride at its monitoring stations.

Volatile Organic Compounds

It should be noted that there are no state or NAAQS for VOCs because they are not classified as criteria pollutants. VOCs are regulated, however, because limiting VOC emissions reduces the rate of photochemical reactions that contribute to the formation of ozone. VOCs are also transformed into organic aerosols in the atmosphere, contributing to higher PM10 and lower visibility levels.

Although health-based standards have not been established for VOCs, health effects can occur from exposures to high concentrations of VOCs because of interference with oxygen uptake. In general, ambient VOC concentrations in the atmosphere are suspected to cause coughing, sneezing, headaches, weakness, laryngitis, and bronchitis, even at low concentrations. Some hydrocarbon components classified as VOC emissions are thought or known to be hazardous. Benzene, for example, one hydrocarbon component of VOC emissions, is known to be a human carcinogen.

Non-Criteria Pollutants

Although SCAQMD's primary mandate is attaining the state and NAAQS for criteria pollutants within the Basin, SCAQMD also has a general responsibility pursuant to Health and Safety Code Section 41700 to control emissions of air contaminants and prevent endangerment to public health. Additionally, state law requires SCAQMD to implement airborne toxic control measures (ATCM) adopted by CARB and to implement the Air Toxics "Hot Spots" Act. As a result, SCAQMD has regulated pollutants other than criteria pollutants such as TACs, GHGs, and stratospheric ozone depleting compounds. SCAQMD has developed a number of rules to control non-criteria pollutants from both new and existing sources. These rules originated through state directives, Clean Air Act (CAA) requirements, or the SCAQMD rulemaking process.

In addition to promulgating non-criteria pollutant rules, SCAQMD has been evaluating AQMP control measures as well as existing rules to determine whether or not they would affect, either positively or negatively, emissions of non-criteria pollutants. For example, rules in which VOC components of coating materials are replaced by a non-photochemically reactive chlorinated substance would reduce the impacts resulting from ozone formation, but could increase emissions of toxic compounds or other substances that may have adverse impacts on human health.

The following subsections summarize the existing setting for compounds that contribute to TACs.

Air Quality – Toxic Air Contaminants (TACs)

Federal

Under Section 112 of the CAA, U.S. EPA is required to regulate sources that emit one or more of the 187 federally listed hazardous air pollutants (HAPs). HAPs are toxic air pollutants identified in the CAA, which are known or suspected of causing cancer or other serious health effects. The federal HAPs are listed on the U.S. EPA website at http://www.epa.gov/ttn/atw/orig189.html. In order to implement the CAA, approximately 100 National Emission Standards for Hazardous Air Pollutants (NESHAPs) have been promulgated by U.S. EPA for major sources (sources emitting greater than 10 ton per year (tpy) of a single HAP or greater than 25 tpy of multiple HAPs). SCAQMD can either directly implement NESHAPs or adopt rules that contain requirements at least as stringent as the NESHAP requirements. However, since NESHAPs often apply to sources in the Basin that are controlled, many of the sources that would have been subject to federal requirements already comply or are exempt.

In addition to the major source NESHAPs, U.S. EPA has also controlled HAPs from urban areas by developing Area Source NESHAPs under their Urban Air Toxics Strategy. U.S. EPA defines an area source as a source that emits less than 10 tons annually of any single hazardous air pollutant or less than 25 tons annually of a combination of hazardous air pollutants. The CAA requires the U.S. EPA to identify a list of at least 30 air toxics that pose the greatest potential health threat in urban areas. U.S. EPA is further required to identify and establish a list of area source categories that represent 90 percent of the emissions of the 30 urban air toxics associated with area sources, for which Area Source NESHAPs are to be developed under the CAA. U.S. EPA has identified a total of 70 area source categories with regulations promulgated for more than 30 categories so far.

The federal toxics program recognizes diesel engine exhaust (diesel particulate matter or DPM) as a health hazard; however, DPM itself is not one of their listed TACs. Rather, each toxic compound in the speciated list of compounds in exhaust is considered separately. Although there are no specific NESHAP regulations for DPM, DPM reductions are realized through federal regulations including diesel fuel standards and emission standards for stationary, marine, and locomotive engines; and idling controls for locomotives.

State

The California air toxics program was based on the CAA and the original federal list of hazardous air pollutants. The state program was established in 1983 under the Toxic Air Contaminant Identification and Control Act, Assembly Bill (AB) 1807, Tanner. Under the state program, TACs are identified through a two-step process of risk identification and risk management. This two-step process was designed to protect residents from the health effects of toxic substances in the air.

Control of TACs under the TAC Identification and Control Program: California's TAC identification and control program, adopted in 1983 as AB 1807, is a two-step program in which substances are identified as TACs and ATCMs are adopted to control emissions from specific sources. CARB has adopted a regulation designating all 188 federal hazardous air pollutants (HAPs) as TACs.

ATCMs are developed by CARB and implemented by SCAQMD and other air districts through the adoption of regulations of equal or greater stringency. Generally, the ATCMs reduce emissions to achieve exposure levels below a determined health threshold. If no such threshold levels are determined, emissions are reduced to the lowest level achievable through the best available control technology unless it is determined that an alternative level of emission reduction is adequate to protect public health.

Under California law, a federal NESHAP automatically becomes a state ATCM, unless CARB has already adopted an ATCM for the source category. Once a NESHAP becomes an ATCM, CARB and each air pollution control or air quality management district have certain responsibilities related to adoption or implementation and enforcement of the NESHAP/ATCM.

Control of TACs under the Air Toxics "Hot Spots" Act: The Air Toxics Hot Spots Information and Assessment Act of 1987 (AB 2588) establishes a statewide program to inventory and assess the risks from facilities that emit TACs and to notify the public about significant health risks associated with the emissions. Facilities are phased into the AB 2588 program based on their emissions of criteria pollutants or their occurrence on lists of toxic emitters compiled by SCAQMD. Phase I consists of facilities that emit over 25 tpy of any criteria pollutant and facilities present on SCAQMD's toxics list. Phase I facilities entered the program by reporting their TAC emissions for calendar year 1989. Phase II consists of facilities that emit between 10 and 25 tpy of any criteria pollutant and submitted air toxic inventory reports for calendar year 1990 emissions. Phase III consists of certain designated types of facilities which emit less than 10 tpy of any criteria pollutant and submitted inventory reports for calendar year 1991 emissions. Inventory reports are required to be updated every four years under the state law.

Air Toxics Control Measures: As part of its risk management efforts, CARB has passed state ATCMs to address air toxics from mobile and stationary sources. Some key ATCMs for stationary sources include reductions of benzene emissions from service stations, hexavalent chromium emissions from chrome plating, perchloroethylene emissions from dry cleaning, ethylene oxide emissions from sterilizers, and multiple air toxics from the automotive painting and repair industries.

Many of CARB's recent ATCMs are part of the CARB Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles (Diesel Risk Reduction Plan), which was adopted in September 2000 (http://www.arb.ca.gov/diesel/documents/rrpapp.htm) with the goal of reducing DPM emissions from compression ignition engines and associated health risk by

75 percent by 2010 and 85 percent by 2020. The Diesel Risk Reduction Plan includes strategies to reduce emissions from new and existing engines through the use of ultra-low sulfur diesel fuel, add-on controls, and engine replacement. In addition to stationary source engines, the plan addresses DPM emissions from mobile sources such as trucks, buses, construction equipment, locomotives, and ships.

OEHHA Health Risk Assessment Guidelines: In 2003, OEHHA developed and approved its Health Risk Assessment Guidance document (2003 OEHHA Guidelines) and prepared a series of Technical Support Documents, reviewed and approved by the Scientific Review Panel (SRP), that provided new scientific information showing that early-life exposures to air toxics contribute to an increased estimated lifetime risk of developing cancer and other adverse health effects, compared to exposures that occur in adulthood. As a result, OEHHA developed the Revised OEHHA Guidelines in March 2015, which incorporated this new scientific information. The new method utilizes higher estimates of cancer potency during early life exposures. There are also differences in the assumptions on breathing rates and length of residential exposures.

SCAQMD

SCAQMD has regulated criteria air pollutants using either a technology-based or an emissions limit approach. The technology-based approach defines specific control technologies that may be installed to reduce pollutant emissions. The emissions limit approach establishes an emission limit, and allows industry to use any emission control equipment, as long as the emission requirements are met. The regulation of TACs often uses a health risk-based approach, but may also require a regulatory approach similar to criteria pollutants, as explained in the following subsections.

Rules and Regulations: Under SCAQMD's toxic regulatory program there are 26 source-specific rules that target toxic emission reductions that regulate over 10,000 sources such as metal finishing, spraying operations, dry cleaners, film cleaning, gasoline dispensing, and diesel-fueled stationary engines to name a few. In addition, other source-specific rules targeting criteria pollutant reductions also reduce toxic emissions, such as Rule 461 - Gasoline Transfer and Dispensing, which reduces benzene emissions from gasoline dispensing, and Rule 1124 -Manufacturing Aerospace Assembly and Component Operations, which reduces perchloroethylene, trichloroethylene, and methylene chloride emissions from aerospace operations.

New and modified sources of TACs in the SCAQMD are subject to Rule 1401 - New Source Review (NSR) of Toxic Air Contaminants and Rule 212 - Standards for Approving Permits. Rule 212 requires notification of SCAQMD's intent to grant a permit to construct a significant project, defined as a new or modified permit unit located within 1000 feet of a school (a state law requirement under AB 3205), a new or modified permit unit posing a maximum individual cancer risk of one in one million (1 x 10⁶) or greater, or a new or modified facility with criteria pollutant emissions exceeding specified daily maximums. Distribution of notice is required to all addresses within a quarter mile radius, or other area deemed appropriate by SCAQMD. Rule 1401 currently controls emissions of carcinogenic and non-carcinogenic (health effects other than cancer) air contaminants from new, modified and relocated sources by specifying limits on cancer risk and hazard index (explained further in the following discussion), respectively. The rule lists nearly 300 TACs that are evaluated during SCAQMD's permitting process for new, modified, or relocated sources. During the past decade, more than ten compounds have been added or had risk values amended. The addition of DPM from diesel-fueled internal combustion engines as a TAC

in March 2008 was the most significant of recent amendments to the rule. Rule 1401.1 - Requirements for New and Relocated Facilities Near Schools sets risk thresholds for new and relocated facilities near schools. The requirements are more stringent than those for other air toxics rules in order to provide additional protection to school children.

Air Toxics Control Plan: On March 17, 2000, the SCAQMD Governing Board approved the Air Toxics Control Plan (2000 ATCP), which was the first comprehensive plan in the nation to guide future toxic rulemaking and programs. The ATCP was developed to lay out SCAQMD's air toxics control program which built upon existing federal, state, and local toxic control programs as well as co-benefits from implementation of SIP measures. The concept for the plan was an outgrowth of the Environmental Justice principles and the Environmental Justice Initiatives adopted by SCAQMD Governing Board on October 10, 1997. Monitoring studies and air toxics regulations that were created from these initiatives emphasized the need for a more systematic approach to reducing TACs. The intent of the plan was to reduce exposure to air toxics in an equitable and cost-effective manner that promotes clean, healthful air in the SCAQMD. The plan proposed control strategies to reduce TACs in the SCAQMD implemented between years 2000 and 2010 through cooperative efforts of SCAQMD, local governments, CARB, and U.S. EPA.

Cumulative Impact Reduction Strategies (CIRS): The CIRS was presented to the SCAQMD Governing Board on September 5, 2003, as part of the White Paper on Regulatory Options for Addressing Cumulative Impacts from Air Pollution Emissions. The resulting 25 cumulative impacts strategies were a key element of the Addendum to March 2000 Final Draft Air Toxics Control Plan for Next Ten Years (2004 Addendum). The strategies included rules, policies, funding, education, and cooperation with other agencies. Some of the key SCAQMD accomplishments related to the cumulative impacts reduction strategies were:

- Rule 1401.1, which set more stringent health risk requirements for new and relocated facilities near schools
- Rule 1470 Requirements for Stationary Diesel-Fueled Internal Combustion and Other Compression Ignition Engines, which established DPM emission limits and other requirements for diesel-fueled engines
- Rule 1469.1 Spraying Operations Using Coatings Containing Chromium, which regulated chrome spraying operations
- Rule 410 Odor from Transfer Stations and Material Recovery Facilities which addresses odors from transfer stations and material recovery facilities
- Intergovernmental Review comment letters for CEQA documents
- SCAQMD's land use guidance document
- Additional protection in toxics rules for sensitive receptors, such as more stringent requirements for chrome plating operations and diesel engines located near schools

2004 Addendum: The 2004 Addendum was adopted by the SCAQMD Governing Board on April 2, 2004, and served as a status report regarding implementation of the various mobile and stationary source strategies in the 2000 ATCP and introduced new measures to further address air toxics. The main elements of the 2004 Addendum were to address the progress made in the implementation of the 2000 ATCP control strategies; provide a historical perspective of air toxic emissions and current air toxic levels; incorporate the CIRS approved in 2003 and additional measures identified in the 2003 AQMP; project future air toxic levels to the extent feasible; and summarize future efforts to develop the next ATCP. Significant progress had been made in

implementing most of SCAQMD strategies from the 2000 ATCP and the 2004 Addendum. CARB has also made notable progress in mobile source measures via its Diesel Risk Reduction Plan, especially for goods movement related sources, while the U.S. EPA continued to implement their air toxic programs applicable to stationary sources.

Clean Communities Plan: On November 5, 2010, the SCAQMD Governing Board approved the 2010 Clean Communities Plan (CCP). The CCP was an update to the 2000 ATCP and the 2004 Addendum. The objective of the 2010 CCP was to reduce exposure to air toxics and air-related nuisances throughout the SCAQMD, with emphasis on cumulative impacts. The elements of the 2010 CCP are community exposure reduction, community participation, communication and outreach, agency coordination, monitoring and compliance, source-specific programs, and nuisance. The centerpiece of the 2010 CCP is a pilot study through which SCAQMD staff works with community stakeholders to identify and develop solutions community-specific to air quality issues in two communities: (1) the City of San Bernardino; and (2) Boyle Heights and surrounding areas.

Control of TACs under the Air Toxics "Hot Spots" Act: On October 2, 1992, the SCAQMD Governing Board adopted public notification procedures for Phase I and II facilities. These procedures specify that AB 2588 facilities must provide public notice when exceeding the following risk levels:

- Maximum Individual Cancer Risk: greater than 10 in one million (10×10^6)
- Total Hazard Index: greater than 1.0 for TACs except lead, or greater than 0.5 for lead

Public notice is to be provided by letters mailed to all addresses and all parents of children attending school in the impacted area. In addition, facilities must hold a public meeting and provide copies of the facility risk assessment in all school libraries and a public library in the impacted area.

The AB 2588 Toxics "Hot Spots" Program is implemented through Rule 1402 - Control of Toxic Air Contaminants from Existing Sources. SCAQMD continues to review health risk assessments submitted. Notification is required from facilities with a significant risk under the AB 2588 program based on their initial approved health risk assessments and will continue on an ongoing basis as additional and subsequent health risk assessments are reviewed and approved.

There are currently about 361 facilities in SCAQMD's AB 2588 program. Since 1992 when the state Health and Safety Code incorporated a risk reduction requirement in the program, SCAQMD has reviewed and approved over 335 HRAs; 50 facilities were required to do a public notice and 24 facilities were subject to risk reduction. Currently, over 96 percent of the facilities in the program have cancer risks below ten in a million and over 97 percent have acute and chronic hazard indices of less than one. (SCAQMD, 2015a.)

CEQA Intergovernmental Review Program: SCAQMD staff, through its Intergovernmental Review (IGR), provides comments to lead agencies on air quality analyses and mitigation measures in CEQA documents. The following are some key programs and tools that have been developed more recently to strengthen air quality analyses, specifically as they relate to exposure of mobile source air toxics:

• SCAQMD's Mobile Source Committee approved the "Health Risk Assessment Guidance for Analyzing Cancer Risks from Mobile Source Diesel Emissions" (August 2002). This

document provides guidance for analyzing cancer risks from DPM from truck idling and movement (e.g., truck stops, warehouse and distribution centers, or transit centers), ship hoteling at ports, and train idling.

- CalEPA and CARB's "Air Quality and Land Use Handbook: A Community Health Perspective" (April 2005), provides recommended siting distances for incompatible land uses.
- Western Riverside Council of Governments' Regional Air Quality Task Force developed a policy document titled "Good Neighbor Guidelines for Siting New and/or Modified Warehouse/Distribution Facilities" (September 2005). This document provides guidance to local government on preventive measures to reduce neighborhood exposure to TACs from warehousing facilities.

Environmental Justice (EJ): Environmental justice has long been a focus of SCAQMD. In 1990, SCAQMD formed an Ethnic Community Advisory Group that was restructured as the Environmental Justice Advisory Group (EJAG) in 2008. EJAG's mission is to advise and assist SCAQMD in protecting and improving public health in SCAQMD's most impacted communities through the reduction and prevention of air pollution.

In 1997, the SCAQMD Governing Board adopted four guiding principles and ten initiatives Also in 1997, the (http://www.aqmd.gov/ej/history.htm) to ensure environmental equity. SCAQMD Governing Board expanded the initiatives to include the "Children's Air Quality Agenda" focusing on the disproportionate impacts of poor air quality on children. Some key initiatives that have been implemented were the Multiple Air Toxics Exposure Studies (MATES, MATES II, MATES III, and MATES IV); the Clean Fleet Rules; CIRS; funding for lower emitting technologies under the Carl Moyer Program; the Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning; a guidance document on Air Quality Issues in School Site Selection; and the 2000 ATCP and its 2004 Addendum. Key initiatives focusing on communities and residents include the Clean Air Congress; the Clean School Bus Program; Asthma and Air Quality Consortium; Brain and Lung Tumor and Air Pollution Foundation; air quality presentations to schools and community and civic groups; and Town Hall meetings. Technological and scientific projects and programs have been a large part of SCAQMD's EJ program since its inception. Over time, the EJ program's focus on public education, outreach, and opportunities for public participation have greatly increased. Public education materials and other resources for the public are available on SCAQMD's website (www.aqmd.gov).

AB 2766 Subvention Funds: AB 2766 subvention funds, money collected by the state as part of vehicle registration and passed through to SCAQMD, is used to fund projects in local cities that reduce motor vehicle air pollutants. The Clean Fuels Program, funded by a surcharge on motor vehicle registrations in SCAQMD, reduces TAC emissions through co-funding projects that develop and demonstrate low-emission clean fuels and advanced technologies, and to promote commercialization and deployment of promising or proven technologies in Southern California.

Carl Moyer Program: Another program that targets diesel emission reductions is the Carl Moyer Program, which provides grants for projects that achieve early or extra emission reductions beyond what is required by regulations. Examples of eligible projects include cleaner on-road, off-road, marine, locomotive, and stationary agricultural pump engines. Other endeavors of SCAQMD's Technology Advancement Office help to reduce DPM emissions through co-funding research and demonstration projects of clean technologies, such as low-emitting locomotives.

Control of TACs with Risk Reduction Audits and Plans: Senate Bill (SB) 1731, enacted in 1992 and codified in Health and Safety Code Section 44390 et seq., amended AB 2588 to include a requirement for facilities with significant risks to prepare and implement a risk reduction plan that will reduce the risk below a defined significant risk level within specified time limits. SCAQMD Rule 1402 was adopted on April 8, 1994, to implement the requirements of SB 1731. In addition to the TAC rules adopted by SCAQMD under authority of AB 1807 and SB 1731, SCAQMD has adopted source-specific TAC rules, based on the specific level of TAC emitted and the needs of the area. These rules are similar to the state's ATCMs because they are source-specific and only address emissions and risk from specific compounds and operations.

Multiple Air Toxics Exposure Studies

<u>Multiple Air Toxics Exposure Study (MATES)</u>: In 1986, SCAQMD conducted the first MATES report to determine the Basin-wide risks associated with major airborne carcinogens. At the time, the state of technology was such that only 20 known air toxic compounds could be analyzed and diesel exhaust particulate did not have an agency accepted carcinogenic health risk value. TACs are determined by U.S. EPA, and by CalEPA, including OEHHA and CARB. For purposes of MATES, the California carcinogenic health risk factors were used. The maximum combined individual health risk for simultaneous exposure to pollutants under the study was estimated to be 600 to 5,000 in one million.

<u>Multiple Air Toxics Exposure Study II (MATES II)</u>: At its October 10, 1997 meeting, the SCAQMD Governing Board directed staff to conduct a follow up to the MATES report to quantify the magnitude of population exposure risk from existing sources of selected air toxic contaminants at that time. MATES II included a monitoring program of 40 known air toxic compounds, an updated emissions inventory of TACs (including microinventories around each of the 14 microscale sites), and a modeling effort to characterize health risks from hazardous air pollutants. The estimated Basin-wide carcinogenic health risk from ambient measurements was 1,400 per million people. About 70 percent of the Basin-wide health risk was attributed to DPM emissions; about 20 percent to other toxics associated with mobile sources (including benzene, butadiene, and formaldehyde); about 10 percent of Basin-wide health risk was attributed to stationary sources (which include industrial sources and other certain specifically identified commercial businesses such as dry cleaners and print shops.)

<u>Multiple Air Toxics Exposure Study III (MATES III)</u>: MATES III was part of the SCAQMD Governing Board's 2003-04 Environmental Justice Workplan approved on September 5, 2003. The MATES III report consisted of several elements including a monitoring program, an updated emissions inventory of TACs, and a modeling effort to characterize carcinogenic health risk across the Basin. Besides toxics, additional measurements included organic carbon, elemental carbon, and total carbon, as well as, Particulate Matter (PM), including PM2.5. It did not estimate mortality or other health effects from particulate exposures. MATES III revealed a general downward trend in air toxic pollutant concentrations with an estimated Basin-wide lifetime carcinogenic health risk of 1,200 in one million. Mobile sources accounted for 94 percent of the basin-wide lifetime carcinogenic health risk with diesel exhaust particulate contributing to 84 percent of the mobile source Basin-wide lifetime carcinogenic health risk. Non-diesel carcinogenic health risk declined by 50 percent from the MATES II values.

<u>Multiple Air Toxics Exposure Study IV (MATES IV)</u>: MATES IV, the current version, includes a monitoring program, an updated emissions inventory of TACs, and a modeling effort to characterize risk across the Basin. The study focuses on the carcinogenic risk from exposure to

air toxics but does not estimate mortality or other health effects from particulate exposures. An additional focus of MATES IV is the inclusion of measurements of ultrafine particle concentrations. MATES IV incorporates the updated health risk assessment methodology from OEHHA. Compared to previous studies of air toxics in the Basin, this study found decreasing air toxics exposure, with the estimated Basin-wide population-weighted risk down by about 57 percent from the analysis done for the MATES III time period. The ambient air toxics data from the ten fixed monitoring locations also demonstrated a similar reduction in air toxic levels and risks. On average, diesel particulate contributes about 68 percent of the total air toxics risk. This is a lower portion of the overall risk compared to the MATES III estimates of about 84 percent.

Health Effects

Carcinogenic Health Risks from TACs: One of the primary health risks of concern due to exposure to TACs is the risk of contracting cancer. The carcinogenic potential of TACs is a particular public health concern because it is currently believed by many scientists that there is no "safe" level of exposure to carcinogens. Any exposure to a carcinogen poses some risk of causing cancer. It is currently estimated that about one in four deaths in the United States is attributable to cancer. The proportion of cancer deaths attributable to air pollution has not been estimated using epidemiological methods.

Non-Cancer Health Risks from TACs: Unlike carcinogens, for most non-carcinogens it is believed that there is a threshold level of exposure to the compound below which it will not pose a health risk. CalEPA's OEHHA develops Reference Exposure Levels (RELs) for TACs which are health-conservative estimates of the levels of exposure at or below which health effects are not expected. The non-cancer health risk due to exposure to a TAC is assessed by comparing the estimated level of exposure to the REL. The comparison is expressed as the ratio of the estimated exposure level to the REL, called the hazard index (HI).

HAZARDS AND HAZARDOUS MATERIALS

Hazard concerns are related to the potential for fires, explosions or the release of hazardous materials/substances in the event of an accident or upset conditions. The potential for hazards exist in the production, use, storage, and transportation of hazardous materials. Hazardous materials may be found at industrial production and processing facilities. Some facilities produce hazardous materials as their end product, while others use such materials as an input to their production process. Examples of hazardous materials used as consumer products include gasoline, solvents, and coatings/paints. Hazardous materials are stored at facilities that produce such materials and at facilities where hazardous materials are a part of the production process. Specifically, storage refers to the bulk handling of hazardous materials before and after they are transported to the general geographical area of use. Currently, hazardous materials are transported throughout the Basin in large quantities via all modes of transportation including rail, highway, water, air, and pipeline.

PARs 1134 is intended to improve overall air quality; however, it may have direct or indirect hazards associated with the implementation. In order to achieve the desired reduction of NOx emissions from PAR 1134, some stationary gas turbines may require the installation of air pollution control equipment such as SCR systems which utilize ammonia. As such, implementation of PAR 1134 may affect the use, storage, and transport of hazards and hazardous materials for any facility that installs SCR technology for reducing NOx emissions. New (or modifications to existing) air pollution control equipment and related components are expected to

be installed at some of the affected facilities such that their operations may increase the quantity of hazardous materials generated by the control equipment and may increase the quantity of ammonia used. It is anticipated some facilities will need to install SCR technology to meet NOx emission limits and in doing so, may result in the overall increase in the amount of ammonia delivered, stored and injected. Installation of SCR equipment may also result in potential ammonia slip emissions, an increase the amount of fresh catalyst needed, and an increase spent catalyst replaced over time.

Hazardous Materials Regulations

Incidents of harm to human health and the environment associated with hazardous materials have created a public awareness of the potential for adverse effects from careless handling and/or use of these substances. As a result, a number of federal, state, and local laws have been enacted to regulate the use, storage, transportation, and management of hazardous materials and wastes. The most relevant hazardous materials laws and regulations are summarized in the following subsection of this section.

A number of properties may cause a substance to be hazardous, including toxicity, ignitability, corrosivity, and reactivity. The term "hazardous material" is defined in different ways for different regulatory programs. For the purposes of this SEA, the term "hazardous materials" refers to both hazardous materials and hazardous wastes. A hazardous material is defined as hazardous if it appears on a list of hazardous materials prepared by a federal, state, or local regulatory agency or if it has characteristics defined as hazardous by such an agency. Health and Safety Code section 25501(k) defines hazardous material as follows:

"Hazardous material" means any material that because of its quantity, concentrations, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment if released into the workplace or the environment. "Hazardous materials" include but are not limited to hazardous substances, hazardous waste, and any material which a handler or the administering agency has a reasonable basis for believing would be injurious to the health and safety of persons or harmful to the environment if released into the workplace or the environment.

Examples of the types of materials and wastes considered hazardous are hazardous chemicals (e.g., toxic, ignitable, corrosive, and reactive materials), radioactive materials, and medical (infectious) waste. The characteristics of toxicity, ignitability, corrosivity, and reactivity are defined in Title 22, California Code of Regulations (CCR), Section 66261.20-66261.24 and are summarized below:

Toxic Substances: Toxic substances may cause short-term or long-lasting health effects, ranging from temporary effects to permanent disability, or even death. For example, such substances can cause disorientation, acute allergic reactions, asphyxiation, skin irritation, or other adverse health effects if human exposure exceeds certain levels. (The level depends on the substances involved and are chemical-specific.) Carcinogens (substances that can cause cancer) are a special class of toxic substances. Examples of toxic substances include benzene (a component of gasoline and a suspected carcinogen) and methylene chloride (a common laboratory solvent and a suspected carcinogen).

Ignitable Substances: Ignitable substances are hazardous because of their ability to burn. Gasoline, hexane, and natural gas are examples of ignitable substances.

Corrosive Materials: Corrosive materials can cause severe burns. Corrosives include strong acids and bases such as sodium hydroxide (lye) or sulfuric acid (battery acid).

Reactive Materials: Reactive materials may cause explosions or generate toxic gases. Explosives, pure sodium or potassium metals (which react violently with water), and cyanides are examples of reactive materials.

Federal Regulations

The U.S. EPA is the primary federal agency charged with protecting human health and with safeguarding the natural environment from pollution into air, water, and land. The U.S. EPA works to develop and enforce regulations that implement environmental laws enacted by Congress. The U.S. EPA is responsible for researching and setting national standards for a variety of environmental programs, and delegates to states and Indian tribes the responsibility for issuing permits and for monitoring and enforcing compliance. Since 1970, Congress has enacted numerous environmental laws that pertain to hazardous materials, for the U.S. EPA to implement as well as to other agencies at the federal, state and local level, as described in the following subsections.

Toxics Substances Control Act: The Toxic Substances Control Act (TSCA) was enacted by Congress in 1976 (see 15 U.S.C. §2601 et seq.) and gave the U.S. EPA the authority to protect the public from unreasonable risk of injury to health or the environment by regulating the manufacture, sale, and use of chemicals currently produced or imported into the United States. The TSCA, however, does not address wastes produced as byproducts of manufacturing. The types of chemicals regulated by the act fall into two categories: existing and new. New chemicals are defined as "any chemical substance which is not included in the chemical substance list compiled and published under [TSCA] section 8(b)." This list included all of chemical substances manufactured or imported into the United States prior to December 1979. Existing chemicals include any chemical currently listed under section 8 (b). The distinction between existing and new chemicals is necessary as the act regulates each category of chemicals in different ways. The U.S. EPA repeatedly screens both new and existing chemicals and can require reporting or testing of those that may pose an environmental or human-health hazard. The U.S. EPA can ban the manufacture and import of those chemicals that pose an unreasonable risk.

Emergency Planning and Community Right-to-Know Act: The Emergency Planning and Community Right-to-Know Act (EPCRA) is a federal law adopted by Congress in 1986 that is designed to help communities plan for emergencies involving hazardous substances. EPCRA establishes requirements for federal, state and local governments, Indian tribes, and industry regarding emergency planning and "Community Right-to-Know" reporting on hazardous and toxic chemicals. The Community Right-to-Know provisions help increase the public's knowledge and access to information on chemicals at individual facilities, their uses, and releases into the environment. States and communities, working with facilities, can use the information to improve chemical safety and protect public health and the environment. There are four major provisions of EPCRA:

 Emergency Planning (§§301 – 303) requires local governments to prepare chemical emergency response plans, and to review plans at least annually. These sections also require state governments to oversee and coordinate local planning efforts. Facilities that maintain Extremely Hazardous Substances (EHS) on-site (see 40 Code of Federal Regulations (CFR) Part 355 for the list of EHS chemicals) in quantities greater than corresponding "Threshold Planning Quantities" must cooperate in the preparation of the emergency plan.

- 2. Emergency Release Notification (§304) requires facilities to immediately report accidental releases of EHS chemicals and hazardous substances in quantities greater than corresponding Reportable Quantities (RQs) as defined under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) to state and local officials. Information about accidental chemical releases must be made available to the public.
- 3. Hazardous Chemical Storage Reporting (\$\$11 312) requires facilities that manufacture, process, or store designated hazardous chemicals to make Safety Data Sheets (SDSs, formerly referred to as material safety data sheets or MSDSs) describing the properties and health effects of these chemicals available to state and local officials and local fire departments. These sections also require facilities to report to state and local officials and local fire departments, inventories of all on-site chemicals for which SDSs exist. Lastly, information about chemical inventories at facilities and SDSs must be available to the public.
- 4. Toxic Chemical Release Inventory (§313) requires facilities to annually complete and submit a Toxic Chemical Release Inventory Form for each Toxic Release Inventory (TRI) chemical that are manufactured or otherwise used above the applicable threshold quantities.

Implementation of EPCRA has been delegated to the State of California. The California Emergency Management Agency requires facilities to develop a Hazardous Materials Business Plan if they handle hazardous materials in quantities equal to or greater than 55 gallons, 500 pounds, or 200 cubic feet of gas or extremely hazardous substances above the threshold planning quantity. The Hazardous Materials Business Plan is provided to state and local emergency response agencies and includes inventories of hazardous materials, an emergency plan, and implements a training program for employees.

Hazardous Materials Transportation Act: The Hazardous Material Transportation Act (HMTA), adopted in 1975 (see 49 U.S.C. §§5101 – 5127), gave the Secretary of Transportation the regulatory and enforcement authority to provide adequate protection against the risks to life and property inherent in the transportation of hazardous material in commerce. The United States Department of Transportation (U.S. DOT) (see 49 CFR Parts 171-180) oversees the movement of hazardous materials at the federal level. The HMTA requires that carriers report accidental releases of hazardous materials to U.S. DOT at the earliest practical moment. Other incidents that must be reported include deaths, injuries requiring hospitalization, and property damage exceeding \$50,000. The hazardous material regulations also contain emergency response provisions which include incident reporting requirements. Reports of major incidents go to the National Response Center, which in turn is linked with CHEMTREC, a public service hotline established by the chemical manufacturing industry for emergency responders to obtain information and assistance for emergency incidents involving chemicals and hazardous materials.

Hazardous materials regulations are implemented by the Research and Special Programs Administration (RSPA) branch of the U.S. DOT. The regulations cover the definition and classification of hazardous materials, communication of hazards to workers and the public, packaging and labeling requirements, operational rules for shippers, and training. These regulations apply to interstate, intrastate, and foreign commerce by air, rail, ships, and motor vehicles, and also cover hazardous waste shipments. The Federal Aviation Administration Office of Hazardous Materials Safety is responsible for overseeing the safe handling of hazardous materials aboard aircraft. The Federal Railroad Administration oversees the transportation of hazardous materials by rail. The U.S. Coast Guard regulates the bulk transport of hazardous materials by sea. The Federal Highway Administration (FHWA) is responsible for highway routing of hazardous materials and issuing highway safety permits.

Hazardous Materials and Waste Regulations

Resource Conservation and Recovery Act: The Resource Conservation and Recovery Act (RCRA) of 1976 authorizes the U.S. EPA to control the generation, transportation, treatment, storage, and disposal of hazardous waste. Under RCRA regulations, hazardous wastes must be tracked from the time of generation to the point of disposal. In 1984, RCRA was amended with addition of the Hazardous and Solid Waste Amendments, which authorized increased enforcement by the U.S. EPA, stricter hazardous waste standards, and a comprehensive underground storage tank program. Likewise, the Hazardous and Solid Waste Amendments focused on waste reduction and corrective action for hazardous releases. The use of certain techniques for the disposal of some hazardous wastes was specifically prohibited by the Hazardous waste programs under RCRA, with approval by the U.S. EPA. California has been delegated authority to operate its own hazardous waste management program.

Comprehensive Environmental Response, Compensation, and Liability Act: The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), which is often commonly referred to as Superfund, is a federal statute that was enacted in 1980 to address abandoned sites containing hazardous waste and/or contamination. CERCLA was amended in 1986 by the Superfund Amendments and Reauthorization Act, and by the Small Business Liability Relief and Brownfields Revitalization Act of 2002.

CERCLA contains prohibitions and requirements concerning closed and abandoned hazardous waste sites; establishes liability of persons responsible for releases of hazardous waste at these sites; and establishes a trust fund to provide for cleanup when no responsible party can be identified. The trust fund is funded largely by a tax on the chemical and petroleum industries. CERCLA also provides federal jurisdiction to respond directly to releases or impending releases of hazardous substances that may endanger public health or the environment.

CERCLA also enabled the revision of the National Contingency Plan (NCP) which provided the guidelines and procedures needed to respond to releases and threatened releases of hazardous substances, pollutants, or contaminants. The NCP also established the National Priorities List, which identifies hazardous waste sites eligible for long-term remedial action financed under the federal Superfund program.

Prevention of Accidental Releases and Risk Management Programs: Requirements pertaining to the prevention of accidental releases are promulgated in section112 (r) of the CAA Amendments of 1990 [42 U.S.C. §7401 et. seq.]. The objective of these requirements was to prevent the accidental release and to minimize the consequences of any such release of a hazardous substance. Under these provisions, facilities that produce, process, handle or store hazardous substance have a duty to: 1) identify hazards which may result from releases using hazard assessment techniques;

2) design and maintain a safe facility and take steps necessary to prevent releases; and 3) minimize the consequence of accidental releases that occur.

In accordance with the requirements in section 112(r), U.S. EPA adopted implementing guidelines in 40 CFR Part 68. Under this part, stationary sources with more than a threshold quantity of a regulated substance shall be evaluated to determine the potential for and impacts of accidental releases from any processes subject to the federal risk management requirements. Under certain conditions, the owner or operator of a stationary source may be required to develop and submit a Risk Management Plan (RMP). RMPs consist of three main elements: a hazard assessment that includes off-site consequences analyses and a five-year accident history, a prevention program, and an emergency response program. At the local level, RMPs are implemented by the local fire departments.

Hazardous Material Worker and Public Safety Requirements

Occupational Safety and Health Administration Regulations: The federal Occupational Safety and Health Administration (OSHA) is an agency of the United States Department of Labor that was created by Congress under the Occupational Safety and Health Act in 1970. OSHA is the agency responsible for assuring worker safety in the handling and use of chemicals in the workplace. Under the authority of the Occupational Safety and Health Act of 1970, OSHA has adopted numerous regulations pertaining to worker safety (see 29 CFR Part 1910). These regulations set standards for safe workplaces and work practices, including the reporting of accidents and occupational injuries. Some OSHA regulations contain standards relating to hazardous materials handling to protect workers who handle toxic, flammable, reactive, or explosive materials, including workplace conditions, employee protection requirements, first aid, and fire protection, as well as material handling and storage. For example, facilities which use, store, manufacture, handle, process, or move hazardous materials are required to conduct employee safety training, have available and know how to use safety equipment, prepare illness prevention programs, provide hazardous substance exposure warnings, prepare emergency response plans, and prepare a fire prevention plan.

Procedures and standards for safe handling, storage, operation, remediation, and emergency response activities involving hazardous materials and waste are promulgated in 29 CFR Part 1910, Subpart H. Some key subsections in 29 CFR Part 1910, Subpart H are \$1910.106 -Flammable Liquids and \$1910.120 - Hazardous Waste Operations and Emergency Response. In particular, the Hazardous Waste Operations and Emergency Response regulations contain requirements for worker training programs, medical surveillance for workers engaging in the handling of hazardous materials or wastes, and waste site emergency and remediation planning, for those who are engaged in specific clean-up, corrective action, hazardous material handling, and emergency response activities (see 29 CFR Part 1910 Subpart H, \$1910.120 (a)(1)(i-v) and \$1926.65 (a)(1)(i-v)).

Process Safety Management: As part of the numerous regulations pertaining to worker safety adopted by OSHA, specific requirements that pertain to Process Safety Management (PSM) of Highly Hazardous Chemicals were adopted in 29 CFR Part 1910 Subpart H, §1910.119 and 8 CCR §5189 to protect workers at facilities that have toxic, flammable, reactive or explosive materials. PSM program elements are aimed at preventing or minimizing the consequences of catastrophic releases of chemicals and include process hazard analyses, formal training programs for employees and contractors, investigation of equipment mechanical integrity, and an emergency response plan. Specifically, the PSM program requires facilities that use, store, manufacture, handle, process, or

move hazardous materials to conduct employee safety training; have an inventory of safety equipment relevant to potential hazards; have knowledge on use of the safety equipment; prepare an illness prevention program; provide hazardous substance exposure warnings; prepare an emergency response plan; and prepare a fire prevention plan.

Emergency Action Plan: An Emergency Action Plan (EAP) is a written document required by OSHA standards promulgated in 29 CFR Part 1910, Subpart E, §1910.38 (a) to facilitate and organize a safe employer and employee response during workplace emergencies. An EAP is required by all that are required to have fire extinguishers. At a minimum, an EAP must include the following: 1) a means of reporting fires and other emergencies; 2) evacuation procedures and emergency escape route assignments; 3) procedures to be followed by employees who remain to operate critical plant operations before they evacuate; 4) procedures to account for all employees after an emergency evacuation has been completed; 5) rescue and medical duties for those employees who are to perform them; and 6) names or job titles of persons who can be contacted for further information or explanation of duties under the plan.

National Fire Regulations: The National Fire Codes (NFC), Title 45, published by the National Fire Protection Association (NFPA) contains standards for laboratories using chemicals, which are not requirements, but are generally employed by organizations in order to protect workers. These standards provide basic protection of life and property in laboratory work areas through prevention and control of fires and explosions, and also serve to protect personnel from exposure to non-fire health hazards.

In addition to the NFC, the NFPA adopted a hazard rating system which is promulgated in NFPA 704 - Standard System for the Identification of the Hazards of Materials for Emergency Response. NFPA 704 is a "standard (that) provides a readily recognized, easily understood system for identifying specific hazards and their severity using spatial, visual, and numerical methods to describe in simple terms the relative hazards of a material. It addresses the health, flammability, instability, and related hazards that may be presented as short-term, acute exposures that are most likely to occur as a result of fire, spill, or similar emergency." In addition, the hazard ratings per NFPA 704 are used by emergency personnel to quickly and easily identify the risks posed by nearby hazardous materials in order to help determine what, if any, specialty equipment should be used, procedures followed, or precautions taken during the first moments of an emergency response. The scale is divided into four color-coded categories, with blue indicating level of health hazard, red indicating the flammability hazard, yellow indicating the chemical reactivity, and white containing special codes for unique hazards such as corrosivity and radioactivity. Each hazard category is rated on a scale from 0 (no hazard; normal substance) to 4 (extreme risk). Table 3-3 summarizes what the codes mean for each hazards category.

In addition to the information in Table 3-3, a number of other physical or chemical properties may cause a substance to be a fire hazard. With respect to determining whether any substance is classified as a fire hazard, SDS lists the NFPA 704 flammability hazard ratings (e.g., NFPA 704). NFPA 704 is a standard that provides a readily recognized, easily understood system for identifying flammability hazards and their severity using spatial, visual, and numerical methods to describe in simple terms the relative flammability hazards of a material.

Hazard Rating Code	Health (Blue)	Flammability (Red)	Reactivity (Yellow)	Special (White)
4 = Extreme	Very short exposure could cause death or major residual injury (extreme hazard).	Will rapidly or completely vaporize at normal atmospheric pressure and temperature, or is readily dispersed in air and will burn readily. Flash point below 73°F.	Readily capable of detonation or explosive decomposition at normal temperatures and pressures.	W = Reacts with water in an unusual or dangerous manner.
3 = High	Short exposure could cause serious temporary or moderate residual injury.	Liquids and solids that can be ignited under almost all ambient temperature conditions. Flash point between 73°F and 100°F.	Capable of detonation or explosive decomposition but requires a strong initiating source, must be heated under confinement before initiation, reacts explosively with water, or will detonate if severely shocked.	OXY = Oxidizer
2 = Moderate	Intense or continued but not chronic exposure could cause temporary incapacitation or possible residual injury.	Must be moderately heated or exposed to relatively high ambient temperature before ignition can occur. Flash point between 100°F and 200°F.	Undergoes violent chemical change at elevated temperatures and pressures, reacts violently with water, or may form explosive mixtures with water.	SA = Simple asphyxiant gas (includes nitrogen, helium, neon, argon, krypton, and xenon).
1 = Slight	Exposure would cause irritation with only minor residual injury.	Must be heated before ignition can occur. Flash point over 200°F.	Normally stable, but can become unstable at elevated temperatures and pressures.	Not applicable
0 = Insignificant	Poses no health hazard, no precautions necessary.	Will not burn.	Normally stable, even under fire exposure conditions, and is not reactive with water.	Not applicable

Table 3-3NFPA 704 Hazards Rating Code

Although substances can have the same NFPA 704 Flammability Ratings Code, other factors can make each substance's fire hazard very different from each other. For this reason, additional chemical characteristics, such as auto-ignition temperature, boiling point, evaporation rate, flash point, lower explosive limit (LEL), upper explosive limit (UEL), and vapor pressure, are also considered when determining whether a substance is fire hazard. The following is a brief description of each of these chemical characteristics.

Auto-ignition Temperature: The auto-ignition temperature of a substance is the lowest temperature at which it will spontaneously ignite in a normal atmosphere without an external source of ignition, such as a flame or spark.

Boiling Point: The boiling point of a substance is the temperature at which the vapor pressure of the liquid equals the environmental pressure surrounding the liquid. Boiling is a process in which molecules anywhere in the liquid escape, resulting in the formation of vapor bubbles within the liquid.

Evaporation Rate: Evaporation rate is the rate at which a material will vaporize (evaporate, change from liquid to a vapor) compared to the rate of vaporization of a specific known material. This quantity is a represented as a unit less ratio. For example, a substance with a high evaporation rate will readily form a vapor which can be inhaled or explode, and thus have a higher hazard risk. Evaporation rates generally have an inverse relationship to boiling points (i.e., the higher the boiling point, the lower the rate of evaporation).

Flash Point: Flash point is the lowest temperature at which a volatile liquid can vaporize to form an ignitable mixture in air. Measuring a liquid's flash point requires an ignition source. At the flash point, the vapor may cease to burn when the source of ignition is removed. There are different methods that can be used to determine the flashpoint of a solvent but the most frequently used method is the Tagliabue Closed Cup standard (ASTM D56), also known as the TCC. The flashpoint is determined by a TCC laboratory device which is used to determine the flash point of mobile petroleum liquids with flash point temperatures below 175 degrees Fahrenheit (79.4 degrees Centigrade).

Flash point is a particularly important measure of the fire hazard of a substance. For example, the Consumer Products Safety Commission (CPSC) promulgated Labeling and Banning Requirements for Chemicals and Other Hazardous Substances in 15 U.S.C. §1261 and 16 CFR Part 1500. Per the CPSC, the flammability of a product is defined in 16 CFR Part 1500.3 (c)(6) and is based on flash point. For example, a liquid needs to be labeled as: 1) "Extremely Flammable" if the flash point is below 20 degrees Fahrenheit; 2) "Flammable" if the flash point is above 20 degrees Fahrenheit but less than 100 degrees Fahrenheit; or 3) "Combustible" if the flash point is above 100 degrees Fahrenheit up to and including 150 degrees Fahrenheit.

Lower Explosive Limit (LEL): The lower explosive limit of a gas or a vapor is the limiting concentration (in air) that is needed for the gas to ignite and explode or the lowest concentration (percentage) of a gas or a vapor in air capable of producing a flash of fire in presence of an ignition source (e.g., arc, flame, or heat). If the concentration of a substance in air is below the LEL, there is not enough fuel to continue an explosion. In other words, concentrations lower than the LEL are "too lean" to burn. For example, methane gas has a LEL of 4.4 percent (at 138 degrees Centigrade) by volume, meaning 4.4 percent of the total volume of the air consists of methane. At 20 degrees Centigrade, the LEL for methane is 5.1 percent by volume. If the atmosphere has less than 5.1 percent methane, an explosion cannot occur even if a source of ignition is present. When the concentration of methane reaches 5.1 percent, an explosion can occur if there is an ignition source.

Upper Explosive Limit (UEL): The upper explosive limit of a gas or a vapor is the highest concentration (percentage) of a gas or a vapor in air capable of producing a flash of fire in

presence of an ignition source (e.g., arc, flame, or heat). Concentrations of a substance in air above the UEL are "too rich" to burn.

Vapor Pressure: Vapor pressure is an indicator of a chemical's tendency to evaporate into gaseous form.

Health Hazards Guidance: In addition to fire impacts, health hazards can also be generated due to exposure of chemicals present in both conventional as well as reformulated products. Using available toxicological information to evaluate potential human health impacts associated with conventional solvents and potential replacement solvents, the toxicity of the conventional solvents can be compared to solvents expected to be used in reformulated products. As a measure of a chemical's potential health hazards, the following values need to be considered: the Threshold Limit Values established by the American Conference of Governmental Industrial Hygiene, OSHA's Permissible Exposure Limits, the Immediately Dangerous to Life and Health levels recommended by the National Institute for Occupational Safety and Health (NIOSH), and health hazards developed by the National Safety Council. The following is a brief description of each of these values.

Threshold Limit Values (TLVs): The TLV of a chemical substance is a level to which it is believed a worker can be exposed day after day for a working lifetime without adverse health effects. The TLV is an estimate based on the known toxicity in humans or animals of a given chemical substance, and the reliability and accuracy of the latest sampling and analytical methods. The TLV for chemical substances is defined as a concentration in air, typically for inhalation or skin exposure. Its units are in parts per million (ppm) for gases and in milligrams per cubic meter (mg/m³) for particulates. The TLV is a recommended guideline by ACGIH.

Permissible Exposure Limits (PEL): The PEL is a legal limit, usually expressed in ppm, established by OSHA to protect workers against the health effects of exposure to hazardous substances. PELs are regulatory limits on the amount or concentration of a substance in the air. A PEL is usually given as a time-weighted average (TWA), although some are short-term exposure limits (STEL) or ceiling limits. A TWA is the average exposure over a specified period of time, usually eight hours. This means that, for limited periods, a worker may be exposed to concentrations higher than the PEL, so long as the average concentration over eight hours remains lower. A short-term exposure limit is one that addresses the average exposure over a 15 to 30-minute period of maximum exposure during a single work shift. A ceiling limit is one that may not be exceeded for any period of time, and is applied to irritants and other materials that have immediate effects. The OSHA PELs are published in 29 CFR 1910.1000, Table Z1.

Immediately Dangerous to Life and Health (IDLH): IDLH is an acronym defined by NIOSH as exposure to airborne contaminants that is "likely to cause death or immediate or delayed permanent adverse health effects or prevent escape from such an environment." IDLH values are often used to guide the selection of breathing apparatus that are made available to workers or firefighters in specific situations.

State Regulations

Hazardous Materials and Waste Regulations

California Hazardous Waste Control Law: The California Hazardous Waste Control Law is administered by CalEPA to regulate hazardous wastes within the State of California. While the California Hazardous Waste Control Law is generally more stringent than RCRA, both the state and federal laws apply in California. The California Department of Toxic Substances Control (DTSC) is the primary agency in charge of enforcing both the federal and state hazardous materials laws in California. The DTSC regulates hazardous waste, oversees the cleanup of existing contamination, and pursues avenues to reduce hazardous waste produced in California. The DTSC regulates hazardous waste produced in California. The DTSC regulates hazardous waste produced in California Hazardous Waste Control Law, and the H&S. Under the direction of the CalEPA, the DTSC maintains the Cortese List and Envirostor databases of hazardous materials and waste sites as specified under Government Code §65962.5. The Cortese List consists of the following:

1. Subsection 65962.5. (a)

List provided by DTSC that includes:

- a. All hazardous waste facilities subject to corrective action pursuant to Section 25187.5 of the Health and Safety Code.
- b. All land designated as hazardous waste property or border zone property pursuant to Article 11 (commencing with Section 25220) of Chapter 6.5 of Division 20 of the Health and Safety Code.
- c. All information received by the Department of Toxic Substances Control pursuant to Section 25242 of the Health and Safety Code on hazardous waste disposals on public land.
- d. All sites listed pursuant to Section 25356 of the Health and Safety Code.
- e. All sites included in the Abandoned Site Assessment Program.

2. Subsection 65962.5. (b)

The State Department of Health lists of all public drinking water wells that contain detectable levels of organic contaminants and that are subject to water analysis pursuant to Section 116395 of the Health and Safety Code.

3. Subsection 65962.5. (c)

The State Water Resources Control Board shall list of all of the following:

- a. All underground storage tanks for which an unauthorized release report is filed pursuant to Section 25295 of the Health and Safety Code.
- All solid waste disposal facilities from which there is a migration of hazardous waste and for which a California regional water quality control board has notified the Department of Toxic Substances Control pursuant to subdivision (e) of Section 13273 of the Water Code.
- c. All cease and desist orders issued after January 1, 1986, pursuant to Section 13301 of the Water Code, and all cleanup or abatement orders issued after January 1, 1986, pursuant to Section 13304 of the Water Code, that concern the discharge of wastes that are hazardous materials.

4. Subsection 65962.5. (d)

The appropriate local enforcement agency will list of all solid waste disposal facilities from which there is a known migration of hazardous waste.

The Hazardous Waste Control Law (22 CCR Chapter 11, Appendix X) also lists 791 chemicals and approximately 300 common materials which may be hazardous; establishes criteria for identifying, packaging, and labeling hazardous wastes; prescribes management controls; establishes permit requirements for treatment, storage, disposal, and transportation; and identifies some wastes that cannot be disposed of in landfills.

California Occupational Safety and Health Administration: The California Occupational Safety and Health Administration (CalOSHA) is the primary agency responsible for worker safety in the handling and use of chemicals in the workplace. The CalOSHA requires the employer to monitor worker exposure to listed hazardous substances and notify workers of exposure (8 CCR Sections 337-340). The regulations specify requirements for employee training, availability of safety equipment, accident-prevention programs, and hazardous substance exposure warnings. CalOSHA standards are generally more stringent than federal regulations.

Hazardous Materials Release Notification: Many state statutes require emergency notification of a hazardous chemical release, including:

- H&S §25270.7, §25270.8, and §25507;
- California Vehicle Code §23112.5;
- California Public Utilities Code §7673 (General Orders #22-B, 161);
- California Government Code §51018 and §8670.25.5(a);
- California Water Code §13271 and §13272; and
- California Labor Code §6409.1(b)10.

California Accident Release Prevention (CalARP) Program: The California Accident Release Prevention Program (19 CCR Division 2, Chapter 4.5) requires the preparation of RMPs. CalARP requires stationary sources with more than a threshold quantity of a regulated substance to be evaluated to determine the potential for and impacts of accidental releases from any processes onsite (not transport) subject to state risk management requirements. RMPs are documents prepared by the owner or operator of a stationary source containing detailed information including: (1) regulated substances held onsite at the stationary source; (2) offsite consequences of an accidental release of a regulated substance; (3) the accident history at the stationary source; (4) the emergency response program for the stationary source; (5) coordination with local emergency responders; (6) hazard review or process hazard analysis; (7) operating procedures at the stationary source; (8) training of the stationary source's personnel; (9) maintenance and mechanical integrity of the stationary source's physical plant; and (10) incident investigation. The CalARP Program is implemented at the local government level by Certified Unified Program Agencies (CUPAs) also known as Administering Agencies (AAs). Typically, local fire departments are the administering agencies of the CalARP Program because they frequently are the first responders in the event of a release. California is proposing modifications to the CalARP Program along with the state's PSM program in response to an accident at the Chevron Richmond Refinery. The proposed regulations were released for public comment on July 15, 2016 and the public comment period closed on September 15, 2016.

Hazardous Materials Disclosure Program: The Unified Hazardous Waste and Hazardous Materials Management Regulatory Program (Unified Program) as promulgated by CalEPA in CCR, Title 27, Chapter 6.11 requires the administrative consolidation of six hazardous materials and waste programs (program elements) under one agency, a CUPA. The Unified Program administered by the State of California consolidates, coordinates, and makes consistent the

administrative requirements, permits, inspections, and enforcement activities for the state's environmental and emergency management programs, which include Hazardous Waste Generator and On-Site Hazardous Waste Treatment Programs ("Tiered Permitting"); Above ground SPCC Program; Hazardous Materials Release Response Plans and Inventories (business plans); the CalARP Program; the UST Program; and the Uniform Fire Code Plans and Inventory Requirements. The Unified Program is implemented at the local government level by CUPAs.

Hazardous Materials Management Act: The State of California (H&S Division 20, Chapter 6.95) requires any business that handles more than a specified amount of hazardous or extremely hazardous materials, termed a "reportable quantity," to submit a Hazardous Materials Business Plan to its CUPA. Business plans must include an inventory of the types, quantities, and locations of hazardous materials at the facility. Businesses are required to update their business plans at least once every three years and the chemical portion of their plans every year. Also, business plans must include emergency response plans and procedures to be used in the event of a significant or threatened significant release of a hazardous material. These plans need to identify the procedures to follow for immediate notification to all appropriate agencies and personnel of a release, identification of local emergency medical assistance appropriate for potential accident scenarios, contact information for all company emergency coordinators, a listing and location of emergency equipment at the business, an evacuation plan, and a training program for business personnel. The requirements for hazardous materials business plans are specified in the H&S and 19 CCR.

Hazardous Materials Transportation in California: California regulates the transportation of hazardous waste originating or passing through the State in Title 13, CCR. The California Highway Patrol (CHP) and Caltrans have primary responsibility for enforcing federal and state regulations and responding to hazardous materials transportation emergencies. The CHP enforces materials and hazardous waste labeling and packing regulations that prevent leakage and spills of material in transit and provide detailed information to cleanup crews in the event of an incident. Vehicle and equipment inspection, shipment preparation, container identification, and shipping documentation are all part of the responsibility of the CHP. Caltrans has emergency chemical spill identification teams at locations throughout the state.

California Fire Code: While NFC Standard 45 and NFPA 704 are regarded as nationally recognized standards, the California Fire Code (24 CCR) also contains state standards for the use and storage of hazardous materials and special standards for buildings where hazardous materials are found. Some of these regulations consist of amendments to NFC Standard 45. State Fire Code regulations require emergency pre-fire plans to include training programs in first aid, the use of fire equipment, and methods of evacuation.

Local Regulations

Los Angeles County: The Office of Emergency Management is responsible for organizing and directing the preparedness efforts of the Emergency Management Organization of Los Angeles County. Los Angeles County's policies towards hazardous materials management include enforcing stringent site investigations for factors related to hazards; limiting the development in high hazard areas, such as floodplains, high fire hazard areas, and seismic hazard zones; facilitating safe transportation, use, and storage of hazardous materials; supporting lead paint abatement; remediating Brownfield sites; encouraging the purchase of homes on the FEMA Repeat Hazard list and designating the land as open space; enforcing restrictions on access to important energy sites; limiting development downslope from aqueducts; promoting safe alternatives to chemical-

based products in households; and prohibiting development in floodways. The county has defined effective emergency response management capabilities to include supporting county emergency providers with reaching their response time goals; promoting the participation and coordination of emergency response management between cities and other counties at all levels of government; coordinating with other county and public agency emergency planning and response activities; and encouraging the development of an early warning system for tsunamis, floods and wildfires.

Orange County: Orange County's Hazardous Materials Program Office is responsible for facilitating the coordination of various parts of the County's hazardous materials program; assisting in coordinating county hazardous materials activities with outside agencies and organizations; providing comprehensive, coordinated analysis of hazardous materials issues; and directing the preparation, implementation, and modification of the county's Hazardous Waste Management Plan (HWMP). Orange County is responsible for its own emergency plans concerning a nuclear power plant accident, and the Incident Response Plan is updated regularly.

The regulatory agency responsible for enforcement, as well as inspection of pipelines transporting hazardous materials, is the California State Fire Marshal's Office, Hazardous Liquid Pipeline Division. The Orange County Health Care Agency (OCHCA) has been designated by the Board of Supervisors as the agency to enforce the underground storage tank (UST) program. The OCHCA UST Program regulates approximately 7,000 of the 9,500 underground tanks in Orange County. The program includes conducting regular inspections of underground tanks; oversight of new tank installations; issuance of permits; regulation of repair and closure of tanks; ensuring the mitigation of leaking USTs; pursuing enforcement action; and educating and assisting the industries and general public as to the laws and regulations governing USTs. Under mandate from the California HSC, the Orange County Fire Authority is the designated agency to inventory the distribution of hazardous materials in commercial or industrial occupancies, develop and implement emergency plans, and require businesses that handle hazardous materials to develop emergency plans to deal with these materials.

San Bernardino County: San Bernardino County's HWMP serves as the primary planning document for the management of hazardous waste in San Bernardino County. The HWMP identifies the types and amounts of wastes generated; establishes programs for managing these wastes; identifies an application review process for the siting of specified hazardous waste facilities; identifies mechanisms for reducing the amount of waste generated; and identifies goals, policies, and actions for achieving effective hazardous waste management. One of the county's stated goals is to minimize the generation of hazardous wastes. In addition, the county will protect its residents and visitors from injury and loss of life and protect property from fires by deploying firefighters and requiring new land developments to prepare site-specific fire protection plans.

Riverside County: Through its membership in the Southern California Hazardous Waste Management Authority (SCHWMA), the County of Riverside has agreed to work on a regional level to solve problems involving hazardous waste. SCHWMA was formed through a joint powers agreement between Santa Barbara, Ventura, San Bernardino, Orange, San Diego, Imperial, and Riverside Counties and the Cities of Los Angeles and San Diego. Working within the concept of "fair share," each SCHWMA county has agreed to take responsibility for the treatment and disposal of hazardous waste in an amount that is at least equal to the amount generated within that county. This responsibility can be met by siting hazardous waste management facilities (transfer, treatment, and/or repository) capable of processing an amount of waste equal to or larger than the amount generated within the county, or by creating intergovernmental agreements between counties to provide compensation to a county for taking another county's waste, or through a combination of both facility siting and intergovernmental agreements. When and where a facility is to be sited is primarily a function of the private market. However, once an application to site a facility has been received, the county will review the requested facility and its location against a set of established siting criteria to ensure that the location is appropriate and may deny the application based on the findings of this review. The County of Riverside does not presently have any of these facilities within its jurisdiction and, therefore, must rely on intergovernmental agreements to fulfill its fair share responsibility to SCHWMA.

Emergency Response to Hazardous Materials and Waste Incidents

California Emergency Management Agency: The California Emergency Management Agency (Cal EMA) exists to enhance safety and preparedness in California through strong leadership, collaboration, and meaningful partnerships. The goal of Cal EMA is to protect lives and property by effectively preparing for, preventing, responding to, and recovering from all threats, crimes, hazards, and emergencies. Cal EMA under the Fire and Rescue Division coordinates statewide implementation of hazardous materials accident prevention and emergency response programs for all types of hazardous materials incidents and threats. In response to any hazardous materials emergency, Cal EMA is called upon to provide state and local emergency managers with emergency coordination and technical assistance.

Pursuant to the Emergency Services Act, California has developed an Emergency Response Plan to coordinate emergency services provided by federal, state, and local government agencies and private persons. Response to hazardous materials incidents is one part of this Emergency Response Plan. The Emergency Response Plan is administered by Cal EMA which coordinates the responses of other agencies. Six mutual aid and Local Emergency Planning Committee (LEPC) regions have been identified for California that are divided into three areas of the state designated as the Coastal (Region II, which includes 16 counties with 151 incorporated cities and a population of about eight million people.), Inland (Region III, Region IV and Region V, which includes 31 counties with 123 incorporated cities and a population of about seven million people), and Southern (Region I and Region VI, which includes 11 counties with 226 incorporated cities and a population of about 22 million people). The SCAQMD jurisdiction covers portions of Region I and Region VI.

In addition, pursuant to the Hazardous Materials Release Response Plans and Inventory Law of 1985, local agencies are required to develop "area plans" for response to releases of hazardous materials and wastes. These emergency response plans depend to a large extent on the business plans submitted by persons who handle hazardous materials. An area plan must include preemergency planning of procedures for emergency response, notification, coordination of affected government agencies and responsible parties, training, and follow-up.

Hazardous Materials Incidents

Hazardous materials move through the region by a variety of modes: Truck, rail, air, ship, and pipeline. The movement of hazardous materials implies a degree of risk, depending on the materials being moved, the mode of transport, and numerous other factors (e.g., weather and road conditions). According to the Office of Hazardous Materials Safety (OHMS) in the U.S. DOT, hazardous materials shipments can be regarded as equivalent to deliveries, but any given shipment may involve one or more movements or trip segments, which may occur by different routes (e.g.,

rail transport with final delivery by truck). According to the Commodity Flow Survey data⁹ there were approximately 2.6 billion tons of hazardous materials shipments in the United States in 2012 (the last year for which data are available). Table 3-4 indicates that trucks move more than 50 percent and pipeline accounts for approximately 24 percent of all hazardous materials shipped from a location in the United States. By contrast, rail accounts for only 4.3 percent of shipments¹⁰.

Mode	Total Commercial Freight (thousand tons)	Hazardous Materials Shipped (thousand tons)	Percent of Total Hazardous Materials Shipped by Mode of Transportation	Percent of Total Commercial Freight Shipped that is Hazardous
Truck	8,060,166	1,531,405	59.4%	19.0%
Rail	1,628,537	110,988	4.3%	6.8%
Water	575,996	283,561	11.0%	49.2%
Pipeline	635,975	626,652	24.3%	98.5%
Other	398,735	27,547	1.1%	6.9%
Total	11,299,409	2,580,153	100.0%	22.8%

Table 3-4Hazardous Material Shipments in the United States in 2012

Source: U.S. DOT^{11,12}

The movement of hazardous materials through the U.S. transportation system represents about 22.8 percent of total tonnage for all freight shipments as measured by the Commodity Flow Survey. Comparatively, the total commercial freight moved in 2012 in California by all transportation modes was 718,345 thousand tons¹³.

California Hazardous Materials Incident Reporting System: The California Hazardous Materials Incident Reporting System (CHMIRS) is a post incident reporting system to collect data on incidents involving the accidental release of hazardous materials in California. Information on accidental releases of hazardous materials are reported to and maintained by Cal EMA. While information on accidental releases are reported to Cal EMA, Cal EMA no longer conducts statistical evaluations of the releases, e.g., total number of releases per year for the entire State, or data by county. The U.S. DOT Pipeline and Hazardous Materials Safety Administration (PHMSA) provides access to retrieve data from the Incident Reports Database, which also includes non-pipeline incidents, e.g., truck and rail events. Incident data and summary statistics, e.g., release

⁹ USDOT, 2015. United States: 2012; 2012 Economic Census and 2012 Commodity Flow Survey. Issued March 2015. Available at <u>http://www.rita.dot.gov/bts/sites/rita.dot.gov.bts/files/ec12tcf-us.pdf</u>

¹⁰ USDOT, 2015. United States: 2012; 2012 Economic Census and 2012 Commodity Flow Survey. Issued March 2015. Available at <u>http://www.rita.dot.gov/bts/sites/rita.dot.gov.bts/files/ec12tcf-us.pdf</u>

¹¹ USDOT, 2016. Table 1a. Hazardous Material Shipment Characteristics by Mode of Transportation for the United States: 2012. Accessed July 25. 2016.

http://www.rita.dot.gov/bts/sites/rita.dot.gov.bts/files/publications/commodity_flow_survey/2012/hazardous_materials/table1a 12 USDOT, 2016a. Table 1a. Shipment Characteristics by Mode of Transportation for the United States: 2012. Accessed July 25, 2016. http://www.rita.dot.gov/bts/sites/rita.dot.gov.bts/ files/publications/commodity_flow_survey/2012/united_states/table1

 ²⁰¹⁶. http://www.rita.dot.gov/bts/sites/rita.dot.gov.bts/ files/publications/commodity_flow_survey/2012/united_states/table1
 ¹³ USDOT, 2016b. Table 3: Weight of Outbound Commodity Flows by State of Origin: 2012. Accessed July 25, 2016. http://www.rita.dot.gov/bts/sites/rita.dot.gov.bts/files/publications/commodity_flow_survey/2012/state_summaries/tables/table

date, geographical location (state and county) and type of material released, are available online from the Hazmat Incident Database.

Table 3-5 provides a summary of the reported hazardous material incidents for Los Angeles, Orange, Riverside, and San Bernardino counties for 2012 through 2014 from the Hazmat Incident Database¹⁴. Data presented is for the entire county and not limited to the portion of the county located within the jurisdiction of the SCAQMD.

1			
County	2012	2013	2014
Los Angeles	286	337	287
Orange	270	63	88
Riverside	55	43	50
San Bernardino	261	348	351
Total	872	791	776

Table 3-5Reported Hazardous Materials Incidents for 2012 - 2014

In 2012, there were a total of 872 incidents reported for Los Angeles, Orange, Riverside and San Bernardino counties. In 2013, there were a total of 791 incidents reported for Los Angeles, Orange, Riverside and San Bernardino counties, and in 2014 a total of 776 incidents for these four counties. Over the three-year period, San Bernardino and Los Angeles counties accounted for the largest number of incidents, followed by Orange and Riverside counties. As noted in Table 3-5, the number of incidents has reduced over the years.

Hazards Associated with Air Pollution Control

The SCAQMD has evaluated the hazards associated with previous AQMPs, proposed SCAQMD rules, and non-SCAQMD projects where the SCAQMD is the Lead Agency pursuant to CEQA. Add-on pollution control technologies, such as SCR, have been previously analyzed for hazards. The use of add-on pollution control equipment may concentrate or utilize hazardous materials. A malfunction or accident when using add-on pollution control equipment could potentially expose people to hazardous materials, explosions, or fires. The SCAQMD has determined that the transport, use, and storage of ammonia, both aqueous and anhydrous, (used in SCR systems) may have significant hazard impacts in the event of an accidental release. Further analyses have indicated that the use of aqueous ammonia (instead of anhydrous ammonia) can usually reduce the hazards associated with ammonia use in SCR systems to less than significant.

Ammonia

Ammonia is the primary hazardous chemical identified with the use SCR technology. Ammonia, though not a carcinogen, can have chronic and acute health impacts. Therefore, a potential increase in the use of ammonia may increase the current existing risk setting associated with deliveries (e.g., truck and road accidents) and onsite or offsite spills for each facility that currently uses or

¹⁴ Pipeline and Hazardous Materials Safety Administration (PHMSA), 2015. Incident Reports Database Search. Accessed, November 17, 2015 at https://hazmatonline.phmsa.dot.gov /IncidentReportsSearch/Welcome.aspx

will begin to use ammonia. Exposure to a toxic gas cloud is the potential hazard associated with this type of control equipment. A toxic gas cloud is the release of a volatile chemical such as anhydrous ammonia that could form a cloud that migrates off-site, thus exposing individuals. Anhydrous ammonia is heavier than air such that when released into the atmosphere, it would form a cloud at ground level rather than be dispersed. "Worst-case" conditions tend to arise when very low wind speeds coincide with the accidental release, which can allow the chemicals to accumulate rather than disperse. Though there are facilities that may be affected by the 2016 AQMP control measures that are currently permitted to use anhydrous ammonia. Instead, to minimize the hazards associated with ammonia used in the SCR or SNCR process, aqueous ammonia, no more than 19 percent by volume, is typically required as a permit condition associated with the installation of SCR or SNCR equipment for the following reasons: 1) 19 percent aqueous ammonia is not on any acutely hazardous materials lists unlike anhydrous ammonia or aqueous ammonia at higher percentages.

CHAPTER 4

ENVIRONMENTAL IMPACTS

Introduction

Potential Significant Environmental Impacts and Mitigation Measures

Air Quality Impacts

Hazards and Hazardous Materials Impacts

Potential Environmental Impacts Found Not to be Significant

Significant Environmental Effects Which Cannot be Avoided

Significant Irreversible Environmental Changes

Potential Growth-Inducing Impacts

Relationship Between Short-Term and Long-Term Environmental Goals

INTRODUCTION

The CEQA Guidelines require environmental documents to identify significant environmental effects that may result from a proposed project. (CEQA Guidelines Section 15126.2(a).) Direct and indirect significant effects of a project on the environment should be identified and described, with consideration given to both short- and long-term impacts. The discussion of environmental impacts may include, but is not limited to: the resources involved; physical changes; alterations of ecological systems; health and safety problems caused by physical changes; and other aspects of the resource base, including water, scenic quality, and public services. If significant adverse environmental impacts are identified, the CEQA Guidelines require a discussion of measures that could either avoid or substantially reduce any adverse environmental impacts to the greatest extent feasible. (CEQA Guidelines section 15126.4.)

The categories of environmental impacts to be studied in a CEQA document are established by CEQA (Public Resources Code Section 21000 et seq.), and the CEQA Guidelines, as codified in Title 14 California Code of Regulations Section 15000 et seq. Under the CEQA Guidelines, there are approximately 17 environmental categories in which potential adverse impacts from a project are evaluated.

The CEQA Guidelines also indicate that the degree of specificity required in a CEQA document depends on the type of project being proposed. (CEQA Guidelines Section 15146.) The detail of the environmental analysis for certain types of projects cannot be as great as for others. As explained in Chapter 1, the analysis of PAR 1134 indicated that the type of CEQA document appropriate for the proposed project is a SEA.

POTENTIAL SIGNIFICANT ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

This document is a SEA to the March 2017 Final Program EIR for the 2016 AQMP. The March 2017 Final Program EIR for the 2016 AQMP determined that the overall implementation of CMB-05 has the potential to generate adverse environmental impacts to seven topic areas – air quality, energy, hazards and hazardous materials, hydrology and water quality, noise, solid and hazardous waste, and transportation. More specifically, the March 2017 Final Program EIR evaluated the impacts from installation and operation of additional control equipment and SCR or selective non-catalytic reduction (SNCR) equipment potentially resulting in construction emissions, increased electricity demand, hazards from additional ammonia transport and use, increase in water use and wastewater discharge, changes in noise volume, generation of solid waste from construction and disposal of old equipment and catalysts replacements, as well as changes in traffic patterns and volume.

For the entire 2016 AQMP, the analysis concluded that significant and unavoidable adverse environmental impacts from the project are expected to occur after implementing mitigation measures for the following environmental topic areas: 1) aesthetics from increased glare and from the construction and operation of catenary lines and use of bonnet technology for ships; 2) construction air quality and GHGs; 3) energy (due to increased electricity demand); 4) hazards and hazardous materials due to: (a) increased flammability of solvents; (b) storage, accidental release and transportation of ammonia; (c) storage and transportation of liquefied natural gas (LNG); and (d) proximity to schools; 5) hydrology (water demand); 6) construction noise and vibration; 7) solid construction waste and operational waste from vehicle and equipment scrapping; and, 8)

transportation and traffic during construction and during operation on roadways with catenary lines and at the harbors. Since significant adverse environmental impacts were identified, mitigation measures were identified and applied. However, the March 2017 Final Program EIR concluded that the 2016 AQMP would have significant and unavoidable adverse environmental impacts even after mitigation measures were identified and applied. As such, mitigation measures were made a condition of project approval and a Mitigation Monitoring and Reporting Plan was adopted. Findings were made and a Statement of Overriding Considerations was prepared and adopted for this project.

PAR 1134 proposes to update emission limits to reflect current BARCT and to provide implementation timeframes for reducing NOx and ammonia emissions for RECLAIM and non-RECLAIM stationary gas turbines that are not subject to Rule 1135 or located at landfills, petroleum refineries, or publicly owned treatment works. PAR 1134 will also help transition RECLAIM facilities to a command-and-control regulatory structure. Stationary gas turbines located at RECLAIM and non-RECLAIM facilities subject to Rule 1134 will be required to meet the applicable NOx concentration limit by January 1, 2024. For PAR 1134, compliance is expected to be achieved through the installation of SCR technology and repowering, replacement, or retrofitting existing stationary gas turbines. The proposed NOx emission reductions are expected to improve overall air quality in the SCAQMD's jurisdiction and further the progress towards attaining and maintaining state and NAAQS for ozone, PM10, and PM2.5. However, the implementation of the proposed project could create both direct and indirect air quality and hazards and hazardous materials impacts from those sources that install SCR technology or repower, or replace existing stationary gas turbines. As demonstrated in the following analysis, the construction associated with installing new air pollution control equipment, or repowering, or replacing existing stationary gas turbines in order to reduce NOx emissions, is not expected to exceed the SCAQMD's air quality significance thresholds for construction or operation. Further, after construction is completed, the operation of any new SCR systems and repowered or replaced gas turbines would reduce NOx emissions overall, thus, reducing any potential adverse impact to air quality.

However, for the topic of hazards and hazardous materials, the analysis demonstrates that for any installation of a SCR system, a corresponding installation of one new ammonia storage tank will be necessary. The potential proximity of any new ammonia storage tank to any nearby sensitive receptor could potentially have a significant adverse hazards and hazardous materials impact. For this reason, the analysis concludes that the implementation of PAR 1134 would be expected to have significant adverse hazards and hazardous materials impacts from the storage and use of ammonia to operate any new SCR systems that are installed.

No other environmental topic areas are expected to have new adverse impacts that were not previously analyzed in the March 2017 Final Program EIR for the 2016 AQMP. Thus, only the topics of air quality and hazards and hazardous materials have been analyzed in this SEA.

The environmental impact analysis for this environmental topic area incorporates a "worst-case" approach. This approach entails the premise that whenever the analysis requires that assumptions be made, those assumptions that result in the greatest adverse impacts are typically chosen. This method ensures that all potential effects of the proposed project are documented for the decision-makers and the public. Accordingly, the following analyses use a conservative "worst-case" approach for analyzing the potentially significant adverse air quality and hazards and hazardous materials impacts associated with the implementation of the PAR 1134.

AIR QUALITY IMPACTS

Significance Criteria

The environmental analysis assumes that installation of NOx air pollution control equipment (e.g., dry low NOx for OCS facilities and SCR systems) for the affected sources will reduce NOx emissions overall, but construction activities associated with both the installation of new air pollution control devices and the repowering or replacement of existing gas turbines and modification of existing control devices will create secondary air quality impacts (e.g., emissions), which can adversely affect local and regional air quality. An affected facility may generate emissions both during the construction period and through ongoing daily operations. During installation of SCR systems or the repowering or replacement of existing gas turbines or modification of existing NOx control devices, emissions may be generated by onsite construction equipment and by offsite vehicles used for worker commuting. After construction activities are completed, additional emissions may be generated from the increased electricity use of the SCRs (as GHGs) and offsite vehicles (as criteria pollutants and GHGs) used for delivering fresh materials (e.g., chemicals, fresh catalyst, etc.) needed for operations and hauling away solid waste for disposal or recycling (e.g., spent catalyst). To determine whether air quality impacts from adopting and implementing PAR 1134 are significant, impacts will be evaluated and compared to the following criteria. If impacts exceed any of the significance thresholds in Table 4-1, they will be considered significant. All feasible mitigation measures will be identified and implemented to reduce significant impacts to the maximum extent feasible. PAR 1134 will be considered to have significant adverse air quality impacts if any one of the thresholds in Table 4-1 are equaled or exceeded. In general, the SCAQMD makes significance determinations for construction and operational impacts based on the maximum or peak daily emissions during the construction or operation period, which provides a "worst-case" analysis of the construction and operational emissions. The type of emission reduction projects that may be or expected to be undertaken to comply with PAR 1134 are primarily the installation of SCR technology and the repowering or replacement of existing stationary gas turbines for facilities located in the OCS with new stationary gas turbines with built-in dry low NOx technology; thus, this will be analyzed in this SEA.

To comply with the proposed emission limits of PAR 1134, a facility has the following options: 1) install an SCR system and associated ammonia storage tank; 2) replace their existing stationary gas turbine with a stationary gas turbine that has built-in pre-combustion controls such as dry low NOx technology; 3) replace their existing SCR system; or 4) modify their existing SCR system. However, since modifying the existing SCR system is expected to have less air quality impacts from construction than a replacement of an entire SCR system, the analysis in this SEA applies the most conservative assumptions to represent a "worst-case" scenario therefore it is assumed that facilities that currently do not meet BARCT with existing SCR systems will replace their existing SCR system rather than modifying the existing SCR system to comply with PAR 1134. Additionally, due to the number of affected stationary gas turbines and compliance date of January 1, 2024, the "worst-case" construction analysis is based on a combination of these construction activities overlapping as detailed in Table 4-7. In addition, because compressor gas turbines have an effective compliance date of two years after a permit to construct is issued by the Executive Officer or three years after a permit to construct is issued if the permit application is submitted before July 1, 2021, the potential for overlapping construction activities is less likely to occur because of the extended compliance time provided in PAR 1134.

		ass Daily Thresholds ^a			
Pollutant		Construction ^b	Operation ^c		
NO _x		100 lbs/day	55 lbs/day		
VOC		75 lbs/day	55 lbs/day		
PM ₁₀		150 lbs/day	150 lbs/day		
PM _{2.5}		55 lbs/day	55 lbs/day		
SOx		150 lbs/day	150 lbs/day		
СО		550 lbs/day	550 lbs/day		
Lead		3 lbs/day	3 lbs/day		
Toxic Air Cont	amina	nts (TACs), Odor, and	GHG Thresholds		
TACs			ental Cancer Risk ≥ 10 in 1 million		
(including carcinogens and non-carcino	ogens)	Cancer Burden $> 0.5 \text{ exce}$	ess cancer cases (in areas ≥ 1 in 1 million)		
		Chronic & Acute Ha	azard Index ≥ 1.0 (project increment)		
Odor			nuisance pursuant to SCAQMD Rule 402		
GHG		10,000 MT/yı	CO ₂ eq for industrial facilities		
Ambient Air	Quali	ty Standards for Crite	eria Pollutants ^d		
NO ₂		SCAQMD is in attainment; project is significant if it causes or			
		contributes to an exceedance of the following attainment standards:			
1-hour average		0.18 ppm (state)			
annual arithmetic mean		0.03 ppm (st	ate) and 0.0534 ppm (federal)		
PM10					
24-hour average		10.4 μ g/m ³ (construction) ^e & 2.5 μ g/m ³ (operation)			
annual average			1.0 μg/m ³		
PM _{2.5}					
24-hour average		10.4 μ g/m ³ (construction) ^e & 2.5 μ g/m ³ (operation)			
SO ₂					
1-hour average		0.25 ppm (state) & 0.075 ppm (federal – 99 th percentile)			
24-hour average		0.04 ppm (state)			
Sulfate					
24-hour average		$25 \ \mu g/m^3 (state)$			
СО		SCAQMD is in attainment; project is significant if it causes or			
		contributes to an exceedance of the following attainment standards:			
1-hour average		20 ppm (state) and 35 ppm (federal)			
8-hour average		9.0	ppm (state/federal)		
Lead			1 - (3/)		
30-day Average		$1.5 \mu g/m^3 (state)$			
Rolling 3-month average		$0.15 \ \mu g/m^3$ (federal)			

Table 4-1 SCAQMD Air Quality Significance Thresholds

^a Source: SCAQMD CEQA Handbook (SCAQMD, 1993)

^b Construction thresholds apply to both the South Coast Air Basin and Coachella Valley (Salton Sea and Mojave Desert Air Basins).

^c For Coachella Valley, the mass daily thresholds for operation are the same as the construction thresholds.

^d Ambient air quality thresholds for criteria pollutants based on SCAQMD Rule 1303, Table A-2 unless otherwise stated.

^e Ambient air quality threshold based on SCAQMD Rule 403.

KEY:lbs/day = pounds per dayppm = parts per million $\mu g/m^3 = microgram per cubic meter<math>\geq =$ greater than or equal toMT/yrCO2eq = metric tons per year of CO2 equivalents $\Rightarrow =$ greater than $\Rightarrow =$ greater thanRevision:March 2015 $\Rightarrow =$ greater than

Project-Specific Air Quality Impacts During Construction

Construction-related emissions can be distinguished as either onsite or offsite. Onsite emissions generated during construction principally consist of exhaust emissions (NOx, SOx, CO, VOC, PM2.5 and PM10) from heavy-duty construction equipment operation, fugitive dust (primarily as PM10) from disturbed soil, and VOC emissions from asphaltic paving and painting. Offsite emissions during the construction phase normally consist of exhaust emissions and entrained paved road dust (primarily as PM10) from worker commute trips, material delivery trips, and haul truck material trips to and from the construction site. In general, limited construction emissions from site preparation activities, which may include earthmoving/grading, are anticipated because the each affected facility, typically, has already been graded and paved. Further, operators at each affected facility who install air pollution control equipment such as SCR technology to reduce NOx emissions will also need to utilize chemicals such as ammonia and catalyst as part of the process. As such, a new ammonia storage tank will need to be installed along with a containment berm large enough to hold 110 percent of the tank capacity in the event of an accidental release, pursuant to U.S. EPA's spill prevention control and countermeasure regulations.

To estimate the "worst-case" construction- and operational-related emissions associated with repowering or replacing an existing stationary gas turbine or installing new SCR systems in order to comply with the NOx emission limits in PAR 1134, assumptions were made to estimate combustion emissions from construction activities occurring onsite, off-site on-road emissions from worker trips, deliveries and haul trips, and on-site fugitive dust emissions, and operational emissions from deliveries and haul trips.

Among the 34-39 facilities subject to PAR 1134 there are approximately 12 RECLAIM facilities and four non-RECLAIM facilities for a total of 16 facilities that are expected to require modifications to comply with PAR 1134. The Final Staff Report indicates that 73 stationary gas turbines at 39 facilities would subject to PAR 1134. However, for the CEQA analysis, 30 stationary gas turbines at 16 facilities were analyzed as these represent stationary gas turbines that will require physical changes such as modification or the replacement of an existing stationary gas turbine and/or an increase in ammonia usage for a SCR system. The remaining facilities contain stationary gas turbines that either currently meet the proposed emission limits (six), are eligible for exemptions from the emission limits in PAR 1134 (24), qualify for low-use provisions (11), have been shut down, or have modified, retrofitted, or repowered their stationary gas turbines prior to the adoption of PAR 1134. Therefore, only 30 stationary gas turbines are included in the CEQA analysis. The remaining facilities contain stationary gas turbines that either currently meet the proposed emission limits or are eligible for exemptions from the emission limits in PAR 1134. Amongst the 16 facilities that will require modifications to comply with PAR 1134, approximately 30 stationary gas turbines would need to be replaced, repowered, or retrofitted with air pollution control equipment in order to comply with the NOx limits in PAR 1134. Of the 30 stationary gas turbines seven are equipped with older, less efficient SCR systems that are not capable of meeting the more stringent NOx emission limits in PAR 1134 and the remaining stationary gas turbines are not equipped with any air pollution control equipment for reducing NOx emissions. The seven facilities operating stationary gas turbines that are already equipped with existing SCR systems will need to increase the amount of ammonia injected and in turn increase their ammonia usage in order to meet the proposed emission limits in PAR 1134. Some of these SCR systems may not be capable of meeting the proposed NOx limits even with the increased ammonia injection. Therefore, it is assumed that all existing SCR systems at the affected facilities will need to be replaced but that the existing ammonia storage tank will be used. For any facility that operates a

stationary gas turbine that is not equipped with any air pollution control equipment for reducing NOx emissions, a new SCR system with a new ammonia tank will need to be installed or the existing stationary gas turbine will need to be replaced with a new stationary gas turbine with built-in dry low NOx technology. A summary of the affected units analyzed in this SEA are shown in Table 4-2.

Construction Activities	Number of Affected Units
Install SCR system and associated ammonia tank	17
Replace existing SCR system	7^{1}
Replace existing stationary gas turbine with	6
stationary gas turbine with built-in dry low NOx	
technology	

Table 4-2Proposed Construction Activities

Seven stationary gas turbines are equipped with SCR systems. However, these SCR systems may need to be replaced with new SCR systems to meet the proposed NOx emission limits in PAR 1134.

For this reason, the environmental analysis in this SEA assumes that overlapping construction activities from the installation of SCR systems and associated ammonia storage tank or replacement stationary gas turbines with dry low-NOx technology will be installed, which is expected to result in the "worst-case" emissions.

SCR System Installation

Currently, there are 17 stationary gas turbines that are not equipped with SCR technology. If facility owners/operators of these 17 turbines decide to install 17 SCR systems, 17 ammonia storage tanks (e.g., one storage tank for each SCR system) would also need to be installed because SCR systems utilize ammonia in the NOx reduction process. However, for any operator installing more than one SCR system at one facility, this analysis assumes that only one large aqueous ammonia storage tank would be installed in lieu of multiple, smaller ammonia storage tanks, because it is likely and expected the facilities would want to simplify their ammonia delivery schedule. For example, several RECLAIM facilities have two stationary gas turbines that are each expected to utilize new SCR technology; therefore, it is possible that the facility operator of these facilities would elect to install one larger aqueous ammonia storage tank, in lieu of two smaller tanks, to service the two new SCR systems. Also by assuming that one larger storage tank would be installed in lieu of multiple smaller storage tanks, the hazards and hazardous materials impacts from a catastrophic failure of the larger ammonia tank would represent the "worst-case" off-site consequence in the event of a spill. The size of each storage tank that may be needed to supply ammonia to each SCR system has been estimated to range between 250 and 10,000 gallons in capacity. As previously discussed, there are also seven existing SCR systems that may not be capable of meeting the proposed NOx emissions limits. As such, it is assumed that these SCR systems will be replaced but the facility will continue to use the existing ammonia tanks. Existing ammonia tanks are up to 12,000 gallons in capacity; however, the increase in ammonia usage will only affect the number of truck trips to deliver the ammonia and not the amount of ammonia stored on site.

Some facilities may have sufficient space to install one new SCR system and one new ammonia storage tank for their existing stationary gas turbine(s) and would likely expect minor modifications to the existing facility. However, because installation of a SCR system and

associated ammonia storage tank may need to occupy the space of existing equipment, demolition activities are assumed to occur prior to installation of the new equipment in order to remove any existing equipment or structures (as applicable), remove old piping and electrical connections, and break up the old foundation. For these reasons, slab pouring or paving activities are also anticipated and were analyzed.

The type of construction-related activities attributable to installing a new SCR system and associated ammonia storage tank would consist predominantly of deliveries of steel, piping, wiring, chemicals, catalysts, and other materials, and would also involve maneuvering the materials within the site via a variety of off-road equipment such as a crane, forklift et cetera or on-road equipment such as haul trucks, delivery trucks, and passenger vehicles for construction workers. If a new foundation is not needed, to establish footings or structure supports, some concrete cutting and digging may be necessary in order to re-pour new footings prior to building above the existing foundation. Because the gas turbines are currently operating at existing facilities, the analysis assumes that no more than 2,500 square feet of area would need to be disturbed at a single facility at a given time. Construction was assumed to consist of four phases: 1) demolition; 2) site preparation; 3) paving; and, 4) installing the NOx control equipment along with supporting devices and structures. Based on previous CEQA analyses¹⁵ conducted for the installation of one SCR system and one ammonia storage tank, the typical equipment that may be needed to complete each construction phase at a single affected facility is presented in Table 4-3.

¹⁵ SCAQMD, Final Subsequent Environmental Assessment for Proposed Amended Rules 1146 – Emissions of Oxides of Nitrogen from Industrial, Institutional, and Commercial Boilers, Steam Generators, and Process Heaters; 1146.1 – Emissions of Oxides of Nitrogen from Small Industrial, Institutional, and Commercial Boilers, Steam Generators, and Process Heaters; 1146.2 – Emissions of Oxides of Nitrogen from Large Water Heaters and Small Boilers and Process Heaters; and Proposed Rule 1100 – Implementation Schedule for NOx Facilities, November 2018. http://www.aqmd.gov/docs/default-source/ceqa/documents/aqmd-projects/2018/pars-1146-series---final-sea---full-merge-113018.pdf

Annionia Tank at One Facinity								
Construction Phase	ruction Phase Off-Road Equipment Type		Daily Usage Hours					
Demolition	Concrete/Industrial Saws	1	8					
Demolition	Cranes	1	2					
Demolition	Rubber Tired Dozers	1	3					
Demolition	Tractors/Loaders/Backhoes	1	4					
Site Preparation	Rubber Tired Dozers	1	7					
Site Preparation	Tractors/Loaders/Backhoes	1	4					
Site Preparation	Trenchers	1	4					
Building Construction	Aerial Lifts	1	4					
Building Construction	Cranes	1	2					
Building Construction	Forklifts	1	6					
Building Construction	Generator Sets	1	8					
Building Construction	Tractors/Loaders/Backhoes	1	4					
Building Construction	Welders	1	4					
Paving	Cement and Mortar Mixers	2	6					
Paving	Pavers	1	5					
Paving	Plate Compactors	1	4					
Paving	Rollers	1	4					
Paving	Tractors/Loaders/Backhoes	1	4					

 Table 4-3

 Construction Equipment That May Be Needed to Install One SCR System and One

 Ammonia Tank at One Facility

Construction emissions associated with installing one SCR system and one associated ammonia tank at one facility were estimated using the California Emission Estimator Model (CalEEMod), version 2016.3.2. To estimate what the impacts would be for installing one SCR system and one associated ammonia storage tank, the following general assumptions were made:

- To provide a "worst-case" analysis, each SCR system and associated ammonia storage tank installation will require its own construction crew and equipment. For any facility with multiple gas turbines, the installation of SCR systems and associated ammonia storage tanks are assumed to occur in sequential order with the same construction crew and equipment in order to avoid all gas turbines being offline at the same time.
- The four phases are assumed to occur sequentially during a traditional work week (e.g., five days) and each phase is assumed the following number of days: demolition 15 days; site preparation five days; installation of NOx control equipment 180 days; and paving five days.
- During construction of each SCR system and ammonia storage tank the following number of round-trip trips would occur from off-road equipment each day: demolition 25 trips; site preparation 10 trips; installation of SCR system and ammonia tank 68 trips; and paving 10 trips. In addition, 10 on-road hauling trips are estimated to be needed during demolition, seven on-road vendor trips are estimated to be needed during the installation of the SCR system and ammonia storage tank, and one vendor trip per day will be needed during paving.

• Taking into account the lead time needed to complete design and engineering, procure contracts, order equipment and obtain SCAQMD permits, construction is expected to begin in year 2020 at the earliest. Further, depending on the facility, construction could span from six months to over one year or more if multiple SCR systems and multiple ammonia storage tanks (or one larger ammonia storage tank) will be installed at one facility. The maximum number of SCR systems expected to be installed at one facility is four.

Table 4-4 presents the peak daily emissions from construction activities to install one SCR system and one ammonia storage tank at one facility. There are 17 gas turbines located at nine facilities where each gas turbine is assumed to need one SCR system and one ammonia storage tank installed. For the facilities that have more than one gas turbine and thus require more than one SCR system to be installed, it is possible only one ammonia storage tank with a large enough capacity to supply enough ammonia to all of the SCR systems would be needed. Further, for these six facilities, the installations of the SCR systems are assumed to occur sequentially (e.g., one SCR system and one ammonia storage tank at a time) in order to avoid all gas turbines being offline simultaneously and to maintain operations at each facility. There are an additional seven stationary gas turbines that may need to replace their existing SCR systems; thus this analysis includes 16 facilities and 24 affected stationary gas turbines. PAR 1134 provides approximately four years (compliance date of January 1, 2024) for facilities to take the necessary actions in order to achieve compliance, e.g., to construct each SCR system and ammonia storage tank at the nine affected facilities or to replace the existing SCR system at the other six affected facilities. With a four-year compliance timeframe, construction at these 16 facilities would likely be staggered because of the lead time needed to complete design and engineering, procure contracts, order equipment, and obtain SCAQMD permits prior to beginning construction. Construction activities may be further staggered due to the potential for the owner or operator of facilities with compressor gas turbines to submit a request to the Executive officer for a compliance date extension. In addition, because compressor gas turbines have an effective compliance date of two years after a permit to construct is issued by the Executive Officer or three years after a permit to construct is issued if the permit application is submitted before July 1, 2021, the potential for overlapping construction activities is less likely to occur because of the extended compliance time provided in PAR 1134. Thus, the analysis assumes that not all nine facilities would begin construction on the exact same day and maintain the exact same schedule. However, it is possible that some facilities may have overlapping construction phases (e.g., Facility 1 would have demolition occurring, while Facility 2 may be conducting site preparation, etc.). Table 4-4 presents the peak daily emissions for the construction of one SCR system and ammonia storage tank at one facility, and the quantity of peak daily construction emissions are less than the SCAQMD's air quality significance thresholds for construction. Table 4-7 presents this overlap in peak daily emissions for construction of two SCR systems and two ammonia storage tanks. Appendix B contains the CalEEMod output files for the annual, summer, and winter construction emissions for the construction of one SCR system at one facility.

Table 4-4
Peak Daily Emissions from Construction Activities of One SCR System and One Ammonia
Storage Tank at One Facility

Peak Daily Construction Emissions	VOC (lb/day)	NOx (lb/day)	COx (lb/day)	SOx (lb/day	PM10 (lb/day)	PM2.5 (lb/day)
Installation of 1 SCR and 1 ammonia storage tank	1.3	12.9	9.9	0.0	6.1	3.6
Significance Threshold for	75	100	550	150	150	55
Construction	75	100	550	150	150	55
Exceed Significance?	NO	NO	NO	NO	NO	NO

Complete Replacement of Existing Stationary Gas Turbine

In lieu of installing a new SCR system, a facility operator may consider completely replacing their existing stationary gas turbine with a new, more efficient stationary gas turbine equipped with dry low NOx technology that is capable of meeting the applicable NOx emission limit without the need for an SCR system. The decision to completely replace a gas turbine will be based on a number of factors such as age, reliability, high maintenance and operating costs, fuel efficiency issues, and/or the lack of replacement parts. However, it is impossible to predict when this would occur for the affected units, because it is a facility-based decision (e.g., cost, long-term planning, etc.) that is dependent on the status of the unit (e.g., unit operation schedule, unit age, and maintenance of the unit, etc.).

In the event that a facility operator decides to completely replace an existing gas turbine, the following assumptions were made:

- Before dismantling can occur, the existing gas turbine would need to be shut down and allowed to cool. The dismantling and demolition process is estimated to take 20 days and then it would require approximately five days of site preparation, 180 days of building construction, and five days of paving, for a total of 190 days.
- 50 workers would be needed to dismantle the existing stationary gas turbine and install the new stationary gas turbine.
- Equipment needed to replace a stationary gas turbine is presented in Table 4-5.
- The footprint of the existing gas turbine is assumed to be approximately 3,000 square feet and the facility operator is assumed to replace the unit with equipment of the same or similar size and footprint.
- To provide a "worst-case" analysis, each gas turbine replacement will require its own construction crew and equipment. For any facility with multiple gas turbines undergoing replacement, the replacements are assumed to occur in sequential order with the same construction crew and equipment in order to avoid all gas turbines being offline at the same time.
- Once the new gas turbine becomes operational, the NOx emissions are expected to be fewer in the new gas turbine relative to the existing gas turbine. Similarly, the fuel efficiency of

the new gas turbine will be improved and is estimated to use eight to 10 percent less fuel than the existing gas turbine.

• No additional employees are expected to be needed to operate and maintain the new gas turbine. The required operation and maintenance activities are expected to be similar for the new gas turbine.

Table 4-5 Construction Equipment That May Be Needed to Replace One Stationary Gas Turbine at One Facility

Construction Phase	Off-Road Equipment Type	Quantity	Daily Usage Hours
Demolition	Concrete/Industrial Saws	1	8
Demolition	Cranes	1	3
Demolition	Rubber Tired Dozers	1	4
Demolition	Tractors/Loaders/Backhoes	1	4
Site Preparation	Rubber Tired Dozers	1	7
Site Preparation	Tractors/Loaders/Backhoes	1	4
Site Preparation	Trenchers	1	4
Building Construction	Aerial Lifts	1	4
Building Construction	Cranes	1	3
Building Construction	Forklifts	1	6
Building Construction	Generator Sets	1	8
Building Construction	Tractors/Loaders/Backhoes	1	4
Building Construction	Welders	1	4
Paving	Cement and Mortar Mixers	2	6
Paving	Pavers	1	5
Paving	Plate Compactors	1	4
Paving	Rollers	1	4
Paving	Tractors/Loaders/Backhoes	1	4

Construction emissions associated with removing one stationary gas turbine and replacing it with a new stationary gas turbine of comparable size and footprint were estimated using CalEEMod version 2016.3.2. Appendix B contains the detailed construction estimates for replacing one stationary gas turbine. Table 4-6 summarizes the peak daily construction emissions from replacing a stationary gas turbine with a new stationary gas turbine.

Construction Emissions	VOC (lb/day)	NOx (lb/day)	CO (lb/day)	SOx (lb/day	PM10 (lb/day)	PM2.5 (lb/day)
Replacement of 1 Stationary Gas Turbine	1.4	12.9	10.1	0.0	6.1	3.6
Significance Threshold for Construction	75	100	550	150	150	55
Exceed Significance?	NO	NO	NO	NO	NO	NO

 Table 4-6

 Peak Daily Construction Emissions from Replacing One Stationary Gas Turbine

As shown in Table 4-6, the construction emissions from the replacement of one stationary gas turbine on a peak day are less than SCAQMD's air quality significance thresholds for construction.

The existing six stationary turbines located in the OCS will likely replace some of their existing stationary gas turbines with new stationary gas turbines with dry low NOx technology or other NOx reduction control technology to comply with PAR 1134. However, as explained earlier, to minimize disruption at the facility, each replacement is assumed to occur in sequential order with the same construction crew and equipment in order to avoid all gas turbines being offline at the same time.

There may be other facilities that will elect to replace their existing gas turbine(s), but SCAQMD staff is unable to predict if there are additional facilities that would choose replacement since there are a variety of factors to be considered. One factor is the useful life of the equipment since an average stationary gas turbine is estimated to have a useful life of 25 to 30 years. Some facility operators may decide to replace an old gas turbine with a new gas turbine to improve operational efficiency or if the existing gas turbine cannot be retrofitted with a new SCR system. Overall, the decision to replace an existing gas turbine will depend upon cost, the feasibility to install a new SCR system and achieve the NOx emission limits in PAR 1134, as well equipment age and size, and the facility's operational needs.

Given the duration of construction that would be needed to replace an existing gas turbine and install an SCR system and ammonia storage tank and the length of time provided to comply with the requirements of PAR 1134 (on or before January 1, 2024, approximately four years to achieve compliance), the construction phases for multiple facilities could potentially overlap on a peak day. A peak day is expected to consist of two SCR systems and associated ammonia storage tank installations and one stationary gas turbine replacement. Overlapping peak daily construction emissions are shown in Table 4-7. In addition, because compressor gas turbines have an effective compliance date of two years after a permit to construct is issued by the Executive Officer or three years after a permit to construct is issued if the permit application is submitted before July 1, 2021, the potential for overlapping construction activities is less likely to occur because of the extended compliance time provided in PAR 1134.

Overlapping Peak Daily Construction Emissions							
Construction Emissions	VOC (lb/day)	NOx (lb/day)	CO (lb/day)	SOx (lb/day	PM10 (lb/day)	PM2.5 (lb/day)	
Installation of Two SCR Systems and Two Ammonia Storage Tanks	2.6	25.8	17.3	0.03	12.2	7.1	
Replacement of 1 Stationary Gas Turbine	1.3	12.9	8.9	0.02	6.1	3.6	
Total Overlapping Construction Emissions	4.0	38.7	26.2	0.05	18.3	10.7	
Significance Threshold for Construction	75	100	550	150	150	55	
Exceed Significance?	NO	NO	NO	NO	NO	NO	

Table 4-7					
Overlapping Peak Daily Construction Emissions					

As shown in Table 4-7, the air quality impacts due to construction from the implementation of PAR 1134 are expected to be less than significant.

Project-Specific Air Quality Impacts During Operation

The proposed project is expected to result in direct air quality benefits from the reduction of 2.8 tons per day of NOx emissions by January 1, 2024. Implementation is expected to be achieved through any of the following modifications: 1) install one new SCR system for one existing stationary gas turbine that does not have post-combustion air pollution control equipment; 2) replace one existing stationary gas turbine with one new stationary gas turbine equipped with dry low-NOx technology; or 3) replace one existing SCR system and increase the amount of ammonia injection. Once construction is complete, secondary criteria pollutant emissions may be generated as part of operation activities necessary with operating and maintaining the SCR systems and gas turbines. In particular, the following activities may be sources of secondary criteria pollutant emissions during operation: 1) new vehicle trips via heavy-duty for periodic ammonia/urea deliveries for each SCR system installed; 2) new vehicle trips via heavy-duty trucks for periodic deliveries of fresh catalyst and hauling away spent catalyst the new SCR systems are installed; and 3) increased vehicle trips vial heavy-duty periodic ammonia/urea deliveries for facilities increasing ammonia usage on existing SCR systems with replaced catalyst modules.

The following assumptions were made about the operation of new SCR systems:

- One new ammonia storage tank is assumed to require two one-way truck deliveries of 19 percent aqueous ammonia. Ammonia delivery trucks can deliver approximately 6,400 gallons at any one time.
- Each facility with only one new SCR system installed will need only one new ammonia delivery trip per month, but the quantity delivered will vary according to the capacity of the ammonia storage tank. For facilities that will have more than one SCR system installed, the analysis assumes that one new large ammonia storage tank will require two one-way truck deliveries of 19 percent aqueous ammonia. Since the ammonia tanks will be pressurized, no ammonia emissions are expected from filling the storage tanks.

- As a conservative estimate, it is assumed the peak daily trips associated with ammonia/urea deliveries will be one truck per facility for all gas turbines that are equipped with new SCR systems. The delivery distance of one ammonia truck is assumed to be 100 miles round-trip.
- All initial catalyst deliveries are assumed to occur during the construction phase. However, catalyst modules are expected to be replaced every two to three years. When spent catalyst removal and replacement becomes necessary, two one-way trucks will be needed to remove the catalyst and two one-way trucks will be needed to deliver the fresh catalyst modules.
- Peak daily trips assume truck trip distances to deliver catalyst would be similar to ammonia and are assumed to be 100 miles round-trip. It is assumed the catalyst delivery vehicles would be similar to the ammonia delivery trucks (heavy-duty).
- No additional employees are anticipated to be needed to operate the new SCR systems because the existing work force per affected facility is expected to be sufficient. As such, no additional emissions from new workers are anticipated from the operation of the new SCR systems.
- Nine facilities are expected to install new SCR systems with new ammonia deliveries with eight of the aforementioned facilities located within one quarter mile of sensitive receptors (e.g., schools, residences, etc.).
- Six facilities with existing SCR systems are expected to increase their ammonia usage with two of the aforementioned facilities located within one quarter mile of sensitive receptors (e.g., schools, residences, etc.).
- The projected increase in aqueous ammonia usage will not change the number of aqueous ammonia deliveries occurring on a peak day (e.g., one truck) per facility.

A total of 16 facilities will need new ammonia deliveries. Of the 16 facilities with SCR systems, seven had existing SCR systems and therefore, would not result in new catalyst delivery trips. Secondary operational emissions from these facilities were estimated using EMFAC2017 emission factors and are presented in Table 4-8. Appendix B contains the detailed emissions calculations from the operational activities from the operating the new SCR systems and increase in delivery trucks as a result of increasing ammonia usage for facilities with existing SCR systems as well as new catalyst deliveries.

Peak Dany Operational Emissions at One Facility								
Operational Activity	VOC (lb/day)	NOx (lb/day)	CO (lb/day)	SOx (lb/day)	PM10 (lb/day)	PM2.5 (lb/day)		
Increased Ammonia Delivery Trucks for 1 Facility	0.08	0.52	0.34	0.0	0.03	0.02		
New Catalyst Delivery and Spent Catalyst Haul Trip at 1 Facility	0.15	1.04	0.68	0.0	0.07	0.04		
TOTAL	0.23	1.56	1.01	0.01	0.1	0.06		
Significance Threshold for Operation	55	55	550	150	150	55		
Exceed Significance?	NO	NO	NO	NO	NO	NO		

Table 4-8Peak Daily Operational Emissions at One Facility

As indicated in Table 4-8, operational emissions from one facility as a result in an increase in delivery trucks is below the SCAQMD's air quality significance thresholds for operation. Due to the number of affected facilities with increased ammonia deliveries (17), operational emissions may overlap on a peak day. However, in the most conservative assumption, if four facilities were to overlap their scheduled ammonia delivery and one facility with new SCR catalyst delivery, air quality impacts from operations are expected to be less than significant as shown in Table 4-9.

Peak Daily Operational Emissions						
Operational Activity	VOC (lb/day)	NOx (lb/day)	CO (lb/day)	SOx (lb/day)	PM10 (lb/day)	PM2.5 (lb/day)
Increased Ammonia Delivery Trucks for 4 Facilities	0.31	2.08	1.35	0.01	0.14	0.08
New Catalyst Delivery and Spent Catalyst Haul Trip at 1 Facility	0.15	1.04	0.68	0.00	0.07	0.04
TOTAL	0.46	3.11	2.03	0.01	0.21	0.12
Significance Threshold for Operation	55	55	550	150	150	55
Exceed Significance?	NO	NO	NO	NO	NO	NO

Table 4-9 Peak Daily Operational Emissions

Construction and Operation Overlap Impact

Given the number of affected facilities and the varying modifications expected to occur at each affected facility in order to comply with PAR 1134, construction activities at some facilities could potentially overlap with operational activities occurring at other facilities that have completed construction. The overlap could occur during the period from the date of adoption of PAR 1134 until January 1, 2024, at which all affected stationary gas turbines, except for compressor gas turbines, are required to meet the NOx emission limits set forth in PAR 1134. Compressor gas turbines have an effective compliance date of two years after a permit to construct is issued by the Executive Officer or three years after a permit to construct is issued if the permit application is submitted before July 1, 2021. The peak daily emissions during this overlap period are assumed to occur when two new SCR systems and associated ammonia storage tanks are being installed (see Table 4-4) and one existing stationary gas turbine is being replaced (see Table 4-6 for one stationary gas turbine installation). Peak operational emissions are assumed to occur when four facilities receive ammonia deliveries and one facility receives new SCR catalyst and hauls off spent catalyst (see Table 4-9). According to SCAQMD policy, in the event that there is an overlap of construction and operation phases, the peak daily emissions from the construction and operation overlap period should be summed and compared to the SCAQMD's air quality significance thresholds for operation because the latter are more stringent, and thus, more conservative. As such, total emissions from overlapping construction and operational activities have been compared to the air quality significance thresholds for operation in Table 4-10.

Peak Daily Overlapping Construction and Operational Emissions						
Operational Activity	VOC	NOx	CO	SOx	PM10	PM2.5
	(lb/day)	(lb/day)	(lb/day)	(lb/day)	(lb/day)	(lb/day)
Installation of 2 new SCR Systems and 2 new ammonia storage tanks (construction)	3.9	38.7	29.6	0.1	18.2	10.7
Replacement of 1 Stationary Gas Turbine (construction)	1.4	12.9	10.1	0.0	6.1	3.6
Increased Truck Trips for ammonia delivery for 4 facilities (operation)	0.31	2.08	1.35	0.01	0.14	0.08
Increased Truck Trips for New Catalyst Delivery and Hauling Spent Catalyst at 1 Facility	0.15	1.04	0.68	0.00	0.07	0.04
TOTAL	4.42	41.81	28.19	0.06	18.44	10.82
Significance Threshold for Operation	55	55	550	150	150	55
Exceed Significance?	NO	NO	NO	NO	NO	NO

Table 4-10Peak Daily Overlapping Construction and Operational Emissions

As indicated in Table 4-10, the peak daily emissions during the construction and operational overlap period do not exceed any of the SCAQMD's air quality significance thresholds for operation. Therefore, the air quality impacts during the construction and operation overlap period are considered to be less than significant. In conclusion, the proposed project is also not expected to result in significant adverse air quality impacts during the construction and operation overlap period.

SCR systems reduce NOx emissions by using ammonia, which is considered a TAC. Unreacted ammonia emissions generated from these units are referred to as ammonia slip. Ammonia slip is limited to five ppm through permit conditions for new SCR installations. Based on the November 2015 Final Program Environmental Analysis for Proposed Amended Regulation XX - RECLAIM¹⁶ the concentration at a receptor located 25 meters from a stack would be much less than one percent of the concentration at the release from the exit of the stack. Thus, the peak concentration of ammonia at a receptor located 25 meters from a stack is calculated by assuming a dispersion of one percent. While ammonia does not have an OEHHA approved cancer potency value, it does have non-carcinogenic chronic (200 microgram (μ g) per cubic meter) and acute (3,200 μ g per cubic meter) reference exposure levels (RELs). Table 4-11 summarizes the calculated non-carcinogenic chronic and acute hazard indices for ammonia and compares these values to the respective significance thresholds for a system with either an ammonia slip limit of 5 ppmv or 10 ppmv, as applicable; both were shown to be less than significant.

¹⁶ SCAQMD, Final Program Environmental Assessment for Proposed Amended Regulation XX -RECLAIM, November 2015. <u>http://www.aqmd.gov/docs/default-source/ceqa/documents/aqmd-projects/2015/regxxfinalpeaplusappendices.pdf</u>

Ammonia Slip Concentration at the Exit of the Stack (ppm)	$\begin{tabular}{lllllllllllllllllllllllllllllllllll$	Acute REL (µg/m ³)	Chronic REL (µg/m ³)	Acute Hazard Index	Chronic Hazard Index
5 ¹	35	3,200	200	0.01	0.17
<u>10</u>	<u>70</u>	<u>3,200</u>	<u>200</u>	<u>0.02</u>	<u>0.35</u>
		Significance Threshold		1.0	1.0
		Exceed Sig	nificance?	NO	NO

Table 4-11Health Risk from the Facilities Using Ammonia

¹ Some facilities have stationary gas turbines that may qualify for exemptions provided they meet applicable specified criteria in PAR 1134. Of those stationary gas turbines that may be exempt, some would have an ammonia limit not to exceed 10 ppmv at 15 percent oxygen on a dry basis. Also, compressor gas turbines, of which there are only four currently located at one facility, have an ammonia slip limit not to exceed 10 ppmv at 15 percent oxygen on a dry basis.

Even if multiple SCR systems are installed at one facility, the locations of all the stacks would generally not be situated in the same place within the affected facility's property. For a facility with space limitations and multiple SCR installations, the exhaust would likely be routed to one stack which would still be limited to <u>either five ppmv or 10 ppmv</u> ammonia slip. As such, even with multiple SCR system installations, the acute and chronic hazard indices would not be expected to exceed the significance threshold.

PM Impacts from Ammonia Usage

In a SCR system, the ammonia is injected into the flue gas stream and reacts with NOx to form elemental nitrogen (N2) and water in the cleaned exhaust gas. A small amount of unreacted ammonia (ammonia slip) may pass through. The SCAQMD through permit conditions limits ammonia slip to five ppm. In the November 2015 Final Program EA for NOx RECLAIM¹⁷, SCAOMD staff conducted a series of regional simulations to determine the impacts of reducing NOx while increasing the potential for creating ammonia slip due to increased use of ammonia needed for the operation of SCR systems. In the analysis, 14 tons per day of NOx emission reductions at RECLAIM facilities were estimated while ammonia slip emissions from the same facilities would increase by 1.63 tons per day. The simulations were run for the 2021 draft baseline emissions inventory to estimate what the impacts would be at full implementation of the 14 tons per day decrease in NOx emissions. The effect of decreasing 14 tons per day of NOx would result in a decrease of annual PM2.5 of approximately $0.7 \,\mu g$ per cubic meter. However, since the usage of ammonia is necessary to achieve the NOx emission reductions (via SCR technology), the ammonia usage would cause a concurrent increase in annual PM2.5 of approximately 0.6 µg per cubic meter. Thus, increasing the amount of ammonia slip would result in a net average 0.1 µg per cubic meter decrease in annual PM2.5. Further, the simulations showed that there would be no change in ozone levels compared to what would occur if there was no increase in ammonia slip. The overall decrease in annual PM2.5 would occur provided that all 14 tons per day of NOx emissions would be reduced, which in turn would reduce PM2.5 emissions overall, even if some PM2.5 emissions are generated from ammonia slip. In summary, the impacts to regional PM2.5

¹⁷ SCAQMD, Final Program Environmental Assessment for Proposed Amended Regulation XX -RECLAIM, November 2015. <u>http://www.aqmd.gov/docs/default-source/ceqa/documents/aqmd-projects/2015/regxxfinalpeaplusappendices.pdf</u>

and ozone due to increased ammonia slip in these simulations was concluded to not create a significant adverse impact. Because this proposed project would have substantially less ammonia slip emissions than what was analyzed in the regional simulations, the impacts to regional PM2.5 and ozone due to increased ammonia slip from PAR 1134 would not create a significant adverse air quality impact.

Odor Impacts

During construction, there will be odors associated with the operation of diesel-fueled off-road construction equipment used to install the new SCR systems, replace catalyst modules in existing SCR systems and to replace existing stationary gas turbines. In addition, diesel-fueled on-road vehicles may be utilized during both construction and operation activities at the facilities and these vehicles will be required to use diesel fuel with a low sulfur content (e.g., 15 ppm by weight or less in accordance with SCAQMD Rule 431.2 - Sulfur Content of Liquid Fuels). Further, as explained earlier, the use of diesel-fueled trucks as part of construction and operation activities will not be allowed to idle longer than five minutes onsite, so lingering odors would not be expected from these vehicles. Finally, because of the relatively small number of pieces of diesel-fueled on- and off-road equipment being utilized at any one site and because construction will only be short-term, odor impacts are not expected to be significant.

Once the new SCR systems are installed and operational and the existing SCR systems have their catalyst modules replaced, the amount of ammonia used by these systems will increase. However, PAR 1134 contains an ammonia slip limit of five ppm for all stationary gas turbines except for compressor gas turbines (ammonia slip limit of 10 ppm) to prevent the over-injection of excess ammonia. Because the exhaust gases from the gas turbines are hot, any ammonia slip emissions from operating a SCR would be quite buoyant and would rapidly rise to higher altitudes without any possibility of lingering at ground level. The odor threshold of ammonia can range from one to five ppm, but because of the buoyancy of ammonia emissions combined with an average prevailing wind velocity of six miles per hour in the Basin, it is unlikely that ammonia slip emissions would exceed the ammonia odor threshold during operation.

The replacement stationary gas turbines are expected to be the same size as the existing stationary gas turbines and therefore to cause any additional odors. Furthermore, since the replacement stationary gas turbines are newer and more gas efficient, there is potentially less odors due to a decrease in fuel usage. [please add a sentence or two here explaining why the odor profile of replaced gas turbines may improve or at the very least remain unchanged since the newer more efficient gas turbines use less fuel when compared to their older counterparts.]

Greenhouse Gas Impacts

Significant changes in global climate patterns have recently been associated with global warming, an average increase in the temperature of the atmosphere near the Earth's surface, attributed to accumulation of GHG emissions in the atmosphere. GHGs trap heat in the atmosphere, which in turn heats the surface of the Earth. Some GHGs occur naturally and are emitted to the atmosphere through natural processes, while others are created and emitted solely through human activities. The emission of GHGs through the combustion of fossil fuels (i.e., fuels containing carbon) in conjunction with other human activities, appears to be closely associated with global warming. State law defines GHG to include the following: carbon dioxide (CO2), methane (CH4), nitrous oxide (N2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF6)

(Health and Safety Code Section 38505(g)). The most common GHG that results from human activity is CO2, followed by CH4 and N2O.

Traditionally, GHGs and other global warming pollutants are perceived as solely global in their impacts and that increasing emissions anywhere in the world contributes to climate change anywhere in the world. A study conducted on the health impacts of CO2 "domes" that form over urban areas cause increases in local temperatures and local criteria pollutants, which have adverse health effects¹⁸.

The analysis of GHGs is a different analysis than the analysis of criteria pollutants for the following reasons. For criteria pollutants, the significance thresholds are based on daily emissions because attainment or non-attainment is primarily based on daily exceedances of applicable ambient air quality standards. Further, several ambient air quality standards are based on relatively short-term exposure effects on human health (e.g., one-hour and eight-hour standards). Since the half-life of CO2 is approximately 100 years, for example, the effects of GHGs occur over a longer term which means they affect the global climate over a relatively long-time frame. As a result, the SCAQMD's current position is to evaluate the effects of GHGs over a longer timeframe than a single day (i.e., annual emissions). GHG emissions are typically considered to be cumulative impacts because they contribute to global climate effects. GHG emission impacts from implementing the proposed project were calculated at the project-specific level during construction and operation. For example, installation of NOx control equipment has the potential to increase the use of electricity, fuel, and water and the generation of wastewater which will in turn increase CO2 emissions.

The SCAQMD convened a "Greenhouse Gas CEQA Significance Threshold Working Group" to consider a variety of benchmarks and potential significance thresholds to evaluate GHG impacts. On December 5, 2008, the SCAQMD adopted an interim CEQA GHG Significance Threshold for projects where SCAQMD is the lead agency (SCAQMD, 2008). This interim threshold is set at 10,000 metric tons of CO2 equivalent emissions (MTCO2eq) per year. The SCAQMD prepared a "Draft Guidance Document – Interim CEQA GHG Significance Thresholds" that outlined the approved tiered approach to determine GHG significance of projects (SCAQMD, 2008, pg. 3-10). The first two tiers involve: 1) exempting the project because of potential reductions of GHG emissions allowed under CEQA; and, 2) demonstrating that the project's GHG emissions are consistent with a local general plan. Tier 3 proposes a limit of 10,000 MTCO2eq per year as the incremental increase representing a significance threshold for projects where SCAQMD is the lead agency (SCAQMD, 2008, pg. 3-11). Tier 4 (performance standards) is yet to be developed. Tier 5 allows offsets that would reduce the GHG impacts to below the Tier 3 brightline threshold. Projects with incremental increases below this threshold will not be cumulatively considerable.

As indicated in Chapter 3, combustion processes generate GHG emissions in addition to criteria pollutants. The following analysis mainly focuses on directly emitted CO2 because this is the primary GHG pollutant emitted during the combustion process and is the GHG pollutant for which emission factors are most readily available. CO2 emissions were estimated from CalEEMod for the SCR systems and stationary gas turbines equipped with dry low NOx technology.

Installation of NOx control equipment as part of implementing the proposed project is expected to generate construction-related CO2 emissions. In addition, based on the type and size of equipment

¹⁸ Jacobsen, Mark Z. "Enhancement of Local Air Pollution by Urban CO2 Domes," Environmental Science and Technology, as describe in Stanford University press release on March 16, 2010 available at: <u>http://news.stanford.edu/news/2010/march/urbancarbon-domes-031610.html</u>

affected by the proposed project, CO2 emissions from the operation of the NOx control equipment are likely to increase from current levels due to using electricity, fuel and water and generating more wastewater. The proposed project will also result in an increase of GHG operational emissions produced from additional truck hauling and deliveries necessary to accommodate the additional solid waste generation and increased use of chemicals and supplies.

For the purposes of addressing the potential GHG impacts of the proposed project, the overall impacts of CO2e emissions from the project were estimated and evaluated from the earliest possible initial implementation of the proposed project with construction beginning in 2020. Once the proposed project is fully implemented, the potential NOx emission reductions would continue through the end of the useful life of the equipment. The analysis estimated CO2e emissions from all sources subject to the proposed project (construction and operation) from the time construction is expected to commence (January 1, 2020) the end of the project (January 1, 2024). The beginning of the proposed project was assumed to be no sooner than 2020, since installing NOx control equipment takes considerable advance planning and engineering. The proposed project is expected to achieve 2.8 tons per day of the NOx emission reduction, such that any installed or modified NOx controls could be constructed and operational by December 31, 2023. <u>However, compressor gas turbines have an effective compliance date of two years after a permit to construct is issued by the Executive Officer or three years after a permit to construct is issued if the permit application is submitted before July 1, 2021. Thus, once construction is complete and the equipment is operational, CO2e emissions will remain constant.</u>

Approximately 17 new SCR systems and associated ammonia storage tanks, seven SCR system replacements, and six stationary gas turbine replacements are expected to be constructed as a result of the implementation of PAR 1134. Also, 16 facilities will need new or additional ammonia deliveries. Only one of the facilities is expected to need two additional deliveries per month while the remaining facilities will need one delivery per month for a total of 204 ammonia deliveries per year. Additionally, SCR catalysts will need to be replaced. For GHG emission estimates, it is conservatively assumed that 16 additional catalyst deliveries will occur per year for the 16 new SCR systems and 16 truck trips to remove spent catalyst. The total increased truck trips per year is therefore 236 truck trips. GHG Emissions from construction activities were estimated using CalEEMod v.2016.3.2 and GHG emissions from operational activities were estimated based on EMFAC2017 factors for heavy duty trucks. Appendix B contains CalEEMod files for construction emissions and Appendix C contains detailed calculations for operational emissions. As summarized in Table 4-12, implementation of PAR 1134 may result in the generation of 145 amortized metric tons of CO2e emissions during construction and 21 metric tons of CO2e emissions from all the affected facilities.

Activity	CO2 (MT/year ^a)
Construction ^b – 17 SCR systems and associated ammonia storage tanks, 7 SCR System replacements, 6 Stationary Gas Turbines installed in one year	145
Operation – On-road vehicles	21
Total GHG	166
Significance Threshold	10,000
Exceed Significance?	NO

Table 4-12GHG Emissions from the Proposed Project

a. 1 metric ton = 2,205 pounds

b. GHGs from short-term construction activities are amortized over 30 years

As summarized in Table 4-12, GHG emissions from the installation of new SCR systems, and the replacement of SCR catalyst modules and existing stationary gas turbines were quantified by applying the same assumptions used to quantify the criteria pollutant emissions. The only exception is that the construction GHG emissions were amortized over a 30-year project life in accordance with the guidance provided in the Interim CEQA GHG Significance Threshold for Stationary Sources, Rules and Plans¹⁹ that was adopted by the SCAQMD Governing Board in December 2008.

Thus, as shown in Table 4-12, total GHG emissions are 166 metric tons per year, which is below the SCAQMD's GHG significance threshold for industrial sources. For this reason, implementing the proposed project is not expected to generate significant adverse cumulative GHG air quality impacts. Further, PAR 1134 is not expected to generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment or conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHG gases.

PROJECT-SPECIFIC IMPACTS – **CONCLUSION:** Based on the preceding analysis, the overall conclusion is that air quality and GHG impacts for the proposed project are less than significant during construction, during construction overlapping with operation, and during operation.

PROJECT-SPECIFIC MITIGATION MEASURES: The analysis indicates that air quality impacts during the construction and operational phase are less than significant. Additionally, there will be an overall reduction in NOx emissions during the operational phase of the proposed project. Thus, because there are no significant adverse air quality impacts as a result of the proposed project, no air quality mitigation measures are required.

REMAINING IMPACTS: The air quality analysis concluded that potential construction and operational air quality impacts would be less than significant, no mitigation measures were required, thus air quality impacts remain less than significant.

CUMULATIVE IMPACTS: The preceding analysis concluded that air quality impacts from construction and operational activities would be less than significant as a result of implementing the proposed project. Thus, the air quality impacts due to construction and operation are not considered to be cumulatively considerable pursuant to CEQA Guidelines section 15064 (h)(1) and therefore, there are no significant adverse cumulative air quality impacts. Further, it should be noted that the air quality analysis is a conservative, "worst case" analysis so the actual construction and operational impacts are not expected to be as great as estimated in this SEA. Additionally, the construction activities are temporary when compared to the permanent project long-term emission reductions of NOx as a result of the proposed project. Even though the proposed project will cause a temporary less than significant increase in air emissions during the construction and operation phase, the temporary net increase in construction emissions combined with the total permanent emission reductions projected overall during operation would not interfere with the expected overall NOx reductions as part of the proposed project. For example, an increase in NOx emissions during the construction and operation overlap period is expected to result in approximately 42 pounds of NOx per day as indicated in Table 4-10, however the proposed project is expected to result in NOx emission reductions of 2.8 tons per day (5,600 pounds per day) after implementation of BARCT limits. Further, as facilities complete

¹⁹ Interim CEQA GHG Significance Threshold for Stationary Sources, Rules and Plans, <u>http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/ghgattachmente.pdf?sfvrsn=2</u>

modifications to their existing stationary gas turbines to comply with PAR 1134, the incremental NOx emissions reductions that are expected to occur would offset the NOx emissions generated during construction. An example of facility NOx emission reductions after implementation of PAR 1134 can be found in Appendix F.

Also, implementing control measure CMB-05 contained in the 2016 AQMP, in addition to the air quality benefits of existing and proposed SCAQMD rules, is anticipated to bring the SCAQMD into attainment with all national and most state ambient air quality standards by the year 2023. Therefore, cumulative operational air quality impacts from the proposed project and previous amendments considered together, are not expected to be significant because implementation of the proposed project is expected to result in net emission reductions and overall air quality improvement. Therefore, there will be no significant cumulative adverse operational air quality impacts from implementing the proposed project.

Though the proposed project involves combustion processes which could generate GHG emissions such as CO2, CH4, and N2O, the proposed project does not affect equipment or operations that have the potential to emit other GHGs such as SF6, HFCs or PFCs. Relative to GHGs, implementing the proposed project is not expected to increase GHG emissions that exceed the SCAQMD's GHG significance threshold. In addition, implementing the proposed project is expected to generate less than significant adverse cumulative GHG air quality impacts. The GHG analysis for the proposed project can be found in Chapter 4.

HAZARDS AND HAZARDOUS MATERIALS IMPACTS

Significance Criteria

The impacts associated with hazards and hazardous materials will be considered significant if any of the following occur:

- Non-compliance with any applicable design code or regulation.
- Non-conformance to National Fire Protection Association standards.
- Non-conformance to regulations or generally accepted industry practices related to operating policy and procedures concerning the design, construction, security, leak detection, spill containment or fire protection.
- Exposure to hazardous chemicals in concentrations equal to or greater than the Emergency Response Planning Guideline (ERPG) 2 levels.

PROJECT-SPECIFIC IMPACTS - HAZARD ANALYSIS:

The hazards and hazardous materials analysis for the proposed project focuses on the transport, storage, and handling of aqueous ammonia used in the SCR system process. To minimize the hazards associated with using aqueous ammonia, it is the policy of the SCAQMD to require the use of 19 percent by volume aqueous ammonia in air pollution control equipment for the following reasons: 1) 19 percent aqueous ammonia does not travel as a dense gas like anhydrous ammonia; and 2) 19 percent aqueous ammonia is not on any acutely hazardous materials lists unlike anhydrous ammonia or aqueous ammonia at higher percentages. As such, SCAQMD staff does not typically issue permits for the use of anhydrous ammonia or aqueous ammonia in concentrations higher than 19 percent by volume for use in SCR systems. As a result, this analysis

focuses on the use of 19 percent by volume aqueous ammonia. The only exception to this assumption is the scenario analyzed under the "Ammonia Gas Release" subsection.

Ten facilities are located within 1,000 feet or one-quarter mile of a sensitive receptor, including individuals at hospitals, nursing facilities, daycare centers, schools, and elderly intensive care facilities, as well as residential and off-site occupational areas. Therefore, the potential for significant adverse impacts from hazardous emissions onsite or the handling of acutely hazardous materials, substances and wastes on sensitive receptors is expected from the proposed project as further explained in the following discussion.

The facilities affected by the proposed project are expected to be located within urbanized industrial or commercial/mixed use areas. Some are located within two miles of an airport as noted in Appendix D. Some sites affected by the proposed project may also be identified on lists compiled by the California DTSC per Government Code Section 65962.5. These sites are also identified in Appendix D. The proposed project is not expected to interfere with existing hazardous waste management programs since facilities that currently handle hazardous waste would be expected to continue to manage any and all hazardous materials and hazardous waste, in accordance with applicable federal, state, and local rules and regulations.

The analysis of hazard impacts can rely on information from past similar projects (i.e., installing new, or retrofitting existing equipment with an SCR system to comply with SCAQMD rules and regulations and installation of associated ammonia storage tanks) where the SCAQMD was the lead agency responsible for preparing an environmental analysis pursuant to CEQA. To the extent that future projects to install SCR and associated ammonia storage equipment conform to the ammonia hazard analysis in this SEA, no further hazard analysis may be necessary. If site-specific characteristics are involved with future SCR projects that are outside the scope of this analysis, further ammonia hazards analysis may be warranted.

The onsite storage and handling of the ammonia creates the possibility of an accidental spill and release of aqueous ammonia, which could evaporate and present a potential offsite public and sensitive receptor exposure. Since ammonia is not typically considered to be a flammable compound, other types of heat-related hazard impacts such as fires, explosions, boiling liquid – expanding vapor explosion (BLEVE) are not expected to occur and, therefore, will not be evaluated as part of this hazards analysis. To further evaluate the potential for significant adverse environmental impacts due to an accidental release of aqueous ammonia, various scenarios were evaluated that could occur during the onsite storage, transportation, and transfer of ammonia. These scenarios and their consequences are discussed in detail below.

Hazard Safety Regulations

In spite of implementing modifications to comply with the proposed project, operators of each affected facility must comply or continue to comply with various regulations, including OSHA regulations (29 CFR Part 1910) that require the preparation of a fire prevention plan, and 20 CFR Part 1910 and CCR Title 8 that require prevention programs to protect workers who handle toxic, flammable, reactive, or explosive materials. In addition, Section 112 (r) of the Federal Clean Air Act Amendments of 1990 [42 USC 7401 et. Seq.] and Article 2, Chapter 6.95 of the California Health and Safety Code require facilities that handle listed regulated substances to develop RMPs to prevent accidental releases of these substances. If any of the affected facilities has already prepared an RMP, it may need to be revised to incorporate the changes associated with the

proposed project. The Hazardous Materials Transportation Act is the federal legislation that regulates transportation of hazardous materials.

Because operators of affected facilities are required to comply with all applicable design codes and regulations, conform to National Fire Protection Association standards, and conform to policies and procedures concerning leak detection containment and fire protection, no significant adverse compliance impacts are expected.

Impacts on Water Quality

A spill of any hazardous material such as aqueous ammonia that is used and stored at any of the affected facilities could occur under upset conditions such as an earthquake, tank rupture, or tank overflow. Spills could also occur from corrosion of containers, piping and process equipment; and leaks from seals or gaskets at pumps and flanges. A major earthquake would be a potential cause of a large spill. Other causes could include human or mechanical error. Construction of the vessels and foundations in accordance with the Uniform Building Code Zone 4 requirements helps structures to resist major earthquakes without collapse, but may result in some structural and non-structural damage following a major earthquake. Any facility with storage tanks on-site are currently required to have emergency spill containment equipment and would implement spill containment such as a berm which would be capable of containing 110 percent of the contents of the storage tanks. Therefore, should a rupture occur, the contents of the tank would be collected within the containment system and pumped to an appropriate storage tank.

Spills at the affected facilities would generally be collected within containment areas. Large spills outside of containment areas at the affected facilities are expected to be captured by the process water system where they could be collected and controlled. Spilled material would be collected and pumped to an appropriate tank or sent off-site if the materials cannot be used on-site. Because of the containment system design, spills are not expected to migrate from the spill site and as such, potential adverse water quality hazard impacts are considered to be less than significant.

Transportation Release

It is expected that the affected facilities utilizing SCR technology will receive ammonia from a local ammonia supplier located in the greater Los Angeles area. Deliveries of aqueous ammonia would be made by tanker truck via public roads. The maximum capacity of an ammonia tanker truck is approximately 6,400 gallons. The estimated ammonia use and storage needed to meet the NOx emission limits for PAR 1134 are shown in Appendix E. The "worst-case" assumption for delivery frequency from a supplier would be to deliver one ammonia tanker truck to fill one 5,000-gallon tank of ammonia at a facility (Facility A). When comparing the proposed project to what was analyzed in the following Transportation Release Scenarios, the "worst-case" for PAR 1134 would actually result in fewer deliveries of ammonia on any given day resulting in less impacts than Scenario 1 and a smaller volume of ammonia resulting in less impacts than Scenario 2. For both scenarios, the potential impacts from transportation release are expected to be less than significant. Thus, the potential impacts from a transportation release as a result of PAR 1134 would also be less than significant. Regulations for the transport of hazardous materials by public highway are described in 49 CFR Sections 173 and 177.

Transportation Release Scenario 1:

To evaluate the hazard impacts from an accidental release of ammonia during ammonia transport, this analysis uses as a surrogate the project at the ConocoPhillips Carson Refinery in which SCR system was installed on boiler #10 and an associated 10,000 gallon ammonia storage tank was constructed (Final Negative Declaration for: ConocoPhillips Los Angeles Refinery Carson Plant SCR Unit Project, SCH. No. 2004011066, SCAQMD 2004). This project required approximately six additional ammonia truck transport trips per month. Although truck transport of aqueous ammonia and other hazardous materials is regulated for safety by the U.S. Department of Transportation, there is a possibility that a tanker truck could be involved in an accident that would cause its contents to spill. The factors that enter into accident statistics include distance traveled and type of vehicle or transportation system. Factors affecting automobiles and truck transportation accidents include the type of roadway, presence of road hazards, vehicle type, maintenance and physical condition, driver training, and weather. A common reference frequently used in measuring risk of an accident is the number of accidents per million miles traveled. Complicating the assessment of risk is the fact that some accidents can cause significant damage without injury or fatality.

Every time hazardous materials are moved from the site of generation, opportunities are provided for an accidental (unintentional) release. A study conducted by the EPA indicates that the expected number of hazardous materials spills per mile shipped ranges from one in 100 million to one in one million, depending on the type of road and transport vehicle used. The U.S. EPA analyzed accident and traffic volume data from New Jersey, California, and Texas, using the Resource Conservation and Recovery Act Risk/Cost Analysis Model and calculated the accident involvement rates presented in Table 4-14. This information was summarized from the Los Angeles County Hazardous Waste Management Plan (Los Angeles County, 1988).

In the study completed by the U.S. EPA, cylinders, cans, glass, plastic, fiber boxes, tanks, metal drum/parts, and open metal containers were identified as usual container types. For each container type, the expected fractional release en route was calculated. The study concluded that the release rate for tank trucks is much lower than for any other container type (Los Angeles County, 1988).

Truck Accident Rates for Cargo on Highways			
Highway Type	Accidents Per 1,000,000 miles		
Interstate	0.13		
U.S. and State Highways	0.45		
Urban Roadways	0.73		
Composite*	0.28		

Table 4-13Truck Accident Rates for Cargo on Highways

Source: Environmental Protection Agency, 1984.

*Note: Average number for transport on interstates, highways, and urban roadways.

The accident rates developed based on transportation in California were used to predict the accident rate associated with trucks transporting aqueous ammonia to the facility. Assuming an average truck accident rate of 0.28 accidents per million miles traveled (Los Angeles County, 1988), the estimated accident rate associated with transporting aqueous ammonia for the ConocoPhillips project is 0.00101, or about one accident every 992 years.

The actual occurrence of an accidental release of a hazardous material cannot be predicted. The location of an accident or whether sensitive populations would be present in the immediate vicinity also cannot be identified. In general, the shortest and most direct route that takes the least amount

of time would have the least risk of an accident. Hazardous material transporters do not routinely avoid populated areas along their routes, although they generally use approved truck routes that take population densities and sensitive populations into account.

The hazards associated with the transport of regulated hazardous materials (CCR Title 19, Division 2, Chapter 4.5 or the California Accidental Release Prevention Program requirements), including aqueous ammonia, would include the potential exposure of numerous individuals in the event of an accident that would lead to a spill. Factors such as amount transported, wind speed, ambient temperatures, route traveled, distance to sensitive receptors are considered when determining the consequence of a hazardous material spill.

In the unlikely event that the tanker truck would rupture and release the entire 7,000 gallons of aqueous ammonia, the ammonia solution would have to pool and spread out over a flat surface in order to create sufficient evaporation to produce a significant vapor cloud. For a road accident, the roads are usually graded and channeled to prevent water accumulation and a spill would be channeled to a low spot or drainage system, which would limit the surface area of the spill and the subsequent evaporative emissions. Additionally, the roadside surfaces may not be paved and may absorb some of the spill. In a typical release scenario, because of the characteristics of most roadways, the pooling effect on an impervious surface would not typically occur. As a result, the spilled ammonia would not be expected to evaporate into a toxic cloud at concentrations that could significantly adversely affect residences or other sensitive receptors in the area of the spill.

Based on the low probability of an ammonia tanker truck accident with a major release and the potential for exposure to low concentrations, if any, the conclusion of this analysis is that potential impacts due to accidental release of ammonia during this transportation scenario are less than significant.

Transportation Release Scenario 2:

This transportation release scenario uses as a surrogate analysis a project at the BP Carson refinery in which SCR system was retrofitted onto an existing fluid catalytic cracking unit (FCCU) and an associated 12,660 gallon ammonia storage tank was constructed (Final Negative Declaration for: BP Carson Refinery Fluid Catalytic Cracking Unit NOx Reduction Project: SCH No. 2002021068; SCAQMD, 2002). The following summarizes the ammonia transport analysis for the BP Carson Refinery FCCU project.

The temperature of the ammonia released was estimated as follows. For a delivery truck traveling from a non-desert area and taking into consideration the convective heat transfer from the tanker as it travels at highway speeds, the bulk temperature should be typical of the originating location (July average temperatures for Los Angeles, with no convective heat losses, would typically be 69 degrees Fahrenheit (°F)). To be conservative for purpose of this analysis, the tanker bulk temperature was assumed to be 77 °F.

The proposed project was estimated to require approximately 35 tanker truck deliveries of aqueous ammonia during the first year of operation (two deliveries after construction to fill the tank plus one delivery every 11 days to replenish the tank during operations). Truck accident rates are approximately one in 8.7-million miles (ENSR, 1994). Based upon the projected 35 ammonia deliveries the first year, and a distance of 30 miles from the supplier to the facility, the number of truck-miles associated with the transport of aqueous ammonia is 1,050 truck-miles per year. The expected number of truck accidents associated with the proposed BP Carson project is therefore approximately once every 8,300 years. The likelihood of any release in a transportation accident

is 1 in 10, and that of a large release in a transportation accident is 1 in 40 (ENSR, 1994). The likelihood of a major transportation release after the project is constructed is therefore approximately once per 330,000 years (8,300 times 40). The probability of a transportation accident that would pose a significant risk to the public is therefore insignificant.

In the unlikely event that a major release occurred during a tanker truck accident, the ammonia solution would have to pool and spread out over a flat surface in order to create sufficient evaporation to produce a significant vapor cloud. Roads are usually graded and channeled to prevent water accumulation, and a spill would be channeled to a low spot or drainage system, which would limit the surface area of the spill and the subsequent toxic emissions. Additionally, the roadside surfaces may not be paved and may absorb some of the spill. Without this pooling effect on an impervious surface, the spilled ammonia would not evaporate into a toxic cloud and impact residences or other sensitive receptors in the area of the spill. Therefore, potential impacts due to accidental release of ammonia during this transportation scenario are less than significant.

Ammonia Tank Rupture

To analyze the effects of aqueous ammonia as a result of an accidental release due to tank rupture, a Consequence Analysis using the EPA RMP*Comp (Version 1.07) is typically performed. SCAQMD staff estimated that the largest aqueous ammonia tank that would be installed as a result of implementing PAR 1134 would be 5,000 gallons at one facility. The facilities that were identified as installing SCR systems and the associated ammonia storage tanks were estimated to need storage tanks with a capacity from 250 to 5,000 gallons. Nine facilities were assumed to install one new SCR system and one new ammonia storage tank each. Of these nine facilities, eight are located within one-quarter mile of sensitive receptors. As summarized in Table 4-14, one facility would require the installation of four new SCR systems, five facilities would require the installation of two new SCR systems at each facility, and the remainder would only install one new SCR system per facility. The analysis assumed that each facility would install one large aqueous ammonia storage tank with enough capacity to service all of their new SCR systems.

Number of New SCR Systems and Affected Facilities				
	Number of SCR Systems	Number of		
	to be Installed at Each	Affected Facilities		
	Facility			
	4	1		
	2	5		
	1	3		
Total	17	9		

Table 4-14	
Number of New SCR Systems and Affected Facilities	

Although it is SCAQMD policy to reduce potential hazards associated with ammonia by requiring a permit condition that limits the aqueous ammonia concentration to 19 percent, the CalARP model only has the capability of evaluating the hazard potential of 20 percent aqueous ammonia. Therefore, the potential adverse impacts from aqueous ammonia were evaluated based on the 20 percent aqueous ammonia. Further, since it is assumed that an aqueous ammonia tank servicing one or more SCR systems would need to be relatively near to the existing equipment, the toxic endpoint for aqueous ammonia from a catastrophic failure of a storage tank would significantly adversely affect the sensitive receptors within 0.1 mile of the existing equipment.

A hazard analysis is dependent on knowing the exact location of the hazard within the site (e.g., location of the ammonia storage tank(s)), meteorological conditions, location of the receptor, et cetera, a site-specific hazard analysis is difficult to conduct without this information. Since SCAQMD staff does not currently know the exact location of the ammonia storage tanks that would be installed in the future, to estimate a worst-case analysis, the following assumptions were made:

- Location of tanks: Edge of property line, near (i.e., less than ¼-mile) existing residences or sensitive receptors
- Liquid Temperature: 77 °F
- Mitigation Measures: None

Appendix E shows the estimated distance to the toxic endpoint for each facility using the estimated tank size needed for enough aqueous ammonia to reduce the facility's emissions to the NOx limits. The largest tank expected to be installed at a facility is 5,000 gallons. However, the tank can only hold about 67% of its capacity at any one time which in this case is 3,350 gallons of aqueous ammonia. Facility A is expected to need one 5,000 gallon tank which will be sited adjacent to a sensitive receptor; Facility A is considered to be the "worst case" for determining offsite consequence in the event of an ammonia release. It is important to note that there are facilities that have existing ammonia storage tanks larger than 5,000 gallons; however, since these tanks are existing, there is no increase in the amount of ammonia that will be stored at the facility at any one time. Eight facilities have sensitive receptors that are located directly across or adjacent to the facilities within the toxic endpoint distance; thus, the hazards and hazardous materials impacts due to tank rupture will be potentially significant. In addition, if mitigation measures (e.g., a secondary containment (dikes and/or berms), installation of grating-covered trench around the perimeter, and tertiary containment) were to occur, the toxic endpoint distance for some facilities would be less than 0.1 miles or 528 feet and the hazards and hazardous materials impacts would continue to be potentially significant due to the vicinity of the sensitive receptors relative to the location of the affected equipment. Therefore, the proposed project has the potential to generate significant adverse hazard impacts as a result of the potential for accidental releases of aqueous ammonia.

If significant adverse environmental impacts are identified in a CEQA document, the CEQA document shall describe feasible measures that could minimize the impacts of the proposed project.

PROJECT-SPECIFIC IMPACTS – **CONCLUSION:** Based on the preceding description of hazards and hazardous materials impacts, the proposed project is not expected to generate significant adverse impacts related to the transport of ammonia. However, because the affected facilities are located within ¹/₄-mile of a sensitive receptor, implementation of the proposed project is expected to generate significant adverse impacts related to the potential for a rupture of an aqueous ammonia storage tank. The overall conclusion is that hazards and hazardous materials impacts for the proposed project are significant.

PROJECT-SPECIFIC MITIGATION MEASURES: Facilities retrofitting units with SCR systems and the accompanying ammonia storage tank will need to submit permit applications to modify their equipment. Thus, SCAQMD staff will conduct a CEQA evaluation of the facility-specific project to determine if the project is covered by the analysis in this <u>Revised Draft Final</u> SEA. If significant adverse environmental impacts are identified in a CEQA document, the CEQA

document shall describe feasible measures that could minimize the significant adverse impacts (CEQA Guidelines Section 15126.4). Therefore, feasible mitigation measures to reduce the risk of an offsite consequence to nearby sensitive receptors are necessary.

The following mitigation measures are required for any facility whose operators choose to install a new aqueous ammonia storage tank and the offsite consequence analysis indicates that sensitive receptors will be located within the toxic endpoint distance. In addition, these mitigation measures will be included in a mitigation monitoring and reporting plan as part of issuing SCAQMD permits to construct for the facility-specific project. These mitigation measures will be enforceable by SCAQMD personnel.

HZ-1 Require the use of aqueous ammonia at concentrations less than 20 percent by volume.

HZ-2 Install safety devices, including but not limited to: continuous tank level monitors (e.g., high and low level), temperature and pressure monitors, leak monitoring and detection system, alarms, check valves, and emergency block valves.

HZ-3 Install secondary containment such as dikes and/or berms to capture 110 percent of the storage tank volume in the event of a spill.

HZ-4 Install a grating-covered trench around the perimeter of the delivery bay to passively contain potential spills from the tanker truck during the transfer of aqueous ammonia from the delivery truck to the storage tank.

HZ-5 Equip the truck loading/unloading area with an underground gravity drain that flows to a large on-site retention basin to provide sufficient ammonia dilution to minimize the offsite hazards impacts to the maximum extent feasible to the extent that no hazards impact is possible in the event of an accidental release during transfer of aqueous ammonia.

HZ-6 Install tertiary containment that is capable of evacuating 110 percent of the storage tank volume from the secondary containment area.

Implementing Mitigation Measures HZ-1 through HZ-6 would be expected to prevent a catastrophic release of ammonia from leaving the facility property and exposing offsite sensitive receptors; however, as an abundance of caution, due to the anticipated number of affected facilities and without detailed information specific to each facility's layout and plan of action for compliance, the overall conclusion is that hazards and hazardous materials impacts for the proposed project are significant.

REMAINING IMPACTS: Although the aforementioned mitigation measures, if employed, would reduce the hazards and hazardous materials impacts from aqueous ammonia, they are not expected to reduce impacts to less than significant. Therefore, the remaining hazardous and hazardous materials impacts from exposure to the ERPG 2 level of 0.14 mg/l of aqueous ammonia due to tank rupture are considered to be significant after mitigation.

CUMULATIVE IMPACTS: As noted in previous discussions, the accidental release of aqueous ammonia during transport is not expected to result in exposures to ammonia exceeding the ERPG 2 level. However, because the sensitive receptors are closer than 0.1 mile for several facilities, an accidental release of ammonia onsite, either during unloading from a truck or an accidental release

in the event of storage tank failure is considered significant. Mitigation measures were identified, but it was concluded that they could not reduce hazard impacts from project-specific releases of ammonia to less than significant.

Adverse impacts from an accidental release of aqueous ammonia are localized impacts (i.e., the impacts are isolated to the area around the affected facility). However, to the extent that affected facilities are located near other facilities that have hazardous materials risks, the cumulative adverse hazard impacts from this project could contribute to existing nearby hazard risks from other projects. Therefore, cumulative hazard risks from implementing the proposed project are considered to be significant.

CUMULATIVE IMPACT MITIGATION: Because the project-specific hazards and hazardous materials impacts are considered to be cumulatively considerable for ammonia storage, cumulative mitigation measures for hazards and hazardous materials impacts for ammonia storage are required. However, since no mitigation measures have been identified over and above the extensive safety regulations that currently apply to the storage of ammonia, no feasible cumulative mitigation measures for ammonia storage have been identified that would reduce cumulative impacts from hazards and hazardous materials to less than significant. Therefore, cumulative hazards and hazardous materials impacts remain significant; however, because no additional mitigation measures were identified no cumulative mitigation measures for hazards and hazardous materials impacts remain significant; however, because no additional mitigation measures were identified no cumulative mitigation measures for hazards and hazardous materials impacts for ammonia use and storage are required.

CUMULATIVE ENVIRONMENTAL IMPACTS

CEQA Guidelines Section 15130(a) requires a discussion of cumulative impacts if a project may have an effect that is potentially cumulatively considerable, as defined in CEQA Guidelines Section 15065(a)(3). The preceding analysis concluded there are no cumulative secondary impacts associated with the NOx emissions limits and compliance dates as contained in PAR 1134. Further, upon completion of construction at all affected facilities, the net effect of the proposed project will result in overall emission reductions of NOx. In addition, any construction as part of the proposed project will be temporary (for approximately one to four years) and the overall NOx emissions will be reduced during the construction and operation overlap. For example, an increase in NOx emissions during the construction and operation overlap period is expected to result in approximately 42 pounds of NOx per day as indicated in Table 4-10, however the proposed project is expected to result in NOx emission reductions of 2.8 tons per day (5,600 pounds per day) after implementation of BARCT limits. Further, as facilities complete modifications to their existing stationary gas turbines to comply with PAR 1134, the incremental NOx emissions reductions that are expected to occur would offset the NOx emissions generated during construction. To achieve NOx emission reductions in the proposed project, new SCR systems or replacement SCR systems and replacement stationary gas turbines with dry low NOx technology would need to be constructed and ammonia usage would need to be increased. Further, no exceedances of the SCAQMD's air quality significance thresholds for any pollutant are expected to occur either during construction, during construction with overlapping operational impacts, or during operation after all construction is completed. Any temporary emission increases in NOx during construction will not interfere with the air quality progress and attainment demonstration projected in the 2016 AQMP. Based on regional modeling analyses performed for the 2016 AQMP, implementing control measures contained in the 2016 AQMP, in addition to the air quality benefits of the existing rules, is anticipated to bring the District into attainment with all national and most state ambient air quality standards. In particular, the federal annual PM2.5 standards are predicted to be achieved in 2023 with implementation of the proposed ozone strategy and the California annual PM2.5 standard will be achieved in 2025. The 2016 AQMP is also expected to achieve the ozone 8-hour standard by 2023.

Per CEQA Guidelines Section 15130(e), previously approved land use documents, including, but not limited to, general plans, specific plants, regional transportation plans, plans for the reduction of greenhouse gas emissions, and local coastal plans may be used in a cumulative impact analysis. A pertinent discussion of cumulative impacts contained in one or more previously certified EIRs may be incorporated by reference pursuant to the provisions for tiering and program EIRs. No further cumulative impacts analysis is required when a project is consistent with a general, specific, master, or comparable programmatic plan where the lead agency determines that the regional or areawide cumulative impacts of the proposed project have already been adequately addressed, as defined in CEQA Guidelines Section 15152(f), in a certified EIR for that plan. Further, if a cumulative impact was adequately addressed in a prior EIR for a community plan, zoning action, or general plan, and the project is consistent with that plan or action, then an EIR for such a project should not further analyze that cumulative impact, as provided in CEQA Guidelines Section 15183(j).

Full implementation of the proposed project would achieve NOx emission reductions capable of offsetting the construction NOx emissions. As facilities implement modifications to retrofit existing stationary gas turbines with new air pollution control equipment (e.g. SCR technology/systems installation), modify existing SCR systems, or repower or replace existing stationary gas turbines, emissions from construction are expected to occur. However, as RECLAIM facilities transition their existing stationary gas turbines to achieve BARCT emission levels over the 4-year compliance period, some facilities will have completed construction, which will create incremental NOx emission reductions, an air quality benefit. Upon completion of construction at all affected facilities, an overall benefit to operational air quality will occur due to the project's overall NOx emission reductions. Specifically, as facilities modify, repower, or replace equipment, a single facility may reduce their NOx emissions between 12 pounds per day and 1,000 pounds per day, as illustrated in Appendix F. Thus, when multiple facilities transition their equipment to comply with PAR 1134, the expected NOx emissions reductions will be permanent and cumulatively a larger quantity relative to the temporary NOx emission increases generated during construction. Also, implementation of other control measures in the 2016 AQMP will provide human health benefits by reducing population exposures to existing NOx emissions. Therefore, cumulative air quality impacts from the proposed project, previous amendments, and all other AQMP control measures considered together, are not expected to be significant because implementation of all 2016 AQMP control measures is expected to result in net emission reductions and overall air quality improvement. This determination is consistent with the conclusion in the 2016 AQMP Final Program EIR that cumulative air quality impacts from all AQMP control measures are not expected to be significant. Therefore, there will be no significant cumulative adverse air quality impacts from implementing the proposed project.

In addition, there is a potential for creating significant adverse hazards and hazardous materials impacts from the catastrophic failure of an ammonia storage tank, which has been based on the toxic endpoint (using EPA RMP*Comp) and the proximity of affected facilities to nearby sensitive receptors. Because the project-specific hazards and hazardous materials impacts for ammonia deliveries would potentially create significant impacts, they are considered to be cumulatively considerable pursuant to CEQA Guidelines Section15064 (h)(1) and therefore, generate significant adverse cumulative hazards and hazardous materials impacts. However, for ammonia use and

storage, the project-specific hazards and hazardous materials impacts do not exceed any applicable significance thresholds; thus, they are not considered to be cumulatively considerable pursuant to CEQA Guidelines Section 15064(h)(1) and therefore, do not generate significant adverse cumulative hazards and hazardous materials impacts.

POTENTIAL ENVIRONMENTAL IMPACTS FOUND NOT TO BE SIGNIFICANT

Because this SEA is a subsequent CEQA document to the March 2017 Final Program EIR for the 2016 AQMP, this SEA relies on the conclusions reached in that document as evidence for environmental areas where impacts were found not to be significant. The previous CEQA document reviewed approximately 17 environmental topic areas and analyzed whether the respective project would create potentially significant adverse impacts. The March 2017 Final Program EIR for the 2016 AQMP concluded that significant and unavoidable adverse environmental impacts from the project are expected to occur after implementing mitigation measures for the following environmental topic areas: 1) aesthetics from increased glare and from the construction and operation of catenary lines and use of bonnet technology for ships; 2) construction air quality and GHGs; 3) energy (due to increased electricity demand); 4) hazards and hazardous materials due to: (a) increased flammability of solvents; (b) storage, accidental release and transportation of ammonia; (c) storage and transportation of liquefied natural gas (LNG); and (d) proximity to schools; 5) hydrology (water demand); 6) construction noise and vibration; 7) solid construction waste and operational waste from vehicle and equipment scrapping; and, 8) transportation and traffic during construction and during operation on roadways with catenary lines and at the harbors. It is important to note, however, that for these environmental topic areas, not all of the conclusions of significance are applicable to this currently proposed project, PAR 1134. Table 4-16 summarizes the eight significant and unavoidable adverse environmental impacts identified in the March 2017 Final Program EIR and identifies which apply to the proposed project.

Table 4-15					
Applicability of Significant Impacts in March 2017 Final Program EIR to Proposed					
Project					

		Project
CONCLUSION OF SIGNIFICANT IMPACTS IN MARCH 2017 FINAL PROGRAM EIR	APPLICABLE TO/SIGNIFICANT FOR THE PROPOSED PROJECT?	EXPLANATION
Aesthetics from increased glare and from the construction and operation of catenary lines and use of bonnet technology for ships	No	This environmental topic area is not applicable to PAR 1134 because neither catenary lines nor the use of bonnet technology for ships are applicable to stationary gas turbines and the corresponding NOx emission controls (e.g., SCR technology). Therefore, this conclusion is not applicable to the proposed project.
Construction air quality and GHGs	No	These environmental topic areas are applicable to the proposed project. The impacts for these environmental topics areas are analyzed in this SEA (see pp. 4-3 to 4-18 for construction air quality and GHGs), and the analysis concluded less than significant impacts.
Energy due to increased electricity demand	No	While the use of SCR technology will require some electricity to operate, the amount of electricity that would be needed to install SCR technology for PAR 1134 would be less than significant.
Hazards and hazardous materials due the increased flammability of solvents	No	Stationary gas turbines and the corresponding NOx emission controls (e.g. SCR technology) do not utilize solvents for their operation. Therefore, this conclusion is not applicable to the proposed project.
Hazards and hazardous materials due to the storage, accidental release and transportation of ammonia	Yes	This environmental topic area is applicable to the proposed project because SCR technology utilizes ammonia. The impacts for this environmental topic area are analyzed in this SEA (see pp. 4-19 to 4-27). The analysis concluded significant impacts for the storage and accidental release of ammonia and less than significant impacts for the transportation of ammonia.
Hazards and hazardous materials due to the storage and transportation of LNG	No	Stationary gas turbines and the corresponding NOx emission controls (e.g. SCRs) do not utilize LNG for their operation. Therefore, this conclusion is not applicable to the proposed project.
Hazards and hazardous materials due to proximity to schools	Yes	This conclusion is applicable to the proposed project because some of the affected facilities that will install new SCR systems are located near schools. The impacts for this environmental topic area are analyzed in this SEA (see pp. 4-19 to 4-27).

Table 4-15
Applicability of Significant Impacts in March 2017 Final Program EIR to Proposed Project
(concluded)

CONCLUSION OF SIGNIFICANT IMPACTS IN MARCH 2017 FINAL PROGRAM EIR	APPLICABLE TO/SIGNIFICANT FOR THE PROPOSED PROJECT?	EXPLANATION
Hydrology (water demand)	No	Stationary gas turbines and the corresponding NOx emission controls (e.g. SCR technology) do not utilize water for their operation. Therefore, this conclusion is not applicable to the proposed project.
Construction noise and vibration	No	While the construction activities associated with installing new SCR technology for affected stationary gas turbines may create some noise and vibration, the existing noise environment at each facility is typically dominated by noise from existing equipment on-site, vehicular traffic around the facilities, and trucks entering and existing facility premises. Operation of the construction equipment would be expected to comply with all existing noise control laws and ordinances. Further, since the facilities are located in industrial or commercial land use areas, the noise generated during construction will likely be indistinguishable from the background noise levels at the property line. Therefore, the potential noise increases are expected to be within the allowable noise levels established by the local noise ordinances for industrial areas, and thus are expected to be less than significant.
Solid construction waste and operational waste from vehicle and equipment scrapping	No	Vehicle scrapping is not applicable to stationary gas turbines and the corresponding NOx emission controls (e.g. SCR technology). Therefore, this conclusion is not applicable to the proposed project.
Transportation and traffic during construction and during operation on roadways with catenary lines and at the harbors	No	Catenary lines and the associated transportation and traffic impacts on roadways and at the harbors are not applicable to stationary gas turbines and the corresponding NOx emission controls (e.g. SCR technology). Therefore, this conclusion is not applicable to the proposed project.

PAR 1134 is expected to have: 1) significant effects that were not discussed in the previous March 2017 Final Program EIR for the 2016 AQMP (CEQA Guidelines Section 15162(a)(3)(A)); and 2) significant effects that were previously examined that will be substantially more severe than what was discussed in the March 2017 Final Program EIR for the 2016 AQMP (CEQA Guidelines Section 15162(a)(3)(B)).

By preparing a SEA for the proposed project, since the topics of air quality and hazards and hazardous materials are the only environmental topic areas that would be affected by PAR 1134

no other environmental topic areas have been evaluated in this SEA. Thus, the conclusions reached in this <u>Revised DraftFinal</u> SEA are consistent with the conclusions reached in the previously certified CEQA document (e.g. the March 2017 Final Program EIR for the 2016 AQMP) that aside from the topics air quality during construction and of hazards and hazardous materials, there would be no other significant adverse effects from the implementation of the proposed project. Thus, the proposed project would have no significant or less than significant direct or indirect adverse effects on the following environmental topic areas:

- aesthetics
- air quality <u>and greenhouse gases</u>
- agriculture and forestry resources
- biological resources
- cultural resources
- energy
- geology and soils
- hydrology and water quality
- land use and planning
- mineral resources
- noise
- population and housing
- public services
- recreation
- solid and hazardous waste
- transportation and traffic

The March 2017 Final Program EIR for the 2016 AQMP can be found using the links referenced in Chapter 2.

SIGNIFICANT ENVIRONMENTAL EFFECTS WHICH CANNOT BE AVOIDED

CEQA Guidelines Section 15126(b) requires an environmental analysis to consider "any significant environmental effects which cannot be avoided if the proposed project is implemented." This SEA identified the topic of hazards and hazardous materials as the only environmental topic area having potentially significant adverse environmental affects if the proposed project is implemented.

SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES

CEQA Guidelines Section 15126(c) requires an environmental analysis to consider "any significant irreversible environmental changes which would be involved if the proposed action should be implemented." This SEA identified the topic of hazards and hazardous materials as the only environmental area with potentially significant adverse impacts if the proposed project is implemented. Significant adverse impacts to hazards and hazardous materials from the storage and use of ammonia cannot be mitigated to less than significant levels; thus, they may be considered irreversible because facility operators that install new SCRs for reducing NOx emissions are likely to operate these systems for the lifetime of the equipment.

POTENTIAL GROWTH-INDUCING IMPACTS

CEQA Guidelines Section 15126(d) requires an environmental analysis to consider the "growthinducing impact of the proposed action." Implementing the proposed project will not, by itself, have any direct or indirect growth-inducing impacts on businesses in the SCAQMD's jurisdiction because it is not expected to foster economic or population growth or the construction of additional housing and primarily affects existing facilities.

RELATIONSHIP BETWEEN SHORT-TERM AND LONG-TERM ENVIRONMENTAL GOALS

CEQA documents are required to explain and make findings about the relationship between shortterm uses and long-term productivity. (CEQA Guidelines Section 15065(a)(2).) An important consideration when analyzing the effects of a proposed project is whether it will result in short-term environmental benefits to the detriment of achieving long-term goals or maximizing productivity of these resources. Implementing the proposed project is not expected to achieve short-term goals at the expense of long-term environmental productivity or goal achievement. PAR 1134 will transition stationary gas turbines at RECLAIM facilities to a command-and-control regulatory structure. The primary objective of this project is to ensure RECLAIM and non-RECLAIM stationary gas turbines that are not subject to SCAQMD Rule 1135 or located at petroleum refineries, landfills, or publicly owned treatment works meet NOx emission limits and BARCT level equivalency. PAR 1134 implements control measure CMB-05 from the 2016 AQMP. NOx, is a precursor to the formation of ozone and PM2.5, so even if the proposed project is implemented and there will be some NOx emissions during construction and operation, there will also be an overall NOx emissions reduction occurring after implementation of the BARCT limits and these will continue to help attain federal and state air quality standards which are expected to enhance short- and long-term environmental productivity in the region. Implementing the proposed project does not narrow the range of beneficial uses of the environment. Of the potential environmental impacts discussed in Chapter 4, only those related to hazards and hazardous materials for ammonia storage are concluded to have potentially significant adverse effects.

ALTERNATIVES

Introduction

Methodology for Developing Project Alternatives

Description of Alternatives

Comparison of Alternatives

Alternatives Rejected as Infeasible

Lowest Toxic Alternative

Environmentally Superior Alternative

Conclusion

INTRODUCTION

This SEA provides a discussion of alternatives to the proposed project as required by CEQA. Alternatives include measures for attaining objectives of the proposed project and provide a means for evaluating the comparative merits of each alternative. A 'no project' alternative must also be evaluated. The range of alternatives must be sufficient to permit a reasoned choice, but need not include every conceivable project alternative. CEQA Guidelines Section 15126.6(c) specifically notes that the range of alternatives required in a CEQA document is governed by a 'rule of reason' and only necessitates that the CEQA document set forth those alternatives necessary to permit a reasoned choice. The key issue is whether the selection and discussion of alternatives fosters informed decision making and meaningful public participation. A CEQA document need not consider an alternative whose effect cannot be reasonably ascertained and whose implementation is remote and speculative. SCAQMD Rule 110 (the rule which implements the SCAQMD's certified regulatory program) does not impose any greater requirements for a discussion of project alternatives in a SEA than is required for an EIR under CEQA.

METHODOLOGY FOR DEVELOPING PROJECT ALTERNATIVES

The alternatives typically included in CEQA documents for proposed SCAQMD rules, regulations, or plans are developed by breaking down the project into distinct components (e.g., emission limits, compliance dates, applicability, exemptions, pollutant control strategies, etc.) and varying the specifics of one or more of the components. Different compliance approaches that generally achieve the objectives of the project may also be considered as project alternatives.

Alternatives to the proposed project were crafted by varying the timing of compliance. Of the amendments proposed to Rule 1134, only the components that pertain to complying with the NOx emission limits could entail physical modifications to the affected equipment and that these physical modifications could create adverse environmental impacts. As such, in addition to the no project alternative, two alternatives were developed by modifying compliance deadlines of the proposed project, which effect the manner and timing in which compliance with the NOx emission limits may be achieved.

Typically for projects with potentially significant adverse environmental impacts, the existing setting is established at the time the Notice of Preparation/Initial Study (NOP/IS) is circulated for public review. However, as previously explained, the proposed project is a subsequent CEQA document to the previously approved project that was analyzed in the March 2017 Final Program EIR for the 2016 AQMP.

The March 2017 Final Program EIR for the 2016 AQMP concluded that the overall implementation of CMB-05 has the potential to generate adverse environmental impacts to seven topic areas – air quality, energy, hazards and hazardous materials, hydrology and water quality, noise, solid and hazardous waste and transportation.

CEQA Guidelines Section 15125(a) recognizes that a baseline may be established at times other than when the NOP/IS is circulated to the public by stating (emphasis added), "This environmental setting *will normally* constitute the baseline physical conditions by which a lead agency determines whether an impact is significant." Chapter 3 summarizes the existing setting/baseline for control measure CMB-05 from the 2016 AQMP as well as the current version of Rule 1134.

DESCRIPTION OF ALTERNATIVES

The evaluation of the components that comprise PAR 1134 indicate that only the installation of new ammonia storage tanks to support the installation of new SCR systems in order to comply with the proposed NOx emission limits could result in potentially significant adverse hazards and hazardous materials impacts for ammonia storage and use. In particular, for each affected facility that was identified as having the potential to install one new ammonia storage tank, an analysis to determine the potential for an offsite consequence in the event of a release of ammonia was conducted using EPA RMP*Comp (see Appendix D - List of Affected Facilities and see Chapter 4 for the analysis). The analysis indicated that a catastrophic failure of an aqueous ammonia storage tank would cause a significant adverse hazards and hazardous materials impact to nearby sensitive receptors located within 0.1 mile of the storage tank (e.g., the toxic endpoint distance).

The evaluation also indicates that implementation of PAR 1134 will result in facility owners/operations making physical modifications to affected equipment and these activities will cause adverse, but less than significant, impacts to air quality during construction, during the period when construction and operation activities overlap, and during operation.

As such, alternatives were developed by identifying and modifying major components of the proposed project. The rationale for selecting and modifying specific components of the proposed project to generate feasible alternatives for the analysis is based on CEQA's requirement to present "realistic" alternatives; that is, alternatives that can actually be implemented.

Three alternatives to the proposed project have been developed and summarized in Table 5-1, as follows: Alternative A - No Project, Alternative B – Earlier Compliance Date, and Alternative C – Phased Compliance Dates. The primary components of the proposed alternatives that have been modified are the manner and timing in which compliance with the NOx emission limits may be achieved. Unless otherwise specifically noted, all other components of the project alternatives are identical to the components of the proposed project.

The Governing Board may choose to adopt any portion or all of any alternative presented in the Final SEA with appropriate findings as required by CEQA. The Governing Board is able to adopt any portion or all of any of the alternatives presented because the impacts of each alternative will be fully disclosed to the public and the public will have the opportunity to comment on the alternatives and impacts generated by each alternative. Written suggestions on potential project alternatives received during the comment period for the Draft SEA will be considered when preparing the Final SEA and will be included as an appendix of the Final SEA.

The following subsections provide a brief description of the alternatives.

Proposed Project

PAR 1134 will facilitate the transition of the NOx RECLAIM program to a command-and-control regulatory structure and will implement Control Measure CMB-05, of the 2016 AQMP for RECLAIM and non-RECLAIM stationary gas turbines that are not subject to Rule 1135 or located at petroleum refineries, landfills, or publicly owned treatment works. The main objectives of PAR 1134 are to: 1) reduce NOx emissions from stationary gas turbines and transition these equipment that are currently permitted under the NOx RECLAIM program to a command-and-control regulatory structure; and 2) implement Control Measure CMB-05 by updating the NOx limits and incorporating new ammonia (NH3) emission limits to reflect current BARCT. PAR 1134 would:

1) expand its applicability to include stationary gas turbines that were not previously required to comply with Rule 1134; 2) update the NOx and ammonia emission limits for stationary gas turbines to comply with BARCT; 3) transition all monitoring, reporting, and recordkeeping requirements (MRR) in Rule 1134 to new SCAQMD Rule 113 - MRR Requirements for NOx and SOx Sources, upon its adoption; 4) establish new exemptions for low-use equipment, certain existing combined cycle gas turbines, and emergency standby gas turbines; 54) provide relief from having to comply with ammonia requirements for turbines that do not use ammonia for controlling NOx emissions; and 65) revise existing exemptions to remove obsolete provisions. PAR 1134 implements control measure CMB-05 from the 2016 Final AQMP. Affected equipment would have until December 31, 2023 (four years) to comply with PAR 1134. However, compressor gas turbines have an effective compliance date of two years after a permit to construct is issued by the Executive Officer or three years after a permit to construct is issued if the permit application is submitted before July 1, 2021.

Alternative A: No Project (Current Rule)

Alternative A, the no project alternative, means that the current version of Rule 1134 that was amended in August 1997, would remain in effect and there would be no transition out of the NOx RECLAIM program. Under the current version of Rule 1134, stationary gas turbines at RECLAIM facilities would not have to comply with the NOx emission limits in set forth in Rule 1134. Under this alternative, no NOx emission reductions will be achieved, no ammonia use would be needed, and the stationary gas turbines at RECLAIM and non-RECLAIM facilities would not meet BARCT level equivalency.

Alternative B: Earlier Compliance Date 12/31/2022

Under Alternative B, the requirements would be equivalent to the proposed project but the compliance date for meeting the NOx and ammonia emission limits would one year earlier, December 31, 2022, which would allow three years to comply with PAR 1134. The earlier compliance date under Alternative B is more stringent than the proposed project.

Alternative C: Phased Compliance Dates

Under Alternative C, the requirements would be equivalent to the proposed project, but the compliance dates for meeting the NOx and ammonia emission limits would vary depending on fuel type, as follows: 1) Liquid Fuel – Outer Continental Shelf: December 31, 2023, 2) Natural Gas – Combined Cycle: June 30, 2023; 3) Natural Gas – Pipeline-Compressor Gas Turbine: December 31, 2023; 4) Natural Gas – Simple Cycle: December 31, 2022; 5) Produced Gas: December 31, 2023; 6) Produced Gas – Outer Continental Shelf: December 31, 2023; and 7) Other: December 31, 2023. The earlier compliance dates for the Natural Gas – Combined Cycle and Natural Gas – Simple Cycle categories under Alternative C are more stringent than the proposed project but less stringent than Alternative B for the Natural Gas – Combined Cycle category.

PROPOSED PROJECT Compliance Date 12/31/2023 ¹			ALTERN No Pro		ALTERN Earlier Comj 12/31/	pliance Date	ALTERNATIVE C Phased Compliance Dates ⁶
Fuel Type	NOx Limit (ppmv)	Ammonia Limit (ppmv)	NOx Limit (ppmv)	Ammonia Limit (ppmv)	NOx Limit (ppmv)	Ammonia Limit (ppmv)	Phased compliance dates with equivalent NOx & Ammonia limits to the Proposed Project
Liquid Fuel – Outer Continental Shelf ²	30	5			30	5	Compliance Date: December 31, 2023
Natural Gas – Combined Cycle	2	5			2	5	Compliance Date: June 30, 2023
Natural Gas – Pipeline <u>C</u>ompressor Gas Turbine ²	<u>83.5</u>	5 <u>10</u>			<u>83.5</u>	5 <u>10</u>	Compliance Date: December 31, 2023
Natural Gas – Simple Cycle	2.5	5			2.5	5	Compliance Date: December 31, 2022
Produced Gas	5 9	5			5 9	5	Compliance Date: December 31, 2023
Produced Gas – Outer Continental Shelf ³	15	5			15	5	Compliance Date: December 31, 2023
Other	12.5	5			12.5	5	Compliance Date: December 31, 2023

 Table 5 - 1

 Summary of the Proposed Project Alternatives

¹ PAR 1134 applies to all stationary gas turbines located at non-RECLAIM and RECLAIM facilities (excluding those subject to Rule 1135 or those located at a petroleum refinery, landfills, or publically owned treatment works), regardless of the date they were permitted.

^{2,3} Stationary gas turbines located in the outer continental shelf (defined in Title 40 CFR Part 55 – Outer Continental Shelf Air Regulations) are off-shore facilities and are not accessible via on-road vehicles.

⁴ For Alternative A, RECLAIM facilities will continue to comply with their annual facility-wide NOx allocations; there are no specific NOx Limits applicable to stationary gas turbines.

⁵ For Alternative A, non-RECLAIM facilities: The August 1997 version of Rule 1134 and the following NOx limits will remain in effect: gas turbines without SCR have a NOx limit that ranges between 12 and 25 ppmv and gas turbines with SCR have a NOx limit of nine ppmv.

⁶ Phased compliance dates are based on the total NOx inventory for turbines subject to PAR 1134 with earlier compliance dates for equipment with larger NOx emission inventories.

7 The effective date for compressor gas turbines is two years after a permit to construct is issued by the Executive Officer or three years after a permit to construct is issued if the permit application is submitted before July 1, 2021. Only four existing compressor gas turbines are subject to PAR 1134.

COMPARISON OF ALTERNATIVES

The following section describes the potential air quality and hazards and hazardous materials impacts that may occur for the project alternatives. A comparison of the environmental impacts for each project alternative is provided in Table 5-2. No other environmental topics other than air quality during the overlapping construction and operation phase for Alternatives B and C and hazards and hazardous materials for the proposed project, and Alternatives B and C were determined to be significantly adversely affected by implementing alternatives.

Pursuant to the requirements in CEQA Guidelines Section 15126.6(b) to mitigate or avoid the significant effects that a project may have on the environment, a comparison of the potential impacts to air quality and hazards and hazardous materials from each of the project alternatives for the individual rule components that comprise the proposed project is provided in Table 5-2. Secondary impacts from the proposed project were identified as having significant adverse impacts for hazards and hazardous materials from storage of ammonia (due to an accidental rupture of the storage tank). The proposed project is considered to provide the best balance between emission reductions and the adverse environmental impacts due to the storage of ammonia (accidental rupture) while meeting the objectives of the project. Therefore, the proposed project is preferred over the project alternatives.

Pursuant to CEQA Guidelines Section 15126.6(d), a CEQA document "shall include sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the proposed project. A matrix displaying the major characteristics and significant environmental effects of each alternative may be used to summarize the comparison. If an alternative would cause one or more significant effects in addition to those that would be caused by the project as proposed, the significant effects of the alternative shall be discussed, but in less detail than the significant effects of the project as proposed." Accordingly, Table 5-2 provides a matrix displaying the major characteristics and significant effects of the project and each alternative.

CATEGORY	PROPOSED PROJECT	ALTERNATIVE A No Project	ALTERNATIVE B Earlier Compliance Date 12/31/2022	ALTERNATIVE C Phased Compliance Dates
Air Quality	Expected to result in NOx emission reductions of 2.8 tons per day. Stationary gas turbines at affected RECLAIM facilities will transition to a command-and-control regulatory structure. The affected stationary gas turbines are expected to be retrofitted with SCR technology, or repowered or replaced. Stationary gas turbines operated at non- RECLAIM facilities are expected to be retrofitted with SCR technology, or repowered, or replaced. Upon project implementation, all stationary gas turbines at RECLAIM and non-RECLAIM facilities will achieve BARCT equivalency for NOx.	No NOx emission reductions will occur because RECLAIM facilities would not transition to a command- and control regulatory structure such that their stationary gas turbines will not be retrofitted with air pollution control equipment, repowered, or replaced. Non-RECLAIM stationary gas turbines will continue to meet the existing NOx limits in the current version of Rule 1134.	Expected to result in NOx emission reductions of 2.8 tons per day, which is equivalent to the proposed project but achieved one year earlier than the proposed project. Upon project implementation, all stationary gas turbines at RECLAIM and non- RECLAIM facilities will achieve BARCT equivalency for NOx.	Expected to result in equivalent NOx emission reductions of 2.8 tons per day, which is equivalent to the proposed project; the quantity of emission reductions will occur incrementally due to the phased compliance dates. A portion of the overall NOx emission reductions will be achieved one year earlier (e.g., by 12/31/2022) for simple cycle gas turbines equipped either with or without SCR technology. The remaining stationary gas turbines will achieve the remaining portion of the overall NOx emission reductions by 12/31/23. Upon project implementation, all stationary gas turbines at RECLAIM and non- RECLAIM facilities will achieve BARCT equivalency for NOx.

 Table 5- 2

 Comparison of Adverse Environmental Impacts of the Proposed Project and Alternatives

	Comparison of Auverse Environmental impacts of the Proposed Project and Alternatives (Continued)						
CATEGORY	PROPOSED PROJECT	ALTERNATIVE A No Project	ALTERNATIVE B Earlier Compliance Date 12/31/2022	ALTERNATIVE C Phased Compliance Dates			
Significance of Air Quality Impacts	Less than Significant: No exceedances of the SCAQMD's air quality significance thresholds for any pollutant are expected to occur either during construction, during construction with overlapping operational impacts, or during operation after all construction is completed. As facilities implement modifications to retrofit existing stationary gas turbines with air pollution control equipment (e.g., SCR technology/systems installation), or repower or replace existing stationary gas turbines, emissions from construction are expected to occur. As facilities transition their existing stationary gas turbines to achieve BARCT emission levels over the 4-year compliance period, some facilities will have completed construction, which will create incremental NOx emission reductions, an air quality benefit (see <u>Appendix F</u>). Upon completion of construction at all affected facilities, an overall benefit to operational air quality will occur due to the project's overall NOx emission reductions.	Not Significant: Alternative A would not result in an exceedance of any SCAQMD air quality significance thresholds during construction or operation because no physical modifications would be expected to occur that would create construction emissions or reduce overall NOx emissions from the affected equipment. The SCAQMD will not achieve any emissions reductions of NOx (a pre-cursor to the formation of ozone); thus, attainment for the SCAQMD for ozone is unlikely to occur.	Significant: Due to having an earlier compliance date when compared to the proposed project, the construction schedules of the affected facilities under Alternative B would be expected to occur over a shorter period time such that more facilities would be expected to undergo construction on a peak day. As such, an exceedance of the SCAQMD's air quality significance threshold for NOx is expected to occur during overlapping construction of more SCR systems and more retrofit, repower or replacement of stationary gas turbines on a peak day, than the proposed project. As facilities transition their existing stationary gas turbines to achieve BARCT emission levels over the 3-year compliance period, some facilities will have completed construction, which will create incremental NOx emission reductions, an air quality benefit. Upon completion of construction at all affected facilities, an overall benefit to operational air quality will occur sooner due to the project's overall NOx emission reductions.	Significant: Due to having earlier compliance dates for gas turbines equipped with and without SCRs, the construction schedules of the affected facilities under Alternative C would be expected to occur over a shorter period time such that more facilities would be expected to undergo construction on a peak day. As such, exceedances of the SCAQMD's air quality significance threshold for NOx is expected to occur during overlapping construction of more SCR systems and more retrofit, repower or replacement of stationary gas turbines stationary gas turbines on a peak day, than the proposed project. As facilities transition their existing stationary gas turbines to achieve BARCT emission levels over the 3- year compliance period for gas turbines equipped with and without SCRs and over the 4-year compliance period for the remaining gas turbines, some facilities will have completed construction, which will create incremental NOx emission reductions, an air quality benefit. Upon completion of construction at all affected facilities, an overall benefit to operational air quality will occur sooner due to the project's overall NOx			
				emission reductions.			

 Table 5- 2

 Comparison of Adverse Environmental Impacts of the Proposed Project and Alternatives (Continued)

CATEGORY	PROPOSED PROJECT	ALTERNATIVE A No Project	ALTERNATIVE B More Stringent Compliance Deadline	ALTERNATIVE C Phased Compliance Deadline
Hazards and Hazardous Materials	Some of the affected stationary gas turbines are expected to be retrofitted with SCR technology, which requires ammonia for operation. Thus, the analysis assumes that a new ammonia storage tank will be needed at each facility that installs SCR equipment. Ammonia is considered to be a hazardous material.	None of the affected facilities will be required to achieve BARCT level equivalency through compliance with the proposed project. As such, no stationary gas turbines will be retrofitted with SCR technology. Thus, no new ammonia storage tanks will be needed.	Some of the affected stationary gas turbines are expected to be retrofitted with SCR technology, which requires ammonia for operation. Thus, the analysis assumes that a new ammonia storage tank will be needed at each facility that installs SCR equipment. Ammonia is considered to be a hazardous material.	Some of the affected stationary gas turbines are expected to be retrofitted with SCR technology, which requires ammonia for operation. Thus, the analysis assumes that a new ammonia storage tank will be needed at each facility that installs SCR equipment. Ammonia is considered to be a hazardous material.
Significance of Hazards and Hazardous Materials Impacts	Significant: Based on the analysis, using EPA RMP*Comp, the estimated distance of the toxic endpoint from the catastrophic failure of an aqueous ammonia storage tank to sensitive receptors could result in significant impacts for any facility that installs a new ammonia storage tank, depending on the location of where the storage tank is installed, relative to the location of the offsite receptor. If the toxic endpoint is outside of a facility's boundaries, mitigation measures will be required.	Not Significant: The construction of SCR systems would not be necessary; thus, there would be no need to use ammonia or build new ammonia storage tanks, No hazards or hazardous materials impacts would occur.	Significant: Based on the analysis, using EPA RMP*Comp, the estimated distance of the toxic endpoint from the catastrophic failure of an aqueous ammonia storage tank to sensitive receptors could result in significant impacts for any facility that installs a new ammonia storage tank, depending on the location of where the storage tank is installed, relative to the location of the offsite receptor. If the toxic endpoint is outside of a facility's boundaries, mitigation measures will be required. The number of affected facilities would be the same as the proposed project. The level of significance in Alternative B would be equivalent to the proposed project.	Significant: Based on the analysis, using EPA RMP*Comp, the estimated distance of the toxic endpoint from the catastrophic failure of an aqueous ammonia storage tank to sensitive receptors could result in significant impacts for any facility that installs a new ammonia storage tank, depending on the location of where the storage tank is installed, relative to the location of the offsite receptor. If the toxic endpoint is outside of a facility's boundaries, mitigation measures will be required. The number of affected facilities would be the same as the proposed project. The level of significance in Alternative C would be equivalent to the amount in the proposed project.

 Table 5 - 2

 Comparison of Adverse Environmental Impacts of the Proposed Project and Alternatives (Continued)

ALTERNATIVES REJECTED AS INFEASIBLE

In accordance with CEQA Guidelines Section 15126.6 (c), a CEQA document should identify any alternatives that were considered by the lead agency, but were rejected as infeasible during the scoping process and briefly explain the reasons underlying the lead agency's determination. CEQA Guidelines Section 15126.6 (c) also states that among the factors that may be used to eliminate alternatives from detailed consideration in a CEQA document are: 1) failure to meet most of the basic project objectives; 2) infeasibility; or, 3) inability to avoid significant environmental impacts.

As noted in the Introduction, the range of feasible alternatives to the proposed project is limited by the nature of the proposed project and associated legal requirements. Similarly, the range of alternatives considered, but rejected as infeasible is also relatively limited.

The following discussion identifies Alternative A, the No Project Alternative, as being rejected due its failure to meet most of the basic project objectives.

CEQA documents typically assume that the adoption of a No Project alternative would result in no further action on the part of the project proponent or lead agency. For example, in the case of a proposed land use project such as a housing development, adopting the No Project alternative terminates further consideration of that housing development or any housing development alternative identified in the associated CEQA document. In that case, the existing setting would typically remain unchanged.

The concept of taking no further action (and thereby leaving the existing setting intact) by adopting a No Project alternative does not readily apply to implementation of a control measure that has been adopted and legally mandated in the 2016 AQMP. The federal and state Clean Air Acts require the SCAQMD to implement the AQMP in order to attain all state and national ambient air quality standards. More importantly, a No Project alternative in the case of the proposed project is not a legally viable alternative because it violates a state law requirement in Health and Safety Code Section 40440 that regulations mandate the use of BARCT for existing sources and for the subset of RECLAIM facilities subject to the requirements of ABs 617 and 398.

"The 'no project' analysis shall discuss the existing conditions at the time the notice of preparation is published, or if no notice of preparation is published, at the time environmental analysis is commenced, as well as what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services..." It should be noted that, except for air quality, there would be no further incremental impacts on the existing environment if no further action is taken. Although there are other existing rules that may have future compliance dates for NOx emission reductions, potential adverse impacts from these rules have already been evaluated in the Final Program EIR for the 2016 AQMP and their subsequent rule-specific CEQA documents. While air quality would continue to improve to a certain extent, it is unlikely that all state or federal ozone standards would be achieved as required by the federal and California CAAs. It is possible that the federal 24-hour PM2.5 standard may be achieved; however, it is unlikely that further progress would be made towards achieving the state PM2.5 standard as required by the California CAA.

LOWEST TOXIC ALTERNATIVE

In accordance with SCAQMD's policy document Environmental Justice Program Enhancements for FY 2002-03, Enhancement II-1 recommends for all SCAQMD CEQA documents which are required to include an alternatives analysis, the alternative analysis shall also include and identify a feasible project alternative with the lowest air toxics emissions. In other words, for any major equipment or process type under the scope of the proposed project that creates a significant environmental impact, at least one alternative, where feasible, shall be considered from a "least harmful" perspective with regard to hazardous or toxic air pollutants.

As explained in the hazards and hazardous materials discussion in Chapter 4, implementation of the proposed project may alter the hazards and hazardous materials associated with the existing facilities affected by the proposed project. Air pollution control equipment (e.g., SCR systems) are expected to be installed at affected facilities such that their operations may increase the quantity of ammonia (a hazardous material) used in the control equipment. The main NOx reduction technology considered for the proposed project is based on employing SCR systems. The analysis shows that in order to control NOx from existing stationary gas turbines, the use of SCRs may increase the use of toxic materials (e.g., aqueous ammonia).

To identify a lowest toxic alternative with respect to the proposed project, a lowest toxic alternative would be if either no control technologies are used that utilize hazardous or toxic materials or NOx control technologies are employed that use the least amount of hazardous or toxic materials. For the proposed project, and Alternatives B and C, it is assumed that SCR technology may be used control NOx, since PAR 1134 neither prescribes the method for controlling NOx emissions nor requires replacement of the existing stationary gas turbines with newer, cleaner equipment without the use of SCR systems. Of the three alternatives, only Alternative A – the No Project alternative, does not assume that SCR systems and ammonia will be utilized. Thus, hazardous materials would not be needed if Alternative A is implemented.

Under Alternative A, the No Project alternative, no new NOx and ammonia emission limits would be imposed on stationary gas turbines, no NOx air pollution control equipment (e.g., SCR systems) would be installed, and no NOx emission reduction benefits would occur. As such, Alternative A does not meet the project objectives. Further, no significant adverse impacts from constructing and operating NOx air pollution control equipment would be expected to occur under Alternative A, and no hazards and hazardous materials impacts would be expected because no hazardous or toxic materials would be needed. Because Alternative A would not change toxic emissions or alter the existing use of hazardous materials when compared to the proposed project, Alternative A, if implemented, is considered to be the lowest toxic alternative.

ENVIRONMENTALLY SUPERIOR ALTERNATIVE

Pursuant to CEQA Guidelines Section 15126.6(e)(2), if the environmentally superior alternative is the "no project" alternative, the CEQA document shall also identify an alternate environmentally superior alternative from among the other alternatives.

If Alternative A is implemented, PAR 1134 would not be adopted, the proposed project's objectives would not be achieved such that no NOx emissions reductions and the corresponding health benefits would not occur. If Alternative A is implemented, the quantity of NOx emissions currently generated by the affected stationary gas turbines (the baseline) will remain unchanged. Currently, the Basin is in non-attainment for ozone and cannot achieve attainment unless NOx

emissions reductions occur. In addition, implementing Alternative A means that RECLAIM facilities with stationary gas turbines would not transition to a command-and-control regulatory structure or some stationary gas turbines would not achieve BARCT level equivalency. Units at non-RECLAIM facilities would also not meet BARCT level equivalency. While Alternative A would not result in any significant adverse air quality or hazards and hazardous materials impacts, Alternative A would also not achieve the project objectives and air quality benefits. Therefore, Alternative A is not the environmentally superior alternative.

If Alternative B is implemented, the compliance date would be reduced by one year when compared to the proposed project. The same quantity of NOx emissions reductions (e.g., 2.8 tons per day) would be achieved as the proposed project; however, the timing of when the NOx emission reductions would be achieved will occur one year earlier (e.g., by December 31, 2022 instead of December 31, 2023). While Alternative B will accelerate the operational benefits from the NOx emission reductions, the timing of the construction activities will also be accelerated and compressed over a three-year compliance period. While the number of affected facilities would be the same as the proposed project, these facilities would be required to retrofit, repower, or replace their equipment to comply with BARCT in a shorter timeframe (one year earlier). The air quality impacts due to the physical modifications expected to take place at the affected facilities would be expected to exceed the SCAQMD's regional air quality significance threshold for NOx during the overlapping construction and operation phase. While a concurrent operational air quality benefit would result due to Alternative B's overall NOx emission reductions, the application of an earlier compliance date for all stationary gas turbines would result in construction occurring over a shorter, compressed time frame than the proposed project and thus, the operational benefit from NOx emission reductions may not fully reduce the concurrent temporary increases in NOx emissions occurring during construction to less than significant levels. Under Alternative B, once the SCR systems are installed and operational, the hazards and hazardous materials impacts would be the same as the proposed project. If Alternative B is implemented, the project objectives would be achieved but potentially significant adverse air quality impacts during overlapping construction and operations will be expected to occur in addition to the significant adverse hazards and hazardous materials due to ammonia storage and use during operation.

If Alternative C is implemented, the compliance dates for meeting the NOx and ammonia emission limits would vary depending on fuel type, as follows: 1) Liquid Fuel – Outer Continental Shelf: December 31, 2023, 2) Natural Gas – Combined Cycle: June 30, 2023 ; 3) Natural Gas – Pipeline Compressor Gas Turbine: December 31, 2023; 4) Natural Gas – Simple Cycle: December 31, 2022 ; 5) Produced Gas: December 31, 2023; 6) Produced Gas – Outer Continental Shelf: December 31, 2023; and 7) Other: December 31, 2023. While the same quantity of NOx emissions reductions would be achieved under Alternative C as the proposed project (e.g., 2.8 tons per day), a portion of these NOx emission reductions would be achieved six months earlier for the Natural Gas -Combined Cycle category (by June 30, 2013 instead of December 31, 2023) and one year earlier for the Natural Gas – Simple Cycle category (by December 31, 2022 instead of December 31, 2023). This acceleration of the operational benefits under Alternative C will also mean that the timing of the construction activities associated with these fuel type categories will also be accelerated and compressed over a 3.5-year period for the Natural Gas – Combined Cycle category and over a three-year period for the Natural Gas - Simple Cycle category. While the number of affected facilities would be the same as the proposed project, these facilities would be required to retrofit, repower, or replace their equipment to comply with BARCT in a shorter timeframe (from six months to one year earlier for the Natural Gas – Combined Cycle and the Natural Gas – Simple Cycle categories, respectively). The air quality impacts due to the physical modifications expected to take place at the affected facilities would be expected to exceed the SCAQMD's regional air quality significance threshold for NOx during the overlapping construction and operation phase. While a concurrent operational air quality benefit would result due to Alternative C's overall NOx emission reductions, the application of earlier compliance dates for natural gas-fueled simple and combined cycle stationary gas turbines would result in construction occurring over a shorter, compressed time frame than the proposed project and thus, the operational benefit from achieving earlier NOx emission reductions from these categories may not fully reduce the concurrent, temporary increases in NOx emissions occurring during construction to less than significant levels. Under Alternative C, once the SCR systems are installed and operational, the hazards and hazardous materials impacts would be the same as the proposed project. If Alternative C is implemented, the project objectives would be achieved but potentially significant adverse air quality impacts during overlapping construction and operations will be expected to occur, though less than those that may be generated under Alternative B in addition to the significant adverse hazards and hazardous materials due to ammonia storage and use during operation.

In summary, of the three alternatives, Alternative C would be considered the environmentally superior alternative.

CONCLUSION

Of the three alternatives analyzed, Alternative A would generate the least severe and fewest number of adverse and beneficial environmental impacts compared to the proposed project. However, of the project alternatives, Alternative A would achieve none of the project objectives and would have no NOx emission reduction benefits.

Also, because Alternative A would not involve any use of any hazardous or toxic materials, Alternative A is considered to be the lowest toxic alternative

Thus, when comparing the environmental effects of the project alternatives to the proposed project and evaluating the effectiveness of whether each alternative is achieving the project objectives, while the proposed project has potentially significant hazards and hazardous materials impacts due to ammonia storage and use, these impacts are equivalent to the hazards and hazardous materials impacts for Alternatives B and C, and mitigation measures have been crafted to help affected facilities reduce or completely prevent, depending on each facility's proximity to a sensitive receptor, their potential for an offsite release. Further, the proposed project provides the best balance in achieving the project objectives while, unlike Alternatives B and C, assuring that less than significant air quality impacts will occur during construction, during the construction and operation overlap and during operation after full implementation of PAR 1134.

APPENDICES

Appendix A: Proposed Amended Rule 1134 – Emissions of Oxides of Nitrogen from Stationary Gas Turbines

Appendix B: CalEEMod Files and Assumptions

Appendix C: CEQA Impact Evaluations – Assumptions and Calculations

Appendix D: PAR 1134 List of Affected Facilities

Appendix E: Hazards Analysis

APPENDIX A

Proposed Amended Rule 1134 – Emissions of Oxides of Nitrogen from Stationary Gas Turbines

In order to save space and avoid repetition, please refer to the latest version of PAR 1134 located elsewhere in the Governing Board Package (meeting date April 5, 2019). Original hard copies of the Draft SEA, which include the draft version of the proposed amended rule (PAR 1134 v120618) listed above, can be obtained through the SCAQMD Public Information Center at the Diamond Bar headquarters or by contacting Fabian Wesson, Public Advisor at the SCAQMD's Public Information Center by phone at (909) 396-2039 or by email at PICrequests@aqmd.gov.

APPENDIX B

CalEEMod Files And Assumptions

APPENDIX B-1

CalEEMod Files And Assumptions

PAR1134 Construction SCR and NH3 Tank

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PAR1134_Construction_SCR and NH3 Tank

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1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	1.00	User Defined Unit	0.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	31
Climate Zone	9			Operational Year	2020
Utility Company	Southern California Ediso	n			
CO2 Intensity (Ib/MWhr)	702.44	CH4 Intensity (Ib/MWhr)	0.029	N2O Intensity (Ib/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Appendix B-1: CalEEMod Files and Assumptions (Annual) Date: 1/22/2019 3:52 PM

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Project Characteristics -

Land Use -

Construction Phase - Construction Phase - SCR: Demolition: 15 days; Site Preparation: 5 days; Building Construction: 180 days; Paving: 5 days

Off-road Equipment - Cranes (1): 2 hours per day; Forklifts (1): 5 hours per day; Generator Sets (1): 8 hours per day; Tractors/Loaders/Backhoes (1): 4 hours per day; Welders (1): 4 hours per day; Aerial Lifts (1): 4 hours per day

Off-road Equipment - Concrete/Industrial Saws (1): 8 hours per day; Rubber Tired Dozers (1): 3 hours per day; Tractors/Loaders/Backhoes (1): 4 hours per day; Cranes (1): 2 hours per day

Off-road Equipment - Cement and Mortar Mixers (2): 6 hours per day; Pavers (1): 5 hours per day; Rollers (1): 4 hours per day; Plate Compactors (1): 4 hours per day; Tractors/Loaders/Backhoes (1): 4 hours per day

Off-road Equipment - Rubber Tired Dozers (1): 7 hours per day; Tractors/Loaders/Backhoes (1): 4 hours per day; Trenchers (1): 4 hours per day

Trips and VMT - Demolition: 20 Worker Trips, 0 Vendor Trips, 10 Hauling Trips Site Preparation: 10 Work Trips, 0 Vendor Trips, 0 Hauling Trips Building Construction: 20 Worker Trips, 5 Vendor Trips, 0 Hauling Paving: 10 Worker Trips, 1 Vendor Trips, 0 Hauling

Demolition -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	0.00	180.00
tblConstructionPhase	NumDays	0.00	15.00
tblConstructionPhase	NumDays	0.00	5.00
tblConstructionPhase	NumDays	0.00	5.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00

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	-		
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	PhaseName		Building Construction
tblOffRoadEquipment	PhaseName		Demolition
tblOffRoadEquipment	PhaseName		Building Construction
tblOffRoadEquipment	PhaseName		Paving
tblOffRoadEquipment	PhaseName		Site Preparation
tblOffRoadEquipment	PhaseName		Site Preparation
tblOffRoadEquipment	PhaseName		Building Construction
tblOffRoadEquipment	UsageHours	4.00	2.00
tblOffRoadEquipment	UsageHours	7.00	5.00
tblOffRoadEquipment	UsageHours	7.00	4.00
tblOffRoadEquipment	UsageHours	1.00	3.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	6.00	4.00
tblOffRoadEquipment	UsageHours	7.00	4.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblTripsAndVMT	HaulingTripNumber	0.00	10.00
tblTripsAndVMT	VendorTripNumber	0.00	5.00
tblTripsAndVMT	VendorTripNumber	0.00	1.00
tblTripsAndVMT	WorkerTripNumber	10.00	20.00
tblTripsAndVMT	WorkerTripNumber	8.00	10.00
tblTripsAndVMT	WorkerTripNumber	0.00	20.00
tblTripsAndVMT	WorkerTripNumber	15.00	10.00
			•

2.0 Emissions Summary

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2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year					ton	s/yr							МТ	/yr		
2020	0.1051	0.8910	0.8582	1.6300e- 003	0.0381	0.0465	0.0845	0.0139	0.0446	0.0585	0.0000	141.9421	141.9421	0.0210	0.0000	142.4658
Maximum	0.1051	0.8910	0.8582	1.6300e- 003	0.0381	0.0465	0.0845	0.0139	0.0446	0.0585	0.0000	141.9421	141.9421	0.0210	0.0000	142.4658

Mitigated Construction

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year					ton	s/yr							МТ	/yr		
2020	0.1051	0.8910	0.8582	1.6300e- 003	0.0381	0.0465	0.0845	0.0139	0.0446	0.0585	0.0000	141.9420	141.9420	0.0210	0.0000	142.4657
Maximum	0.1051	0.8910	0.8582	1.6300e- 003	0.0381	0.0465	0.0845	0.0139	0.0446	0.0585	0.0000	141.9420	141.9420	0.0210	0.0000	142.4657

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

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Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-2-2020	4-1-2020	0.3362	0.3362
2	4-2-2020	7-1-2020	0.3110	0.3110
3	7-2-2020	9-30-2020	0.3110	0.3110
		Highest	0.3362	0.3362

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/yr		
Area	0.0000	0.0000	1.0000e- 005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e- 005	2.0000e- 005	0.0000	0.0000	3.0000e- 005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste	n					0.0000	0.0000	1	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water	,					0.0000	0.0000	1	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	1.0000e- 005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	2.0000e- 005	2.0000e- 005	0.0000	0.0000	3.0000e- 005

Appendix B-1: CalEEMod Files and Assumptions (Annual) Date: 1/22/2019 3:52 PM

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2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CC) 5	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugiti PM2		aust 12.5	PM2.5 Total	Bio- CO2	NBio- CC	2 Total (CO2	CH4	N2O	CO2e
Category						tor	is/yr									MT/yr			
Area	0.0000	0.0000	1.000 005		.0000		0.0000	0.0000		0.0	000	0.0000	0.0000	2.0000e 005	- 2.000 005		.0000	0.0000	3.0000e- 005
Energy	0.0000	0.0000	0.000	00 0.0	.0000		0.0000	0.0000		0.0	000	0.0000	0.0000	0.0000	0.00	000 0	.0000	0.0000	0.0000
Mobilo	0.0000	0.0000	0.000	00 0.0	.0000	0.0000	0.0000	0.0000	0.000	0.0	000	0.0000	0.0000	0.0000	0.00	000 0	.0000	0.0000	0.0000
Waste	F;						0.0000	0.0000		0.0	000	0.0000	0.0000	0.0000	0.00	000 0	.0000	0.0000	0.0000
Water	F;						0.0000	0.0000		0.0	000	0.0000	0.0000	0.0000	0.00	000 0	.0000	0.0000	0.0000
Total	0.0000	0.0000	1.000 005		.0000	0.0000	0.0000	0.0000	0.000	0.0	000	0.0000	0.0000	2.0000e 005	- 2.000 00		.0000	0.0000	3.0000e- 005
	ROG		NOx	со	so				/10 otal	Fugitive PM2.5	Exha PM	aust PM2 2.5 Tot		CO2 NBi	o-CO2 T	Fotal CO2	CH4	N:	20 CO
Percent Reduction	0.00		0.00	0.00	0.0	0 00	.00 0	.00 0	.00	0.00	0.	00 0.0	0 0.	00 ().00	0.00	0.00	0.0	0.0

3.0 Construction Detail

Construction Phase

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Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/2/2020	1/22/2020	5	15	
2	Site Preparation	Site Preparation	1/23/2020	1/29/2020	5	5	
3	Building Construction	Building Construction	1/30/2020	10/7/2020	5	180	
4	Paving	Paving	10/8/2020	10/14/2020	5	5	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

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Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Cranes	1	2.00	231	0.29
Demolition	Rubber Tired Dozers	1	3.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	1	4.00	97	0.37
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	4.00	97	0.37
Site Preparation	Trenchers	1	4.00	78	0.50
Building Construction	Aerial Lifts	1	4.00	63	0.31
Building Construction	Cranes	1	2.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	4.00	97	0.37
Building Construction	Welders	1	4.00	46	0.45
Paving	Cement and Mortar Mixers	2	6.00	9	0.56
Paving	Pavers	1	5.00	130	0.42
Paving	Plate Compactors	1	4.00	8	0.43
Paving	Rollers	1	4.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	4.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	4	20.00	0.00	10.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	10.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	6	20.00	5.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	10.00	1.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

Final Subsequent Environmental Assessment CalEEMod Version: CalEEMod.2016.3.2

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3.1 Mitigation Measures Construction

3.2 Demolition - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/yr		
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.8100e- 003	0.0746	0.0518	9.0000e- 005		3.9600e- 003	3.9600e- 003		3.7600e- 003	3.7600e- 003	0.0000	8.1170	8.1170	1.5800e- 003	0.0000	8.1565
Total	7.8100e- 003	0.0746	0.0518	9.0000e- 005	0.0000	3.9600e- 003	3.9600e- 003	0.0000	3.7600e- 003	3.7600e- 003	0.0000	8.1170	8.1170	1.5800e- 003	0.0000	8.1565

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3.2 Demolition - 2020

Unmitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton				МТ	/yr						
Hauling	4.0000e- 005	1.4000e- 003	2.8000e- 004	0.0000	9.0000e- 005	0.0000	9.0000e- 005	2.0000e- 005	0.0000	3.0000e- 005	0.0000	0.3773	0.3773	3.0000e- 005	0.0000	0.3780
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.7000e- 004	5.1000e- 004	5.6800e- 003	2.0000e- 005	1.6500e- 003	1.0000e- 005	1.6600e- 003	4.4000e- 004	1.0000e- 005	4.5000e- 004	0.0000	1.4815	1.4815	4.0000e- 005	0.0000	1.4826
Total	7.1000e- 004	1.9100e- 003	5.9600e- 003	2.0000e- 005	1.7400e- 003	1.0000e- 005	1.7500e- 003	4.6000e- 004	1.0000e- 005	4.8000e- 004	0.0000	1.8588	1.8588	7.0000e- 005	0.0000	1.8605

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr									MT/yr						
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.8100e- 003	0.0746	0.0518	9.0000e- 005		3.9600e- 003	3.9600e- 003		3.7600e- 003	3.7600e- 003	0.0000	8.1170	8.1170	1.5800e- 003	0.0000	8.1564
Total	7.8100e- 003	0.0746	0.0518	9.0000e- 005	0.0000	3.9600e- 003	3.9600e- 003	0.0000	3.7600e- 003	3.7600e- 003	0.0000	8.1170	8.1170	1.5800e- 003	0.0000	8.1564

Appendix B-1: CalEEMod Files and Assumptions (Annual) Date: 1/22/2019 3:52 PM

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3.2 Demolition - 2020

Mitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr									MT/yr						
Hauling	4.0000e- 005	1.4000e- 003	2.8000e- 004	0.0000	9.0000e- 005	0.0000	9.0000e- 005	2.0000e- 005	0.0000	3.0000e- 005	0.0000	0.3773	0.3773	3.0000e- 005	0.0000	0.3780
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.7000e- 004	5.1000e- 004	5.6800e- 003	2.0000e- 005	1.6500e- 003	1.0000e- 005	1.6600e- 003	4.4000e- 004	1.0000e- 005	4.5000e- 004	0.0000	1.4815	1.4815	4.0000e- 005	0.0000	1.4826
Total	7.1000e- 004	1.9100e- 003	5.9600e- 003	2.0000e- 005	1.7400e- 003	1.0000e- 005	1.7500e- 003	4.6000e- 004	1.0000e- 005	4.8000e- 004	0.0000	1.8588	1.8588	7.0000e- 005	0.0000	1.8605

3.3 Site Preparation - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr									MT/yr						
Fugitive Dust					0.0132	0.0000	0.0132	7.2400e- 003	0.0000	7.2400e- 003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.1500e- 003	0.0322	0.0152	3.0000e- 005		1.7400e- 003	1.7400e- 003		1.6000e- 003	1.6000e- 003	0.0000	2.3535	2.3535	7.6000e- 004	0.0000	2.3725
Total	3.1500e- 003	0.0322	0.0152	3.0000e- 005	0.0132	1.7400e- 003	0.0149	7.2400e- 003	1.6000e- 003	8.8400e- 003	0.0000	2.3535	2.3535	7.6000e- 004	0.0000	2.3725

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3.3 Site Preparation - 2020

Unmitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1000e- 004	9.0000e- 005	9.5000e- 004	0.0000	2.7000e- 004	0.0000	2.8000e- 004	7.0000e- 005	0.0000	7.0000e- 005	0.0000	0.2469	0.2469	1.0000e- 005	0.0000	0.2471
Total	1.1000e- 004	9.0000e- 005	9.5000e- 004	0.0000	2.7000e- 004	0.0000	2.8000e- 004	7.0000e- 005	0.0000	7.0000e- 005	0.0000	0.2469	0.2469	1.0000e- 005	0.0000	0.2471

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	∵/yr		
Fugitive Dust					0.0132	0.0000	0.0132	7.2400e- 003	0.0000	7.2400e- 003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.1500e- 003	0.0322	0.0152	3.0000e- 005		1.7400e- 003	1.7400e- 003		1.6000e- 003	1.6000e- 003	0.0000	2.3535	2.3535	7.6000e- 004	0.0000	2.3725
Total	3.1500e- 003	0.0322	0.0152	3.0000e- 005	0.0132	1.7400e- 003	0.0149	7.2400e- 003	1.6000e- 003	8.8400e- 003	0.0000	2.3535	2.3535	7.6000e- 004	0.0000	2.3725

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3.3 Site Preparation - 2020

Mitigated Construction Off-Site

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1000e- 004	9.0000e- 005	9.5000e- 004	0.0000	2.7000e- 004	0.0000	2.8000e- 004	7.0000e- 005	0.0000	7.0000e- 005	0.0000	0.2469	0.2469	1.0000e- 005	0.0000	0.2471
Total	1.1000e- 004	9.0000e- 005	9.5000e- 004	0.0000	2.7000e- 004	0.0000	2.8000e- 004	7.0000e- 005	0.0000	7.0000e- 005	0.0000	0.2469	0.2469	1.0000e- 005	0.0000	0.2471

3.4 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/yr		
Off-Road	0.0824	0.7164	0.6921	1.1600e- 003		0.0397	0.0397		0.0383	0.0383	0.0000	98.7261	98.7261	0.0169	0.0000	99.1475
Total	0.0824	0.7164	0.6921	1.1600e- 003		0.0397	0.0397		0.0383	0.0383	0.0000	98.7261	98.7261	0.0169	0.0000	99.1475

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3.4 Building Construction - 2020

Unmitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.5100e- 003	0.0480	0.0119	1.1000e- 004	2.8400e- 003	2.4000e- 004	3.0700e- 003	8.2000e- 004	2.3000e- 004	1.0400e- 003	0.0000	11.0678	11.0678	7.3000e- 004	0.0000	11.0860
Worker	8.0400e- 003	6.1600e- 003	0.0682	2.0000e- 004	0.0198	1.5000e- 004	0.0199	5.2400e- 003	1.4000e- 004	5.3900e- 003	0.0000	17.7780	17.7780	5.1000e- 004	0.0000	17.7907
Total	9.5500e- 003	0.0542	0.0801	3.1000e- 004	0.0226	3.9000e- 004	0.0230	6.0600e- 003	3.7000e- 004	6.4300e- 003	0.0000	28.8458	28.8458	1.2400e- 003	0.0000	28.8767

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	'/yr		
Off-Road	0.0824	0.7164	0.6921	1.1600e- 003		0.0397	0.0397		0.0383	0.0383	0.0000	98.7260	98.7260	0.0169	0.0000	99.1474
Total	0.0824	0.7164	0.6921	1.1600e- 003		0.0397	0.0397		0.0383	0.0383	0.0000	98.7260	98.7260	0.0169	0.0000	99.1474

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3.4 Building Construction - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.5100e- 003	0.0480	0.0119	1.1000e- 004	2.8400e- 003	2.4000e- 004	3.0700e- 003	8.2000e- 004	2.3000e- 004	1.0400e- 003	0.0000	11.0678	11.0678	7.3000e- 004	0.0000	11.0860
Worker	8.0400e- 003	6.1600e- 003	0.0682	2.0000e- 004	0.0198	1.5000e- 004	0.0199	5.2400e- 003	1.4000e- 004	5.3900e- 003	0.0000	17.7780	17.7780	5.1000e- 004	0.0000	17.7907
Total	9.5500e- 003	0.0542	0.0801	3.1000e- 004	0.0226	3.9000e- 004	0.0230	6.0600e- 003	3.7000e- 004	6.4300e- 003	0.0000	28.8458	28.8458	1.2400e- 003	0.0000	28.8767

3.5 Paving - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/yr		
Off-Road	1.2000e- 003	0.0113	0.0112	2.0000e- 005		6.1000e- 004	6.1000e- 004		5.7000e- 004	5.7000e- 004	0.0000	1.4855	1.4855	4.3000e- 004	0.0000	1.4963
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	1.2000e- 003	0.0113	0.0112	2.0000e- 005		6.1000e- 004	6.1000e- 004		5.7000e- 004	5.7000e- 004	0.0000	1.4855	1.4855	4.3000e- 004	0.0000	1.4963

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3.5 Paving - 2020

Unmitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.0000e- 005	2.7000e- 004	7.0000e- 005	0.0000	2.0000e- 005	0.0000	2.0000e- 005	0.0000	0.0000	1.0000e- 005	0.0000	0.0615	0.0615	0.0000	0.0000	0.0616
Worker	1.1000e- 004	9.0000e- 005	9.5000e- 004	0.0000	2.7000e- 004	0.0000	2.8000e- 004	7.0000e- 005	0.0000	7.0000e- 005	0.0000	0.2469	0.2469	1.0000e- 005	0.0000	0.2471
Total	1.2000e- 004	3.6000e- 004	1.0200e- 003	0.0000	2.9000e- 004	0.0000	3.0000e- 004	7.0000e- 005	0.0000	8.0000e- 005	0.0000	0.3084	0.3084	1.0000e- 005	0.0000	0.3087

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Off-Road	1.2000e- 003	0.0113	0.0112	2.0000e- 005		6.1000e- 004	6.1000e- 004		5.7000e- 004	5.7000e- 004	0.0000	1.4855	1.4855	4.3000e- 004	0.0000	1.4963
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	1.2000e- 003	0.0113	0.0112	2.0000e- 005		6.1000e- 004	6.1000e- 004		5.7000e- 004	5.7000e- 004	0.0000	1.4855	1.4855	4.3000e- 004	0.0000	1.4963

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3.5 Paving - 2020

Mitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.0000e- 005	2.7000e- 004	7.0000e- 005	0.0000	2.0000e- 005	0.0000	2.0000e- 005	0.0000	0.0000	1.0000e- 005	0.0000	0.0615	0.0615	0.0000	0.0000	0.0616
Worker	1.1000e- 004	9.0000e- 005	9.5000e- 004	0.0000	2.7000e- 004	0.0000	2.8000e- 004	7.0000e- 005	0.0000	7.0000e- 005	0.0000	0.2469	0.2469	1.0000e- 005	0.0000	0.2471
Total	1.2000e- 004	3.6000e- 004	1.0200e- 003	0.0000	2.9000e- 004	0.0000	3.0000e- 004	7.0000e- 005	0.0000	8.0000e- 005	0.0000	0.3084	0.3084	1.0000e- 005	0.0000	0.3087

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/yr		
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

	Ave	rage Daily Trip Ra	ate	Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
User Defined Industrial	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

		Miles			Trip %			Trip Purpos	e %
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
User Defined Industrial	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
User Defined Industrial	0.547828	0.043645	0.199892	0.122290	0.016774	0.005862	0.020637	0.032653	0.002037	0.001944	0.004777	0.000705	0.000956

5.0 Energy Detail

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5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/yr		
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated	n					0.0000	0.0000	,	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	,	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

<u>Unmitigated</u>

	NaturalGa s Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr					ton	s/yr							MT	/yr		
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGa s Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr					ton	s/yr							MT	/yr		
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	1 1 1	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

5.3 Energy by Land Use - Electricity

<u>Unmitigated</u>

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr		МТ	7/yr	
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

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5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr		МТ	/yr	
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/yr		
Mitigated	0.0000	0.0000	1.0000e- 005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e- 005	2.0000e- 005	0.0000	0.0000	3.0000e- 005
Unmitigated	0.0000	0.0000	1.0000e- 005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e- 005	2.0000e- 005	0.0000	0.0000	3.0000e- 005

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6.2 Area by SubCategory

Unmitigated

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory					ton	s/yr							МТ	7/yr		
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	1.0000e- 005	0.0000		0.0000	0.0000	1 1 1 1 1	0.0000	0.0000	0.0000	2.0000e- 005	2.0000e- 005	0.0000	0.0000	3.0000e- 005
Total	0.0000	0.0000	1.0000e- 005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e- 005	2.0000e- 005	0.0000	0.0000	3.0000e- 005

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory					ton	s/yr							МТ	/yr		
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	1.0000e- 005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e- 005	2.0000e- 005	0.0000	0.0000	3.0000e- 005
Total	0.0000	0.0000	1.0000e- 005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e- 005	2.0000e- 005	0.0000	0.0000	3.0000e- 005

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7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category		МТ	ī/yr	
milgatou	0.0000	0.0000	0.0000	0.0000
oniningatou	0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use

<u>Unmitigated</u>

	Indoor/Out door Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
User Defined Industrial	0/0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

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7.2 Water by Land Use

Mitigated

	Indoor/Out door Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
User Defined Industrial	0/0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e		
	MT/yr					
Miligutou	0.0000	0.0000	0.0000	0.0000		
Unmitigated	0.0000	0.0000	0.0000	0.0000		

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8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type]
PAR 1134			<i>B-1-25</i>				March 2019

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10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type Number Hour	rs/Day Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

	N1 1
Equipment Type	Number

11.0 Vegetation

6.3.2 Page 1 of 21 Da PAR1134_Construction_SCR and NH3 Tank - South Coast AQMD Air District, Summer

PAR1134_Construction_SCR and NH3 Tank

South Coast AQMD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	1.00	User Defined Unit	0.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	31
Climate Zone	9			Operational Year	2020
Utility Company	Southern California Ediso	n			
CO2 Intensity (Ib/MWhr)	702.44	CH4 Intensity (Ib/MWhr)	0.029	N2O Intensity (Ib/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

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PAR1134_Construction_SCR and NH3 Tank - South Coast AQMD Air District, Summer

Project Characteristics -

Land Use -

Construction Phase - Construction Phase - SCR: Demolition: 15 days; Site Preparation: 5 days; Building Construction: 180 days; Paving: 5 days

Off-road Equipment - Cranes (1): 2 hours per day; Forklifts (1): 5 hours per day; Generator Sets (1): 8 hours per day; Tractors/Loaders/Backhoes (1): 4 hours per day; Welders (1): 4 hours per day; Aerial Lifts (1): 4 hours per day

Off-road Equipment - Concrete/Industrial Saws (1): 8 hours per day; Rubber Tired Dozers (1): 3 hours per day; Tractors/Loaders/Backhoes (1): 4 hours per day; Cranes (1): 2 hours per day

Off-road Equipment - Cement and Mortar Mixers (2): 6 hours per day; Pavers (1): 5 hours per day; Rollers (1): 4 hours per day; Plate Compactors (1): 4 hours per day; Tractors/Loaders/Backhoes (1): 4 hours per day

Off-road Equipment - Rubber Tired Dozers (1): 7 hours per day; Tractors/Loaders/Backhoes (1): 4 hours per day; Trenchers (1): 4 hours per day

Trips and VMT - Demolition: 20 Worker Trips, 0 Vendor Trips, 10 Hauling Trips Site Preparation: 10 Work Trips, 0 Vendor Trips, 0 Hauling Trips Building Construction: 20 Worker Trips, 5 Vendor Trips, 0 Hauling Paving: 10 Worker Trips, 1 Vendor Trips, 0 Hauling

Demolition -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	0.00	180.00
tblConstructionPhase	NumDays	0.00	15.00
tblConstructionPhase	NumDays	0.00	5.00
tblConstructionPhase	NumDays	0.00	5.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00

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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	PhaseName		Building Construction
tblOffRoadEquipment	PhaseName		Demolition
tblOffRoadEquipment	PhaseName		Building Construction
tblOffRoadEquipment	PhaseName		Paving
tblOffRoadEquipment	PhaseName		Site Preparation
tblOffRoadEquipment	PhaseName		Site Preparation
tblOffRoadEquipment	PhaseName		Building Construction
tblOffRoadEquipment	UsageHours	4.00	2.00
tblOffRoadEquipment	UsageHours	7.00	5.00
tblOffRoadEquipment	UsageHours	7.00	4.00
tblOffRoadEquipment	UsageHours	1.00	3.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	6.00	4.00
tblOffRoadEquipment	UsageHours	7.00	4.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblTripsAndVMT	HaulingTripNumber	0.00	10.00
tblTripsAndVMT	VendorTripNumber	0.00	5.00
tblTripsAndVMT	VendorTripNumber	0.00	1.00
tblTripsAndVMT	WorkerTripNumber	10.00	20.00
tblTripsAndVMT	WorkerTripNumber	8.00	10.00
tblTripsAndVMT	WorkerTripNumber	0.00	20.00
tblTripsAndVMT	WorkerTripNumber	15.00	10.00

2.0 Emissions Summary

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PAR1134_Construction_SCR and NH3 Tank - South Coast AQMD Air District, Summer

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year					lb/	day							lb/c	lay		
2020	1.3044	12.8970	8.6326	0.0164	5.3811	0.6951	6.0762	2.9261	0.6395	3.5656	0.0000	1,575.295 9	1,575.295 9	0.3389	0.0000	1,580.836 7
Maximum	1.3044	12.8970	8.6326	0.0164	5.3811	0.6951	6.0762	2.9261	0.6395	3.5656	0.0000	1,575.295 9	1,575.295 9	0.3389	0.0000	1,580.836 7

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year					lb/e	day							lb/c	day		
2020	1.3044	12.8970	8.6326	0.0164	5.3811	0.6951	6.0762	2.9261	0.6395	3.5656	0.0000	1,575.295 9	1,575.295 9	0.3389	0.0000	1,580.836 7
Maximum	1.3044	12.8970	8.6326	0.0164	5.3811	0.6951	6.0762	2.9261	0.6395	3.5656	0.0000	1,575.295 9	1,575.295 9	0.3389	0.0000	1,580.836 7

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Appendix B-1: CalEEMod Files and Assumptions (Annual) Date: 1/22/2019 3:56 PM

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2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/e	day							lb/c	lay		
Area	1.0000e- 005	0.0000	1.0000e- 004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e- 004	2.2000e- 004	0.0000		2.3000e- 004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	1.0000e- 005	0.0000	1.0000e- 004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		2.2000e- 004	2.2000e- 004	0.0000	0.0000	2.3000e- 004

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/o	day							lb/c	lay		
Area	1.0000e- 005	0.0000	1.0000e- 004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e- 004	2.2000e- 004	0.0000		2.3000e- 004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	1.0000e- 005	0.0000	1.0000e- 004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		2.2000e- 004	2.2000e- 004	0.0000	0.0000	2.3000e- 004

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	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/2/2020	1/22/2020	5	15	
2	Site Preparation	Site Preparation	1/23/2020	1/29/2020	5	5	
3	Building Construction	Building Construction	1/30/2020	10/7/2020	5	180	
4	Paving	Paving	10/8/2020	10/14/2020	5	5	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

PAR1134_Construction_SCR and NH3 Tank - South Coast AQMD Air District, Summer

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Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Cranes	1	2.00	231	0.29
Demolition	Rubber Tired Dozers	1	3.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	1	4.00	97	0.37
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	4.00	97	0.37
Site Preparation	Trenchers	1	4.00	78	0.50
Building Construction	Aerial Lifts	1	4.00	63	0.31
Building Construction	Cranes	1	2.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	4.00	97	0.37
Building Construction	Welders	1	4.00	46	0.45
Paving	Cement and Mortar Mixers	2	6.00	9	0.56
Paving	Pavers	1	5.00	130	0.42
Paving	Plate Compactors	1	4.00	8	0.43
Paving	Rollers	1	4.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	4.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	4	20.00	0.00	10.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	10.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	6	20.00	5.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	10.00	1.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

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3.1 Mitigation Measures Construction

3.2 Demolition - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	day		
Fugitive Dust					1.0000e- 005	0.0000	1.0000e- 005	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.0411	9.9487	6.9046	0.0125		0.5284	0.5284		0.5020	0.5020		1,192.999 7	1,192.999 7	0.2317		1,198.792 3
Total	1.0411	9.9487	6.9046	0.0125	1.0000e- 005	0.5284	0.5284	0.0000	0.5020	0.5020		1,192.999 7	1,192.999 7	0.2317		1,198.792 3

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3.2 Demolition - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/	day							lb/c	day		
Hauling	5.0600e- 003	0.1814	0.0361	5.2000e- 004	0.0117	5.8000e- 004	0.0122	3.1900e- 003	5.6000e- 004	3.7500e- 003		55.8886	55.8886	3.7500e- 003		55.9824
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0905	0.0608	0.8176	2.3000e- 003	0.2236	1.7000e- 003	0.2253	0.0593	1.5600e- 003	0.0609		228.8835	228.8835	6.5800e- 003		229.0480
Total	0.0956	0.2423	0.8537	2.8200e- 003	0.2352	2.2800e- 003	0.2375	0.0625	2.1200e- 003	0.0646		284.7721	284.7721	0.0103		285.0304

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	lay		
Fugitive Dust					1.0000e- 005	0.0000	1.0000e- 005	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.0411	9.9487	6.9046	0.0125		0.5284	0.5284		0.5020	0.5020	0.0000	1,192.999 7	1,192.999 7	0.2317		1,198.792 3
Total	1.0411	9.9487	6.9046	0.0125	1.0000e- 005	0.5284	0.5284	0.0000	0.5020	0.5020	0.0000	1,192.999 7	1,192.999 7	0.2317		1,198.792 3

PAR1134_Construction_SCR and NH3 Tank - South Coast AQMD Air District, Summer

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3.2 Demolition - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/	day							lb/d	day		
Hauling	5.0600e- 003	0.1814	0.0361	5.2000e- 004	0.0117	5.8000e- 004	0.0122	3.1900e- 003	5.6000e- 004	3.7500e- 003		55.8886	55.8886	3.7500e- 003		55.9824
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0905	0.0608	0.8176	2.3000e- 003	0.2236	1.7000e- 003	0.2253	0.0593	1.5600e- 003	0.0609		228.8835	228.8835	6.5800e- 003		229.0480
Total	0.0956	0.2423	0.8537	2.8200e- 003	0.2352	2.2800e- 003	0.2375	0.0625	2.1200e- 003	0.0646		284.7721	284.7721	0.0103		285.0304

3.3 Site Preparation - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/d	day		
Fugitive Dust					5.2693	0.0000	5.2693	2.8965	0.0000	2.8965			0.0000			0.0000
Off-Road	1.2592	12.8666	6.0732	0.0107		0.6943	0.6943		0.6387	0.6387		1,037.715 0	1,037.715 0	0.3356		1,046.105 4
Total	1.2592	12.8666	6.0732	0.0107	5.2693	0.6943	5.9636	2.8965	0.6387	3.5352		1,037.715 0	1,037.715 0	0.3356		1,046.105 4

Appendix B-1: CalEEMod Files and Assumptions (Annual) Date: 1/22/2019 3:56 PM

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3.3 Site Preparation - 2020

Unmitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/e	day							lb/c	lay		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0452	0.0304	0.4088	1.1500e- 003	0.1118	8.5000e- 004	0.1126	0.0296	7.8000e- 004	0.0304		114.4418	114.4418	3.2900e- 003		114.5240
Total	0.0452	0.0304	0.4088	1.1500e- 003	0.1118	8.5000e- 004	0.1126	0.0296	7.8000e- 004	0.0304		114.4418	114.4418	3.2900e- 003		114.5240

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	day		
Fugitive Dust					5.2693	0.0000	5.2693	2.8965	0.0000	2.8965			0.0000			0.0000
Off-Road	1.2592	12.8666	6.0732	0.0107		0.6943	0.6943	1 1 1	0.6387	0.6387	0.0000	1,037.715 0	1,037.715 0	0.3356		1,046.105 4
Total	1.2592	12.8666	6.0732	0.0107	5.2693	0.6943	5.9636	2.8965	0.6387	3.5352	0.0000	1,037.715 0	1,037.715 0	0.3356		1,046.105 4

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PAR1134_Construction_SCR and NH3 Tank - South Coast AQMD Air District, Summer

3.3 Site Preparation - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/	day							lb/c	day		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0452	0.0304	0.4088	1.1500e- 003	0.1118	8.5000e- 004	0.1126	0.0296	7.8000e- 004	0.0304		114.4418	114.4418	3.2900e- 003		114.5240
Total	0.0452	0.0304	0.4088	1.1500e- 003	0.1118	8.5000e- 004	0.1126	0.0296	7.8000e- 004	0.0304		114.4418	114.4418	3.2900e- 003		114.5240

3.4 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	day		
Off-Road	0.9160	7.9597	7.6901	0.0128		0.4415	0.4415		0.4253	0.4253		1,209.188 1	1,209.188 1	0.2064		1,214.349 1
Total	0.9160	7.9597	7.6901	0.0128		0.4415	0.4415		0.4253	0.4253		1,209.188 1	1,209.188 1	0.2064		1,214.349 1

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PAR1134_Construction_SCR and NH3 Tank - South Coast AQMD Air District, Summer

3.4 Building Construction - 2020

Unmitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/e	day							lb/c	lay		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0164	0.5247	0.1249	1.2900e- 003	0.0320	2.6000e- 003	0.0346	9.2100e- 003	2.4900e- 003	0.0117		137.2242	137.2242	8.6200e- 003		137.4396
Worker	0.0905	0.0608	0.8176	2.3000e- 003	0.2236	1.7000e- 003	0.2253	0.0593	1.5600e- 003	0.0609		228.8835	228.8835	6.5800e- 003		229.0480
Total	0.1069	0.5855	0.9426	3.5900e- 003	0.2556	4.3000e- 003	0.2599	0.0685	4.0500e- 003	0.0726		366.1077	366.1077	0.0152		366.4876

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	day		
Off-Road	0.9160	7.9597	7.6901	0.0128		0.4415	0.4415		0.4253	0.4253	0.0000	1,209.188 1	1,209.188 1	0.2064		1,214.349 1
Total	0.9160	7.9597	7.6901	0.0128		0.4415	0.4415		0.4253	0.4253	0.0000	1,209.188 1	1,209.188 1	0.2064		1,214.349 1

PAR1134_Construction_SCR and NH3 Tank - South Coast AQMD Air District, Summer

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3.4 Building Construction - 2020

Mitigated Construction Off-Site

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/e	day							lb/d	lay		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0164	0.5247	0.1249	1.2900e- 003	0.0320	2.6000e- 003	0.0346	9.2100e- 003	2.4900e- 003	0.0117		137.2242	137.2242	8.6200e- 003		137.4396
Worker	0.0905	0.0608	0.8176	2.3000e- 003	0.2236	1.7000e- 003	0.2253	0.0593	1.5600e- 003	0.0609		228.8835	228.8835	6.5800e- 003		229.0480
Total	0.1069	0.5855	0.9426	3.5900e- 003	0.2556	4.3000e- 003	0.2599	0.0685	4.0500e- 003	0.0726		366.1077	366.1077	0.0152		366.4876

3.5 Paving - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/o	day							lb/c	lay		
Off-Road	0.4812	4.5275	4.4659	7.1100e- 003		0.2446	0.2446		0.2272	0.2272		654.9767	654.9767	0.1914		659.7619
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.4812	4.5275	4.4659	7.1100e- 003		0.2446	0.2446		0.2272	0.2272		654.9767	654.9767	0.1914		659.7619

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PAR1134_Construction_SCR and NH3 Tank - South Coast AQMD Air District, Summer

3.5 Paving - 2020

Unmitigated Construction Off-Site

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/	day							lb/c	lay		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.2800e- 003	0.1049	0.0250	2.6000e- 004	6.4000e- 003	5.2000e- 004	6.9200e- 003	1.8400e- 003	5.0000e- 004	2.3400e- 003		27.4449	27.4449	1.7200e- 003		27.4879
Worker	0.0452	0.0304	0.4088	1.1500e- 003	0.1118	8.5000e- 004	0.1126	0.0296	7.8000e- 004	0.0304		114.4418	114.4418	3.2900e- 003		114.5240
Total	0.0485	0.1354	0.4338	1.4100e- 003	0.1182	1.3700e- 003	0.1195	0.0315	1.2800e- 003	0.0328		141.8866	141.8866	5.0100e- 003		142.0119

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/e	day							lb/c	day		
Off-Road	0.4812	4.5275	4.4659	7.1100e- 003		0.2446	0.2446		0.2272	0.2272	0.0000	654.9767	654.9767	0.1914		659.7619
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.4812	4.5275	4.4659	7.1100e- 003		0.2446	0.2446		0.2272	0.2272	0.0000	654.9767	654.9767	0.1914		659.7619

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PAR1134_Construction_SCR and NH3 Tank - South Coast AQMD Air District, Summer

3.5 Paving - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/	day							lb/c	day		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.2800e- 003	0.1049	0.0250	2.6000e- 004	6.4000e- 003	5.2000e- 004	6.9200e- 003	1.8400e- 003	5.0000e- 004	2.3400e- 003		27.4449	27.4449	1.7200e- 003		27.4879
Worker	0.0452	0.0304	0.4088	1.1500e- 003	0.1118	8.5000e- 004	0.1126	0.0296	7.8000e- 004	0.0304		114.4418	114.4418	3.2900e- 003		114.5240
Total	0.0485	0.1354	0.4338	1.4100e- 003	0.1182	1.3700e- 003	0.1195	0.0315	1.2800e- 003	0.0328		141.8866	141.8866	5.0100e- 003		142.0119

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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PAR1134_Construction_SCR and NH3 Tank - South Coast AQMD Air District, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/e	day							lb/c	lay		
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

	Ave	rage Daily Trip Ra	ate	Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
User Defined Industrial	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

		Miles			Trip %			Trip Purpos	e %
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
User Defined Industrial	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
User Defined Industrial	0.547828	0.043645	0.199892	0.122290	0.016774	0.005862	0.020637	0.032653	0.002037	0.001944	0.004777	0.000705	0.000956

5.0 Energy Detail

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PAR1134_Construction_SCR and NH3 Tank - South Coast AQMD Air District, Summer

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	lay		
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	 	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

<u>Unmitigated</u>

	NaturalGa s Use	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr					lb/e	day							lb/c	day		
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

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PAR1134_Construction_SCR and NH3 Tank - South Coast AQMD Air District, Summer

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGa s Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr					lb/e	day							lb/c	lay		
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/o	day							lb/c	lay		
Mitigated	1.0000e- 005	0.0000	1.0000e- 004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e- 004	2.2000e- 004	0.0000		2.3000e- 004
Oriningatou	1.0000e- 005	0.0000	1.0000e- 004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e- 004	2.2000e- 004	0.0000		2.3000e- 004

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6.2 Area by SubCategory

Unmitigated

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory					lb/e	day							lb/d	day		
	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e- 005	0.0000	1.0000e- 004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e- 004	2.2000e- 004	0.0000		2.3000e- 004
Total	1.0000e- 005	0.0000	1.0000e- 004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e- 004	2.2000e- 004	0.0000		2.3000e- 004

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory					lb/d	day							lb/c	lay		
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e- 005	0.0000	1.0000e- 004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e- 004	2.2000e- 004	0.0000		2.3000e- 004
Total	1.0000e- 005	0.0000	1.0000e- 004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e- 004	2.2000e- 004	0.0000		2.3000e- 004

PAR1134_Construction_SCR and NH3 Tank - South Coast AQMD Air District, Summer

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7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
				()	()

User Defined Equipment

Equipment Type Number

11.0 Vegetation

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PAR1134_Construction_SCR and NH3 Tank - South Coast AQMD Air District, Winter

PAR1134_Construction_SCR and NH3 Tank

South Coast AQMD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	1.00	User Defined Unit	0.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	31
Climate Zone	9			Operational Year	2020
Utility Company	Southern California Ediso	n			
CO2 Intensity (Ib/MWhr)	702.44	CH4 Intensity (Ib/MWhr)	0.029	N2O Intensity (Ib/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

PAR1134_Construction_SCR and NH3 Tank - South Coast AQMD Air District, Winter

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Project Characteristics -

Land Use -

Construction Phase - Construction Phase - SCR: Demolition: 15 days; Site Preparation: 5 days; Building Construction: 180 days; Paving: 5 days

Off-road Equipment - Cranes (1): 2 hours per day; Forklifts (1): 5 hours per day; Generator Sets (1): 8 hours per day; Tractors/Loaders/Backhoes (1): 4 hours per day; Welders (1): 4 hours per day; Aerial Lifts (1): 4 hours per day

Off-road Equipment - Concrete/Industrial Saws (1): 8 hours per day; Rubber Tired Dozers (1): 3 hours per day; Tractors/Loaders/Backhoes (1): 4 hours per day; Cranes (1): 2 hours per day

Off-road Equipment - Cement and Mortar Mixers (2): 6 hours per day; Pavers (1): 5 hours per day; Rollers (1): 4 hours per day; Plate Compactors (1): 4 hours per day; Tractors/Loaders/Backhoes (1): 4 hours per day

Off-road Equipment - Rubber Tired Dozers (1): 7 hours per day; Tractors/Loaders/Backhoes (1): 4 hours per day; Trenchers (1): 4 hours per day

Trips and VMT - Demolition: 20 Worker Trips, 0 Vendor Trips, 10 Hauling Trips Site Preparation: 10 Work Trips, 0 Vendor Trips, 0 Hauling Trips Building Construction: 20 Worker Trips, 5 Vendor Trips, 0 Hauling Paving: 10 Worker Trips, 1 Vendor Trips, 0 Hauling

Demolition -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	0.00	180.00
tblConstructionPhase	NumDays	0.00	15.00
tblConstructionPhase	NumDays	0.00	5.00
tblConstructionPhase	NumDays	0.00	5.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00

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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	PhaseName		Building Construction
tblOffRoadEquipment	PhaseName		Demolition
tblOffRoadEquipment	PhaseName		Building Construction
tblOffRoadEquipment	PhaseName		Paving
tblOffRoadEquipment	PhaseName		Site Preparation
tblOffRoadEquipment	PhaseName		Site Preparation
tblOffRoadEquipment	PhaseName		Building Construction
tblOffRoadEquipment	UsageHours	4.00	2.00
tblOffRoadEquipment	UsageHours	7.00	5.00
tblOffRoadEquipment	UsageHours	7.00	4.00
tblOffRoadEquipment	UsageHours	1.00	3.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	6.00	4.00
tblOffRoadEquipment	UsageHours	7.00	4.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblTripsAndVMT	HaulingTripNumber	0.00	10.00
tblTripsAndVMT	VendorTripNumber	0.00	5.00
tblTripsAndVMT	VendorTripNumber	0.00	1.00
tblTripsAndVMT	WorkerTripNumber	10.00	20.00
tblTripsAndVMT	WorkerTripNumber	8.00	10.00
tblTripsAndVMT	WorkerTripNumber	0.00	20.00
tblTripsAndVMT	WorkerTripNumber	15.00	10.00

2.0 Emissions Summary

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PAR1134_Construction_SCR and NH3 Tank - South Coast AQMD Air District, Winter

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year					lb/	day							lb/c	lay		
2020	1.3085	12.8999	8.5655	0.0162	5.3811	0.6951	6.0762	2.9261	0.6395	3.5656	0.0000	1,556.517 5	1,556.517 5	0.3387	0.0000	1,562.063 3
Maximum	1.3085	12.8999	8.5655	0.0162	5.3811	0.6951	6.0762	2.9261	0.6395	3.5656	0.0000	1,556.517 5	1,556.517 5	0.3387	0.0000	1,562.063 3

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year					lb/e	day							lb/c	day		
2020	1.3085	12.8999	8.5655	0.0162	5.3811	0.6951	6.0762	2.9261	0.6395	3.5656	0.0000	1,556.517 5	1,556.517 5	0.3387	0.0000	1,562.063 3
Maximum	1.3085	12.8999	8.5655	0.0162	5.3811	0.6951	6.0762	2.9261	0.6395	3.5656	0.0000	1,556.517 5	1,556.517 5	0.3387	0.0000	1,562.063 3

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

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2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/e	day							lb/c	lay		
Area	1.0000e- 005	0.0000	1.0000e- 004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e- 004	2.2000e- 004	0.0000		2.3000e- 004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	1	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	1.0000e- 005	0.0000	1.0000e- 004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		2.2000e- 004	2.2000e- 004	0.0000	0.0000	2.3000e- 004

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/o	day							lb/c	lay		
Area	1.0000e- 005	0.0000	1.0000e- 004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e- 004	2.2000e- 004	0.0000		2.3000e- 004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	1.0000e- 005	0.0000	1.0000e- 004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		2.2000e- 004	2.2000e- 004	0.0000	0.0000	2.3000e- 004

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PAR1134_Construction_SCR and NH3 Tank - South Coast AQMD Air District, Winter

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/2/2020	1/22/2020	5	15	
2	Site Preparation	Site Preparation	1/23/2020	1/29/2020	5	5	
3	Building Construction	Building Construction	1/30/2020	10/7/2020	5	180	
4	Paving	Paving	10/8/2020	10/14/2020	5	5	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

PAR1134_Construction_SCR and NH3 Tank - South Coast AQMD Air District, Winter

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Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Cranes	1	2.00	231	0.29
Demolition	Rubber Tired Dozers	1	3.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	1	4.00	97	0.37
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	4.00	97	0.37
Site Preparation	Trenchers	1	4.00	78	0.50
Building Construction	Aerial Lifts	1	4.00	63	0.31
Building Construction	Cranes	1	2.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	4.00	97	0.37
Building Construction	Welders	1	4.00	46	0.45
Paving	Cement and Mortar Mixers	2	6.00	9	0.56
Paving	Pavers	1	5.00	130	0.42
Paving	Plate Compactors	1	4.00	8	0.43
Paving	Rollers	1	4.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	4.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	4	20.00	0.00	10.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	10.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	6	20.00	5.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	10.00	1.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

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PAR1134_Construction_SCR and NH3 Tank - South Coast AQMD Air District, Winter

3.1 Mitigation Measures Construction

3.2 Demolition - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	day		
Fugitive Dust					1.0000e- 005	0.0000	1.0000e- 005	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.0411	9.9487	6.9046	0.0125		0.5284	0.5284		0.5020	0.5020		1,192.999 7	1,192.999 7	0.2317		1,198.792 3
Total	1.0411	9.9487	6.9046	0.0125	1.0000e- 005	0.5284	0.5284	0.0000	0.5020	0.5020		1,192.999 7	1,192.999 7	0.2317		1,198.792 3

PAR1134_Construction_SCR and NH3 Tank - South Coast AQMD Air District, Winter

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3.2 Demolition - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/	day							lb/c	day		
Hauling	5.2100e- 003	0.1838	0.0389	5.1000e- 004	0.0117	5.9000e- 004	0.0122	3.1900e- 003	5.7000e- 004	3.7600e- 003		54.8599	54.8599	3.9100e- 003		54.9577
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0987	0.0666	0.7362	2.1500e- 003	0.2236	1.7000e- 003	0.2253	0.0593	1.5600e- 003	0.0609		214.0730	214.0730	6.1400e- 003		214.2265
Total	0.1039	0.2504	0.7750	2.6600e- 003	0.2352	2.2900e- 003	0.2375	0.0625	2.1300e- 003	0.0646		268.9329	268.9329	0.0101		269.1842

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/d	day		
Fugitive Dust					1.0000e- 005	0.0000	1.0000e- 005	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.0411	9.9487	6.9046	0.0125		0.5284	0.5284		0.5020	0.5020	0.0000	1,192.999 7	1,192.999 7	0.2317		1,198.792 3
Total	1.0411	9.9487	6.9046	0.0125	1.0000e- 005	0.5284	0.5284	0.0000	0.5020	0.5020	0.0000	1,192.999 7	1,192.999 7	0.2317		1,198.792 3

PAR1134_Construction_SCR and NH3 Tank - South Coast AQMD Air District, Winter

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3.2 Demolition - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/	day							lb/c	day		
Hauling	5.2100e- 003	0.1838	0.0389	5.1000e- 004	0.0117	5.9000e- 004	0.0122	3.1900e- 003	5.7000e- 004	3.7600e- 003		54.8599	54.8599	3.9100e- 003		54.9577
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0987	0.0666	0.7362	2.1500e- 003	0.2236	1.7000e- 003	0.2253	0.0593	1.5600e- 003	0.0609		214.0730	214.0730	6.1400e- 003		214.2265
Total	0.1039	0.2504	0.7750	2.6600e- 003	0.2352	2.2900e- 003	0.2375	0.0625	2.1300e- 003	0.0646		268.9329	268.9329	0.0101		269.1842

3.3 Site Preparation - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/o	day							lb/c	lay		
Fugitive Dust					5.2693	0.0000	5.2693	2.8965	0.0000	2.8965			0.0000			0.0000
Off-Road	1.2592	12.8666	6.0732	0.0107		0.6943	0.6943		0.6387	0.6387		1,037.715 0	1,037.715 0	0.3356		1,046.105 4
Total	1.2592	12.8666	6.0732	0.0107	5.2693	0.6943	5.9636	2.8965	0.6387	3.5352		1,037.715 0	1,037.715 0	0.3356		1,046.105 4

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3.3 Site Preparation - 2020

Unmitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/	day							lb/d	lay		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0494	0.0333	0.3681	1.0700e- 003	0.1118	8.5000e- 004	0.1126	0.0296	7.8000e- 004	0.0304		107.0365	107.0365	3.0700e- 003		107.1132
Total	0.0494	0.0333	0.3681	1.0700e- 003	0.1118	8.5000e- 004	0.1126	0.0296	7.8000e- 004	0.0304		107.0365	107.0365	3.0700e- 003		107.1132

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/e	day							lb/c	lay		
Fugitive Dust					5.2693	0.0000	5.2693	2.8965	0.0000	2.8965			0.0000			0.0000
Off-Road	1.2592	12.8666	6.0732	0.0107		0.6943	0.6943		0.6387	0.6387	0.0000	1,037.715 0	1,037.715 0	0.3356		1,046.105 4
Total	1.2592	12.8666	6.0732	0.0107	5.2693	0.6943	5.9636	2.8965	0.6387	3.5352	0.0000	1,037.715 0	1,037.715 0	0.3356		1,046.105 4

PAR1134_Construction_SCR and NH3 Tank - South Coast AQMD Air District, Winter

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3.3 Site Preparation - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/	day							lb/c	day		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0494	0.0333	0.3681	1.0700e- 003	0.1118	8.5000e- 004	0.1126	0.0296	7.8000e- 004	0.0304		107.0365	107.0365	3.0700e- 003		107.1132
Total	0.0494	0.0333	0.3681	1.0700e- 003	0.1118	8.5000e- 004	0.1126	0.0296	7.8000e- 004	0.0304		107.0365	107.0365	3.0700e- 003		107.1132

3.4 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	lay							lb/c	day		
Off-Road	0.9160	7.9597	7.6901	0.0128		0.4415	0.4415		0.4253	0.4253		1,209.188 1	1,209.188 1	0.2064		1,214.349 1
Total	0.9160	7.9597	7.6901	0.0128		0.4415	0.4415		0.4253	0.4253		1,209.188 1	1,209.188 1	0.2064		1,214.349 1

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3.4 Building Construction - 2020

Unmitigated Construction Off-Site

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/	day							lb/c	lay		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0172	0.5241	0.1393	1.2500e- 003	0.0320	2.6400e- 003	0.0346	9.2100e- 003	2.5200e- 003	0.0117		133.2564	133.2564	9.2500e- 003		133.4877
Worker	0.0987	0.0666	0.7362	2.1500e- 003	0.2236	1.7000e- 003	0.2253	0.0593	1.5600e- 003	0.0609		214.0730	214.0730	6.1400e- 003		214.2265
Total	0.1159	0.5907	0.8755	3.4000e- 003	0.2556	4.3400e- 003	0.2599	0.0685	4.0800e- 003	0.0726		347.3294	347.3294	0.0154		347.7142

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	lay		
Off-Road	0.9160	7.9597	7.6901	0.0128		0.4415	0.4415		0.4253	0.4253	0.0000	1,209.188 1	1,209.188 1	0.2064		1,214.349 1
Total	0.9160	7.9597	7.6901	0.0128		0.4415	0.4415		0.4253	0.4253	0.0000	1,209.188 1	1,209.188 1	0.2064		1,214.349 1

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3.4 Building Construction - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/	day							lb/d	lay		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0172	0.5241	0.1393	1.2500e- 003	0.0320	2.6400e- 003	0.0346	9.2100e- 003	2.5200e- 003	0.0117		133.2564	133.2564	9.2500e- 003		133.4877
Worker	0.0987	0.0666	0.7362	2.1500e- 003	0.2236	1.7000e- 003	0.2253	0.0593	1.5600e- 003	0.0609		214.0730	214.0730	6.1400e- 003		214.2265
Total	0.1159	0.5907	0.8755	3.4000e- 003	0.2556	4.3400e- 003	0.2599	0.0685	4.0800e- 003	0.0726		347.3294	347.3294	0.0154		347.7142

3.5 Paving - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/o	day							lb/c	lay		
Off-Road	0.4812	4.5275	4.4659	7.1100e- 003		0.2446	0.2446		0.2272	0.2272		654.9767	654.9767	0.1914		659.7619
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.4812	4.5275	4.4659	7.1100e- 003		0.2446	0.2446		0.2272	0.2272		654.9767	654.9767	0.1914		659.7619

PAR1134_Construction_SCR and NH3 Tank - South Coast AQMD Air District, Winter

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3.5 Paving - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/	day							lb/d	day		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.4400e- 003	0.1048	0.0279	2.5000e- 004	6.4000e- 003	5.3000e- 004	6.9300e- 003	1.8400e- 003	5.0000e- 004	2.3500e- 003		26.6513	26.6513	1.8500e- 003		26.6976
Worker	0.0494	0.0333	0.3681	1.0700e- 003	0.1118	8.5000e- 004	0.1126	0.0296	7.8000e- 004	0.0304		107.0365	107.0365	3.0700e- 003		107.1132
Total	0.0528	0.1381	0.3960	1.3200e- 003	0.1182	1.3800e- 003	0.1196	0.0315	1.2800e- 003	0.0328		133.6878	133.6878	4.9200e- 003		133.8108

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/e	day							lb/c	day		
Off-Road	0.4812	4.5275	4.4659	7.1100e- 003		0.2446	0.2446		0.2272	0.2272	0.0000	654.9767	654.9767	0.1914		659.7619
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.4812	4.5275	4.4659	7.1100e- 003		0.2446	0.2446		0.2272	0.2272	0.0000	654.9767	654.9767	0.1914		659.7619

PAR1134_Construction_SCR and NH3 Tank - South Coast AQMD Air District, Winter

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3.5 Paving - 2020

Mitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/	day							lb/c	day		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.4400e- 003	0.1048	0.0279	2.5000e- 004	6.4000e- 003	5.3000e- 004	6.9300e- 003	1.8400e- 003	5.0000e- 004	2.3500e- 003		26.6513	26.6513	1.8500e- 003		26.6976
Worker	0.0494	0.0333	0.3681	1.0700e- 003	0.1118	8.5000e- 004	0.1126	0.0296	7.8000e- 004	0.0304		107.0365	107.0365	3.0700e- 003		107.1132
Total	0.0528	0.1381	0.3960	1.3200e- 003	0.1182	1.3800e- 003	0.1196	0.0315	1.2800e- 003	0.0328		133.6878	133.6878	4.9200e- 003		133.8108

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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PAR1134_Construction_SCR and NH3 Tank - South Coast AQMD Air District, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/o	day							lb/d	lay		
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

	Ave	rage Daily Trip Ra	ate	Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
User Defined Industrial	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

		Miles			Trip %			Trip Purpos	e %
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
User Defined Industrial	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
User Defined Industrial	0.547828	0.043645	0.199892	0.122290	0.016774	0.005862	0.020637	0.032653	0.002037	0.001944	0.004777	0.000705	0.000956

5.0 Energy Detail

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PAR1134_Construction_SCR and NH3 Tank - South Coast AQMD Air District, Winter

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/e	day							lb/c	lay		
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

<u>Unmitigated</u>

	NaturalGa s Use	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr					lb/o	day							lb/c	lay		
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

Appendix B-1: CalEEMod Files and Assumptions (Annual) Date: 1/22/2019 4:32 PM

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5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGa s Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr					lb/e	day							lb/c	day		
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	lay		
Mitigated	1.0000e- 005	0.0000	1.0000e- 004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e- 004	2.2000e- 004	0.0000		2.3000e- 004
Unmitigated	1.0000e- 005	0.0000	1.0000e- 004	0.0000		0.0000	0.0000	 - - -	0.0000	0.0000		2.2000e- 004	2.2000e- 004	0.0000		2.3000e- 004

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6.2 Area by SubCategory

Unmitigated

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
SubCategory		lb/day											lb/day				
Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000	
Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000	
Landscaping	1.0000e- 005	0.0000	1.0000e- 004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e- 004	2.2000e- 004	0.0000		2.3000e- 004	
Total	1.0000e- 005	0.0000	1.0000e- 004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e- 004	2.2000e- 004	0.0000		2.3000e- 004	

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory		lb/day											lb/c	lay		
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e- 005	0.0000	1.0000e- 004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e- 004	2.2000e- 004	0.0000		2.3000e- 004
Total	1.0000e- 005	0.0000	1.0000e- 004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e- 004	2.2000e- 004	0.0000		2.3000e- 004

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PAR1134_Construction_SCR and NH3 Tank - South Coast AQMD Air District, Winter

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
		ş				51

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type Number

11.0 Vegetation

APPENDIX B-2

CalEEMod Files And Assumptions

PAR1134 Construction Stationary Gas Turbine

PAR1134_Construction_Stationary Gas Turbine - South Coast AQMD Air District, Annual

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PAR1134_Construction_Stationary Gas Turbine

South Coast AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	1.00	User Defined Unit	0.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	31
Climate Zone	9			Operational Year	2020
Utility Company	Southern California Ediso	n			
CO2 Intensity (Ib/MWhr)	702.44	CH4 Intensity (Ib/MWhr)	0.029	N2O Intensity (Ib/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

PAR1134_Construction_Stationary Gas Turbine - South Coast AQMD Air District, Annual

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Project Characteristics -

Land Use -

Construction Phase - Construction Phase - Stationary Gas Turbine: Demolition: 20 days; Site Preparation: 5 days; Building Construction: 180 days; Paving: 5 days

Off-road Equipment - Cranes (1): 3 hours per day; Forklifts (1): 6 hours per day; Generator Sets (1): 8 hours per day; Tractors/Loaders/Backhoes (1): 4 hours per day; Welders (1): 4 hours per day; Aerial Lifts (1): 4 hours per day

Off-road Equipment - Concrete/Industrial Saws (1): 8 hours per day; Rubber Tired Dozers (1): 4 hours per day; Tractors/Loaders/Backhoes (1): 4 hours per day; Cranes (1): 3 hours per day

Off-road Equipment - Cement and Mortar Mixers (2): 6 hours per day; Pavers (1): 5 hours per day; Rollers (1): 4 hours per day; Plate Compactors (1): 4 hours per day; Tractors/Loaders/Backhoes (1): 4 hours per day

Off-road Equipment - Rubber Tired Dozers (1): 7 hours per day; Tractors/Loaders/Backhoes (1): 4 hours per day; Trenchers (1): 4 hours per day

Trips and VMT - Demolition: 20 Worker Trips, 0 Vendor Trips, 10 Hauling Trips Site Preparation: 10 Work Trips, 0 Vendor Trips, 0 Hauling Trips Building Construction: 20 Worker Trips, 5 Vendor Trips, 0 Hauling Paving: 10 Worker Trips, 1 Vendor Trips, 0 Hauling Demolition -

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PAR1134_Construction_	Stationary Gas T	urbine - South	Coast AQMD Air	District, Annual
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Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	0.00	180.00
tblConstructionPhase	NumDays	0.00	20.00
tblConstructionPhase	NumDays	0.00	5.00
tblConstructionPhase	NumDays	0.00	5.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	UsageHours	4.00	3.00
tblOffRoadEquipment	UsageHours	7.00	5.00
tblOffRoadEquipment	UsageHours	7.00	4.00
tblOffRoadEquipment	UsageHours	1.00	4.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	6.00	4.00
tblOffRoadEquipment	UsageHours	7.00	4.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblTripsAndVMT	HaulingTripNumber	0.00	10.00
tblTripsAndVMT	VendorTripNumber	0.00	5.00
tblTripsAndVMT	VendorTripNumber	0.00	1.00
tblTripsAndVMT	WorkerTripNumber	10.00	20.00
tblTripsAndVMT	WorkerTripNumber	8.00	10.00
tblTripsAndVMT	WorkerTripNumber	0.00	20.00
tblTripsAndVMT	WorkerTripNumber	15.00	10.00

2.0 Emissions Summary

Appendix B-2: CalEEMod Files and Assumptions (Annual) Date: 1/22/2019 4:37 PM

PAR1134_Construction_Stationary Gas Turbine - South Coast AQMD Air District, Annual

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2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year					ton	s/yr							МТ	/yr		
2020	0.1149	0.9976	0.9090	1.7500e- 003	0.0386	0.0513	0.0899	0.0141	0.0491	0.0631	0.0000	152.4164	152.4164	0.0238	0.0000	153.0124
Maximum	0.1149	0.9976	0.9090	1.7500e- 003	0.0386	0.0513	0.0899	0.0141	0.0491	0.0631	0.0000	152.4164	152.4164	0.0238	0.0000	153.0124

Mitigated Construction

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year					ton	s/yr							МТ	/yr		
2020	0.1149	0.9976	0.9090	1.7500e- 003	0.0386	0.0513	0.0899	0.0141	0.0491	0.0631	0.0000	152.4162	152.4162	0.0238	0.0000	153.0123
Maximum	0.1149	0.9976	0.9090	1.7500e- 003	0.0386	0.0513	0.0899	0.0141	0.0491	0.0631	0.0000	152.4162	152.4162	0.0238	0.0000	153.0123

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

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Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-2-2020	4-1-2020	0.3776	0.3776
2	4-2-2020	7-1-2020	0.3347	0.3347
3	7-2-2020	9-30-2020	0.3347	0.3347
		Highest	0.3776	0.3776

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/yr		
Area	0.0000	0.0000	1.0000e- 005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e- 005	2.0000e- 005	0.0000	0.0000	3.0000e- 005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste	n			 		0.0000	0.0000	1	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water	n			 		0.0000	0.0000	1	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	1.0000e- 005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	2.0000e- 005	2.0000e- 005	0.0000	0.0000	3.0000e- 005

Appendix B-2: CalEEMod Files and Assumptions (Annual) Date: 1/22/2019 4:37 PM

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2.2 Overall Operational

Mitigated Operational

	ROG	NOx	СО) 5	602	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitiv PM2.		aust I2.5	PM2.5 Total	Bio- CO2	NBio- (CO2 To	otal CO2	CH4	N2O	CC	D2e
Category						tor	is/yr									MT	/yr			
Area	0.0000	0.0000	1.000 005		0000		0.0000	0.0000		0.0	000	0.0000	0.0000	2.000 005		0000e- 005	0.0000	0.000		000e- 05
Energy	0.0000	0.0000	0.000	00 0.0	0000		0.0000	0.0000		0.0	000	0.0000	0.0000	0.000	00 00).0000	0.0000	0.000	0.0	0000
mobile	0.0000	0.0000	0.000	00 0.0	0000	0.0000	0.0000	0.0000	0.000	0 0.0	000	0.0000	0.0000	0.000	00 00).0000	0.0000	0.000	0.0	0000
Waste	F;						0.0000	0.0000		0.0	000	0.0000	0.0000	0.000	00 00).0000	0.0000	0.000	0.0	0000
Water	F;						0.0000	0.0000		0.0	000	0.0000	0.0000	0.000	00 00).0000	0.0000	0.000	0.0	0000
Total	0.0000	0.0000	1.000 005		0000	0.0000	0.0000	0.0000	0.000	0 0.0	000	0.0000	0.0000	2.000 005		0000e- 005	0.0000	0.000		000e- 05
	ROG		NOx	со	SC				/10 otal	Fugitive PM2.5	Exha PM			CO2 N	Bio-CO	2 Total	CO2 C	H4	N20	CO2
Percent Reduction	0.00		0.00	0.00	0.0	0 00	.00 0	.00 0	.00	0.00	0.0	0.0	0 0.	.00	0.00	0.0	0 0.	00	0.00	0.0

3.0 Construction Detail

Construction Phase

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Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/2/2020	1/29/2020	5	20	
2	Site Preparation	Site Preparation	1/30/2020	2/5/2020	5	5	
3	Building Construction	Building Construction	2/6/2020	10/14/2020	5	180	
4	Paving	Paving	10/15/2020	10/21/2020	5	5	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

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Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Cranes	1	3.00	231	0.29
Demolition	Rubber Tired Dozers	1	4.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	1	4.00	97	0.37
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	4.00	97	0.37
Site Preparation	Trenchers	1	4.00	78	0.50
Building Construction	Aerial Lifts	1	4.00	63	0.31
Building Construction	Cranes	1	3.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	4.00	97	0.37
Building Construction	Welders	1	4.00	46	0.45
Paving	Cement and Mortar Mixers	2	6.00	9	0.56
Paving	Pavers	1	5.00	130	0.42
Paving	Plate Compactors	1	4.00	8	0.43
Paving	Rollers	1	4.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	4.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	4	20.00	0.00	10.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	10.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	6	20.00	5.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	10.00	1.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

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3.1 Mitigation Measures Construction

3.2 Demolition - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0123	0.1204	0.0769	1.4000e- 004		6.2600e- 003	6.2600e- 003		5.9100e- 003	5.9100e- 003	0.0000	12.3946	12.3946	2.6100e- 003	0.0000	12.4598
Total	0.0123	0.1204	0.0769	1.4000e- 004	0.0000	6.2600e- 003	6.2600e- 003	0.0000	5.9100e- 003	5.9100e- 003	0.0000	12.3946	12.3946	2.6100e- 003	0.0000	12.4598

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3.2 Demolition - 2020

Unmitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Hauling	4.0000e- 005	1.4000e- 003	2.8000e- 004	0.0000	9.0000e- 005	0.0000	9.0000e- 005	2.0000e- 005	0.0000	3.0000e- 005	0.0000	0.3773	0.3773	3.0000e- 005	0.0000	0.3780
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.9000e- 004	6.8000e- 004	7.5700e- 003	2.0000e- 005	2.1900e- 003	2.0000e- 005	2.2100e- 003	5.8000e- 004	2.0000e- 005	6.0000e- 004	0.0000	1.9753	1.9753	6.0000e- 005	0.0000	1.9768
Total	9.3000e- 004	2.0800e- 003	7.8500e- 003	2.0000e- 005	2.2800e- 003	2.0000e- 005	2.3000e- 003	6.0000e- 004	2.0000e- 005	6.3000e- 004	0.0000	2.3527	2.3527	9.0000e- 005	0.0000	2.3547

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	∵/yr		
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0123	0.1204	0.0769	1.4000e- 004		6.2600e- 003	6.2600e- 003		5.9100e- 003	5.9100e- 003	0.0000	12.3945	12.3945	2.6100e- 003	0.0000	12.4598
Total	0.0123	0.1204	0.0769	1.4000e- 004	0.0000	6.2600e- 003	6.2600e- 003	0.0000	5.9100e- 003	5.9100e- 003	0.0000	12.3945	12.3945	2.6100e- 003	0.0000	12.4598

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3.2 Demolition - 2020

Mitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/yr		
Hauling	4.0000e- 005	1.4000e- 003	2.8000e- 004	0.0000	9.0000e- 005	0.0000	9.0000e- 005	2.0000e- 005	0.0000	3.0000e- 005	0.0000	0.3773	0.3773	3.0000e- 005	0.0000	0.3780
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.9000e- 004	6.8000e- 004	7.5700e- 003	2.0000e- 005	2.1900e- 003	2.0000e- 005	2.2100e- 003	5.8000e- 004	2.0000e- 005	6.0000e- 004	0.0000	1.9753	1.9753	6.0000e- 005	0.0000	1.9768
Total	9.3000e- 004	2.0800e- 003	7.8500e- 003	2.0000e- 005	2.2800e- 003	2.0000e- 005	2.3000e- 003	6.0000e- 004	2.0000e- 005	6.3000e- 004	0.0000	2.3527	2.3527	9.0000e- 005	0.0000	2.3547

3.3 Site Preparation - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Fugitive Dust					0.0132	0.0000	0.0132	7.2400e- 003	0.0000	7.2400e- 003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.1500e- 003	0.0322	0.0152	3.0000e- 005		1.7400e- 003	1.7400e- 003		1.6000e- 003	1.6000e- 003	0.0000	2.3535	2.3535	7.6000e- 004	0.0000	2.3725
Total	3.1500e- 003	0.0322	0.0152	3.0000e- 005	0.0132	1.7400e- 003	0.0149	7.2400e- 003	1.6000e- 003	8.8400e- 003	0.0000	2.3535	2.3535	7.6000e- 004	0.0000	2.3725

Appendix B-2: CalEEMod Files and Assumptions (Annual) Date: 1/22/2019 4:37 PM

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3.3 Site Preparation - 2020

Unmitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e			
Category	tons/yr											MT/yr							
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			
Worker	1.1000e- 004	9.0000e- 005	9.5000e- 004	0.0000	2.7000e- 004	0.0000	2.8000e- 004	7.0000e- 005	0.0000	7.0000e- 005	0.0000	0.2469	0.2469	1.0000e- 005	0.0000	0.2471			
Total	1.1000e- 004	9.0000e- 005	9.5000e- 004	0.0000	2.7000e- 004	0.0000	2.8000e- 004	7.0000e- 005	0.0000	7.0000e- 005	0.0000	0.2469	0.2469	1.0000e- 005	0.0000	0.2471			

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e		
Category	tons/yr										MT/yr							
Fugitive Dust					0.0132	0.0000	0.0132	7.2400e- 003	0.0000	7.2400e- 003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		
Off-Road	3.1500e- 003	0.0322	0.0152	3.0000e- 005		1.7400e- 003	1.7400e- 003		1.6000e- 003	1.6000e- 003	0.0000	2.3535	2.3535	7.6000e- 004	0.0000	2.3725		
Total	3.1500e- 003	0.0322	0.0152	3.0000e- 005	0.0132	1.7400e- 003	0.0149	7.2400e- 003	1.6000e- 003	8.8400e- 003	0.0000	2.3535	2.3535	7.6000e- 004	0.0000	2.3725		

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3.3 Site Preparation - 2020

Mitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e			
Category	tons/yr											MT/yr							
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			
Worker	1.1000e- 004	9.0000e- 005	9.5000e- 004	0.0000	2.7000e- 004	0.0000	2.8000e- 004	7.0000e- 005	0.0000	7.0000e- 005	0.0000	0.2469	0.2469	1.0000e- 005	0.0000	0.2471			
Total	1.1000e- 004	9.0000e- 005	9.5000e- 004	0.0000	2.7000e- 004	0.0000	2.8000e- 004	7.0000e- 005	0.0000	7.0000e- 005	0.0000	0.2469	0.2469	1.0000e- 005	0.0000	0.2471			

3.4 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr										MT/yr						
Off-Road	0.0875	0.7770	0.7159	1.2200e- 003		0.0422	0.0422		0.0406	0.0406	0.0000	104.4290	104.4290	0.0187	0.0000	104.8965	
Total	0.0875	0.7770	0.7159	1.2200e- 003		0.0422	0.0422		0.0406	0.0406	0.0000	104.4290	104.4290	0.0187	0.0000	104.8965	

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3.4 Building Construction - 2020

Unmitigated Construction Off-Site

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e			
Category	tons/yr											MT/yr							
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			
Vendor	1.5100e- 003	0.0480	0.0119	1.1000e- 004	2.8400e- 003	2.4000e- 004	3.0700e- 003	8.2000e- 004	2.3000e- 004	1.0400e- 003	0.0000	11.0678	11.0678	7.3000e- 004	0.0000	11.0860			
Worker	8.0400e- 003	6.1600e- 003	0.0682	2.0000e- 004	0.0198	1.5000e- 004	0.0199	5.2400e- 003	1.4000e- 004	5.3900e- 003	0.0000	17.7780	17.7780	5.1000e- 004	0.0000	17.7907			
Total	9.5500e- 003	0.0542	0.0801	3.1000e- 004	0.0226	3.9000e- 004	0.0230	6.0600e- 003	3.7000e- 004	6.4300e- 003	0.0000	28.8458	28.8458	1.2400e- 003	0.0000	28.8767			

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	'/yr		
Off-Road	0.0875	0.7770	0.7159	1.2200e- 003		0.0422	0.0422	1 1 1	0.0406	0.0406	0.0000	104.4289	104.4289	0.0187	0.0000	104.8964
Total	0.0875	0.7770	0.7159	1.2200e- 003		0.0422	0.0422		0.0406	0.0406	0.0000	104.4289	104.4289	0.0187	0.0000	104.8964

Appendix B-2: CalEEMod Files and Assumptions (Annual) Date: 1/22/2019 4:37 PM

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3.4 Building Construction - 2020

Mitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.5100e- 003	0.0480	0.0119	1.1000e- 004	2.8400e- 003	2.4000e- 004	3.0700e- 003	8.2000e- 004	2.3000e- 004	1.0400e- 003	0.0000	11.0678	11.0678	7.3000e- 004	0.0000	11.0860
Worker	8.0400e- 003	6.1600e- 003	0.0682	2.0000e- 004	0.0198	1.5000e- 004	0.0199	5.2400e- 003	1.4000e- 004	5.3900e- 003	0.0000	17.7780	17.7780	5.1000e- 004	0.0000	17.7907
Total	9.5500e- 003	0.0542	0.0801	3.1000e- 004	0.0226	3.9000e- 004	0.0230	6.0600e- 003	3.7000e- 004	6.4300e- 003	0.0000	28.8458	28.8458	1.2400e- 003	0.0000	28.8767

3.5 Paving - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Off-Road	1.2000e- 003	0.0113	0.0112	2.0000e- 005		6.1000e- 004	6.1000e- 004		5.7000e- 004	5.7000e- 004	0.0000	1.4855	1.4855	4.3000e- 004	0.0000	1.4963
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	1.2000e- 003	0.0113	0.0112	2.0000e- 005		6.1000e- 004	6.1000e- 004		5.7000e- 004	5.7000e- 004	0.0000	1.4855	1.4855	4.3000e- 004	0.0000	1.4963

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3.5 Paving - 2020

Unmitigated Construction Off-Site

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.0000e- 005	2.7000e- 004	7.0000e- 005	0.0000	2.0000e- 005	0.0000	2.0000e- 005	0.0000	0.0000	1.0000e- 005	0.0000	0.0615	0.0615	0.0000	0.0000	0.0616
Worker	1.1000e- 004	9.0000e- 005	9.5000e- 004	0.0000	2.7000e- 004	0.0000	2.8000e- 004	7.0000e- 005	0.0000	7.0000e- 005	0.0000	0.2469	0.2469	1.0000e- 005	0.0000	0.2471
Total	1.2000e- 004	3.6000e- 004	1.0200e- 003	0.0000	2.9000e- 004	0.0000	3.0000e- 004	7.0000e- 005	0.0000	8.0000e- 005	0.0000	0.3084	0.3084	1.0000e- 005	0.0000	0.3087

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/yr		
Off-Road	1.2000e- 003	0.0113	0.0112	2.0000e- 005		6.1000e- 004	6.1000e- 004		5.7000e- 004	5.7000e- 004	0.0000	1.4855	1.4855	4.3000e- 004	0.0000	1.4963
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	1.2000e- 003	0.0113	0.0112	2.0000e- 005		6.1000e- 004	6.1000e- 004		5.7000e- 004	5.7000e- 004	0.0000	1.4855	1.4855	4.3000e- 004	0.0000	1.4963

Appendix B-2: CalEEMod Files and Assumptions (Annual) Date: 1/22/2019 4:37 PM

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3.5 Paving - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	'/yr		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.0000e- 005	2.7000e- 004	7.0000e- 005	0.0000	2.0000e- 005	0.0000	2.0000e- 005	0.0000	0.0000	1.0000e- 005	0.0000	0.0615	0.0615	0.0000	0.0000	0.0616
Worker	1.1000e- 004	9.0000e- 005	9.5000e- 004	0.0000	2.7000e- 004	0.0000	2.8000e- 004	7.0000e- 005	0.0000	7.0000e- 005	0.0000	0.2469	0.2469	1.0000e- 005	0.0000	0.2471
Total	1.2000e- 004	3.6000e- 004	1.0200e- 003	0.0000	2.9000e- 004	0.0000	3.0000e- 004	7.0000e- 005	0.0000	8.0000e- 005	0.0000	0.3084	0.3084	1.0000e- 005	0.0000	0.3087

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/yr		
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

	Ave	rage Daily Trip Ra	ate	Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
User Defined Industrial	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

		Miles			Trip %			Trip Purpos	e %
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
User Defined Industrial	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
User Defined Industrial	0.547828	0.043645	0.199892	0.122290	0.016774	0.005862	0.020637	0.032653	0.002037	0.001944	0.004777	0.000705	0.000956

5.0 Energy Detail

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5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							МТ	/yr		
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

<u>Unmitigated</u>

	NaturalGa s Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr					ton	s/yr							MT	/yr		
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Appendix B-2: CalEEMod Files and Assumptions (Annual) Date: 1/22/2019 4:37 PM

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5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGa s Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr					ton	s/yr							MT	/yr		
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

5.3 Energy by Land Use - Electricity

<u>Unmitigated</u>

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr		МТ	7/yr	
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

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5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr		МТ	/yr	
User Defined Industrial	Š	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					ton	s/yr							MT	/yr		
Mitigated	0.0000	0.0000	1.0000e- 005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e- 005	2.0000e- 005	0.0000	0.0000	3.0000e- 005
Unmitigated	0.0000	0.0000	1.0000e- 005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e- 005	2.0000e- 005	0.0000	0.0000	3.0000e- 005

Appendix B-2: CalEEMod Files and Assumptions (Annual) Date: 1/22/2019 4:37 PM

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6.2 Area by SubCategory

Unmitigated

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr							МТ	/yr							
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	1.0000e- 005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e- 005	2.0000e- 005	0.0000	0.0000	3.0000e- 005
Total	0.0000	0.0000	1.0000e- 005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e- 005	2.0000e- 005	0.0000	0.0000	3.0000e- 005

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	egory tons/yr							MT	/yr							
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	1.0000e- 005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e- 005	2.0000e- 005	0.0000	0.0000	3.0000e- 005
Total	0.0000	0.0000	1.0000e- 005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e- 005	2.0000e- 005	0.0000	0.0000	3.0000e- 005

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7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e					
Category		MT/yr							
miligatoa	0.0000	0.0000	0.0000	0.0000					
onningutou	0.0000	0.0000	0.0000	0.0000					

7.2 Water by Land Use

<u>Unmitigated</u>

	Indoor/Out door Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal		МТ	/yr	
User Defined Industrial	0/0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

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7.2 Water by Land Use

Mitigated

	Indoor/Out door Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal		МТ	/yr	
User Defined Industrial	0/0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e					
	MT/yr								
iningenea	0.0000	0.0000	0.0000	0.0000					
Unmitigated	0.0000	0.0000	0.0000	0.0000					

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8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons		МТ	/yr	
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons		МТ	/yr	
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type	
PAR 1134			<i>B-2-25</i>				March 2019

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10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

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PAR1134_Construction_Stationary Gas Turbine

South Coast AQMD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	1.00	User Defined Unit	0.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	31
Climate Zone	9			Operational Year	2020
Utility Company	Southern California Ediso	n			
CO2 Intensity (Ib/MWhr)	702.44	CH4 Intensity (Ib/MWhr)	0.029	N2O Intensity (Ib/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

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Project Characteristics -

Land Use -

Construction Phase - Construction Phase - Stationary Gas Turbine: Demolition: 20 days; Site Preparation: 5 days; Building Construction: 180 days; Paving: 5 days

Off-road Equipment - Cranes (1): 3 hours per day; Forklifts (1): 6 hours per day; Generator Sets (1): 8 hours per day; Tractors/Loaders/Backhoes (1): 4 hours per day; Welders (1): 4 hours per day; Aerial Lifts (1): 4 hours per day

Off-road Equipment - Concrete/Industrial Saws (1): 8 hours per day; Rubber Tired Dozers (1): 4 hours per day; Tractors/Loaders/Backhoes (1): 4 hours per day; Cranes (1): 3 hours per day

Off-road Equipment - Cement and Mortar Mixers (2): 6 hours per day; Pavers (1): 5 hours per day; Rollers (1): 4 hours per day; Plate Compactors (1): 4 hours per day; Tractors/Loaders/Backhoes (1): 4 hours per day

Off-road Equipment - Rubber Tired Dozers (1): 7 hours per day; Tractors/Loaders/Backhoes (1): 4 hours per day; Trenchers (1): 4 hours per day

Trips and VMT - Demolition: 20 Worker Trips, 0 Vendor Trips, 10 Hauling Trips Site Preparation: 10 Work Trips, 0 Vendor Trips, 0 Hauling Trips Building Construction: 20 Worker Trips, 5 Vendor Trips, 0 Hauling Paving: 10 Worker Trips, 1 Vendor Trips, 0 Hauling Demolition -

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Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	0.00	180.00
tblConstructionPhase	NumDays	0.00	20.00
tblConstructionPhase	NumDays	0.00	5.00
tblConstructionPhase	NumDays	0.00	5.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	UsageHours	4.00	3.00
tblOffRoadEquipment	UsageHours	7.00	5.00
tblOffRoadEquipment	UsageHours	7.00	4.00
tblOffRoadEquipment	UsageHours	1.00	4.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	6.00	4.00
tblOffRoadEquipment	UsageHours	7.00	4.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblTripsAndVMT	HaulingTripNumber	0.00	10.00
tblTripsAndVMT	VendorTripNumber	0.00	5.00
tblTripsAndVMT	VendorTripNumber	0.00	1.00
tblTripsAndVMT	WorkerTripNumber	10.00	20.00
tblTripsAndVMT	WorkerTripNumber	8.00	10.00
tblTripsAndVMT	WorkerTripNumber	0.00	20.00
tblTripsAndVMT	WorkerTripNumber	15.00	10.00

2.0 Emissions Summary

Appendix B-2: CalEEMod Files and Assumptions (Annual) Date: 1/22/2019 4:41 PM

PAR1134_Construction_Stationary Gas Turbine - South Coast AQMD Air District, Summer

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2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year					lb/e	day							lb/c	lay		
2020	1.3270	12.8970	8.8971	0.0172	5.3811	0.6951	6.0762	2.9261	0.6395	3.5656	0.0000	1,645.144 6	1,645.144 6	0.3389	0.0000	1,651.250 2
Maximum	1.3270	12.8970	8.8971	0.0172	5.3811	0.6951	6.0762	2.9261	0.6395	3.5656	0.0000	1,645.144 6	1,645.144 6	0.3389	0.0000	1,651.250 2

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year					lb/e	day							lb/c	day		
2020	1.3270	12.8970	8.8971	0.0172	5.3811	0.6951	6.0762	2.9261	0.6395	3.5656	0.0000	1,645.144 6	1,645.144 6	0.3389	0.0000	1,651.250 2
Maximum	1.3270	12.8970	8.8971	0.0172	5.3811	0.6951	6.0762	2.9261	0.6395	3.5656	0.0000	1,645.144 6	1,645.144 6	0.3389	0.0000	1,651.250 2

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Appendix B-2: CalEEMod Files and Assumptions (Annual) Date: 1/22/2019 4:41 PM

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2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	lay		
Area	1.0000e- 005	0.0000	1.0000e- 004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e- 004	2.2000e- 004	0.0000		2.3000e- 004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	1.0000e- 005	0.0000	1.0000e- 004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		2.2000e- 004	2.2000e- 004	0.0000	0.0000	2.3000e- 004

Mitigated Operational

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/o	day							lb/c	lay		
Area	1.0000e- 005	0.0000	1.0000e- 004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e- 004	2.2000e- 004	0.0000		2.3000e- 004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	1.0000e- 005	0.0000	1.0000e- 004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		2.2000e- 004	2.2000e- 004	0.0000	0.0000	2.3000e- 004

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	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/2/2020	1/29/2020	5	20	
2	Site Preparation	Site Preparation	1/30/2020	2/5/2020	5	5	
3	Building Construction	Building Construction	2/6/2020	10/14/2020	5	180	
4	Paving	Paving	10/15/2020	10/21/2020	5	5	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

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PAR1134_Cc	onstruction_	Stationary Gas	5 Turbine -	South Coast	AQMD A	ir District,	Summer
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Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Cranes	1	3.00	231	0.29
Demolition	Rubber Tired Dozers	1	4.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	1	4.00	97	0.37
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	4.00	97	0.37
Site Preparation	Trenchers	1	4.00	78	0.50
Building Construction	Aerial Lifts	1	4.00	63	0.31
Building Construction	Cranes	1	3.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	4.00	97	0.37
Building Construction	Welders	1	4.00	46	0.45
Paving	Cement and Mortar Mixers	2	6.00	9	0.56
Paving	Pavers	1	5.00	130	0.42
Paving	Plate Compactors	1	4.00	8	0.43
Paving	Rollers	1	4.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	4.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	4	20.00	0.00	10.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	10.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	6	20.00	5.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	10.00	1.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

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3.1 Mitigation Measures Construction

3.2 Demolition - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/e	day							lb/c	lay		
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.2327	12.0391	7.6855	0.0142		0.6256	0.6256		0.5914	0.5914		1,366.266 3	1,366.266 3	0.2877		1,373.459 8
Total	1.2327	12.0391	7.6855	0.0142	0.0000	0.6256	0.6256	0.0000	0.5914	0.5914		1,366.266 3	1,366.266 3	0.2877		1,373.459 8

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3.2 Demolition - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/	day							lb/c	day		
Hauling	3.8000e- 003	0.1361	0.0271	3.9000e- 004	8.7400e- 003	4.4000e- 004	9.1800e- 003	2.3900e- 003	4.2000e- 004	2.8100e- 003		41.9165	41.9165	2.8100e- 003		41.9868
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0905	0.0608	0.8176	2.3000e- 003	0.2236	1.7000e- 003	0.2253	0.0593	1.5600e- 003	0.0609		228.8835	228.8835	6.5800e- 003		229.0480
Total	0.0943	0.1969	0.8447	2.6900e- 003	0.2323	2.1400e- 003	0.2344	0.0617	1.9800e- 003	0.0637		270.8000	270.8000	9.3900e- 003		271.0348

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/e	day							lb/c	day		
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.2327	12.0391	7.6855	0.0142		0.6256	0.6256		0.5914	0.5914	0.0000	1,366.266 3	1,366.266 3	0.2877		1,373.459 8
Total	1.2327	12.0391	7.6855	0.0142	0.0000	0.6256	0.6256	0.0000	0.5914	0.5914	0.0000	1,366.266 3	1,366.266 3	0.2877		1,373.459 8

Appendix B-2: CalEEMod Files and Assumptions (Annual) Date: 1/22/2019 4:41 PM

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3.2 Demolition - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/	day							lb/d	day		
Hauling	3.8000e- 003	0.1361	0.0271	3.9000e- 004	8.7400e- 003	4.4000e- 004	9.1800e- 003	2.3900e- 003	4.2000e- 004	2.8100e- 003		41.9165	41.9165	2.8100e- 003		41.9868
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	,,,,,,,	0.0000
Worker	0.0905	0.0608	0.8176	2.3000e- 003	0.2236	1.7000e- 003	0.2253	0.0593	1.5600e- 003	0.0609		228.8835	228.8835	6.5800e- 003		229.0480
Total	0.0943	0.1969	0.8447	2.6900e- 003	0.2323	2.1400e- 003	0.2344	0.0617	1.9800e- 003	0.0637		270.8000	270.8000	9.3900e- 003		271.0348

3.3 Site Preparation - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	lay		
Fugitive Dust					5.2693	0.0000	5.2693	2.8965	0.0000	2.8965			0.0000			0.0000
Off-Road	1.2592	12.8666	6.0732	0.0107		0.6943	0.6943		0.6387	0.6387		1,037.715 0	1,037.715 0	0.3356		1,046.105 4
Total	1.2592	12.8666	6.0732	0.0107	5.2693	0.6943	5.9636	2.8965	0.6387	3.5352		1,037.715 0	1,037.715 0	0.3356		1,046.105 4

Appendix B-2: CalEEMod Files and Assumptions (Annual) Date: 1/22/2019 4:41 PM

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3.3 Site Preparation - 2020

Unmitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/	day							lb/c	lay		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0452	0.0304	0.4088	1.1500e- 003	0.1118	8.5000e- 004	0.1126	0.0296	7.8000e- 004	0.0304		114.4418	114.4418	3.2900e- 003		114.5240
Total	0.0452	0.0304	0.4088	1.1500e- 003	0.1118	8.5000e- 004	0.1126	0.0296	7.8000e- 004	0.0304		114.4418	114.4418	3.2900e- 003		114.5240

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/e	day							lb/d	day		
Fugitive Dust					5.2693	0.0000	5.2693	2.8965	0.0000	2.8965			0.0000			0.0000
Off-Road	1.2592	12.8666	6.0732	0.0107		0.6943	0.6943		0.6387	0.6387	0.0000	1,037.715 0	1,037.715 0	0.3356		1,046.105 4
Total	1.2592	12.8666	6.0732	0.0107	5.2693	0.6943	5.9636	2.8965	0.6387	3.5352	0.0000	1,037.715 0	1,037.715 0	0.3356		1,046.105 4

Appendix B-2: CalEEMod Files and Assumptions (Annual) Date: 1/22/2019 4:41 PM

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3.3 Site Preparation - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/e	day							lb/c	day		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0452	0.0304	0.4088	1.1500e- 003	0.1118	8.5000e- 004	0.1126	0.0296	7.8000e- 004	0.0304		114.4418	114.4418	3.2900e- 003		114.5240
Total	0.0452	0.0304	0.4088	1.1500e- 003	0.1118	8.5000e- 004	0.1126	0.0296	7.8000e- 004	0.0304		114.4418	114.4418	3.2900e- 003		114.5240

3.4 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	day		
Off-Road	0.9727	8.6336	7.9545	0.0136		0.4693	0.4693		0.4509	0.4509		1,279.036 9	1,279.036 9	0.2290		1,284.762 6
Total	0.9727	8.6336	7.9545	0.0136		0.4693	0.4693		0.4509	0.4509		1,279.036 9	1,279.036 9	0.2290		1,284.762 6

Appendix B-2: CalEEMod Files and Assumptions (Annual) Date: 1/22/2019 4:41 PM

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3.4 Building Construction - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/	day							lb/d	day		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0164	0.5247	0.1249	1.2900e- 003	0.0320	2.6000e- 003	0.0346	9.2100e- 003	2.4900e- 003	0.0117		137.2242	137.2242	8.6200e- 003		137.4396
Worker	0.0905	0.0608	0.8176	2.3000e- 003	0.2236	1.7000e- 003	0.2253	0.0593	1.5600e- 003	0.0609		228.8835	228.8835	6.5800e- 003		229.0480
Total	0.1069	0.5855	0.9426	3.5900e- 003	0.2556	4.3000e- 003	0.2599	0.0685	4.0500e- 003	0.0726		366.1077	366.1077	0.0152		366.4876

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	lay		
Off-Road	0.9727	8.6336	7.9545	0.0136		0.4693	0.4693		0.4509	0.4509	0.0000	1,279.036 8	1,279.036 8	0.2290		1,284.762 6
Total	0.9727	8.6336	7.9545	0.0136		0.4693	0.4693		0.4509	0.4509	0.0000	1,279.036 8	1,279.036 8	0.2290		1,284.762 6

Appendix B-2: CalEEMod Files and Assumptions (Annual) Date: 1/22/2019 4:41 PM

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3.4 Building Construction - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/e	day							lb/c	day		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0164	0.5247	0.1249	1.2900e- 003	0.0320	2.6000e- 003	0.0346	9.2100e- 003	2.4900e- 003	0.0117		137.2242	137.2242	8.6200e- 003		137.4396
Worker	0.0905	0.0608	0.8176	2.3000e- 003	0.2236	1.7000e- 003	0.2253	0.0593	1.5600e- 003	0.0609		228.8835	228.8835	6.5800e- 003		229.0480
Total	0.1069	0.5855	0.9426	3.5900e- 003	0.2556	4.3000e- 003	0.2599	0.0685	4.0500e- 003	0.0726		366.1077	366.1077	0.0152		366.4876

3.5 Paving - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/o	day							lb/c	lay		
Off-Road	0.4812	4.5275	4.4659	7.1100e- 003		0.2446	0.2446		0.2272	0.2272		654.9767	654.9767	0.1914		659.7619
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.4812	4.5275	4.4659	7.1100e- 003		0.2446	0.2446		0.2272	0.2272		654.9767	654.9767	0.1914		659.7619

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3.5 Paving - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/	day							lb/d	lay		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.2800e- 003	0.1049	0.0250	2.6000e- 004	6.4000e- 003	5.2000e- 004	6.9200e- 003	1.8400e- 003	5.0000e- 004	2.3400e- 003		27.4449	27.4449	1.7200e- 003		27.4879
Worker	0.0452	0.0304	0.4088	1.1500e- 003	0.1118	8.5000e- 004	0.1126	0.0296	7.8000e- 004	0.0304		114.4418	114.4418	3.2900e- 003		114.5240
Total	0.0485	0.1354	0.4338	1.4100e- 003	0.1182	1.3700e- 003	0.1195	0.0315	1.2800e- 003	0.0328		141.8866	141.8866	5.0100e- 003		142.0119

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/e	day							lb/c	lay		
Off-Road	0.4812	4.5275	4.4659	7.1100e- 003		0.2446	0.2446		0.2272	0.2272	0.0000	654.9767	654.9767	0.1914		659.7619
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.4812	4.5275	4.4659	7.1100e- 003		0.2446	0.2446		0.2272	0.2272	0.0000	654.9767	654.9767	0.1914		659.7619

Appendix B-2: CalEEMod Files and Assumptions (Annual) Date: 1/22/2019 4:41 PM

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3.5 Paving - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/	day							lb/c	day		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.2800e- 003	0.1049	0.0250	2.6000e- 004	6.4000e- 003	5.2000e- 004	6.9200e- 003	1.8400e- 003	5.0000e- 004	2.3400e- 003		27.4449	27.4449	1.7200e- 003		27.4879
Worker	0.0452	0.0304	0.4088	1.1500e- 003	0.1118	8.5000e- 004	0.1126	0.0296	7.8000e- 004	0.0304		114.4418	114.4418	3.2900e- 003		114.5240
Total	0.0485	0.1354	0.4338	1.4100e- 003	0.1182	1.3700e- 003	0.1195	0.0315	1.2800e- 003	0.0328		141.8866	141.8866	5.0100e- 003		142.0119

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/e	day							lb/c	day		
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

	Ave	rage Daily Trip Ra	ate	Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
User Defined Industrial	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

		Miles			Trip %			Trip Purpos	e %
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
User Defined Industrial	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
User Defined Industrial	0.547828	0.043645	0.199892	0.122290	0.016774	0.005862	0.020637	0.032653	0.002037	0.001944	0.004777	0.000705	0.000956

5.0 Energy Detail

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PAR1134_Construction_Stationary Gas Turbine - South Coast AQMD Air District, Summer

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/e	day							lb/c	lay		
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

<u>Unmitigated</u>

	NaturalGa s Use	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr					lb/o	day							lb/c	lay		
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

Appendix B-2: CalEEMod Files and Assumptions (Annual) Date: 1/22/2019 4:41 PM

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5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGa s Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr					lb/o	day							lb/c	lay		
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	1 1 1	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/o	day							lb/c	lay		
Mitigated	1.0000e- 005	0.0000	1.0000e- 004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e- 004	2.2000e- 004	0.0000		2.3000e- 004
Oriningatou	1.0000e- 005	0.0000	1.0000e- 004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e- 004	2.2000e- 004	0.0000		2.3000e- 004

Appendix B-2: CalEEMod Files and Assumptions (Annual) Date: 1/22/2019 4:41 PM

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6.2 Area by SubCategory

Unmitigated

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory					lb/d	day							lb/d	day		
	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Eanaboaping	1.0000e- 005	0.0000	1.0000e- 004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e- 004	2.2000e- 004	0.0000		2.3000e- 004
Total	1.0000e- 005	0.0000	1.0000e- 004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e- 004	2.2000e- 004	0.0000		2.3000e- 004

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory					lb/d	day							lb/c	lay		
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e- 005	0.0000	1.0000e- 004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e- 004	2.2000e- 004	0.0000		2.3000e- 004
Total	1.0000e- 005	0.0000	1.0000e- 004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e- 004	2.2000e- 004	0.0000		2.3000e- 004

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7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type Number

11.0 Vegetation

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PAR1134_Construction_Stationary Gas Turbine

South Coast AQMD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	1.00	User Defined Unit	0.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	31
Climate Zone	9			Operational Year	2020
Utility Company	Southern California Ediso	n			
CO2 Intensity (Ib/MWhr)	702.44	CH4 Intensity (Ib/MWhr)	0.029	N2O Intensity (Ib/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

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Project Characteristics -

Land Use -

Construction Phase - Construction Phase - Stationary Gas Turbine: Demolition: 20 days; Site Preparation: 5 days; Building Construction: 180 days; Paving: 5 days

Off-road Equipment - Cranes (1): 3 hours per day; Forklifts (1): 6 hours per day; Generator Sets (1): 8 hours per day; Tractors/Loaders/Backhoes (1): 4 hours per day; Welders (1): 4 hours per day; Aerial Lifts (1): 4 hours per day

Off-road Equipment - Concrete/Industrial Saws (1): 8 hours per day; Rubber Tired Dozers (1): 4 hours per day; Tractors/Loaders/Backhoes (1): 4 hours per day; Cranes (1): 3 hours per day

Off-road Equipment - Cement and Mortar Mixers (2): 6 hours per day; Pavers (1): 5 hours per day; Rollers (1): 4 hours per day; Plate Compactors (1): 4 hours per day; Tractors/Loaders/Backhoes (1): 4 hours per day

Off-road Equipment - Rubber Tired Dozers (1): 7 hours per day; Tractors/Loaders/Backhoes (1): 4 hours per day; Trenchers (1): 4 hours per day

Trips and VMT - Demolition: 20 Worker Trips, 0 Vendor Trips, 10 Hauling Trips Site Preparation: 10 Work Trips, 0 Vendor Trips, 0 Hauling Trips Building Construction: 20 Worker Trips, 5 Vendor Trips, 0 Hauling Paving: 10 Worker Trips, 1 Vendor Trips, 0 Hauling Demolition -

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Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	0.00	180.00
tblConstructionPhase	NumDays	0.00	20.00
tblConstructionPhase	NumDays	0.00	5.00
tblConstructionPhase	NumDays	0.00	5.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	UsageHours	4.00	3.00
tblOffRoadEquipment	UsageHours	7.00	5.00
tblOffRoadEquipment	UsageHours	7.00	4.00
tblOffRoadEquipment	UsageHours	1.00	4.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	6.00	4.00
tblOffRoadEquipment	UsageHours	7.00	4.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblTripsAndVMT	HaulingTripNumber	0.00	10.00
tblTripsAndVMT	VendorTripNumber	0.00	5.00
tblTripsAndVMT	VendorTripNumber	0.00	1.00
tblTripsAndVMT	WorkerTripNumber	10.00	20.00
tblTripsAndVMT	WorkerTripNumber	8.00	10.00
tblTripsAndVMT	WorkerTripNumber	0.00	20.00
tblTripsAndVMT	WorkerTripNumber	15.00	10.00

2.0 Emissions Summary

Appendix B-2: CalEEMod Files and Assumptions (Annual) Date: 1/22/2019 4:43 PM

PAR1134_Construction_Stationary Gas Turbine - South Coast AQMD Air District, Winter

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2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year					lb/e	day							lb/d	lay		
2020	1.3353	12.8999	8.8299	0.0170	5.3811	0.6951	6.0762	2.9261	0.6395	3.5656	0.0000	1,626.366 2	1,626.366 2	0.3387	0.0000	1,632.476 8
Maximum	1.3353	12.8999	8.8299	0.0170	5.3811	0.6951	6.0762	2.9261	0.6395	3.5656	0.0000	1,626.366 2	1,626.366 2	0.3387	0.0000	1,632.476 8

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year					lb/o	day							lb/c	lay		
2020	1.3353	12.8999	8.8299	0.0170	5.3811	0.6951	6.0762	2.9261	0.6395	3.5656	0.0000	1,626.366 2	1,626.366 2	0.3387	0.0000	1,632.476 8
Maximum	1.3353	12.8999	8.8299	0.0170	5.3811	0.6951	6.0762	2.9261	0.6395	3.5656	0.0000	1,626.366 2	1,626.366 2	0.3387	0.0000	1,632.476 8

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Appendix B-2: CalEEMod Files and Assumptions (Annual) Date: 1/22/2019 4:43 PM

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2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/o	day							lb/c	lay		
Area	1.0000e- 005	0.0000	1.0000e- 004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e- 004	2.2000e- 004	0.0000		2.3000e- 004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	1.0000e- 005	0.0000	1.0000e- 004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		2.2000e- 004	2.2000e- 004	0.0000	0.0000	2.3000e- 004

Mitigated Operational

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/o	day							lb/c	lay		
Area	1.0000e- 005	0.0000	1.0000e- 004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e- 004	2.2000e- 004	0.0000		2.3000e- 004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	1.0000e- 005	0.0000	1.0000e- 004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		2.2000e- 004	2.2000e- 004	0.0000	0.0000	2.3000e- 004

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PAR1134_Construction_Stationary Gas Turbine - South Coast AQMD Air District, Winter

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/2/2020	1/29/2020	5	20	
2	Site Preparation	Site Preparation	1/30/2020	2/5/2020	5	5	
3	Building Construction	Building Construction	2/6/2020	10/14/2020	5	180	
4	Paving	Paving	10/15/2020	10/21/2020	5	5	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

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Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Cranes	1	3.00	231	0.29
Demolition	Rubber Tired Dozers	1	4.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	1	4.00	97	0.37
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	4.00	97	0.37
Site Preparation	Trenchers	1	4.00	78	0.50
Building Construction	Aerial Lifts	1	4.00	63	0.31
Building Construction	Cranes	1	3.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	4.00	97	0.37
Building Construction	Welders	1	4.00	46	0.45
Paving	Cement and Mortar Mixers	2	6.00	9	0.56
Paving	Pavers	1	5.00	130	0.42
Paving	Plate Compactors	1	4.00	8	0.43
Paving	Rollers	1	4.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	4.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	4	20.00	0.00	10.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	10.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	6	20.00	5.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	10.00	1.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

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3.1 Mitigation Measures Construction

3.2 Demolition - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/e	day							lb/c	lay		
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.2327	12.0391	7.6855	0.0142		0.6256	0.6256		0.5914	0.5914		1,366.266 3	1,366.266 3	0.2877		1,373.459 8
Total	1.2327	12.0391	7.6855	0.0142	0.0000	0.6256	0.6256	0.0000	0.5914	0.5914		1,366.266 3	1,366.266 3	0.2877		1,373.459 8

Appendix B-2: CalEEMod Files and Assumptions (Annual) Date: 1/22/2019 4:43 PM

PAR1134_Construction_Stationary Gas Turbine - South Coast AQMD Air District, Winter

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3.2 Demolition - 2020

Unmitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/	day							lb/c	day		
Hauling	3.9100e- 003	0.1378	0.0292	3.8000e- 004	8.7400e- 003	4.5000e- 004	9.1800e- 003	2.3900e- 003	4.3000e- 004	2.8200e- 003		41.1449	41.1449	2.9300e- 003		41.2183
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	,	0.0000
Worker	0.0987	0.0666	0.7362	2.1500e- 003	0.2236	1.7000e- 003	0.2253	0.0593	1.5600e- 003	0.0609		214.0730	214.0730	6.1400e- 003		214.2265
Total	0.1026	0.2044	0.7653	2.5300e- 003	0.2323	2.1500e- 003	0.2344	0.0617	1.9900e- 003	0.0637		255.2179	255.2179	9.0700e- 003		255.4448

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/e	day							lb/c	lay		
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	1.2327	12.0391	7.6855	0.0142		0.6256	0.6256		0.5914	0.5914	0.0000	1,366.266 3	1,366.266 3	0.2877		1,373.459 8
Total	1.2327	12.0391	7.6855	0.0142	0.0000	0.6256	0.6256	0.0000	0.5914	0.5914	0.0000	1,366.266 3	1,366.266 3	0.2877		1,373.459 8

Appendix B-2: CalEEMod Files and Assumptions (Annual) Date: 1/22/2019 4:43 PM

PAR1134_Construction_Stationary Gas Turbine - South Coast AQMD Air District, Winter

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3.2 Demolition - 2020

Mitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/	day							lb/c	day		
Hauling	3.9100e- 003	0.1378	0.0292	3.8000e- 004	8.7400e- 003	4.5000e- 004	9.1800e- 003	2.3900e- 003	4.3000e- 004	2.8200e- 003		41.1449	41.1449	2.9300e- 003		41.2183
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0987	0.0666	0.7362	2.1500e- 003	0.2236	1.7000e- 003	0.2253	0.0593	1.5600e- 003	0.0609		214.0730	214.0730	6.1400e- 003		214.2265
Total	0.1026	0.2044	0.7653	2.5300e- 003	0.2323	2.1500e- 003	0.2344	0.0617	1.9900e- 003	0.0637		255.2179	255.2179	9.0700e- 003		255.4448

3.3 Site Preparation - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/o	day							lb/c	lay		
Fugitive Dust					5.2693	0.0000	5.2693	2.8965	0.0000	2.8965			0.0000			0.0000
Off-Road	1.2592	12.8666	6.0732	0.0107		0.6943	0.6943		0.6387	0.6387		1,037.715 0	1,037.715 0	0.3356		1,046.105 4
Total	1.2592	12.8666	6.0732	0.0107	5.2693	0.6943	5.9636	2.8965	0.6387	3.5352		1,037.715 0	1,037.715 0	0.3356		1,046.105 4

Appendix B-2: CalEEMod Files and Assumptions (Annual) Date: 1/22/2019 4:43 PM

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3.3 Site Preparation - 2020

Unmitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/	day							lb/d	day		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0494	0.0333	0.3681	1.0700e- 003	0.1118	8.5000e- 004	0.1126	0.0296	7.8000e- 004	0.0304		107.0365	107.0365	3.0700e- 003		107.1132
Total	0.0494	0.0333	0.3681	1.0700e- 003	0.1118	8.5000e- 004	0.1126	0.0296	7.8000e- 004	0.0304		107.0365	107.0365	3.0700e- 003		107.1132

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/e	day							lb/d	day		
Fugitive Dust					5.2693	0.0000	5.2693	2.8965	0.0000	2.8965			0.0000			0.0000
Off-Road	1.2592	12.8666	6.0732	0.0107		0.6943	0.6943		0.6387	0.6387	0.0000	1,037.715 0	1,037.715 0	0.3356		1,046.105 4
Total	1.2592	12.8666	6.0732	0.0107	5.2693	0.6943	5.9636	2.8965	0.6387	3.5352	0.0000	1,037.715 0	1,037.715 0	0.3356		1,046.105 4

Appendix B-2: CalEEMod Files and Assumptions (Annual) Date: 1/22/2019 4:43 PM

PAR1134_Construction_Stationary Gas Turbine - South Coast AQMD Air District, Winter

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3.3 Site Preparation - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/	day							lb/d	day		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0494	0.0333	0.3681	1.0700e- 003	0.1118	8.5000e- 004	0.1126	0.0296	7.8000e- 004	0.0304		107.0365	107.0365	3.0700e- 003		107.1132
Total	0.0494	0.0333	0.3681	1.0700e- 003	0.1118	8.5000e- 004	0.1126	0.0296	7.8000e- 004	0.0304		107.0365	107.0365	3.0700e- 003		107.1132

3.4 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	day		
Off-Road	0.9727	8.6336	7.9545	0.0136		0.4693	0.4693		0.4509	0.4509		1,279.036 9	1,279.036 9	0.2290		1,284.762 6
Total	0.9727	8.6336	7.9545	0.0136		0.4693	0.4693		0.4509	0.4509		1,279.036 9	1,279.036 9	0.2290		1,284.762 6

Appendix B-2: CalEEMod Files and Assumptions (Annual) Date: 1/22/2019 4:43 PM

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3.4 Building Construction - 2020

Unmitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/e	day							lb/c	day		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0172	0.5241	0.1393	1.2500e- 003	0.0320	2.6400e- 003	0.0346	9.2100e- 003	2.5200e- 003	0.0117		133.2564	133.2564	9.2500e- 003		133.4877
Worker	0.0987	0.0666	0.7362	2.1500e- 003	0.2236	1.7000e- 003	0.2253	0.0593	1.5600e- 003	0.0609		214.0730	214.0730	6.1400e- 003		214.2265
Total	0.1159	0.5907	0.8755	3.4000e- 003	0.2556	4.3400e- 003	0.2599	0.0685	4.0800e- 003	0.0726		347.3294	347.3294	0.0154		347.7142

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	lay		
Off-Road	0.9727	8.6336	7.9545	0.0136		0.4693	0.4693	1 1 1	0.4509	0.4509	0.0000	1,279.036 8	1,279.036 8	0.2290		1,284.762 6
Total	0.9727	8.6336	7.9545	0.0136		0.4693	0.4693		0.4509	0.4509	0.0000	1,279.036 8	1,279.036 8	0.2290		1,284.762 6

Appendix B-2: CalEEMod Files and Assumptions (Annual) Date: 1/22/2019 4:43 PM

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3.4 Building Construction - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/	day							lb/c	day		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0172	0.5241	0.1393	1.2500e- 003	0.0320	2.6400e- 003	0.0346	9.2100e- 003	2.5200e- 003	0.0117		133.2564	133.2564	9.2500e- 003		133.4877
Worker	0.0987	0.0666	0.7362	2.1500e- 003	0.2236	1.7000e- 003	0.2253	0.0593	1.5600e- 003	0.0609		214.0730	214.0730	6.1400e- 003		214.2265
Total	0.1159	0.5907	0.8755	3.4000e- 003	0.2556	4.3400e- 003	0.2599	0.0685	4.0800e- 003	0.0726		347.3294	347.3294	0.0154		347.7142

3.5 Paving - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/o	day							lb/c	lay		
Off-Road	0.4812	4.5275	4.4659	7.1100e- 003		0.2446	0.2446		0.2272	0.2272		654.9767	654.9767	0.1914		659.7619
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.4812	4.5275	4.4659	7.1100e- 003		0.2446	0.2446		0.2272	0.2272		654.9767	654.9767	0.1914		659.7619

Appendix B-2: CalEEMod Files and Assumptions (Annual) Date: 1/22/2019 4:43 PM

PAR1134_Construction_Stationary Gas Turbine - South Coast AQMD Air District, Winter

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3.5 Paving - 2020

Unmitigated Construction Off-Site

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/	day							lb/c	day		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.4400e- 003	0.1048	0.0279	2.5000e- 004	6.4000e- 003	5.3000e- 004	6.9300e- 003	1.8400e- 003	5.0000e- 004	2.3500e- 003		26.6513	26.6513	1.8500e- 003		26.6976
Worker	0.0494	0.0333	0.3681	1.0700e- 003	0.1118	8.5000e- 004	0.1126	0.0296	7.8000e- 004	0.0304		107.0365	107.0365	3.0700e- 003		107.1132
Total	0.0528	0.1381	0.3960	1.3200e- 003	0.1182	1.3800e- 003	0.1196	0.0315	1.2800e- 003	0.0328		133.6878	133.6878	4.9200e- 003		133.8108

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/e	day							lb/c	day		
Off-Road	0.4812	4.5275	4.4659	7.1100e- 003		0.2446	0.2446		0.2272	0.2272	0.0000	654.9767	654.9767	0.1914		659.7619
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.4812	4.5275	4.4659	7.1100e- 003		0.2446	0.2446		0.2272	0.2272	0.0000	654.9767	654.9767	0.1914		659.7619

Appendix B-2: CalEEMod Files and Assumptions (Annual) Date: 1/22/2019 4:43 PM

PAR1134_Construction_Stationary Gas Turbine - South Coast AQMD Air District, Winter

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3.5 Paving - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/	day							lb/c	day		
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.4400e- 003	0.1048	0.0279	2.5000e- 004	6.4000e- 003	5.3000e- 004	6.9300e- 003	1.8400e- 003	5.0000e- 004	2.3500e- 003		26.6513	26.6513	1.8500e- 003		26.6976
Worker	0.0494	0.0333	0.3681	1.0700e- 003	0.1118	8.5000e- 004	0.1126	0.0296	7.8000e- 004	0.0304		107.0365	107.0365	3.0700e- 003		107.1132
Total	0.0528	0.1381	0.3960	1.3200e- 003	0.1182	1.3800e- 003	0.1196	0.0315	1.2800e- 003	0.0328		133.6878	133.6878	4.9200e- 003		133.8108

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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PAR1134_Construction_Stationary Gas Turbine - South Coast AQMD Air District, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/e	day							lb/c	lay		
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

4.2 Trip Summary Information

	Ave	rage Daily Trip Ra	ate	Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
User Defined Industrial	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

		Miles			Trip %			Trip Purpos	e %
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
User Defined Industrial	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
User Defined Industrial	0.547828	0.043645	0.199892	0.122290	0.016774	0.005862	0.020637	0.032653	0.002037	0.001944	0.004777	0.000705	0.000956

5.0 Energy Detail

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PAR1134_Construction_Stationary Gas Turbine - South Coast AQMD Air District, Winter

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/e	lay							lb/c	day		
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	 	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

<u>Unmitigated</u>

	NaturalGa s Use	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr					lb/o	day							lb/c	lay		
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

PAR1134_Construction_Stationary Gas Turbine - South Coast AQMD Air District, Winter

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5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGa s Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr					lb/e	day							lb/c	day		
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	СО	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category					lb/d	day							lb/c	lay		
Mitigated	1.0000e- 005	0.0000	1.0000e- 004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e- 004	2.2000e- 004	0.0000		2.3000e- 004
Onningatod	1.0000e- 005	0.0000	1.0000e- 004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e- 004	2.2000e- 004	0.0000		2.3000e- 004

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PAR1134_Construction_Stationary Gas Turbine - South Coast AQMD Air District, Winter

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	со	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory					lb/e	day							lb/d	day		
	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e- 005	0.0000	1.0000e- 004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e- 004	2.2000e- 004	0.0000		2.3000e- 004
Total	1.0000e- 005	0.0000	1.0000e- 004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e- 004	2.2000e- 004	0.0000		2.3000e- 004

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory					lb/o	day							lb/c	Jay		
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000		,			0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e- 005	0.0000	1.0000e- 004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e- 004	2.2000e- 004	0.0000		2.3000e- 004
Total	1.0000e- 005	0.0000	1.0000e- 004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e- 004	2.2000e- 004	0.0000		2.3000e- 004

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PAR1134_Construction_Stationary Gas Turbine - South Coast AQMD Air District, Winter

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
						1

Boilers

|--|

User Defined Equipment

Equipment Type Number

11.0 Vegetation

APPENDIX C

CEQA Impact Evaluations – Assumptions and Calculations

APPENDIX C-1

CEQA Impact Evaluations – Assumptions and Calculations

Construction Summary

Appendix C-1 CEQA Construction Impact Evaluations - Summary

Criteria Pollutant Emissions Summary

PAR 1134 Requirement	VOC (lbs/day)	NOx (lbs/day)	CO (lbs/day)	SOx (lbs/day)	PM10 (lbs/day)	PM2.5 (lbs/day)
2 Facilities Installing 2 SCR Systems	2.6	25.8	17.3	0.03	12.2	7.1
1 Facility Replacing 1 Stationary Gas Turbine	1.3	12.9	8.9	0.02	6.1	3.6
Peak Day - Worst Case Construction Emissions	4.0	38.7	26.2	0.05	18.2	10.7
SIGNIFICACNE THRESHOLD FOR CONSTRUCTION	75	100	550	150	150	55

Notes:

1. The emissions are estimated using CalEEMod.

2. Construction activities are expected to occur on different days in multiple stages.

GHG Emissions Summary

PAR 1134 Requirement	CO2, MT/yr	CH4, MT/yr	N2O, MT/yr	CO2e, MT/yr	Amortized CO2e (MT/yr)	
2 Facilities Installing 2 SCR Systems	283.88	0.04	0.00	284.93		
1 Facility Replacing 1 Stationary Gas Turbine	152.42	0.02	0.00	153.01	Ţ	
Total Emissions During Construction	436	0	0	438	14.6	Total GHG Emissions Amortized over 30

Notes:

1. The emissions are estimated using CalEEMod.

APPENDIX C-2

CEQA Impact Evaluations – Assumptions and Calculations

Operations Summary

Appendix C-2

CEQA Operational Impact Evaluations - Summary

Emissions Summary - Operations

PAR 1134 Requirement	VOC, lb/day	NOx, Ib/day	CO, Ib/day	SOx, lb/day	PM10, lb/day	PM2.5, lb/day
	,	,	,	,	,	,
Increased Ammonia Deliveries for 4 Facilities	0.31	2.08	1.35	0.01	0.14	0.08
Increased Catalyst Delivery and Spent Catalyst Haul for 1 Facility	0.15	1.04	0.68	0.00	0.07	0.04
Daily Peak Operational Emissions	0.46	3.11	2.03	0.01	0.21	0.12
SIGNIFICACNE THRESHOLD FOR OPERATION	55	55	550	150	150	55

Note

1. Replacing a stationary gast turbine is assumed to not create any new operational impacts.

PAR 1134 Requirement	CO2, MT/yr	CH4, MT/yr	N2O, MT/yr	CO2e, MT/yr
Total From Ammonia Delivery Truck	18.19	0.00	0.00	18.20
Total From Catalyst Delivery and Spent Catalyst Haul Trucks	2.85	0.00	-	2.86
Total Annual Operational GHG Emissions	21.05	0.00	0.00	21.06

Note

1. Based on an increase of 204 ammonia delivery trips per year, 16 new catalyst deliveries per year, 16 haul trips for spent catalyst.

APPENDIX C-3

CEQA Impact Evaluations – Assumptions and Calculations

SCR

Appendix C-3 CEQA Construction Impact Evaluations

Criteria Pollutant Emissions - Installation of 1 SCR System and Aqueous Ammonia Tank

PAR 1134 Requirement	VOC (lbs/day)	NOx (Ibs/day)	CO (Ibs/day)	SOx (lbs/day)	PM10 (Ibs/day)	PM2.5 (Ibs/day)
1 SCR and Ammonia Tank	1.3	12.9	8.6	0.0	6.1	3.6
Daily Peak Construction Emissions	1.3	12.9	8.6	0.0	6.1	3.6
SIGNIFICANCE THRESHOLD FOR CONSTRUCTION	75	100	550	150	150	55

Notes:

1. The emissions are estimated using CalEEMod.

2. SCR replacement is expected to occur on different days in multiple stages.

GHG Emissions Summary - 1 SCR and Aqueous Ammonia Tank

PAR 1134 Requirement	CO2, MT/yr	CH4, MT/yr	N2O, MT/yr	CO2e, MT/yr
1 SCR and Aqueous Ammonia Tank	141.9	0.02	0.0	142.5
Total Emissions During Construction	141.9	0.0	0.0	142.5

4.75 Amortized Over 30 Years

Notes:

1. The emissions are estimated using CalEEMod.

APPENDIX C-4

CEQA Impact Evaluations – Assumptions and Calculations

Stationary Gas Turbine

Appendix C-4

CEQA Construction Impact Evaluations

Emissions Summary - Replacement Stationary Gas Turbine

PAR 1134 Requirement	VOC (Ibs/day)	NOx (lbs/day)	CO (lbs/day)	SOx (lbs/day)	PM10 (lbs/day)	PM2.5 (Ibs/day)
Replacement Stationary Gas Turbine	1.3	12.9	8.9	0.0	6.1	3.6
Daily Peak Construction Emissions	1.3	12.9	8.9	0.0	6.1	3.6
SIGNIFICACNE THRESHOLD FOR CONSTRUCTION	75	100	550	150	150	55

Notes:

1. The emissions are estimated using CalEEMod.

2. Equipment demolition and installation is expected to occur on different days in multiple stages.

GHG Emissions Summary

PAR 1134 Requirement	CO2, MT/yr	CH4, MT/yr	N2O, MT/yr	CO2e, MT/yr
Replacement Stationary Gas Turbine	152	0.0	0.0	153.0
Total Emissions During Construction	152	0.0	0.0	153

5.100 Amortized over 30 Years

Notes:

1. The emissions are estimated using CalEEMod.

APPENDIX C-5

CEQA Impact Evaluations – Assumptions and Calculations

Operational Calculations

Appendix C-5 CEQA Impact Evaluations - Assumptions and Calculations

Operational Emissions Summary - Increased Delivery of Aqueous Ammonia at 1 Facility and Increased Delivery/Haul of SCR Catalyst at 1 Facility on a Peak Day

PAR 1134	CO, Ib/day	NOx, Ib/day	PM10, Ib/day	PM2.5, Ib/day	VOC, lb/day	SOX, lb/day
Increased Delivery Trucks for Ammonia	0.34	0.52	0.03	0.02	0.08	0.002
Increased Truck Trips for New Catalyst Delivery and Spent Catalyst Haul Trip	0.68	1.04	0.07	0.04	0.15	0.004
Total	1.01	1.56	0.10	0.06	0.23	0.01

											All
By Vehicle Class	CO, Ib/day	NOx, Ib/day	PM10, lb/day	PM2.5, Ib/day	VOC, lb/day	SOX, Ib/day	CO2, MT/yr	CH4, MT/yr	N2O, MT/yr	CO2e, MT/yr	Max. # used/day
Diesel Delivery Trucks (T6 Construction Truck)	0.34	0.52	0.03	0.02	0.08	0.00	18.19	0.00	0.00	18.20	1
Diesel Delivery Trucks (T6 Construction Truck)	0.68	1.04	0.07	0.04	0.15	0.00	2.85	0.00	0.00	2.86	2
Total	1.01	1.56	0.10	0.06	0.23	0.01	21.05	0.00	0.00	21.06	

All sites						
Max. #	Max. # day					
used/day	used/yr					
1	204					
2	32					

Note:

1. Peak daily trips assume one new ammonia delivery. Truck trip distances to deliver ammonia are assumed to be 100 miles round-trip

2. No additional employees are anticipated to be needed as a result to the increased ammonia usage. As such, no workers' travel emissions are anticipated from the operation of the replaced SCR catalys

3. It is assumed medium-heavy duty diesel instate construction trucks would be used to deliver ammonia and catalyst.

Delivery Trucks (Ammonia and Catalyst) - T6 instate construction heavy (T6) - each

	CO	NOx	PM10	PM2.5	VOC	SOX	CO2	CH4	N2O	CO2e	VMT, mile/day
lb/mile	0.0034	0.0052	0.0003	0.0002	0.0008	0.00002	1.97	0.00		1.97	100.0
lb/day, MT/day for GHG	0.34	0.52	0.03	0.02	0.08	0.002	0.09	0.00	0.00	0.09	

Emission Factors: from EMFAC2017, EPA AP-42

APPENDIX D

PAR 1134 List of Affected Facilities and NAICS Code

Appendix D: PAR 1134 List of Affected Facilities

Facility ID	Facility Name	Address	On List per Government Code 65962.5 (Envirostor)?	Distance from School (meters)	Distance from Sensitive Receptor (meters)	Located Within Two Miles of an Airport?
176708	Altagas Pomona Energy Co.	1507 Mount Vernon, Pomona, CA, 91768	No	231	231	No
177120	Providence Saint John's Health Center	1328 22nd Street, Santa Monica, CA, 90404	No	331	22	No
3093	LA Co., Olive View/UCLA Medical Center	14445 Olive View Drive, Sylmar, CA, 91342	No	1,676	331	No
800234	Loma Linda University	11100 Anderson Street, Loma Linda, CA, 92350	Yes	545	125	No
185801	Berry Petroleum Company, LLC	25121 North Sierra Highway, Santa Clarita, CA, 91321	No	1,382	1,382	No
4242	San Diego Gas & Electric	14601 Virginia Street, Moreno Valley, CA, 92555	No	4,485	26	No
51620	Wheelabrator Norwalk Energy Co. Inc.	11500 Balsam Street, Norwalk, CA, 90650	No	1,205	0	No
7117	LA City, Department of Airports	275 Center Way, Los Angeles, CA, 90045	No	1,557	1,451	No
47781	OLS Energy-Chino	5601 Eucalyptus Avenue, Chino, CA, 91710	No	2,393	717	No
58949	LA Co. Sheriff Department	29300 The Old Road, Saugus, CA, 91350	No	848	418	No
550	LA Co. Internal Services Department	301 N Broadway, Los Angeles, CA, 90012	No	540	387	No
15507	California State University, Fullerton	800 N State College Boulevard, Fullerton, CA, 92831	No	503	22	No
166073	Beta Offshore	OCS Lease Parcels P-300 Huntington Beach, CA 92648 (Pacific Ocean)	No	14,000	14,000	No
117290	B Braun Medical, Inc.	2525 McGaw Ave, Irvine, CA, 92614	No	714	267	No
129497	Thums Long Beach Co.	1411 Pier D Street, Long Beach, CA, 90802	No	1,165	784	No
185600	Bridge Energy, LLC	2000 Tonner Canyon Road, Brea, CA, 92821	No	813	400	No

Note: Distances between facilities and sensitive receptors were estimated using ArcGIS from facility center point to receptor parcel boundary. Distances between facilities and schools or airports were estimated using ArcGIS from facility center point to receptor parcel boundary.

Note: See Appendix D: PAR 1134 List of Affected Facilities that were Previously Evaluated in the December 2015 Final Program EA for NOx RECLAIM.

NAICS Codes	Description of Industry	Number of Units
423830	Industrial Machinery and Equipment Merchant Wholesalers	1
622110	General Medical and Surgical Hospitals	1
622110	General Medical and Surgical Hospitals	2
611310	Colleges, Universities, and Professional Schools	2
211111	Crude Petroleum and Natural Gas Extraction	2
486210	Pipeline Transportation of Natural Gas	4
221112	Fossil Fuel Electric Power Generation	1
488111	Air Traffic Control	2
221112	Fossil Fuel Electric Power Generation	1
922140	Correctional Institutions	1
921190	Other General Government Support	1
611310	Colleges, Universities, and Professional Schools	1
211111	Crude Petroleum and Natural Gas Extraction	6
325412	Pharmaceutical Preparation Manufacturing	2
211111	Crude Petroleum and Natural Gas Extraction	1
211111	Crude Petroleum and Natural Gas Extraction	2

Appendix D: NAICS Codes for PAR 1134 Affected Industry

Appendix D: PAR 1134 List of Affected Facilities that were Previously Evaluated in the December 2015 Final Program EA for NOx RECLAIM

Facility Name	Address	Evaluated in December 2015 Program EA for NOx <u>RECLAIM</u>
Altagas Pomona Energy Co.	1507 Mount Vernon, Pomona, CA, 91768	NO
Providence Saint John's Health Center	1328 22nd Street, Santa Monica, CA, 90404	NO
LA Co., Olive View/UCLA Medical Center	14445 Olive View Drive, Sylmar, CA, 91342	NO
Loma Linda University	11100 Anderson Street, Loma Linda, CA, 92350	NO
Berry Petroleum Company, LLC	25121 North Sierra Highway, Santa Clarita, CA, 91321	YES
San Diego Gas & Electric	14601 Virginia Street, Moreno Valley, CA, 92555	YES
Wheelabrator Norwalk Energy Co. Inc. ¹	11500 Balsam Street, Norwalk, CA, 90650	YES
LA City, Department of Airports (LAX) ²	275 Center Way, Los Angeles, CA, 90045	<u>YES</u>
OLS Energy-Chino	5601 Eucalyptus Avenue, Chino, CA, 91710	NO
LA Co. Sheriff Department	29300 The Old Road, Saugus, CA, 91350	NO
LA Co. Internal Services Department	301 N Broadway, Los Angeles, CA, 90012	NO
California State University, Fullerton	800 N State College Boulevard, Fullerton, CA, 92831	NO
Beta Offshore	OCS Lease Parcels P-300 Huntington Beach, CA 92648 (This facility is an oil platform in the Pacific Ocean)	YES
B Braun Medical, Inc.	2525 McGaw Ave, Irvine, CA, 92614	NO
Thums Long Beach Co.	1411 Pier D Street, Long Beach, CA, 90802	YES
Bridge Energy, LLC	2000 Tonner Canyon Road, Brea, CA, 92821	NO
Tin, Inc., International Paper ³	5110 E. Jurupa Ave, Ontario, CA, 91761	<u>YES</u>
SoCalGas Aliso Canyon ⁴	12801 Tampa Avenue, Northridge, CA, 91326	YES

¹Wheelabrator underwent a change of ownership in 2018 and is now DSH-Metropolitan State Hospital. In addition, the stationary gas turbines at this facility location are no longer in operation and they do not have any active permits with the SCAQMD. The Final SEA evaluates the physical changes and the environmental impacts that may be associated with these turbines. Because these turbines are no longer operational, the analysis in the Final SEA overestimates the environmental impacts.

² Prior to the adoption of PAR 1134, Los Angeles City, Department of Airports (LAX) replaced their turbines with equipment that currently meets the emission limits in PAR 1134. However, the Final SEA evaluates the physical changes and the environmental impacts that may be associated with the old turbines. Because these turbines no longer exist, the analysis in the Final SEA overestimates the environmental impacts.

³Tin, Inc., International Paper underwent a change of ownership and is now New-Indy. This facility was originally evaluated in the December 2015 Program EA for NOx RECLAIM. Prior to the adoption of PAR 1134. New-Indy submitted applications to replace their existing turbines. As such, these units were not analyzed in this Final SEA.

⁴ This facility was originally identified as having equipment subject to PAR 1134: however this facility electrified the affected units prior to the adoption of PAR 1134. As such, these units were not analyzed in this Final SEA.

December 2015 Final Program EA for NOx RECLAIM: http://www.aqmd.gov/docs/default-source/ceqa/documents/aqmd-projects/2015/regxxfinalpeaplusappendices.pdf

APPENDIX E

Hazards Analysis

Appendix E: Hazards Analysis for PAR 1134 - Aqueous Ammonia

Facility	Additional Monthly Aqueous Ammonia Needed (gal/month)	Size of Tank (gallons)	Maximum Quantity Released (gallons)	Maximum Quantity Released (lbs)	RMP Value (miles)	Distance (feet)	Distance to Nearest Receptor (feet)	Significant?
А	3500	5,500	3,685	28,551	0.3	1584	0	Yes
В	84	250	168	1,298	0.1	528	72	Yes
С	2500	5,000	3,350	25,956	0.3	1584	876	Yes
D	3668	5,000	3,350	25,956	0.3	1584	410	Yes
E	2336	5,000	3,350	25,956	0.3	1584	85	Yes
F	2500	5,000	3,350	25,956	0.3	1584	4760	No
G	2500	5,000	3,350	25,956	0.3	1584	1312	Yes
Н	1834	3,000	2,010	15,573	0.2	1056	1086	No
	167	300	201	1,557	0.1	528	72	Yes

Notes:

1. Storage tanks should be sized to hold at least 1.5 times (https://www.tannerind.com/sto-aqua-ammonia.html)

2. RMP*Comp run at 77 degrees F

3. Maximum quantity release is assumed to be equal to 67% the capacity of the tank (see Note 1).

4. Facility A is adjacent to a sensitive receptor.

Appendix E: Hazards Analysis for PAR 1134 - Aqueous Ammonia

Estimated Ammonia Usage Increase

Facility	Increased Ammonia Usage per Year (gal/year)	Increased Ammonia Usage per Year (pounds/year)	Increased Ammonia Usage per Day (tons/year)	Increased Ammonia Usage per Day (tons/day)
Α	42000	325,416	163	0.45
В	1000	7,748	4	0.01
С	30000	232,440	116	0.32
D	44000	340,912	170	0.47
E	28000	216,944	108	0.30
F	30000	232,440	116	0.32
G	30000	232,440	116	0.32
Н	22000	170,456	85	0.23
I	2000	15,496	8	0.02
J	111000	860,028	430	1.18
К	12000	92,976	46	0.13
L	7000	54,236	27	0.07
М	6000	46,488	23	0.06
N	7000	54,236	27	0.07
0	7000	54,236	27	0.07
			Total Ammonia Usage per Year	4.02

APPENDIX F

Example Facility NOx Emission Reductions After Implementing PAR 1134 Appendix F

EXAMPLE FACILITY NOx EMISSION REDUCTIONS AFTER IMPLEMENTING PAR 1134

The following examples illustrate the quantity of NOx emission reductions that may be achieved after implementing PAR 1134 at three different facilities with three different stationary gas turbines.

Example Facility	Turbine Rating		Equipped with Post Combustion	Current NOx Permit Limit	Current Ammonia Permit Limit	Reported NOx Emissions in	
	MMBTU	MW	Control?	(ppmv)	(ppmv)	2015 (tons)	
Facility 1 – Small Turbine	16	1.1	No	41	None	2.4	
Facility 2 – Medium Turbine	246	23	No	42	None	26.1	
Facility 3 – Large Turbine	410	60	SCR	102	5	193	

TABLE F–1 Example Turbines Existing Setting

TABLE F–2 Expected NOx Emission Reductions After Compliance With PAR 1134

Example Facility Post- Proposed Amm		Proposed Ammonia Limit	Projected NOx Emissions Reductions after Implementation of PAR 1134		Expected NOx Emissions after Implementation of PAR 1134		
	Control	(ppmv)	(ppmv)	tons/year	lbs/day	tons/year	lbs/day
Facility 1 – Small Turbine	SCR	2	5	(2.3)	(12.6)	0.1	0.55
Facility 2 – Medium Turbine	SCR	2.5	5	(24.5)	(134)	1.6	8.8
Facility 3 – Large Turbine	SCR	2	2	(189)	(1,035)	3.8	20.8

APPENDIX G

Comment Letters Received on the Draft SEA

Comment Letter #1

Gabrieleno Band of Mission Indians – Kizh Nation

From:	Administration Gabrieleno <admin@gabrielenoindians.org></admin@gabrielenoindians.org>
Sent:	Tuesday, January 29, 2019 1:21 PM
To:	CEQA_Admin
Subject:	Re: Notice of Completion of a Draft SEA for PAR 1134 and Opportunity for Public Comment

To whom this may concern,

If there will be any ground disturbance taking place regarding the above project our Tribal government will like to consult with your lead agency. Thank you

1-1

Sincerely,

Brandy Salas

Admin Specialist Gabrieleno Band of Mission Indians - Kizh Nation PO Box 393 Covina, CA 91723 Office: 844-390-0787 website: www.gabrielenoindians.org

Responses to Comment Letter #1

Response 1-1

From:CEQA_AdminSent:Friday, February 22, 2019 3/49 PMTo:'Administration Gabrieleno'Cc:Barbara Radlein; Ryan Banuelos (RBanuelos@aqmd.gov)Subject:RE Notice of Completion of a Draft SEA for PAR 1134 and Opportunity for Public Comment

Dear Ms. Salas,

Thank you for your email regarding the availability of the Draft Subsequent Environmental Assessment (SEA) for Proposed Amended Rule (PAR) 1134 for public comment and review. In response to your inquiry as to whether there will be any ground disturbances taking place if the project is implemented, the analysis in the Draft SEA indicates that the following facilities may need to replace existing turbines with new turbines, or retrofit existing turbines with air pollution control equipment:

Facility Name	Address
Altagas Pomona Energy Co.	1507 Mount Vernon, Pomona, CA, 91768
Providence Saint John's Health Center	1328 22nd Street, Santa Monica, CA, 90404
LA Co., Olive View/UCLA Medical Center	14445 Olive View Drive, Sylmar, CA, 91342
Loma Linda University	11100 Anderson Street, Loma Linda, CA, 92350
Berry Petroleum Company, LLC	25121 North Sierra Highway, Santa Clarita, CA, 91321
San Diego Gas & Electric	14601 Virginia Street, Moreno Valley, CA, 92555
Wheelabrator Norwalk Energy Co. Inc.	11500 Balsam Street, Norwalk, CA, 90650
LA City, Department of Airports (LAX)	275 Center Way, Los Angeles, CA, 90045
OLS Energy-Chino	5601 Eucalyptus Avenue, Chino, CA, 91710
LA Co. Sheriff Department	29300 The Old Road, Saugus, CA, 91350
LA Co. Internal Services Department	301 N Broadway, Los Angeles, CA, 90012
California State University, Fullerton	800 N State College Boulevard, Fullerton, CA, 92831
Beta Offshore	OCS Lease Parcels P-300 Huntington Beach, CA 92648 (This facility is an oil platform in the Pacific Ocean)
B Braun Medical, Inc.	2525 McGaw Ave, Irvine, CA, 92614
Thums Long Beach Co.	1411 Pier D Street, Long Beach, CA, 90802
Bridge Energy, LLC	2000 Tonner Canyon Road, Brea, CA, 92821

Responses to Comment Letter #1 (Continued)

Response 1-1 (Concluded)

In order to make the aforementioned modifications, there will be some construction activities at these facilities which may involve some minor ground disturbances associated with demolishing old concrete pads or footings and pouring new concrete pads or footings. It is important to note that these anticipated construction activities are expected to be confined within the existing footprint of each facility's boundaries which are located on existing industrial properties that have been fully developed and paved. Further, the above-listed facilities do not appear to be located in or adjacent to the San Gabriel Valley which I understand to be the area of concern for the Gabrieleño Band of Mission Indians - Kizh Nation. Since the ground disturbing activities associated with PAR 1134 would not occur at locations of concern for your Tribal Government, it does not appear that a consultation is necessary.

Of course, if you believe that consultation is necessary or if you have additional questions or concerns that may arise from this response, please do not hesitate to contact me or Ryan Bañuelos of my staff at <u>rhanuclos@aqmd.gov</u> or (909) 396-3479. Thank you.

Sincerely, Barbara Radlein Program Supervisor, CEQA South Coast Air Quality Management District 21865 Copley Drive Diamond Bar, CA 91765 (t) 909.396.2716 (f) 909.396.3982 (e) <u>bradlein@aqmd.gov</u>

Ryan Bañuelos Air Quality Specialist, CEQA South Coast Air Quality Management District 21865 Copley Drive Diamond Bar, CA 91765 909.396.3479 rbanuelos@aqmd.gov

2

Comment Letter #2

SoCalGas and SDG&E



Karin Fickerson Air Quality Team Lead

1650 Mountainview Avenue Oxnard, GA 93030

805-681-8013 kfickerson@semprautilities.com

March 15, 2019

Mr. Ryan Bafuelos (c/o CEQA) South Coast Air Quality Management District 21865 Copley Drive Diamond Bar, CA 91765

Sent via email: rbanuelos@aqmd.gov

RE: Comments on Draft CEQA Subsequent Environmental Assessment for Proposed Amended Rule 1134 – Emissions of NOx from Stationary Gas Turbines

Dear Mr. Bañuelos:

We are submitting these comments on behalf of SoCalGas and SDG&E, utilities regulated by the California Public Utility Commission (CPUC). SoCalGas operates a total of seven facilities subject to the Regional Clean Air Incentives Market (RECLAIM) program and is impacted by the transition to a command-and-control regulatory structure. SDG&E owns and SoCalGas operates the Moreno Valley Compressor Station within the jurisdiction of the South Coast Air Quality Management District (SCAQMD). SoCalGas has been actively engaged in the development of Proposed Amended Rule (PAR) 1134 Emissions of NOx from Stationary Gas Turbines. This letter provides our comments related to the Draft California Environmental Quality Act (CEQA) Subsequent Environmental Assessment (SEA) for PAR 1134.

Consistency with PAR 1134 (030519 version)

Based on our review of the SEA prepared for PAR 1134, we observed the following differences between the SEA and PAR 1134 (030519 version).

- Page 2-5: Table 1: Emission limits for "Pipeline Gas Turbines" are listed as 8 ppm NOx and 5 ppm NH3 whereas Table II of PAR 1134 lists the emission limits as 3.5 ppm NOx and 10 ppm NH3.
- Page 4-12: Project Specific AQ Impacts During Operation. Based on review of the discussion, it is unclear whether the proposed replacement of the four gas turbine
 2-3 compressors at the Moreno Valley Compressor Station was included in this analysis.
- Page 4-16: PM Impacts from Ammonia Usage. The analysis seems to be based on ammonia slip limit of 5 ppm whereas PAR 1134 Table II emission limit is 10 ppm NH3.

2-1

Comment Letter #2 (Continued)

SoCalGas and SDG&E

Concern with CEQA Analysis for Equipment Subject to Multiple Landing Rules at the same Facility

Based on our review of the SEA prepared for PAR 1134, we are concerned that the SEA hasn't properly analyzed the impacts of PAR 1134. There are additional logical and reasonable environmental consequences that will follow the implementation of PAR 1134.

The SEA only addresses the CEQA impacts associated with PAR 1134. However, our facilities are subject to multiple Landing Rules. In terms of PAR 1134, our Moreno Valley Compressor Station operates gas turbine compressors subject to PAR 1134, as well as engine compressors subject to PAR 1110.2 Emissions from Gaseous and Liquid Fueled Engines. Therefore, the CEQA impact associated with the transition from RECLAIM to Command and Control regulations for the Moreno Valley Compressor Station has not been fully analyzed by the SEA.

2-5

For example, the assumption listed in the last sentence of the last bullet on Page 4-8 is that "The maximum number of SCR systems expected to be installed at one facility is four." In addition to the four gas turbine compressors that will each require selective catalytic reduction (SCR), the Moreno Valley Compressor Station also has six reciprocating engine compressors. PAR 1134 requires the demonstration of reduced NOx emissions by 2023 as compared to 2017 in order to request a time extension for demonstration of BARCT on the compressor gas turbines. These NOx reductions will likely be achieved with the installation of SCR on some or all of the existing six reciprocating engine compressors. Additionally, PAR 1110.2 may require the installation of SCR on some or all of the six reciprocating engine compressors. As a result, the maximum number of SCR systems expected to be installed at a single facility assumed to be four in the SEA may be exceeded.

Please contact me with any questions regarding this comment letter at 805.681.8013 or kfickerson@semprautilities.com.

Sincerely,

Vain Richard

Karin Fickerson Air Quality Team Lead

cc: Michael Krause (SCAQMD) Barbara Radlein (SCAQMD) Darrell Johnson (SoCalGas)

Responses to Comment Letter #2

Response 2-1

This comment begins by introducing the parties represented by the letter; no response to this comment is necessary. SCAQMD staff appreciates your participation with our rule development process.

Response 2-2

Subsequent to the release of the Draft SEA for public review and comment, minor modifications were made to PAR 1134, which included revisions to Table I - Emissions Limits for Stationary Gas Turbines and the addition of new Table II - Emissions Limits for Compressor Gas Turbines with a NOx emission limit of 3.5 ppmv and ammonia emission limit of 10 ppmw. Staff has reviewed these modifications to PAR 1134 and has incorporated the aforementioned revisions into the Final SEA. To facilitate identification of the changes that are reflected in the Final SEA, modifications to the document are presented as <u>underlined text</u> and text removed from the document is indicated by strikethrough.

Response 2-3

While the term used in this comment, "gas turbine compressors," does not appear in PAR 1134, the term "compressor gas turbines" is defined in PAR 1134 as a stationary gas turbine used to transport gases or liquids in a pipeline. To the extent this comment is referring to "compressor gas turbines," the SEA evaluated 30 stationary gas turbines, four of which are the stationary compressor gas turbines located at the Moreno Valley Compressor Station. The Final SEA provides a summary of the affected units analyzed in Table 4-2 and a list of the affected facilities in Appendix D, which identifies four stationary gas turbines for the facility located in Moreno Valley. However, Appendix D does not specifically state that the four stationary gas turbines are located at the Moreno Valley facility but rather lists each of the industries affected by PAR 1134 with a short description, the associated North American Industry Classification System (NAICS) code, and the number of units. The analysis in the SEA is not facility-specific, but rather uses assumptions to estimate the "worst-case" construction- and operational-related emissions associated with repowering or replacing an existing stationary gas turbine or installing new SCR systems to comply with the NOx emission limits in PAR 1134 on a peak day. For example, Table 4-10 in the Final SEA illustrates the peak daily overlapping construction and operational emissions as a result of the following activities: 1) installation of two new SCR systems and two new ammonia storage tanks, 2) replacement of one stationary gas turbine, 3) increased truck trips for ammonia delivery for four facilities, and 4) increased truck trips for new catalyst delivery and hauling of spent catalyst at one facility. Thus, any physical changes to a facility that are not a direct result of complying with PAR 1134 are outside the scope of the CEQA analysis and are not required to be analyzed in the Final SEA.

Response 2-4

The analysis in the Draft SEA to determine PM impacts from ammonia usage is based on a series of regional simulations conducted by SCAQMD staff for the December 2015 Final Program EA for NOx RECLAIM to determine the impacts of reducing NOx while increasing the potential for creating ammonia slip due to increased use of ammonia needed for the operation of SCR systems.

In the analysis, NOx emissions were estimated to be reduced at RECLAIM facilities by a total of 14 tons per day while increasing ammonia slip emissions from the same facilities by 1.63 tons per day. The simulations were run for the 2021 draft baseline emissions inventory to estimate the impact when full implementation of the RECLAIM shave was expected to be achieved. The effect of decreasing 14 tons per day of NOx would result in a decrease of annual PM2.5 of approximately 0.7 µg per cubic meter. However, since ammonia is necessary to achieve the 14 tons per day of NOx emission reductions, the use of ammonia would cause a concurrent increase in annual PM2.5 of approximately 0.6 µg per cubic meter. Thus, increasing the amount of ammonia slip was shown to result in a net average 0.1 µg per cubic meter decrease in annual PM2.5. Further, the simulations showed that no change in ozone would be expected compared to what would occur with no increase in ammonia slip. As such, the December 2015 Final Program EA for NOx RECLAIM concluded that full implementation of the NOx RECLAIM shave would not create a significant adverse impact for either PM2.5 or ozone emissions from the creation of ammonia slip. The decrease in annual PM2.5 for NOx RECLAIM was based on an ammonia demand of approximately 39.5 tons per day (equivalent to approximately 10,284 gallons per day) of aqueous ammonia needed to operate the equipment. In addition, for the non-refinery equipment categories analyzed in the December 2015 Final Program EA, there were seven facilities with 13 turbines that had an expected demand of approximately 3.86 tons per day (equivalent to approximately 1,008 gallons per day) of aqueous ammonia (see Appendix E of the December 2015 Final Program EA, Page 71 http://www.aqmd.gov/docs/default-source/ceqa/documents/aqmdprojects/2015/regxxfinalpeaplusappendices.pdf).

For PAR 1134, the analysis in the SEA evaluated 16 facilities and 30 turbines. However, the ammonia demand was only calculated for the 15 facilities and 24 turbines that were expected to use ammonia for the operation of SCR systems with an expected demand of approximately 4.02 tons per day (equivalent to approximately 1,038 gallons per day) of aqueous ammonia (see Appendix E of this Final SEA, pp. E-1 through E-2). The difference between the amount of aqueous ammonia demand for non-refinery facilities as analyzed in the December 2015 Final Program EA versus the ammonia demand analyzed in the Final SEA for PAR 1134 is approximately an additional 30 gallons per day that would be needed to implement PAR 1134. When compared to the total quantity of aqueous ammonia that was previously evaluated in the December 2015 Final Program EA for NOx RECLAIM, the increased demand in aqueous ammonia and corresponding ammonia slip emissions associated with implementing PAR 1134 is essentially a subset of the overall ammonia slip emissions previously evaluated in the December 2015 Final Program EA for NOx RECLAIM.

Thus, even with a change in the ammonia slip limit from 5 ppmv to 10 ppmv for the four existing compressor gas turbines with the remaining turbines subject to the 5 ppmv ammonia slip limit, overall the impact to regional PM2.5 would continue to result in a net reduction and thus, would not create a significant adverse air quality impact.

Response 2-5

The commentator's suggestion that PAR 1134 has not been properly analyzed because the Final SEA only addresses the CEQA impacts associated with PAR 1134 and improperly excludes

impacts from future rule amendments to other landing rules such as Rule 1110.2 is incorrect. As explained below, the "engine compressors" that would be subject to the upcoming amendments to Rule 1110.2 are not required to be analyzed in the Final SEA for PAR 1134 and thus were not included in the analysis.

At the beginning of the process when SCAQMD staff was considering how to "unwind" the RECLAIM regulation and move NOx RECLAIM equipment to a command-and-control structure subject to various landing rules in Regulation XI, SCAQMD received a similar comment which was addressed in the Final Subsequent Environmental Assessment for Proposed Amended Regulation XX- Regional Clean Air Incentives Market (RECLAIM): Proposed Amended Rule 2001 – Applicability, and Proposed Amended Rule 2002 – Allocations for Oxides of Nitrogen (NOx) and Oxides of Sulfur (SOx)¹ which was certified on October, 5, 2018. PAR 1134 was one of the several landing rules that was identified at the time for a future rule amendment. SCAQMD's practice in conducting CEQA analyses for rule projects, including PAR 1134 and the upcoming amendments to Rule 1110.2, is that the project being contemplated undergoes its own CEQA analysis to address any impacts that were not addressed in a prior CEQA document. All SCAQMD rules and regulations are related to each other in that they are adopted and/or amended to meet the clean air goals outlined in the 2016 AQMP. The CEQA document for the 2016 AQMP, the March 2017 Final Program EIR, contains the programmatic analyses of the overall effects of SCAQMD's clean air goals. However, CEQA neither requires the SCAQMD to simultaneously amend every rule that may be affected by a control measure in the 2016 AQMP nor requires one CEQA document to be prepared that encompasses every rule.

The decision to transition from NOx RECLAIM into a source-specific command-and-control regulatory structure was approved by the SCAQMD Governing Board as control measure CMB-05 in the 2016 AQMP. CMB-05 is required by the California Health and Safety Code to implement BARCT in the RECLAIM program, which will be completed upon rule amendment or adoption of various landing rules. The California Health and Safety Code also requires other stationary sources to meet BARCT so the landing rules may also apply to non-RECLAIM sources. CMB-05 identifies a series of approaches that can be explored to make the RECLAIM program more effective in ensuring equivalency with command-and-control regulations implementing BARCT and to generate further NOx emissions reductions at RECLAIM facilities, including sunsetting the RECLAIM program.

CMB-05 specifically contemplates the unwinding of the RECLAIM program (see Final 2016 AQMP, Appendix IV-A, pp. IV-A-67 to IV-A-71 - <u>http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2016-air-quality-management-plan/final-2016-aqmp/appendix-iv-a.pdf</u>. In the Revised Draft 2016 AQMP that was released in October 2016², control measure CMB-05 was revised to include the following language: "*One approach*

¹ SCAQMD, Final Subsequent Environmental Assessment for Proposed Amended Regulation XX – Regional Clean Air Incentives Market (RECLAIM): Proposed Amended Rule 2001 – Applicability, and Proposed Amended Rule 2002 – Allocations for Oxides of Nitrogen (NOx) and Oxides of Sulfur (SOx), October 2018. Responses to Comment Letter #2 – Latham & Watkins LLP, Comment 2-6 and Response 2-6. <u>http://www.aqmd.gov/docs/default-source/ceqa/documents/aqmd-</u> projects/2018/finalseaforpars2001-2002-fullmerge.pdf

² Revised Draft 2016 AQMP, Appendix IV-A, October 2016, p. IV-A-84.

under serious consideration is a long-term transition to a traditional command-and-control regulatory structure. As many of the program's original advantages appear to be diminishing and generating increased scrutiny, an orderly sunset of the RECLAIM program may be the best way to create more regulatory certainty and reduce compliance burdens for RECLAIM facilities, while also achieving more actual and SIP creditable emissions reductions." Thus, the March 2017 Final Program EIR for the 2016 AQMP analyzed control measure CMB-05, which did contemplate the potential for sunsetting the RECLAIM program, even though the final decision was not made until the adoption of the 2016 AQMP at the March 2017 Governing Board hearing.

Furthermore, the potential environmental impacts associated with the 2016 AQMP, including CMB-05, were specifically analyzed in the March 2017 Final Program EIR. In particular, the March 2017 Final Program EIR addressed the environmental effects of reasonably foreseeable environmental consequences for the RECLAIM Transition project and determined that the overall implementation has the potential to generate adverse environmental impacts to seven topic areas: air quality; energy; hazards and hazardous materials; hydrology and water quality; noise; solid and hazardous waste; and transportation. More specifically, the March 2017 Final Program EIR evaluated and identified the impacts from the installation and operation of additional control equipment, such as selective catalytic reduction (SCR) equipment, potentially resulting in construction emissions, increased electricity demand, hazards from the additional ammonia transport and use, increase in water use and wastewater discharge, changes in noise volume, generation of solid waste from construction and disposal of old equipment and catalyst replacements, as well as changes in traffic patterns and volume. The time to challenge the assessments for the analyses of March 2017 Final Program EIR for the 2016 AQMP relied upon has passed (see Public Resources Code Sections 21167 and 21167.2).

The environmental impacts of the entire RECLAIM Transition project were analyzed in the 2016 AQMP and the associated March 2017 Final Program EIR was a program level analysis. The SCAQMD has and will continue to evaluate each individual RECLAIM Transition rule that is developed pursuant to the 2016 AQMP, to determine if any additional CEQA review is required. This has been consistent with SCAQMD's past practice and is not considered piecemealing, as explained in SCAQMD's response letter to BizFed on April 25, 2018³.

To date, separate rule developments and corresponding CEQA analyses have been conducted and completed for Rules 2001 and 2002⁴ (amended September, 2018 and Final SEA certified on October 5, 2018), Rule 1135 (amended October, 2018 and Final SEA certified on November 2, 2018), Rules 1100, 1146, 1146.1, and 1146.2 (amended November, 2018 and Final SEA certified on December 7, 2018), and Rule 1118.1 (adopted December, 2018 and Final EA certified on January 4, 2019). The rule development process and CEQA analysis for PAR 1134 is on its own schedule. Further, Table G-1 identifies several additional source-specific landing rules as

http://www.aqmd.gov/docs/default-source/rule-book/Proposed-Rules/regxx/5_response-042518_bizfed-letter.pdf

³ SCAQMD, Regulation XX – NOx RECLAIM, SCAQMD Response to BizFed – April 25, 2018.

⁴ SCAQMD, Final Subsequent Environmental Assessment for Proposed Amended Regulation XX – Regional Clean Air Incentives Market (RECLAIM): Proposed Amended Rule 2001 – Applicability, and Proposed Amended Rule 2002 – Allocations for Oxides of Nitrogen (NOx) and Oxides of Sulfur (SOx), October 2018. <u>http://www.aqmd.gov/docs/default-</u> <u>source/ceqa/documents/aqmd-projects/2018/finalseaforpars2001-2002-fullmerge.pdf</u>

identified by the SCAQMD in its monthly rule forecast report as scheduled to be undergoing separate, future rule amendments which includes PAR 1110.2.

Rule Number	Rule Title	Rule Development Forecast (subject to change)
1109.1	Emissions of Oxides of Nitrogen from Boilers and Process Heaters in Refineries	October 2019
1110.2	Emissions from Gaseous- and Liquid-Fueled Engines	September 2019
1117	Emissions of Oxides of Nitrogen from Glass Melting Furnaces	December 2019
1147	NOx Reductions from Miscellaneous Sources	September 2019
1147.1	NOx Reductions from Large Miscellaneous Combustion	September 2019
1147.2	NOx Reductions from Metal Melting and Heat Treating Furnaces	November 2019
1147.3	NOx Reductions from Aggregate Facilities	December 2019
1153.1	Emissions of Oxides of Nitrogen from Commercial Food Ovens	TBD 2019
1159.1	Nitric Acid Units – Oxides of Nitrogen	TBD 2019

 Table G-1

 Rule Development Forecast for Source-Specific Rules

 Affected by NOx RECLAIM Transition⁵

Key: TBD = to be determined

Since the schedule of each individual RECLAIM Transition rule is very different, it is not feasible to predict or speculate on each potential facility modifications or timing as may be required for compliance with each RECLAIM Transition rule development. Additionally, the SCAQMD makes significance determinations for construction and operational impacts based on the maximum or peak daily emissions during the construction or operation period, which provides a "worst-case" analysis of the construction and operational emissions. The type of emission reduction projects that may occur or are expected to be undertaken to comply with PAR 1110.2 are unknown at this time because the rule development process is currently in its early stages. Even if SCR technology is analyzed as a compliance option for PAR 1110.2, the assumptions and

⁵ Table G-1 rule development forecast is from the March 1, 2019 Rule and Control Measure Forecast: <u>http://www.aqmd.gov/docs/default-source/Agendas/Governing-Board/2019/2019-mar1-017.pdf</u>

schedule for implementation are unknown at this time. As the rule development progresses for PAR 1110.2, a CEQA document specific to the impacts associated with PAR 1110.2 will be prepared.

Further, because the details of future rule implementation mechanisms and timing is not currently available, SCAQMD staff is unable to predict or forecast, when and what actions a facility would undertake to comply with other future rule amendments until the rule development processes for those rules are completed. As such, the Final SEA for PAR 1134 is not required to speculate about the exact modifications every facility will use to comply with future RECLAIM Transition rule developments such as the upcoming amendments to Rule 1110.2. The CEQA analysis for the upcoming amendments to Rule 1110.2 will analyze the environmental impacts that may be associated with the six reciprocating engine compressors along with all the other equipment/engines that may be subject to Rule 1110.2.

Comment Letter #3

Latham & Watkins, LLP

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	Chicago	Paris		
	Dutal	Riyadh		
March 15, 2019	Desseldorf	Rome		
Match 15, 2012	Frankfurt	San Diege		
	Hemburg	San Francisco		
	Hong Kong	Seo:/		
	Houston	Sheoghei		
VIA E-MAIL	London	Silicon Valley		
VIA DANKALLA				

Mr. Ryan Banuelos (rbanuelos@aqmd.gov) South Coast Air Quality Management District 21865 Copley Drive Diamond Bar, CA 91765

Los Angeles Singapore Medrid Takya Milan Weshrolan, D.C. 018282-0000

Proposed Amended Role 1134 Draft Subsequent Environmental Assessment Re:

Dear Mr. Banuclos:

We are submitting these comments on behalf of our client the Regulatory Flexibility Group ("RFG") regarding the Draft Subsequent Environmental Assessment ("Draft SEA") for Proposed Amended Rule 1134 ("PAR 1134"). The RFG is an industry coalition comprised of companies in the refining, utility and aerospace sectors that operate facilities within the jurisdiction of the South Coast Air Quality Management District ("SCAQMD"). RFG member facilities are subject to the Regional Clean Air Incentives Market ("RECLAIM") program and will be seriously affected by the transition to a command-and-control regulatory structure that is currently underway. The RFG participated in the development of the RECLAIM program from its inception and has been an active participant in all major amendments to the program, including those currently underway.

Please refer to our March 13, 2019 comments on PAR 1134, including the attached letter of September 7, 2018 submitted on behalf of the Western States Petroleum Association, both of which provide comments on staff's approach to satisfying the requirements of the California Environmental Quality Act ("CEQA") in connection with the RECLAIM transition. Our prior comments are attached and hereby incorporated by reference. In addition to the more general concerns identified in our previous comments, we provide the following specific comments on the Draft SEA.

The "project" analyzed in the Draft SEA (i.e., PAR 1134) is not consistent with 1. the currently proposed amendments. For example, Table 1 of the Draft SEA identifies the emission limits for "Pipeline Gas Turbines" as 8 parts per million ("ppm") NOx and 5 ppm N113; however, the current draft rule language proposes limits of 3.5 ppm NOx and 10 ppm NH3 for this type of engine (referred to as "Compressor Gas Turbines" in current rule language). The Draft SEA also assumes that permit conditions will limit ammonia slip to 5 ppm for all turbines covered by PAR 1134. (p. 4-15 and p. 4-16) However, the latest draft rule language has

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Mr. Ryan Banuelos March 16, 2019 Pago 2

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ammonia limits as high as 10 ppm, and even higher limits may be appropriate in some cases. Therefore, the Draft SEA likely underestimates impacts associated with ammonia slip.

2. The "previous CEQA analyses conducted for the installation of one SCR system and one ammonia storage tank" referred to at page 4-5 should be provided as an appendix to the Draft SEA so that the public can access its validity. Please provide a copy in the response to comments.

3. The Draft SEA assumes that facilities with existing SCR systems will continue to use existing annonia tanks to store ammonia for new SCR systems required to comply with PAR 1134, and simply increase ammonia deliveries to meet the new demand. (p. 4-6) Existing ammonia storage tanks may not have adequate storage capacity to meet the needs of simultaneous operation of all of the new SCR systems required to comply with PAR 1134. Furthermore, some facilities may have to install additional SCR systems to comply with other updated BARCT rules such as Rule 1110.2. If existing capacity is insufficient to meet instantaneous demand, increased deliveries will not address this problem. Therefore, the assumption that only those facilities that do not currently have ammonia storage tanks will be required to install tanks is not reasonable.

4. The Draft SEA assumes that for any facility with multiple gas turbines, the installation of SCR systems and associated ammonia storage tanks, or the replacement of the turbines, will occur in sequential order, and that the four phases of installation would also occur sequentially. (p, 4-7 - p, 4-9) However, because different phases of the installation process require different types of construction workers and equipment, it is more likely that multiple installations would be underway simultaneously in different phases. Once the demolition crew completed work on the turbine, it would move on to the next turbine, while the site preparation crew began work on the first turbine. The assumptions used in the Draft SEA are not reasonable because the assumed approach would be highly inefficient due to the need to mobilize and demobilize the same crew multiple times for each installation.

5. Please provide in the response to comments the basis for the assumed construction equipment and hours of operation associated with the replacement of a turbine contained in Table 4-5. (p. 4-10)

6. Facilities that have a high need for reliability, and that decide to replace turbines, may have to continue operating the existing turbines while installation of the new turbines is underway. The Draft SEA fails to assess the cumulative effects of simultaneous operation and installation.

7. The Draft SEA states that "[t]he maximum number of SCR systems expected to be installed at one facility is four." (p. 4-8) This assumption is based only on an analysis of installations that are required to comply with PAR 1134. However, there are facilities that may be required to install new SCR systems to comply with PAR 1134 and additional SCR systems to comply with other updated BARCT rules, such as Rule 1110.2. Furthermore, these installations may have to occur simultaneously, given that the compliance dates in the updated BARCT rules

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Mr. Ryan Banuolos Marula 15, 2019 Page 3

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are all quite close to each other. This is an example of the piecemealing concern that we raised in our earlier comment letters identified above and attached hereto. Even if it were acceptable to review the impacts associated with each rule in separate CEQA documents, which it is not, the impacts associated with compliance with rules other than PAR 1134 should be identified as cumulative impacts in the Draft SEA since they will occur at the same facility.

8. The ammonia transportation release analysis compares the number of deliveries and the volume delivered on any given day to achieve compliance with PAR 1134 to the same parameters analyzed for two other previously-approved projects where the impacts were determined to be less than significant to reach the conclusion that the impacts associated with PAR 1134 are less than significant. (p. 4-23 - p. 4-26) This approach suffers from a number of critical flaws.

First, the analysis focuses only on the number of deliveries and volumes delivered, and ignores the most critical factor in assessing this type of risk, which is the number of vehicle miles traveled. As stated in the Draft SEA "{a] common reference frequently used in measuring risk of an accident is the number of accidents per million miles traveled." (p. 4-24) As further explained in the Draft SEA, accident rates based on vehicle miles traveled was the basis of the analysis in the two other projects referred to in the Draft SEA – "accident rates developed based on transportation in California were used to predict the accident rate associated with trucks transporting aqueous ammonia to the facility." (p. 4-24) The Draft SEA must assess the change in vehicle miles travelled as a result of Rule 1134.

Furthermore, the analysis focuses on the increased risk on any given day, which is an inappropriately short time horizon for assessing this type of risk. Thus, even if the analysis had correctly evaluated vehicle miles travelled, doing so on a daily basis only would have masked the true effects of PAR 1134. It may be that on a daily basis, the number of truck trips and miles travelled remain the same, but that the number of days on which lruck trips are occurring increases. A scenario in which daily truck trips remain the same, but the number of days on which truck trips occur increases, would result in effects that would not be identified under the approach utilized in the Draft SEA. As the Draft SEA acknowledges, PAR 1134 will result in increased truck trips to deliver ammonia to affected facilities, which results in increased vehicle miles travelled. In fact, the Draft SEA relies on the assumption of increased truck trips to support its conclusion that there will not be impacts associated with increasing ammonia storage capacity at facilities with existing storage tanks - "ammonia usage will only affect the number of truck trips to deliver the ammonia and not the amount of ammonia stored on site." (p. 4-6)

Finally, comparing the effects of PAR 1134 to other projects to determine whether or not the effects are significant is contrary to the requirements of CEQA, which is very specific regarding the baseline against which project effects are to be evaluated. As correctly stated in the Draft SEA, "[i]n order to determine the significance of the impacts associated with a proposed project, it is necessary to evaluate the project's impacts against the backdrop of the environment as it exists at the time the environmental analysis is commenced." (p. 3-1) "Therefore, the 'environment' or 'existing setting' against which a project's impacts are compared consists of the immediate, contemporaneous physical conditions at and around the

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Mr. Ryan Barruelos March 15, 2019 Page 4

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project site. (Remy, et al; 1996.)" (p. 3-1) The existing setting in this case is the number of vehicle miles traveled currently to deliver ammonia to the facilities affected by PAR 1134. This is the baseline against which the effects of PAR 1134 must be evaluated; not conclusions reached with regard to some other projects.

In summary, the appropriate methodology for assessing the increased risk associated with the transport of ammonia to comply with PAR 1134 is to determine the increase in vehicle miles travelled as a result of PAR 1134 and determine the resulting increase in risk. This is the methodology typically used by the SCAQMD, including in the projects cited in the Draft SEA.

9. Consequence analyses associated with hazards materials releases typically evaluate three scenarios -i) accidental release during transport; ii) storage tank rupture; and iii) releases as a result of malfimetion during tank loading. The Draft SEA does not evaluate the third scenario even though it acknowledges that there will be an increased number of deliveries at facilities affected by PAR 1134.

Thank you for your attention to these comments. We look forward to receiving your responses.

Best regards,

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Michael J. Carroll of LATHAM & WATKINS LLP

Attachment

cc: Philip Fine, SCAQMD Barbara Baird, SCAQMD Robert Wyman, Latham & Watkins LLP John Heintz, Latham & Watkins LLP RFG Members

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ATTACHMENT March 13, 2019 Letter

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March 13, 2019

VIA E-MAIL (see attached distribution)

Governing Board South Coast Air Quality Management District 21865 Copley Drive Diamond Bar, CA 91765

Proposed Amended Rule 1134 Rc:

Dear SCAQMD Governing Board Member:

We are submitting these comments on behalf of our client the Regulatory Flexibility Group ("RFG") regarding Proposed Amended Rule 1134 ("PAR 1134"). The RFG is an industry coalition comprised of companies in the refining, utility and aerospace sectors that operate facilities within the jurisdiction of the South Coast Air Quality Management District ("SCAOMD"). RFG member facilities are subject to the Regional Clean Air Incentives Market ("RECLAIM") program and will be seriously affected by the transition to a command-andcontrol regulatory structure that is currently underway. The RFG participated in the development of the RECLAIM program from its inception and has been an active participant in all major amendments to the program, including those currently underway.

The PAR 1134 rulemaking raises a number of issues that have been raised previously with staff and Governing Board members in written and verbal comments at working group meetings, public workshops and hearings. Nevertheless, staff continues to proceed with RECLAIM transition rulemaking in the same flawed manner. Following is a brief summary of each of the issues about which we have concerns, and attached to this letter are more detailed comment letters previously submitted to the SCAQMD on these issues.

Mandating Equipment Replacement Exceeds The SCAQMD's Authority

As it has in previous rulemakings, SCAQMD stall takes the position that a best available retrofit control technology ("BARCT") standard may require total replacement of the emitting piece of equipment.1 As we have explained in previously filed comments, mandating replacement projects exceeds the authority of the SCAQMD to adopt BARCT standards for

1 PAR 1134 Draft Staff Report, March 2019, Chapter 2.

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existing sources, as set forth in the California Health & Safety Code, and, therefore, runs afoul of the well-established legal principle that a regulatory agency must act within the scope of the authority delegated to it by the legislature.

As illustrated by PAR 1134, staff's interpretation that a BARCT standard may require complete replacement of the subject equipment leads to nonsensical results. With respect to four out of the six equipment categories identified in PAR 1134, the Draft Staff Report describes the proposed standards as "[1]he initial BARCT recommendation for both new installations and retrofits...,"² It does not make any sense to establish a BARCT standard for new installations because BARCT does not apply to new installations. New installations are subject to "best available control technology" (BACT) requirements. As explained elsewhere in the Draft Staff Report:

> The use of the word "retrofit" serves to distinguish an emission limit that is imposed on existing sources, and which under the statutory definition most consider conomic and other factors, from the emissions limit imposed on new sources. The limit for new sources must be met if it has been achieved in practice, regardless of cost. See definition of "best available control technology" [BACT] in section 40405, which includes "the most stringent emission limitation that is achieved in practice by that class or category of source."²

Thus, it is not at all clear what staff means when it refers to BARCT for new installations. New installations will be subject to BACT requirements that will be determined at the time the new installation is permitted and which may or may not be the same as the proposed BARCT standards "for new installations" contained in the Draft Staff Report. Furthermore, this confusing approach masks the true costs of compliance for those units that must be replaced. Staff's cost-effectiveness analysis looks only at the costs of installing selective catalytic reduction ("SCR") to meet the proposed BARCT standards. The costs of installing an entirely new piece of equipment that meets BACT standards that could be more stringent than the proposed BARCT standards could be much higher.

Our concerns regarding the BARCT update process to compel installation of new emissions units are addressed in more detail in the following attachments:

- · August 24, 2018 comments from Latham & Watkins LLP on behalf of RFG
- · November 1, 2018 comments from Latham & Watkins LLP on behalf of RFG

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² Draft Staff Report, Chapter 2.

³ Draft Staff Report, Chapter 2.

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Staff's Proposed NOx BARCT Standards Do Not Adequately Consider Other Pollutants

Staff's BARCT analysis focuses almost exclusively on proposed standards for NOx, including what is currently being achieved, and what might be achieved with identified control technologies. What staff often fails to adequately consider are trade-offs that can occur in terms of emissions of other pollutants, including particulate matter resulting from ammonia emissions. Use of ammonia in selective catalytic reduction ("SCR"), which is the preferred approach for achieving the NOx standards in PAR 1134, results in ammonia emissions that form particulates. Furthermore, the more stringent the NOx standard is, the more difficult it becomes to limit ammonia slip. In its evaluation of what is currently being achieved, staff often fails to acknowledge that the lowest emissions of NOx are being achieved with units that have high or non-existent limits on ammonia slip. Staff is then recommending NOx standards that are at or below the lowest levels currently being achieved, and then, to avoid impacts associated with increases in particulate emissions, is imposing stringent limits on ammonia. This approach ignores the inherent technological trade-off between these two pollutants and results in combinations of standards that may not be achievable, and certainly not at the costs identified by staff.

Staff Has Failed To Provide Information That Forms The Bases Of Its BARCT Recommendations

We are deeply concerned that staff is not making available to the public certain information upon which it is relying as the basis of its proposed BARCT standards. This is a significant deviation from the manner in which the SCAQMD has conducted BARCT determinations in the past and contrary to California Health & Safety Code ("H&S Code") requirements. H&S Code Section 40440(e) makes H&S Code Section 40703 applicable to SCAQMD rulemaking and requires that when adopting any regulation "the district shall consider, pursuant to Section 40922, and make available to the public, its findings related to the cost-effectiveness of a control measure, as well as the basis for the findings and the consideration involved." (emphasis added). Thus, the SCAQMD is required by statute, to make public the basis of its findings that the proposed and adopted BARCT standards are cost-effective.

It is not possible for the public to critically evaluate the basis of staff's recommendations if it does not have access to the information upon which staff is relying. Conclusory assertions contained in staff reports, without access to the underlying information that purportedly supports the assertions, is not sufficient to provide for meaningful evaluation and comment. Furthermore, because this information is not contained in the public record, it is not clear that it is being provided to the Governing Board. As a result, not only are certain staff recommendations unsupported by anything in the record, Governing Board action on those recommendations are equally unsupported.

When describing the technology assessment undertaken by staff, the PAR Draft Staff Report Staff states simply that staff "reviewed scientific literature, vendor information, and

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strategies utilized in practice."⁴ Not all of the information reviewed by staff is included in the PAR Draft Staff Report, and there are no specific references or citations to the sources of the information. It is impossible for the public to know precisely what staff has reviewed, or to critically evaluate the information in any way. This is particularly troubling because, in virtually every case, staff has proposed standards that are as stringent or more stringent than the most stringent existing standards, and well below the emission rates currently being met by most or all of the existing units in the class of equipment. Throughout the Draft Staff Report, staff justifies its proposals with the simple phrase "the technology assessment found." Thus, staff's recommendations are being driven primarily by information that is currently unavailable to the public.

We have addressed this concern regarding the adequacy of the rulemaking record in more detail in the following comments:

March 4, 2019 comments from Latham & Watkins LLP on behalf of RFG and WSPA

New Source Review Issues Must Be Addressed Comprehensively And Expeditiously

While there has been additional discussion of new source review ("NSR") issues in recent RECLAIM Working Group meetings, none of the fundamental issues have yet been resolved. Furthermore, although SCAQMD staff has indicated that it is communicating with U.S. Environmental Protection Agency ("USEPA") staff regarding the nature of the NSR program that will apply to RECLAIM facilities once they exit the program, we are not aware of the specifics of those communications. Addressing fundamental programmatic issues, such as NSR, early in the transition process will result in a more orderly and efficient transition. This issue is addressed in more detail in the following attachment:

· September 7, 2018 comments from Latham & Watkins LLP on behalf of WSPA

The California Environmental Quality Act Analysis For The Transition Project Is Piecemealed

It is a fundamental principle of California Environmental Quality Act ("CEQA") review that all environmental impacts for the whole of the project be analyzed together. In this case, the "project" is the RECLAIM transition as a whole as required by Control Measure CMB-05 as adopted in the 2016 AQMP. Yet, staff is conducting the CEQA review through a series of Supplemental Environmental Assessments ("SEA") that analyze only the impacts associated with the particular landing rule under consideration. Staff argues that this approach is acceptable because each SEA "tiers oft" the March 2017 Final Program Environmental Impact Report for the 2016 AQMP and several other earlier certified CEQA documents, which analyzed the transition as a whole. However, the March 2017 Final Program EIR for the 2016 AQMP, which was completed in January 2018, did not analyze the transition of the RECLAIM program because the transition was not part of Control Measure CMB-05 as proposed at that time.

⁴ PAR 1134 Drall Staff Report, March 2019, Chapter 2.

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Therefore, tiering off of the earlier CEQA documents to support rule amendments that seek to implement the transition is not possible because there is no comprehensive analysis in the earlier documents. In the absence of a program level CEQA analysis that includes the whole of the RECLAIM transition, staff's segmented analysis of each proposed relemaking action constitutes classic "piecemealing" in violation of CEQA. This issue is addressed in more detail in the following altachment:

· September 7, 2018 comments from Latham & Watkins LLP on behalf of WSPA

Incremental Socioeconomic Assessment

By analyzing the socioeconomic impacts associated with the transition in an incremental fashion in the context of each rulemaking, as opposed to a comprehensive analysis of the entire transition, staff is either underestimating the cumulative impacts or failing to identify them at all. An illustration of this problem can be found in the two sets of amendments to Rules 2001 and 2002 in 2018. In the January 2018 amendments to these rules, staff did not even address the impact that the removal of 38 facilities from the RECLAIM program that would then be eligible to take advantage of offset exemptions in Rule 1304 might have on the internal offset bank. In contrast, the Staff Report supporting the October 2018 amendments to these same rules expressed serious concerns about the potential impacts to the internal bank. Either staff erred in January by failing to analyze the potential impacts on the internal bank, or it overstated the potential impacts the problem with undertaking analysis of the impacts associated with the RECLAIM transition in an incremental fashion. This issue is addressed in more detail in the following attachment:

· September 7, 2018 comments from Latham & Watkins LLP on hehalf of WSPA

Inappropriate Cost-Effectiveness Methodology

RFG objects to certain aspects of the cost-effectiveness methodology that SCAQMD staff is using to determine BARCT requirements for the landing rules currently under development. First, staff typically assumes a useful life for equipment of 25 years even though rulemaking requires replacement of technology much sooner. Use of a 25-year assumption makes the control equipment appear more cost-effective by diluting the significant capital costs of required projects over a much longer time period than is likely to occur. Second, staff utilizes the discounted cash flow ("DCF") method instead of the levelized cash flow ("LCF") method as used by several other air districts. The LCF method is a better representation of costeffectiveness than the DCF method. Finally, staff utilizes a \$50,000 per ton cost-effectiveness threshold for determining BARCT, which is much higher than that applied by other air quality agencies, and, in some cases, staff has concluded that controls with a cost-effectiveness above \$50,000 per ton constitute BARCT. This issue is addressed in more detail in the following attachment:

July 3, 2018 comments from WSPA

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SCAQMD Governing Board Memb Merch 13, 2019 Page 6

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I hank you for your attention to these comments. We are available to discuss these issues with you and/or your Governing Board Assistant at any time.

Best regards,

& Carroll Aug Michael J. Carrol! of LATHAM & WATKINS LLP

Attachments

cc: Clerk of the Boards, SCAQMD Wayne Nastri, SCAQMD Philip Fine, SCAQMD Barbara Baird, SCAQMD Robert Wyman, Latham & Watkins LLP John Heintz, Latham & Watkins LLP RI-G Members

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SCAQMD Staff Proposal to Require Equipment Replacement as BARCT Re:

Dear Dr. Finc:

We are submitting these comments on behalf of our client the Regulatory Flexibility Group ("RFG"). The RFG is an industry coalition comprised of companies in the refining, utility and aerospace sectors that operate facilities within the jurisdiction of the South Coast Air Quality Management District ("SCAQMD"). RFG member facilities are subject to the Regional CLean Air Incentives Market ("RECLAIM") program, and will be seriously affected by the transition to a command and-control regulatory structure that is currently underway. The RFG participated in the development of the RECLAIM program from its inception, and has been an active participant in all major amendments to the program, including those currently underway.

Introduction

These comments are focused on recent assertions by SCAQMD staff that a best available retrofit control technology ("BARCT") standard may require total replacement of the emitting piece of equipment. SCAQMD staff has asserted this position in various meetings and documents pertaining to the RECLAIM transition and development of command-and-control BARCI rules. The most detailed explanation of the staff's position that we are aware of is contained in the July 2018 Draft Staff Report in support of proposed amendments to SCAQMD Rule 1135 ("Rule 1135 Staff Report") at pages 2-1 through 2-2, wherein staff makes two arguments in support of its position. First, it cites to dictionary definitions of "retrofil" and concludes that "replacement" is not specifically excluded from those definitions. Second, it cites to a California Supreme Court case, American Coatings Ass'n v. South Coast Air Quality Mgt. Dist., 54 Cal 4th 446 (2012), for the proposition that a BARCT standard may require replacement of the emitting equipment in its entirety.

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The RFG concurs with the comments of the Western States Petroleum Association ("WSPA") submitted on August 15, 2018 pertaining to this issue ("WSPA Comments"). We hereby supplement those comments with further analysis of the relevant statutory provisions, which illustrates that the staff's interpretation is inconsistent with the whole of Division 26 of the California Health & Safety Code, which addresses Air Resources, and runs contrary to standard principles of statutory construction. In addition, we provide additional analysis distinguishing SCAQMD Rule 1113, which is the subject of the American Contings case, from the BARCT rules currently under development to replace the RECLAIM program.

Relevant Statutory Provisions

At question is the scope of the SCAQMD's authority to require the use of BARCT for existing sources. That authority is both granted and limited by Health & Safety Code Section 40440(b)(1), which provides, in relevant part:

 (b) The rules and regulations adopted pursuant to subdivision
 (a) [authorizing SCAQMD board to adopt rules and regulations to carry out air quality management plan] shall do all of the following:

 Require the use of best available control technology for new and modified sources and the use of best available retrofit control technology for existing sources.

Health & Safety Code Section 40406 defines BARCT as follows:

As used in this chapter, "best available retrofit control technology" means an emission limitation that is based on the maximum degree of reduction achievable, taking into account environmental, energy, and economic impacts by each class or category of source.

Finally, Health & Safety Code Section 40920.6, specifies the procedures the SCAQMD is required to follow when establishing a BARCT standard, and provides, in part:

(a) Prior to adopting rules or regulations to meet the requirement for best available retrofit control technology pursuant to Sections 40918, 40919, 40920 and 40920.5, or for a feasible measure pursuant to Section 40914, districts shall, in addition to other requirements of this division, do all of the following:

 Identify one or more potential control options which achieves the emission reduction objectives for the regulation.

(2) Review the information developed to assess the cost-effectiveness of the potential control option. For purposes of this paragraph, "cost-effectiveness" means the cost, in dollars, of

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Dr. Philip Fine August 24, 2018 Page 3

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the potential control option divided by emission reduction potential, in tons, of the potential control option.

(3) Calculate the incremental cost-effectiveness for the potential control options identified in paragraph (1). To determine the incremental cost-effectiveness under this paragraph, the district shall calculate the difference in the dollar costs divided by the difference in the emission reduction potentials between each progressively more stringent potential control option as compared to the next less expensive control option.

(4) Consider, and review in a public meeting, all of the following;

(A) The effectiveness of the proposed control option in meeting the requirements of this chapter and the requirements adopted by the state hoard pursuant to subdivision (b) of Section 39610.

(B) The cost-offectiveness of each potential control option as assessed pursuant to paragraph (2).

 (C) The incremental cost-effectiveness between the potential control options as calculated pursuant to paragraph (3).

(5) Make findings at the public hearing at which the regulation is adopted stating the reasons for the district's adoption of the proposed control option or options.

Interpreting The Meaning Of BARCT

Staff's "Common Sense Definition" Argument Is Flawed

In the Role 1135 Staff Report, staff sets forth what it refers to as a "common sense definition" argument in which it reaches the conclusion that the term "retrofit" as used in Section 40406 encompasses "replacement" because "replacement" is not specifically excluded from the cited definitions of "retrofits." At first blush, this argument appears similar to a basic rule of statutory construction known as the "plain meaning rule," which means giving words their ordinary meaning. However, the staff's "common sense definition" argument is directly contrary to the "plain meaning rule" which is codified in the California Code of Civil Procedure as follows: "In the construction of a statute or instrument, the office of the Judge is simply to ascertain and declare what is in terms or in substance contained therein, *not to insert what has been omitted*, or to omit what has been inserted" See Cal. Civ. Proc. Code § 1858 (emphasis added). "Replacement" has been very clearly and specifically omitted from Section 40406, and that ends the analysis under the "plain meaning rule." Staff's argument violates that rule by seeking to insert "replacement" where it simply does not exist.

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Dr. Fielip Fine August 24, 2018 Zoge 4

"Control Options" Connoie "Retrofits;" Not "Replacements"

Use of the phrases "control option" and "control options" in Health & Safety Code Section 40920.6 is informative. Those phrases are used elsewhere in Health & Safety Code Division 26, which pertains to Air Resources, in ways that make it clear that they refer to emission controls to be applied to the underlying source (i.e., retrofits). For example, Section 40440.11(a) provides:

> "In establishing the best available control technology ... the south coast district shaft 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." (emphasis added).

Thus, when Health & Safety Code Section 40920.6 uses the phrases "control option" and "control options" repeatedly to specify the procedures the SCAQMD is required to follow when establishing a BARCT standard it is referring to measures to be applied to the emitting source, not replacement of the emitting source in its entirely.

When The Legislature Means "Replacement," It Says "Replacement"

There are many provisions in Division 26 where the terms "replace" or "replacement" are used, indicating that when the legislature means "replace" it states so explicitly. Furthermore, the terms "replace" or "replacement" are frequently used in conjunction with "retrofit" or terms similar to "retrofit," such as "modify" or "after" (or variations thereof). This makes it clear that there is a distinction between actions that result in changes to an existing emissions source, and actions that result in its elimination altogether.

For example, Section 43021(a) provides:

"... the retirement, *replacement*, *retrofit*, or repower of a selfpropelled commercial motor vehicle... shall not be required until the later of the following:" (emphasis added).

Similarly, Section 44281(a) which identifies projects eligible to participate in the Carl Moyer Program, provides:

"Emission-reducing *retrofit* of covered engines, *or replacement* of old engines powering covered sources with newer engines . . ." (emphasis added).

Use of the term "replacement" in the provisions cited above illustrates that when the legislature means "replacement" it states so explicitly. Furthermore, use of both "replacement"

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Dr. Fisilip Fine August 24, 2010 Page 5

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and "retrofit" illustrates that the legislature intends to distinguish between the two terms, and that that "retrofit" does not encompass "replacement" as suggested by staff's interpretation of the definition of BARCT in Section 40406. If staff's interpretation was correct, then the use of both terms in the cited provisions would be redundant. Generally, if the legislature chose to include language, it must be given some meaning, and statutes are to be interpreted in a manner that avoids rendering some words surplusage, null or absurd. See Ingredient Communications Council, Inc. v. Langrea, 2 Cal. App. 4th 1480, 1492, 4 Cal. Rptr. 2d 216, 224 (3d Dist. 1992), rev. denied (April 23, 1992).

The Legislature Has Defined "Retrofu" And Distinguished It From "Replacement"

Finally, Division 26 includes a specific definition of "retrofil" in Sections 44275(a)(19) and 44299.80(a), which provide:

"Retrofit" means making modifications to the engine and fuel system so that the retrofitted engine does not have the same specifications as the original engine.

This definition makes clear that in the case of a "retrofit," the existing emissions source continues to exist following the retrofit, but in an altered state. Furthermore, while Division 26 does not include a definition of "replacement," it frequently makes distinctions between the terms "retrofit" and "repower," which is defined in Sections 44274(a)(18) and 44299.80(n) (immediately preceding the definitions of "retrofit") as follows:

"Repower" means replacing an engine with a different engine."

Thus, in the context of Division 26, "repower" and "replace" are synonymous, and very specifically and explicitly distinguished from "retrofit." The legislature was very deliberate in its used of these terms throughout the air quality statute. To suggest, as staff does, that "retrofit" as used in Section 40406, implicitly encompasses "replacement" flies in the face of the numerous distinctions between these terms made in the statute, and violates accepted rules of statutory construction.

Distinguishing American Coatings

As correctly pointed out in the WSPA comments, there is nothing in the holdings of the American Coatings decision that supports the proposition that BARCT may include replacement of the emitting equipment in its entirety; that question wasn't even before the court. Furthermore, even if the decision supported staff's position, which it does not, it would be distinguishable based on the fundamental differences between SCAQMD Rule 1113, which was the subject of the case, and the BARCT rules currently under development to replace the RECLAIM program.

SCAQMD Rule 1113 regulates architectural coatings, and the control strategy is reformulation of the covered coatings over time to reduce the VOC content. The role does not impose limits on emitting equipment, and emission control equipment (i.e., hardware) is not required by, or even mentioned in the rule. In contrast, the BARCT rules corrently under

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development to replace the RECLAIM program would impose emission limits on process or production equipment to be achieved through add-on emission control equipment (or, according to staff's current theory, replacement of the process of production equipment). There are fundamental differences between these two types of rules that make it impossible to draw any parallels between them. Thus, even if there was something in the *American Coatings* decision that supported staff's position, and again there is not, it would be of no relevance to the rules currently under development.

In the case of coarings reformulation, the control strategy involves research and development that can be undertaken completely independent of ongoing production. The work is undertaken in laboratories, and ongoing production processes and equipment are unaffected. Once the reformulated coating has been developed, production switches to the new coating with no need to modify the production equipment, and in most cases, no lost production time. Thus, there is futfle or no risk to engoing production while the control strategy is implemented or if the control strategy proves to be infeasible (i.e., effective reformulations that meet the lower limits cannot be developed). Furthermore, while coating reformulation can require a significant investment of time and money, it does not typically involve the manufacture of modified production equipment or new add-on controls, permitting required to modify or install emitting or control equipment, and physical installation of modified or new equipment.

By contrast, control strategies that rely on physical modification of emitting equipment and/or installation of new add-on control equipment, which also typically involve a research and development stage, also require the manufacture of new equipment, permitting prior to commencing installation of the new equipment, and a physical modification or installation process. Thus, the lead times and costs associated with implementing this type of control strategy are typically much longer and higher. Furthermore, implementation of such strategies can seldom he accomplished without significant disruption to the operation of the facility, particularly at complicated facilities such as those currently covered by the RECLAIM program. And if the control strategy proves to be ineffective in achieving desired emission levels, significant investments of time, money, and lost production may have been for naught.

Trying to draw any parallels between a "technology-forcing" reformulation rule, such as SCAQMD Rule 1113, and the "landing rules" currently under development misses the fundamental differences between these two types of BARCT rules. Furthermore, as stated at the outset, staff has not drawn any parallels that would support its position that BARCT standards may compel replacement of the underlying production equipment even if such parallels could be drawn.

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Dr. Fitilija Fine August 24, 2018 Fage 7 LATHAM-WATKINS... Thank you for considering these comments. We look forward to continuing to work with you on these refemakings which are critically important to stakeholders as well as the regional economy. If you have any questions, please contact me at (714) 401-8105 or by email at michael.carroll@lw.com. Sincerely, the aust Michael J. Carroll OF LATHAM & WATKINS LLP Rubert Wyman, L&W CC: John Heintz, L&W **RFG** Members US-DOC5/102923979.6





NOVEMBER 1, 2018 ATTACHMENT

63 Center Drival 20th Floor d es. Caltomia secan-tese 12. -V14.540 1998 Fax: 11714 766 8290 www.le.port LATHAM&WATKINS FIRM / AFF.LIATE OFFICES Feijing Metters Fester. Vunish Erussels New York Century City Orange Courty Chicago Parie Dub-5 Rivadh Diessidorf Rame Frankturt San Diego Farthure San Francisco Hong Kong Seod Houston Shanghai London Stean Valley Los Anthées Singapore Machiel Tokya Alibour Washington, D.C. 018282-0008 1/39940-0005

November 1, 2018

VIA EMAIL

Bayron T. Gilchrist, General Counsel Barbara Baird, Chief Deputy Counsel South Coast Air Quality Management District 21865 Copley Drive Diamond Bar, CA 91765

SCAOMD Staff Proposal to Require Equipment Replacement as BARCF Re:

Dear Bayron and Barbara:

Thank you for your October 3, 2018 letter responding to our August 15, 2018 comments submitted on behalf of the Western States Petroleum Association ("WSPA"), and our August 24, 2018 comments submitted on behalf of the Regulatory Flexibility Group ("RFG"), regarding South Coast Air Quality Management District ("SCAQMD") staff's position that a best available retrofit control technology ("BARCT") standard may require total replacement of the emitting piece of equipment. Portions of your response reassen arguments that staff has made in the past in support of its position; namely, that neither the statutory definition of BARCT nor common dictionary definitions of "retrofic" specifically exclude replacements, and that the American Coutings Ass'n v. South Coast Air Quality Mgt. Dist., 54 Cal 4th 446 (2012) case ("American Contings") is supportive of staff's position. We responded to those arguments in our previous comment letters and will not revisit them here. This letter responds on behalf of WSPA and RFG to your assertions that the staff's position is supported by public policy considerations, and that we have failed to present any policy rationale for our position.

Staff asserts that requiring replacements under certain circumstances is supported by policy justifications, and, therefore, public policy supports an expansive interpretation of its authority that would include the authority to mandate replacements. This reasoning is contrary to two important public policies that are also well enshrined in administrative law. The first is that regulatory agencies must act within the scope of the authority delegated to them by the legislature, even if that means the agency may not undertake certain actions that it might otherwise view as sound public policy. The second is that public agencies may not substitute their own judgment for that of the legislature as reflected in the statutory grant of authority. These public policies and legal requirements support our position that staff cannot mandate replacements as BARCT.

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Public policy and well established law dictate that the SCAQMD act within the scope of authority granted to it by the legislature.

An agency can adopt, administer or enforce a regulation only if it is within the scope of authority conferred on it by other provisions of law. Cal Gov. Code § 11342.1. No regulation is valid unless it is consistent and not in conflict with the statute conferring authority to the agency. Cal Gov. Code § 11342.2. As explained in our previous comment letters, the statutory provisions defining BARCT and the SCAQMD's authority to adopt and implement BARCT standards are clear. "In the construction of a statute or instrument, the office of the Judge is simply to ascertain and declare what is in terms or in substance contained therein, not to insert what has been omitted" Cal. Civ. Proc. Code § 1858 (emphasis added). The role of an agency charged with implementing a statute is no different. In this case, staff sceks to insert what has been omitted by arguing that the term "retrofit" encompasses replacement, notwithstanding that there are numerous examples of the distinction between those terms throughout the statute.

Finding ambiguity where there is none, staff then invokes "public policy" to support an expansive interpretation of its authority. Relying on the example of replacing engines on Santa Catalina Island, staff argues that because the replacements would further the broader statutory purpose of reducing emissions, a mandate to do so is sound public policy, and, therefore, public policy supports an expansive interpretation of the agency's authority to impose such a mandate.

According to staff's reasoning, the scope of the agency's authority should be interpreted to encompass any action which the agency deems sound public policy, regatdless of the specific language contained in the statutory grant of authority. In fact, you argue in your letter, eiting *American Coatings*, that the agency's authority is essentially unbounded as long as the requirement is not arbitrary and capricious, or without reasonable or rational basis, or lacking in evidentiary support. However, as the cases relied upon in *American Coatings* make clear, a critical consideration in evaluating whether or not an agency action meets this standard is whether or not the action is within the scope of the agency's delegated authority. As stated in *Yanaha Corp. of America v. State Bd. of Equalization* (1998) 19 Cal.4th 1, eiting *Wallace Berri & Co. v. State Bd. of Equalization* (1985) 40 Cal.3d 60, 65: " "[I]n reviewing the legality of a regulation adopted pursuant to a delegation of legislative power, the judicial function is limited to determining whether the regulation (1) is "within the scope of the authority conferred" [citation] and (2) is "reasonably necessary to effectuate the purpose of the statute" [citation]."

The scope of authority delegated to an agency may not authorize it to take any and all actions that the agency deems sound public policy in light of its overall mission. In fact, acting as it does from a broader perspective, and balancing a broader range of policy considerations, the very reason the legislature imposes limitations on the authority of regulatory agencies is to prevent them from undertaking actions that they might otherwise he inclined to take because they deem them sound public policy. The fact that a proposed action may reflect sound public policy in the view of the agency does not mean that it is within the scope of the authority granted by the legislature.

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Staff's position is contrary to the legislature's policy considerations embedded in the relevant statutory provisions.

By including economic impacts as one of the factors in the definition of BARCT, and by specifying the process for evaluating the cost-effectiveness of proposed BARCT standards, it is clear that one of the policies of the legislature was to balance the goal of achieving additional emission reductions from existing sources against the costs of achieving those reductions, and to impose limits on the costs that would be borne by existing sources to further control emissions.¹ The legislature determined that stationary sources should bear the cost of implementing cost-effective retrofits. If cost-effective retrofits are determined to be unavailable, then that is the end of the inquiry. There may be specific cases where the outcome results in foregone emission reductions, but it was the judgment of the legislature that this regulatory scheme struck the proper public policy balance between achieving air quality goals and imposing additional costs on regulated sources. It is not the place of the agency to substitute its own public policy considerations for those of the legislature when the language of the statute is clear, as it is here.

Furthermore, the fact that a replacement project may be cost-effective in a situation where available retrofits are not is irrelevant. Staff seems to suggest that if a replacement project would cost no more than a cost-effective retrofit project (if one existed), then the cost to the source is no greater than what the legislature intended, and, therefore, requiring replacement in such situations does not undercut any economic considerations that the legislature may have had in mind when adopting the statute. However, in situations where there are no available costeffective retrofits, the legislature determined that the cost to the source for installing additional controls would be zero. Therefore, staff's determination that it can mandate replacement when there are no cost-effective retrofits, as long as the replacement is cost-effective, imposes costs on existing sources that go beyond what the legislature contemplated. The fact that the cost of a replacement may be less than, or more cost-effective than, available retrofits does not mean that the agency is entitled to mandate replacements.

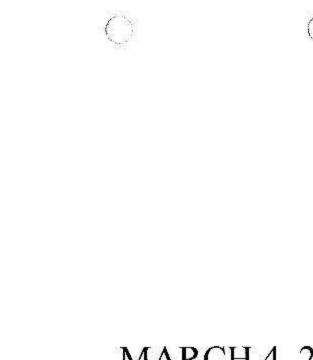
Conclusion

SCAQMD staff is attempting to use policy rationale to read something into the statute that simply is not there. That approach is not only poor public policy, it is contrary to the law. Whether or not a particular course of action may be good public policy in the judgment of the agency does not mean it is within the authority of the agency to mandate it. Furthermore, in this case, that rationale elevates the judgment of the agency over that of the legislature with regards to the appropriate balance between furthering air quality objectives and maintaining a viable economy. There are limits on the rulemaking authority of the SCAQMD, and those limits may well preclude it from pursuing what it might otherwise view as good public policy in order to accomplish the broader policy objectives of the legislature.

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¹ Health & Safety Code Sections 40406 and 40920.6.

LATHAM WATKINS. Thank you for considering these comments. We look forward to continuing to work with you on these relemakings which are critically important to stakeholders as well as the regional economy. If you have any questions, please contact me at (714) 755-8105 or by email at michael.carroll@lw.com. Sincerely, Waland Castle Michael J. Carroll OF LATHAM & WATKINS LLP CC: Robert Wyman, Latham & Watkins LLP John Heintz, Latham & Watkins LLP **RFG** Members Bridget McCann, WSPA 0 US-DOCS/103666928.2



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662 fenter Crive, 20th Floor Ces Califondia 92826-1925 Tel: H1 714 540 1285 Fax +1.714.755.8290 www.iw.com FIRM/ AFFILIATE OFFICES LATHAM & WATKINS UP Sejing Moecow Doston רסניננול Drussels New York Century Cry Crange County Chicago Paris Dutat Ryadh Cüsseldorf Rome March 4, 2019 Frandurt San Ciego Hamburg San Francisco Hong Kong Sec.4 VIA EMAIL houston Shanghal London Slicon Valley Los Anacia Singapore Dr. Philin Fine Maddd Tckst Deputy Executive Officer Washington, D.C. Misc South Coast Air Quality Management District C18282-0000/033950-0005 21865 Copley Drive

Re: Availability Of Information Relied Upon To Support RECLAIM Rulemaking

Dear Dr. Fine:

Diamond Bar, CA 91765

We are submitting these comments on behalf of our clients the Regulatory Flexibility Group ("RFG") and the Western States Petroleum Association ("WSPA").

The RFG is an industry coalition comprised of companies in the refining, utility and acrospace sectors that operate facilities within the jurisdiction of the South Coast Air Quality Management District ("SCAQMD"). RFG member facilities are subject to the Regional Clean Air Incentives Market ("RECLAIM") program and will be seriously affected by the transition to a command-and-control regulatory structure that is currently underway. The RFG participated in the development of the RECLAIM program from its inception and has been an active participant in all major amendments to the program, including those currently underway.

WSPA is a non-profit trade association representing companies that explore for, produce, refine, transport and market petroleum, petroleum products, natural gas and other energy supplies in five western states, including California. WSPA has been an active participant in air quality planning issues for over 30 years. WSPA-member companies operate petroleum refineries and other facilities in the South Coast Air Basin that will be impacted by the transition out of the RECLAIM program.

The RFG and WSPA are deeply concerned that staff is not making available to the public certain information upon which it is relying as the basis of its proposed best available retrofit control technology ("BARCT") standards. This is a significant deviation from the manner in which the SCAQMD has conducted BARCT determinations in the past and contrary to California Health & Safety Code ("H&S Code") requirements. H&S Code Section 40440(e) makes H&S Code Section 40703 applicable to SCAQMD rulemaking and requires that when adopting any regulation "the district shall consider, pursuant to Section 40922, and make available to the public, its findings related to the cost-effectiveness of a control measure, as well

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Dr. Philip Fine March 4, 2019 Page 2



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as the basis for the findings and the consideration involved." (emphasis added). Thus, the SCAQMD is required by statute, to make public the basis of its findings that the proposed and adopted BARCT standards are cost-effective.

It is not possible for the public to critically evaluate the basis of staff's recommendations if it does not have access to the information upon which staff is relying. Conclusory assertions contained in staff reports, without access to the underlying information that purportedly supports the assertions, is not sufficient to provide for meaningful evaluation and comment. Furthermore, because this information is not contained in the public record, it is not clear that it is being provided to the Governing Board. As a result, not only are certain staff recommendations unsupported by anything in the record, Governing Board action on those recommendations are equally unsupported.

The recent adoption of amendments to the Rule 1146 series of rules is illustrative of the problem identified above. Draft staff reports contained numerous references to information upon which staff relied in making its proposed BARCT recommendations, but the referenced information was not included in the staff report. Among the types of information referenced was vendor data and data from facilities located within and outside of SCAQMD. When industry representatives requested the subject information, they were told that it could only be obtained by filing California Public Records Act ("CPRA") requests. This is highly unusual, and the SCAQMD has not taken this position in the hundreds of BARCT rules it has adopted in the past.

In response, the consulting firm Ramboll filed eight CPRA requests on November 8, 2018 seeking the following information:

- PAR1146 WGM#7 Slide 7 states that "980 units located within SJVAPCD are able to comply with 7 ppm limit without use of mitigation fee option." Please provide copies of all data and any District analyses used to support this finding. Please include control type for each unit reviewed.
- PAR1146 WGM#7 Slide 7 states that ">1000 ST results from both SCAQMD and SJVAPCD support the feasibility of 7 ppm BARCT." Please provide copies of all data and any District analyses used to support this finding. Please include control type (ex. SCR, ULNB) for each unit reviewed.
- 3. The Draft Staff Report for PAR1146, 1146.1 and 1146.2 states: "Permit limits from thermal fluid heaters located within SCAQMD were also analyzed.... From analysis of existing permitted limits, the unit with the lowest permitted emission limit was identified to be located in SJVAPCD with a permitted limit of 5 ppm utilizing only ULNB technology. The unit was permitted as new equipment subject to BACT. The analysis was able to show that the lowest achieved controlled emission from thermal fluid heaters utilizing burner replacements was 12 ppm." (page 2-4). Please provide copies of all data and the District analysis referenced by this statement.

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	Dr. Philip Fine March 4, 2019 Page 3	Ċ.	C				
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	instal SJVA unit w contro	The Draft Staff Report for PAR1146, 1146.1 and 1146.2 states: "From vendor provided installation lists and source test data, one new natural gas fired unit was identified in SJVAPCD with a permitted limit of 5 ppm with only ULNB. One new natural gas fired unit was identified within SCAQMD with permit limit of 7 ppm utilizing only ULNB as control technology." (page 2-3). Please provide copies of all data and any District analyses referenced by this statement.					
	source lower subjex subjex via fa units from which menil condu periox for so for th and an	e test results were analyzed to o BARCT limit. Within SCAQI a to Rule 1146.1, 1,068 non-R a to RECLAIM rules. A total cility submitted source test rep located in SCAQMD with 105 the RECLAIM universe. Source oring and testing requirements noted in an "as found" condition I. Some source test are conduct urce tests conducted at multiple c analysis." (Page 2-4). Please	a, 1146.1 and 1146.2 states: "Facility submitted determine the technical feasibility of establishing a MD, there is a total of 1,072 non-RECLAIM units ECLAIM units subject to Rule 1146, and 259 units of 196 units was surveyed for real world emissions orts. Total units surveyed make up for 8.2% of total units from the non-RECLAIM universe and 91 units ce tests were obtained from SCAQMD database by facilities to demonstrate compliance to various . SCAQMD requires equipment source tests to be n and emissions results are an average of the testing ted at different "loads" at a set time span. To account e load settings, the highest emission result was used provide copies of the referenced source test reports arce test reports which were used to support the				
	Table achie equip for po feasib burne Table	2 show that it is technically fe ve an emission limit of 7 ppm v ped with SCR to achieve an en assible compliance demonstrati- ble for Rule 1146 atmospheric of r replacements." (Page 2-5). P	a, 1146.1 and 1146.2 states: "Results displayed in asible for Rule 1146 Group III and Group II units to with burner replacements; and Rule 1146 units asission limit of 4 ppm, both providing a 10% buffer on. Table 2 also shows that it is not technically units to achieve an emission level of 9 ppm with lease provide copies of the source data referenced in sets of that data used to support the above statements				
	inform NOx applie burne replac of one and n and fi the tu	nation obtained through vendo burners are feasible for burner bations and for new installation r without SCR is feasible. Bas cements on existing units could e vendor, 7 ppm or less with ul ot currently available for water ire-tube boilers is that a water-t bes are heated externally by th	5, 1146.1 and 1146.2 states: "Based on the r discussions, lower NOx emissions with ultra-low replacements and new installations. For certain s, achieving 5 ppm NOx limit with an ultra-low NOs ed on discussions with three vendors, burner l potentially meet 7 ppm or less. With the exception tra-low NOx burners are limited to fire-tube boilers -tube boilers. The difference between water-tube ube boiler circulates water through a series of tubes, e combustion gas, and the surrounding hot gases hear bes; whereas a fire-tube boiler passes combustion				

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gases inside a series of tubes that are surrounded by a closed vessel of water that is heated to produce steam. Two of the three vendors stated they would be able to provide 7 ppm ultra-low NOx burner replacements for existing units with a rated heat input capacity greater than 2 MMBtu/hr and up to 30 MMBtu/hr for one vendor and 60 MMBtu/hr for the other. The third vendor that could provide 7 ppm ultra-low NOx burner replacements specified a rated heat input capacity of at least 8.4 MMBtu/hr, since a minimum furnace size would be required, and up to 50 MMBtu/hr. In addition to these size requirements, based on discussions with the third vendor, the proper back and steam pressure, as well as the age of the unit would be factors in whether an existing unit could achieve a NOx emission limit of 7 ppm or less with a burner replacement. Additionally, for existing units to achieve 7 ppm or less with ultra-low NOx burner replacements additional controls, such as variable frequency drive (VFD) and oxygen trim are also needed. In addition to the information gather from vendor discussions, the source test results summarized above show that it is technically feasible for existing Rule 1146 Group II and Group III and Rule 1146.1 units to achieve an emission limit of 7 ppm or less with burner replacements." (Pages 2-11 and 2-12). Please provide the following information:

A. Data or other information "obtained through vendor discussions" concerning ULNB burners which was used to support the above statements and/or conclusions.

B. Data or other information and/or District analysis which was used to support the District's statement that "burner replacements on existing units could potentially meet 7 ppm or less," including any information concerning performance differences between water-tube boilers versus fire-tube boilers.

Data or other information and/or District analysis related to the following С. statement: "Two of the three vendors stated they would be able to provide 7 ppm ultralow NOx burner replacements for existing units with a rated heat input capacity greater than 2 MMBtu/hr and up to 30 MMBtu/hr for one vendor and 60 MMBtu/hr for the other. The third vendor that could provide 7 ppm ultra-low NOx burner replacements specified a rated heat input capacity of at least 8.4 MMBtu/hr. since a minimum furnace size would be required, and up to 50 MMBtu/hr. In addition to these size requirements, based on discussions with the third vendor, the proper back and steam pressure, as well as the age of the unit would be factors in whether an existing unit could achieve a NOx emission limit of 7 ppm or less with a burner replacement. Additionally, for existing units to achieve 7 ppm or less with ultra-low NOx burner replacements additional controls, such as variable frequency drive (VFD) and oxygen trim are also needed. In addition to the information gather from vendor discussions, the source test results summarized above show that it is technically feasible for existing Rule 1146 Group II and Group III and Rule 1146.1 units to achieve an emission limit of 7 ppm or less with burner replacements."

 Concerning the Draft Staff Report for PAR1146, 1146.1 and 1146.2, please provide copies of all data, information and/or the District analyses concerning the cost effectiveness of Ultra Low NOx Burner (ULNB) technology used to support the

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Dr. Philip Fine March 4, 2018 Page 5





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District's cost effectiveness analysis as summarized in the Draft Staff Report. Please include both capital cost estimates and installation cost estimates for all sizes of units assessed.

As of the date of Governing Board adoption of the staff recommendations on the Rule 1146 series, December 7, 2018, none of the requested information had been made available to the public. It was not until January 9, 2019, more than one month after Governing Board adoption of the staff proposal, that staff responded to the CPRA requests. Obviously, any information that might have been provided at that point would have been of limited value since the rulemaking action was already complete. However, staff failed to provide any substantive information in response to any of the CPRA requests. Staff indicated that the information requested in CPRA request #1 above would not be provided because the subject documents belonged to the San Joaquin Valley Air Pollution Control District, and SCAQMD did not have authority to release documents belonging to a sister agency.1 With respect to CPRA requests #2 through #8 above, staff responded that all of the requested information was exempt from disclosure based on assertions of confidentiality.2 Staff's BARCT recommendations, and the Governing Board's adoption thereof, are based on determinations regarding the maximum level of control that meets the cost-effectiveness threshold. All of the information sought in the CPRA requests identified above pertains to the basis of those findings of cost-effectiveness. This lack of transparency and failure to create a public record that supports staff's recommendations and Governing Board action is deeply troubling and contrary to applicable law.

We respect that some of the information on which SCAQMD relied during the Rule 1146 series rulemaking, including some of the information requested in requests #2 through #8 above, is considered confidential business information. While it may require some ellort, we respectfully request that SCAQMD review all documents relied upon in its Rule 1146 series rulemaking and provide to the public all information that is not confidential.

Draft staff reports for future proposed rulemaking contain references to information relied upon by staff that are similar to those identified above with respect to the Rule 1146 series amendments, and for which the underlying information has not been made public. We have no reason to believe that staff will proceed in a manner that is in any way different than it did in the case of the Rule 1146 series amendments, or that the Governing Board will insist on supporting information being made public before it acts on staff recommendations. As evidenced by what occurred with respect to the Rule 1146 series amendments, because of timing issues, the CPRA process is not an adequate remedy to address this serious deficiency in the rulemaking process. If staff intends to require CPRA requests to obtain supporting documents, then it must build sufficient time into the rulemaking schedule to allow the CPRA process to play out, including resolution of any claims that requested information is exempt from disclosure according to the SCAQMD's Guidelines for Implementing the California Public Records Act.

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¹ E-mail communication from Stacey Walkowiak, SCAQMD Public Records Act Office, January 9, 2019.

² E-mails and personal communications between Stacey Walkowiak, SCAQMD Public Records Office, and Ramboll, January 9 and 17, 2019.

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c L	We are hopeful that in future RECLAIM rulemakings staff will publicly disclose all non- confidential information upon which it relies in arriving at proposed BARCT determinations as it is required to do by law. If you would like to discuss our concerns, please contact me at (714) 755-8105 or by email at <u>michael.carroll@lw.com.</u>							
			Sincerely,					
			Michael & Carroll I pul					
			Michael J. Carroll of LATHAM & WATKINS LLP					
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SEPTEMBER 7, 2018 ATTACHMENT

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September 7, 2018

VIA EMAIL

Dr. Philip Fine Deputy Executive Officer South Coast Air Quality Management District 21865 Copley Drive Diamond Bar, CA 91765

Re: Proposed Amended Rules 2001 and 2002

Dear Dr. Fine:

We are submitting these comments on hehalf of our client Western States Petroleum Association ("WSPA") on the most recent round of proposed amendments to South Coast Air Quality Management District ("SCAQMD") Rules 2001 and 2002. The amendments are being proposed in connection with the transition of the Regional Clean Air Incentives Market ("RECLAIM") program to a command-and-control regulatory structure. WSPA is a non-profit trade association representing companies that explore for, produce, refine, transport and market petroleum, petroleum products, natural gas and other energy supplies in five western states including California. WSPA has been an active participant in air quality planning issues for over 30 years. WSPA-member companies operate petroleum refineries and other facilities in the South Coast Air Basin that will be impacted by the transition out of the RECLAIM program.

General Comments

The proposed amendments to Rules 2001 and 2002 are primarily interim measures intended to establish new eligibility criteria for exiting RECLAIM, provide opt-out procedures, and address, on a temporary basis, unresolved issues surrounding compliance of new source review ("NSR") for former RECLAIM facilities once they have transitioned out of the RECLAIM program. As WSPA and others have expressed in numerous meetings, workshops and hearings conducted in connection with the RECLAIM transition, we have serious concerns about the lack of clarity surrounding NSR in a post-RECLAIM regime.

We believe current SCAQMD staff's ("staff") proposed approach is premature, as staff has not addressed all of the underlying issues surrounding a RECLAIM sunset. RECLAIM is a comprehensive, complex program that was adopted as a whole. In the development of RECLAIM, staff not only determined current and future effective best available retrofit control

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technology ("BARCT"), but also examined and addressed NSR, reviewed socioeconomic impacts, mitigated implications of emissions trading, resolved enforcement and monitoring issues, and understood a host of other consequences of adopting such a program. This comprehensive approach ensured the overwhelming success of the RECLAIM program as it was designed. In contrast for this rulemaking, staff is dismantling the RECLAIM program without analyzing any of the consequences of the proposed approach. Most importantly, staff has not addressed NSR, nor the environmental and socioeconomic impacts of a RECLAIM sunset.

Our strong preference is that staff prioritizes resolution of the NSR issues and conduct an analysis of the entire RECLAIM transition project comparable with the same full analysis that was done during the implementation of RECLAIM before initiating rulemaking. There is no evidence that this has been done to date. We believe that addressing fundamental programmatic issues that will affect all former RECLAIM facilities, such as NSR, early in the transition process, and then moving on to the more narrowly applicable landing rules, would result in a more orderly and efficient transition in the following ways:

- It would provide facilities with an understanding of the NSR requirements and
 procedures that will apply to modifications required to comply with updated BARCT
 rules. It is not possible to develop a final and comprehensive plan for implementing new
 BARCT requirements without knowing the NSR requirements and procedures and how
 those will impact post-RECLAIM operating permits.
- It would result in a more efficient use of stall resources. For example, the proposed
 amendments to Rules 2001 and 2002 are essentially "stop-gap" measures that are
 necessary because the NSR and other programmatic issues remain unresolved. If the
 NSR and other programmatic issues were addressed, it would not be necessary to develop
 and implement such measures.
- It would avoid the current ad hoc, piecenneal approach to the RECLAIM Transition
 Project which results in additional confusion and uncertainty. This is illustrated by the
 fact that staff's positions with respect to certain issues related to the proposed
 amendments to Rules 2001 and 2002 are quite different than positions taken when these
 two rules were amended in January of this year in what we view as a rush to get the
 RECLAIM transition process underway.
- It would avoid legal vulnerabilities that we believe are inherent in the current ad hoc, piecemeal approach because the environmental and socioeconomic assessments of incremental rulemaking are disjointed and incomplete.

Should the District continue with this piecemeal approach, we offer the comments set forth below on the proposed amendments;

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	Specific Comments	on Proj	posed A	Amended Rule 2002(f)(11) - "Stav-In" Provision			
	The proposed amendments to Rule 2002 would allow facilities to remain in the RECLAIM program, and thereby avail themselves of the RECLAIM NSR program set forth in SCAQMD Rule 2005 for some period of time. Our understanding, which was confirmed by staff during the RECLAIM Working Group meeting on August 9, 2018, is that the decision of whether or not to remain in the RECLAIM program is completely within the discretion of the facility (assuming the facility meets the specified criteria). Some of the language in the proposed amendments could be read to grant the Executive Officer discretion (beyond merely confirming that the facility meets the specified criteria) to decide whether or not the facility may remain in the program. The following proposed changes are intended to better reflect staff's intent.						
	(11)	An owner of <u>or</u> operator of a RECLAIM facility that receives an initial determination notification may elect <u>that</u> for the facility to remain in RECLAIM <u>by submitting</u> if a request to the Executive Officer to remain in RECLAIM is submitted , <u>together with</u> including any equipment information required pursuant to paragraph (f)(6).					
		(A)	REC. requi	receiving a request to remain in LAIM and any equipment information and pursuant to paragraph (f)(6), written wal by the Executive Officer shall notify the er or operator in writing that the facility shall in in RECLAIM subject to the following:			
			(1)	The facility shall remain in RECLAIM until a subsequent notification is issued to the facility that it must exit by a date no later than December 31, 2023.			
			(ii)	The facility is required to submit any updated information within 30 days of the date of the subsequent notification.			
			(iii)	The facility shall comply with all requirements of any non-RECLAIM rule that does not exempt NOx emissions from RECLAIM facilities.			
	Specific Comments	on Pro	posed.	Amended Role 2002(()(10) - "Opt-Out" Provision			
	Proposed Amended Rule 2002 includes an "opt-out" provision for those facilities that may be ready to voluntarily exit RECLAIM prior to the time that they might otherwise be transitioned out. The current staff proposal differs from provious proposals in that it places						
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certain restrictions on facilities after they have exited the program that we believe are unfair and unwarranted. Specifically, proposed paragraph (f)(10)(B) would prohibit such facilities from taking advantage of otherwise available offset exemptions in SCAQMD Rule 1304. In the event that an NSR event requiring offsets were to occur after the facility exited the RECLAIM program, it would be required to obtain emission reduction credits on the open market, which the staff acknowledges are "scarce." (July 20 Preliminary Draft Staff Report, p. 8).¹ We believe that it is unnecessary, unfair, and possibly contrary to state law, to deny former RECLAIM facilities advantages that they would otherwise be entitled to and that are available to all other non-RECLAIM facilities.

The Preliminary Draft Staff Report expresses concern that the potential impacts associated with emission increases from facilities that might exit the RECLAIM program, even if limited to the 37 facilities the staff initially identified as eligible to exit, could impose a demand on Rule 1304 offset exemptions that could approach or surpass the cumulative emissions increase thresholds of SCAQMD Rule 1315. (Preliminary Draft Staff Report, p. 8). In other words, staff is concerned that if former RECLAIM facilities were permitted to utilize Rule 1304 offset exemptions, the demand on the SCAQMD's internal emission offset bank, which supports the offset exemptions, might exceed previously analyzed levels. This concern seems inconsistent with positions taken by staff in connection with the January 2018 amendments to these two rules, and with more recent statements by staff suggesting that it believes the internal emission offset bank is the most viable source of emission offsets for former RECLAIM facilities on a long-term basis.

The January 2018 amendments established the criteria and procedures pursuant to which eligible facilities would be identified and exited from RECLAIM. According to the Final Staff Report, "... the proposed amendments would remove approximately 38 facilities from NOx RECLAIM." (January 5 Final Staff Report, p. 2).² Staff determined that the impact of exiting the initial round of facilities, including impacts associated with reduced demand for RTCs, would be minimal:

> Given the analysis above and the fact that the 38 facilities—which are potentially ready to exit out of the NOx RECLAIM program into command-and-control—account for about one percent of NOx emissions and NOx RTC holdings in the NOx RECLAIM universe, staff concludes that the potential impact of PAR 2002 on the demiand and supply of NOx RTC market is expected to be

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¹ References herein to "July 20 Preliminary Draft Staff Report" refer to the Preliminary Draft Staff Report, Proposed Amendments to Regulation XX-Regional Clean Air Incentives Market (RECLAIM), Proposed Amended Roles 2001 – Applicability and 2002 – Allocations for Oxides of Nitrogen (NOx) and Oxides of Sulfar (SOx), dated July 20, 2018.

² References herein to "January 5 Final Staff Report" refer to the Final Staff Report Proposed Amendments to Regulation XX – Regional Clean Air Incentives Market (RECLAIM) Proposed Amended Rules 2001 – Applicability and 2002 – Allocations for Oxides of Nitrogen (NOx) and Oxides of Sulfur (SOx), dated January 5, 2018.

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> minimal and large price fluctuations in the NOx RTC market are unlikely to result directly from the potential exit of the 38 directly affected facilities out of the NOx RECLAIM program. Therefore, PAR 2002 would have minimat impacts on the existing facilities that are not yet ready to exit the NOx RECLAIM program. (January 5 Final Staff Report, p. 12.)

To support its conclusion that exiting the initial round of facilities from the program would have minimal impacts as a result of foregone market demand for RTCs, staff analyzed three scenarios in which NOx emissions from the subject facilities were: i) 5% below 2015 NOx emissions; ii) the same as 2015 NOx emissions; and iii) 5% above 2015 NOx emissions. (January 5 Final Staff Report, p. 11). Staff determined that foregone market demand for RTCs associated with exiting the initial group of facilities under each of the three scenarios would be 0.073 tons per day (TPD), 0.080 TPD, and 0.086 TPD, respectively. Based on this analysis, staff concluded that the anticipated future demand for NOx RTCs associated with the exiting facilities was minimal, and that eliminating that demand would not materially impact the remaining market. In other words, staff concluded that the exiting facilities would have a negligible demand for RTCs in the future, including RTCs required to satisfy NSR requirements. As stated in the Summary of the Proposal:

> Considering the past market behavior by these facilities, staff concludes that the potential impact of PAR 2002 on the demand and supply of NOx RTC market is expected to be minimal and large price fluctuations in the NOx RTC market are unlikely to result directly from the potential exit of these facilities out of the NOx RECLAIM program. (Summary of Proposal, Agenda Item No. 18, January 5, 2018, p. 3.)

Notably, staff did not even address the impact that the January 2018 amendments might have on the internal bank even though those amendments were intended to result in precisely the situation about which staff is now expressing concern – the removal of 38 facilities from the RECLAIM program that would then be eligible to take advantage of offset exemptions in Rule 1304 like any other RECLAIM facility.

In contrast with the January 2018 Final Staff Report, the July 2018 Preliminary Draft Staff Report expresses serious concerns about the potential for increased NOx emissions from facilities exiting the program, stating that "[e]ven among the first 37 facilities identified that may be eligible to exit, any impacts from potential emissions increases are unknown and if significant enough, can approach or surpass the cumulative emissions increase thresholds of Rule 1315." (July 2018 Preliminary Draft Staff Report, p. 8).

Clearly, the conclusions reached by staff in the January 2018 Final Staff Report, upon which the Governing Board relied when it adopted the current versions of Rules 2001 and 2002, are inconsistent with the concerns being raised by staff in the current proposal. Either staff erred in January by underestimating the impacts on the RECLAIM market and failing to even analyze

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the potential impacts on the internal bank, or it is overstating the potential impacts associated with the current proposal. In either case, this inconsistency illustrates the problem with undertaking the RECLAIM transition in an ad hoc, piecemeal fashion.

California Environmental Quality Act Considerations

WSPA and others have expressed concerns regarding the "piecemeal" manner in which the California Environmental Quality Act ("CEQA") analysis for the RECLAIM transition is being conducted. "... CEQA's requirements 'cannot be avoided by chopping up proposed projects into bite-size pieces which, individually considered, might be found to have no significant effect on the environment or to be only ministerial." [Fn. omitted.]" *Lincoln Place Tenants Assn. v. City of Los Angeles* (2005) 130 Cal.App.4th 1491,1507 quoting *Plan for Arcadia, Inc. v. City Council of Arcadia* (1974) 42 Cal.App.3d 712, 726. Staff explained its CEQA strategy for the RECLAIM transition in an April 25, 2018 letter to the Los Angeles County Business Federation in which it stated:

> The potential environmental impacts associated with the 2016 AQMP, including CMB-05, were analyzed in Program Environmental Impact Report (PEIR) certified in March, 2017 ... In other words, the environmental impacts of the entire RECLAIM Transition project ... were analyzed in the 2016 AQMP and the associated PEIR, which was a program level analysis ... Since the SCAQMD has already prepared a program-level CEQA analysis for the 2016 AQMP, including the RECLAIM Transition, no additional program-level analysis is required and further analysis will be tiesed off the 2016 AQMP PEIR. (http://www.aqmd.gov/docs/default-source/rule-book/Proposed-Rules/regxx/aqmd-response-letter-to-bizfed-042518.pdf?sfvrsn=6).

Consistent with the staff's explanation described above, SCAQMD staff has prepared a Draft Subsequent Environmental Assessment ("Draft SEA") to analyze environmental impacts from the proposed amendments to Rules 2001 and 2002.

(http://www.aqmd.gov/home/research/documents-reports/lead-agency-scaqmd-projects). The Draft SEA attempts to tier off of the March 2017 Final Program Environmental Impact Report for the 2016 AQMP and tries to obscure the issue by citing to several other previously certified CEQA documents, including the December 2015 Final Program Environmental Assessment completed for the amendments to the NOx RECLAIM program that were adopted on December 4, 2015, and the October 2016 Addendum to the December 2015 Final Program Environmental Assessment completed for amendments to Rule 2002 to establish criteria and procedures for facilities undergoing a shutdown and for the treatment of RTCs. Consistent with the staff's earlier explanation, the Draft SEA states:

> "The decision to transition from NOx RECLAIM into a sourcespecific command-and-control regulatory structure was approved by the SCAQMD Governing Board as control measure CMB-05 in

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the 2016 AQMP and the potential environmental impacts associated with the 2016 AQMP, including CMB-05, were analyzed in the Final Program EIR certified in March 2017. This Draft SEA relies on the analysis in the March 2017 Final Program EIR for the 2016 AQMP." (Draft SEA, p. 2-5).

The proposed amendments to Rules 2001 and 2002 implement that portion of control measure CMB-05, written after the Governing Board's adoption of the 2016 AQMP that calls for the transition of the RECLAIM program to a command and control regulatory structure. As stated in the July 2018 Pretiminary Draft Staff Report, "Proposed Amended Rules 2001 and 2002 will continue the efforts to transition RECLAIM facilities to a command-and-control regulatory structure" (July 2018 Pretiminary Draft Staff Report, p. 2). The problem with the proposal to tier the CEQA analysis for the currently proposed amendments to Rules 2001 and 2002 off from the March 2017 Final Program EIR for the 2016 AQMP is that control measure CMB-05 as proposed at the time the March 2017 Final Program EIR was prepared did not include a transition out of the RECLAIM program. That language was added well after the CEQA analysis was complete. Furthermore, no additional CEQA analysis was conducted to address the changes to CMB-05.

The Final Draft 2016 AQMP, which was ultimately presented to the SCAQMD Governing Board, was released in December 2016. Control measure CMB-05 called for an additional five tons per day of NOx reductions from sources covered by the RECLAIM program by the year 2031. CMB-05 also called for convening a Working Group to consider replacing the RECLAIM program with a more traditional command-and-control regulatory program, but did not include a mandate to undertake such a transition. SCAQMD Governing Board action on the Final Draft 2016 AQMP was noticed for February 3, 2017. When the 2016 AQMP item came up on the agenda, SCAQMD staff made a presentation, as is typical. No substantive questions were asked of the staff by Board Members, and no Board Members indicated an intention to offer amendments to the staff proposal. The public was then provided an opportunity to comment, and approximately five hours of public comment ensued.

Following the close of the public comment period, Board Member Mitchell stated her intention to introduce amendments to the staff proposal for control measure CMB-05 that would: i) accelerate the additional five TPD of reductions to 2025 from 2031; and ii) transition to a command-and-control program as soon as practicable. Board Member Mitchell did not provide any specific proposed language and did not make a formal motion to amend the staff proposal. For reasons that are not relevant here, action on the item was continued to the March 3, 2017 Governing Board hearing. The Governing Board stated its intention not to take additional public comment on the item at the March 3, 2017 hearing.

At the hearing on March 3, 2017, Board Member Mitchell introduced the following amendments to CMB-05 that included a direction to staff to develop a transition out of the RECLAIM program:

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BE IT FURTHER RESOLVED, that the SCAQMD Governing Board does hereby direct staff to modify the 2016 AQMP NOx RECLAIM measure (CMB-05) to achieve the five (5) tons per day NOx emission reduction commitment as soon as feasible, and no later than 2025, and to transition the RECLAIM program to a command and control regulatory structure requiring BARCT level controls as soon as practicable and to request staff to return in 60 days to report feasible target dates for sunsetting the RECLAIM program.

There was no Board Member discussion of the proposed amendments, and they were approved on a vote of 7-6.

The CEQA analysis supporting the 2016 AQMP commenced with a Notice of Preparation of a Draft Environmental Impact Report ("EIR") released on July 5, 2016. The Draft EIR was released on September 16, 2016, with the comment period closing on November 15, 2016. In mid-November 2016, four public hearings related to the AQMP were held in each of the four counties within the SCAQMD territory, at which comments on the Draft EIR were taken. After incorporating comments and making minor textual changes, the Final EIR was released in January 2017. No material changes or additional analysis were undertaken subsequent to the release of the Final EIR, which was certified by the Governing Board on March 3, 2017 as the March 2017 Final Program Environmental Impact Report for the 2016 AQMP, upon which staff now seeks to rely.

Thus, the transition out of the RECLAIM program, which the currently proposed amendments to Rules 2001 and 2002 seek to implement, was not included in the version of CMB-05 presented to the Governing Board as part of the 2016 AQMP. The March 2017 Final Program EIR for the 2016 AQMP, which was completed in January 2018, did not analyze the transition of the RECLAIM program because that was not prescribed by the CMB-05 measure at that time. Therefore, tiering off of the March 2017 Final Program EIR for the 2016 AQMP to support rule amendments that seek to implement the transition is not possible since there is no analysis from which to tier off. In the absence of a program level CEQA analysis that includes the RECLAIM transition, staff's segmented analysis of each proposed rulemaking action in the transition process constitutes classic "piecemealing" contrary to the requirements of CEQA.

Staff's attempt to tier without having completed a programmatic analysis of the RECLAIM Transition Project ignores the fact that RECLAIM is a comprehensive program that includes an assessment of BARCT for all of the sources in the program. It was adopted as a whole, a single package, not as a series of individual rules and regulations. There are no separate BARCT regulations in the RECLAIM program. Because RECLAIM allows for BARCT to be implemented on an aggregate basis, all BARCT determinations had to be made together. Furthermore, all RECLAIM rules are dependent upon one another, and none of these can stand alone. By attempting to analyze the impact of a single RECLAIM rule, i.e., BARCT determination, staff is ignoring the interdependency of the program, and thus, improperly disregarding the impacts of the comprehensive program.

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In the draft SEA, staff claims that it is speculative to determine what BARCT may be for all the various sources under the RECLAIM program. This underscores the fact that a comprehensive program transitioning RECLAIM sources to command and control rules was never developed or analyzed. Rather, staff is piecemealing the analysis of the RECLAIM transition. Such an approach has been rejected by the courts: "Instead of itself providing an analytically complete and coherent explanation, the FEIR notes that a full analysis of the planned conjunctive use program must await environmental review of the Water Agency's zone 40 master plan update, which was pending at the time the FEIR was released. The Board's findings repeat this explanation. To the extent the FEIR attempted, in effect, to tier from a *future* environmental document, we reject its approach as legally improper under CEQA." Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova (2007) 40 Cel.4th 412, 440 [emphasis in original].

Furthermore, RECLAIM is an emissions trading program. It allows facilities to choose to implement specific controls or to purchase emissions credits. Staff's piecemealing of the analysis does not account for those facilities that have implemented other means to comply with the program and the additional impacts the transition to individual command and control rules may have on these facilities. Additionally, these impacts cannot be captured in a single rule analysis. Rather, staff's piecemealing further ignores the impacts on facilities that are subject to multiple BARCT determinations.

Health & Safety Code Section 39616

The current staff proposal for amending Rule 2002 to prevent former RECLAIM facilities from accessing offset exemptions in Rule 1304 would place former RECLAIM facilities at a significant disadvantage relative to other non-RECLAIM facilities. California Health & Safety Code Section 39616(c)(7) prohibits imposing disproportionate impacts, measured on an aggregate basis, on those stationary sources included in the RECLAIM program compared to other permitted stationary sources. Creating a new category of sources without access to either RTCs or Rule 1304 offset exemptions to satisfy NSR requirements runs afoul of this prohibition.

Statement Pertaining to SCAOMD Rule 1306

The July 2018 Preliminary Draft Staff Report contains the following statement: "Moreover, Rule 1306 – Emission Calculations would calculate emission increases of exiting RECLAIM facilities based on actual to potential emissions, thereby further exacerbating the need for offsets," (Preliminary Draft Staff Report, p. 8). It is not clear why this would be the case. Furthermore, it is premature to make such assertions outside the context of an overall analysis of what the NSR requirements for former RECLAIM facilities might be. This is a critical issue that must be addressed in the overall development of the NSR program for former RECLAIM facilities.

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Conclusion

Thank you for considering these comments. We look forward to continuing to work with you on these rulemakings which are critically important to stakeholders as well as the regional economy. If you have any questions, please contact me at (714) 401-8105 or by email at michael.carroll@lw.com or Bridget McCann of WSPA at (310) 808-2146 or by email at bmccann@wspa.org.

Sincerely,

2200 pue Michael J. Carroll OF LATHAM & WATKINS LLP

cc: Cathy Reheis-Boyd, WSPA Patty Senceal, WSPA Bridget McCann, WSPA Wayne Nastri, SCAQMD Barbara Baird, SCAQMD Michael Krause, SCAQMD

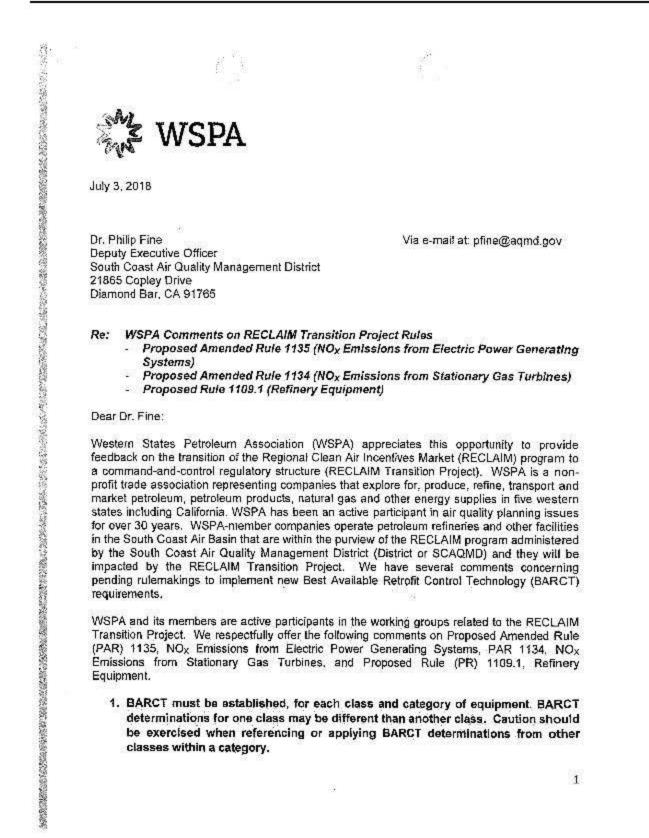
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The California Health and Safety Code (CHSC) defines BARCT as follows:

*Best available retrofit control technology means an emission limitation that is based on the maximum degree of reduction achievable, taking into account environmental, energy, and economic impacts by each class or category of source.*¹ [Emphasis added]

Under District BARCT rules, an equipment category may consist of multiple classes. These classes may be defined by different design criteria or operational factors. Examples might include throughput ratings, duty cycles, or usage level (e.g., low v, high use). Such classifications within a category are necessary to establish what is technologically feasible and cost effective as required in the determination of BARCT.

The District is presently considering BARCT rules for a number of equipment types within the RECLAIM Transition Project. Due to their inclusion in the RECLAIM program, many of these equipment types have not undergone an evaluation for command-and-control BARCT since the RECLAIM program's launch in 1993, at least with respect to equipment situated at RECLAIM facilities. In many cases, an equipment category is comprised of several different classes and therefore addressed under several different rules. Some notable examples include:

- Stationary gas turbines, which will be covered under a number of different classes pursuant to PAR 1134, PAR 1135 and PR 1109.1.
- Process heaters and boilers, which will be addressed under a number of different classes pursuant to PAR 1146, PAR 1146.1, PAR 1146.2, and PR 1109.1.

Despite similarities within the broader categories, BARCT determinations must be conducted specific to each class of equipment within a category. Take for example a stationary gas turbine; a given make/model of turbine might be deployed in a refinery cogeneration system, or an electric generating facility (EGF). However, operational design differences would place this equipment in different classes. That classification could be defined based on differences in fuel type (e.g., refinery fuel gas and/or utility quality natural gas), or duty (e.g., baseload vs. demand response, etc.).

We appreciate that the District is in the process of conducting a thorough BARCT analysis for these sources across the different proposed rules including PR 1109.1. Such BARCT analyses for refinery sources must be specific to refinery applications and BARCT determinations for similar types of equipment in non-refinery application may not be relevant because what is technologically feasible and cost effective in one application may not be in another application. For this reason, caution should be exercised when referencing or applying BARCT determinations from other classes within a category.

2. If a technically feasible endpoint is not cost effective, it cannot be considered BARCT since cost effectiveness is a fundamental requirement of BARCT. Some

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¹ CHSC §40406.

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endpoints presented by SCAQMD Staff to recent RECLAIM landing rule working groups axceed the District's \$50,000 per ton NOx reduced cost effectiveness threshold.²

In establishing BARCT, a district must do all of the following:³

- Identify one or more potential control options which achieves the emission reduction objectives for the regulation.
- 2) Review the information developed to assess the cost-effectiveness of the potential control option. For purposes of this paragraph, "cost-effectiveness" means the cost, in dollars, of the potential control option divided by emission reduction potential, in tons, of the potential control option.
- 3) Calculate the incremental cost-effectiveness for the potential control options. To determine the incremental cost-effectiveness under this paragraph, the district shall calculate the difference in the dollar costs divided by the difference in the emission reduction potentials between each progressively more stringent potential control option as compared to the next less expensive control option.
- 4) Consider the effectiveness of the proposed control option, the costeffectiveness of each potential control option, and the incremental costeffectiveness between the potential control options.

In short, BARCT must represent an emission limitation which is both technologically feasible and cost effective.

We note that District Staff recently presented at least one preliminary BARCT recommendation which Staff's (preliminary) analysis indicated was not cost effective. Staff presented the PAR 1135 Working Group with a "BARCT Recommendation" for "Combined-Cycle Turbines" as 2 ppm NO_X, despite data suggesting that every affected unit in the class would exceed the District's cost effectiveness threshold.⁴ Given that data, BARCT cannot be 2 ppm NO_X for the class/category and the District's BARCT recommendation would require revision.

BARCT must be established at a class/category level. Device-level limitations are not appropriate unless the source class/category is classified to include a single device.

As noted above, BARCT must represent an emission limitation which is both technologically feasible and cost effective for each class/category of source.¹ In one instance, the District Staff presented a working group with a preliminary BARCT recommendation that would effectively establish device-level throughput limits as part of the BARCT rule.⁸ The District Staff's analysis for the category (i.e., EGF Utility Boilers) clearly indicated that the Staff's proposed BARCT level was not cost effective for the class/category. As part of that (preliminary) determination, Staff proposed "low use

^a CHSC §40406.

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² SCAQMD presentation to Proposed Amended Rule \$135 Working Group Meeting 13 June 2018. Slides 30-46 ³ CHSC Suppler

CHSC §40920.6. SCAQMD presentation to Proposed Amended Rule 1135 Working Group Moding, 13 June 2018. Slides 27 and 30

⁶ SCAQMD presentation to Proposed Amended Rule 1135 Working Group Meeting 13 June 2018, Slides 40-43.

exemptions" would be imposed in the form of new operating limits for each of the individual devices to be calculated as a function of cost effectiveness. Such devicelevel limitations are not appropriate for a BARCT determination when the class/category consists of multiple devices. If the District wishes to establish a low-use exemption, it must set a class/category threshold above which the BARCT recommendation would be cost effective for the class/category.

4. Requirements which effectively force retirement of basic equipment must be accounted for in the cost effectiveness analysis for the proposed rule. Such a requirement would also need to be accounted for in the District's socioeconomic analysis for the Proposed Rule.

In the recent working group meetings for PAR 1135 and PAR 1134, District Staff indicated they are considering a "replacement requirement" for older equipment.7.8 In both cases, the concept of a replacement requirement appeared to be driven by Staff's desire to impose a control level that was not demonstrated to be cost effective. BARCT is by definition a retrofit standard that applies to existing sources. The requirement that BARCT standards be both technologically achievable and cost effective is an acknowledgement that it may not be possible to achieve the same level of control on an existing source as might be possible with a new source. If there are no more stringent controls that are cost effective for a class or category of source, then that source is at BARCT and the analysis is concluded. To instead require replacement of that source (perhaps without any regard to the technological feasibility or cost effectiveness) with a new source (presumably equipped with best available control technology) renders the technological feasibility and cost effectiveness limitations in the BARCT definition meaningless. The Health and Safety Code grants the District authority to impose best available control technology (BACT) on new and modified sources and BARCT on existing sources.9 We are not aware of any authority that allows the District to compet replacement of an existing source when it finds that there are no cost effective retrofit controls. We do, however, support measures that would make it easier for a facility to replace aging equipment if it elects to do so on a voluntary basis, including streamlined new source review and available sources of emission offsets.

5. The timetable for transition to command-and-control BARCT could materially affect what is achievable, and whether it is cost effective.

Under RECLAIM's market-based design, covered facilities have successfully reduced aggregate program emissions for NOx and SOx in accordance with the program's declining RTC caps. Facilities have implemented custom compliance strategies to meet these caps, which included installing emissions controls on equipment where it was cost effective and using the compliance market where physical changes were not cost effective. The District is now planning to transition RECLAIM facilities to command-andcontrol (under various directives).

Due to program design, RECLAIM facilities within a given sector may have pursued widely varied strategies and now find themselves in widely varied situations with respect

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SCAQMD presentation to Proposed Amended Rule 1135 Working Group Meeting, 13 June 2018. Slide 46.

SCAQMD presentation to Proposed Amended Rule 1134 Working Group Mooting, 13 June 2018. Slide 42. CHSC §40440(b)(1).

to their basic equipment and currently Installed emissions controls. The investments and construction needed to achieve command-and-control BARCT limits have not yet been defined. Given these varied starting points, the implementation schedule for commandand-control BARCT rules could be an important factor in defining what is achievable or cost effective as BARCT. We recommend that BARCT discussions need to include consideration of both what will be required (i.e., the emission fimit) and when (i.e., the schedule). This is especially true for refinery sector facilities where such investments must be coordinated with turnaround schedules and capital projects that require long planning and engineering timetables.

Thank you for considering these comments. We look forward to continuing to work with you and your Staff on these rulemakings which are critically important to stakeholders as well as the regional economy.

If you have any questions, please contact me at (310) 808-2146 or by email at broccann@wspa.org.

Sincerely,

cc: Wayne Nastri, SCAQMD Susan Nakamura, SCAQMD Michael Morris, SCAQMD Michael Krause, SCAQMD Patty Senecal, WSPA

WSPA 970 W. 190th Streef, Suite 304. Torrance, California 80502

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Responses to Comment Letter #3

Response 3-1

This comment begins by introducing the parties represented by the letter; no response to this comment is necessary. SCAQMD staff appreciates your participation with our rule development process.

Response 3-2

This comment, combined with two referenced letters of March 13, 2019 (a general letter from the commentator to the SCAQMD Governing Board regarding PAR 1134, BARCT, CEQA, and Socioeconomic impacts) and September 7, 2018 (a letter from the commentator previously submitted relative to the proposed amendments to Rules 2001 and 2002) address the commenter's position on how a CEQA analysis should be conducted during the RECLAIM transition, repeats the same CEQA issues presented in Comment Letter #2, Comment 2-6 that was submitted by the commenter relative to the Draft SEA for Proposed Amended Regulation XX - Regional Clean Air Incentives Market (RECLAIM): Proposed Amended Rule 2001 - Applicability, and Proposed Amended Rule 2002 - Allocations for Oxides of Nitrogen (NOx) and Oxides of Sulfur (SOx) (see Appendix C, pp. C-8 to C-9). See Response 2-6 contained in Appendix C (pp. C-14 to C-17) of Final SEA PARs 2001 2002 (http://www.aqmd.gov/docs/defaultthe for and source/ceqa/documents/aqmd-projects/2018/finalseaforpars2001-2002-fullmerge.pdf). This comment is also similar to Comment Letter #2, Comment 2-5 that was submitted relative to the Draft SEA for PAR 1134. See also Response 2-5 of this Final SEA.

The commentator also attached four additional letters to Comment Letter #3, as follows:

- Latham & Watkins letter dated August 24, 2018: This letter is referenced in the March 13, 2019 letter to the Governing Board and raises issues relative to Rules 1135 and 1113. This letter does not raise any CEQA issues relative to PAR 1134 and does not appear to be germane to PAR 1134. No response to this letter is necessary.
- 2. Latham & Watkins letter dated November 1, 2018: This letter is also referenced in the March 13, 2019 letter to the Governing Board and raises issues relative to equipment replacement and BARCT. This letter does not raise any CEQA issues relative to PAR 1134 and does not appear to be germane to PAR 1134. No response to this letter is necessary.
- 3. Latham & Watkins letter dated March 4, 2019: This letter raises issues regarding supporting documentation relative to the RECLAIM program and the previously proposed amendments to Rules 1146, 1146.1 and 1146.2 that were adopted in 2018. This letter does not raise any CEQA issues relative to PAR 1134 and does not appear to be germane to PAR 1134. No response to this letter is necessary.
- 4. Western States Petroleum Association letter dated July 3, 2018: This letter raises issues regarding BARCT and cost-effectiveness of PAR 1134, Rule 1135 and PAR 1109.1. This letter does not raise any CEQA issues relative to PAR 1134. No response to this letter is necessary.

Response 3-3

This comment raises the same issues presented in Comment Letter #2, Comments 2-2 and 2-4. See Responses 2-2 and 2-4. In addition, Table 4-11 has been revised to also include an ammonia slip concentration of 10 ppm. As shown with the 5 ppm ammonia slip concentration limit, there are also no significant impacts to non-carcinogenic chronic and acute reference exposure levels when the ammonia slip concentration at the exit of a stack is 10 ppm. Further, the ammonia emission limit of 10 ppm is specific to compressor gas turbines, of which there are only four affected units. Therefore, the Final SEA presents all of the environmental impacts that may be associated with concentrations of both 5 ppm and 10 ppm ammonia slip.

Response 3-4

The analysis for the installation of one ammonia storage tank and one SCR system on page 4-7 (not 4-5 as indicated by the commenter) has been updated to include a footnote, which references the previous analysis conducted for the same type of equipment in the Final Subsequent Environmental Assessment for Proposed Amended Rules 1146 – Emissions of Oxides of Nitrogen from Industrial, Institutional, and Commercial Boilers, Steam Generators, and Process Heaters; 1146.1 – Emissions of Oxides of Nitrogen from Small Industrial, Institutional, and Commercial Boilers, Steam Generators, and Process Heaters; 1146.2 - Emissions of Oxides of Nitrogen from Large Water Heaters and Small Boilers and Process Heaters; and Proposed Rule 1100 – Implementation Schedule for NOx Facilities, November 2018.

(http://www.aqmd.gov/docs/default-source/ceqa/documents/aqmd-projects/2018/pars-1146-series---final-sea---full-merge-113018.pdf).

Response 3-5

Contrary to the comment, the Final SEA actually contains an analysis of the potential for the construction and operation of new ammonia tanks as the worst-case scenario on a peak day (see Appendix E, pp. E1 through E2). The Final SEA merely acknowledges that the analysis may overestimate these impacts since some facilities may elect to continue using their existing aqueous ammonia storage tanks, if feasible and cost-effective. For operational impacts, the Final SEA takes into account the projected increased use of aqueous ammonia as a result of PAR 1134 and analyses the associated emissions from the truck deliveries of aqueous ammonia regardless of whether the delivery is being made to a new tank or an existing tank. Finally, at the time of publication of the Draft SEA and subsequent to its release, SCAQMD staff has not received any comments from individual facilities specifically indicating that their existing ammonia tank(s) would not have sufficient capacity to meet the projected aqueous ammonia demand that may be needed to comply with PAR 1134. As such, SCAQMD staff believes the foundation of assumptions regarding new ammonia tanks and usage are reasonable for the analysis relative to PAR 1134.

Relative to the future amendments to Rule 1110.2 or the rule development of any other RECLAIM landing rule, if additional ammonia use and storage becomes necessary as part of that project a separate CEQA analysis will be conducted to evaluate the construction and operation impacts associated with new aqueous ammonia tanks. Further, the Final SEA for PAR 1134 is not required to consider the exact modifications every facility will use to comply with future RECLAIM transition rule developments such as for Rule 1110.2, including installation of any additional SCR systems. Such consideration would be speculative as that information is not currently available

and SCAQMD staff is unable to predict or forecast when and what actions a facility would undergo to comply with those rules.

See Response 2-5 for more information related to how SCAQMD prepares CEQA analyses for each individual RECLAIM Transition rule.

Response 3-6

Affected facilities have indicated to SCAQMD staff that in order to avoid having all gas turbines simultaneously offline, which in turn means avoiding having to be entirely shutdown and to lose production capability, they would undergo construction in a sequential manner. For example, during the rule development for PAR 1135 which included similar affected technology as what is being considered in PAR 1134, "Facility 5" emphasized the need for sequential construction in order to ensure a facility was still operational. For this reason, the analysis in the Final SEA assumed that each facility would have the affected turbines undergo sequential construction. At the time of publication of the Draft SEA and subsequent to its release, SCAQMD staff has not received any comments from individual facilities specifically indicating that installation of the SCR systems would need to occur concurrently in lieu of sequentially. The commentator claims that the assumption of sequential construction is unreasonable but fails to provide evidence or specifically identify the facility or facilities that may elect to shut down their entire operations during construction in order to comply with PAR 1134. As such, SCAQMD staff is unable to verify this claim. In addition, Comment 3-8 below suggests that the need for reliability would actually support a sequential, not concurrent, construction implementation as assumed in the Final SEA, and directly contradicts the sentiments in Comment 3-6.

Response 3-7

The assumptions for the number and type of construction equipment and hours of operation that may be needed to replace one stationary gas turbine at one facility that were presented in Table 4-5 were based on the assumptions for the same equipment contained in the Final Subsequent Environmental Assessment for Proposed Amended Rules 1146 - Emissions of Oxides of Nitrogen from Industrial, Institutional, and Commercial Boilers, Steam Generators, and Process Heaters; 1146.1 - Emissions of Oxides of Nitrogen from Small Industrial, Institutional, and Commercial Boilers, Steam Generators, and Process Heaters; 1146.2 - Emissions of Oxides of Nitrogen from Large Water Heaters and Small Boilers and Process Heaters; and Proposed Rule 1100 -NOx Implementation Schedule for Facilities. November 2018 (http://www.aqmd.gov/docs/default-source/ceqa/documents/aqmd-projects/2018/pars-1146series---final-sea---full-merge-113018.pdf).

Response 3-8

SCAQMD staff agrees with the comment that facilities have a high need for reliability and that in order to avoid all gas turbines being offline simultaneously and to maintain operations at each facility, the modifications to retrofit existing stationary gas turbines with new air pollution control equipment (e.g., SCR technology/systems installation), modify existing SCR systems, or repower or replace existing stationary gas turbines are assumed to occur in sequential order. Existing turbines may continue to operate during this process but the continued operation of existing turbines is not an impact of PAR 1134.

The analysis in the Final SEA concluded that air quality impacts from construction and operation activities would be less than significant as a result of implementing the proposed project. As used here, operation refers to operation of the new project having impacts different from the existing setting. Thus, the air quality impacts due to construction and operation are not considered to be cumulatively considerable pursuant to CEQA Guidelines Section 15064(h)(1) and therefore, there are no significant adverse cumulative air quality impacts. Further, it should be noted that the air quality analysis is a conservative, "worst case" analysis so the actual construction and operational impacts are not expected to be as great as estimated in this Final SEA. Additionally, the construction activities are temporary when compared to the permanent long-term NOx emission reductions to be achieved as a result of implementing the proposed project. Even though the proposed project will cause a temporary less than significant increase in air emissions during the construction and operation phase, the temporary net increase in construction emissions combined with the total permanent emission reductions projected overall during operation would not interfere with the expected overall NOx reductions as part of the proposed project.

Response 3-9

This comment repeats the sentiments expressed in Comments 2-5 and 3-2. See Responses 2-5 and 3-2.

Response 3-10

The air quality analysis in the Final SEA actually considers the round-trip vehicle miles traveled (VMT) distances that may be driven to deliver aqueous ammonia to the affected facilities and these VMT distances were used to quantify the air impacts that may result from these trips. In particular, Chapter 4 of the Final SEA analyzes the Greenhouse Gas (GHG) impacts and states that the number of total increased truck trips expected annually as a result of PAR 1134 is 236 truck trips (see page 4-20 of the Final SEA). In addition, the distance for one truck to deliver ammonia to one facility was assumed to be 100 miles round-trip (see page 4-14 of the Final SEA and Appendix C-5, p. C-5-1), which equates to approximately 23,600 vehicle miles traveled annually as a result of ammonia deliveries that are expected to occur as part of implementing PAR 1134 at all of the affected facilities. However, the analysis in the Draft SEA inadvertently included VMT for ammonia deliveries to Beta-Offshore, an off-shore oil platform. However, this facility has indicated that they do not intend to utilize ammonia to reduce the NOx emissions from their six turbines. Thus, the analysis over-estimated the VMT associated with ammonia deliveries by 1,200 miles per year (e.g., one ammonia delivery trip per month at 100 miles per trip). As such, the amount of VMT to be attributed to ammonia delivery trips for PAR 1134 is actually 22,400 miles per year.

By applying the same composite truck accident rate from Table 4-13 (e.g., 0.28 accidents per million miles traveled), and conducting a similar calculation as presented in Transportation Release Scenario 1, the estimated accident rate associated with transporting aqueous ammonia for PAR 1134 for 23,600 VMT is 0.006608 per year, or about one accident every 151 years, and for 22,400 VMT is 0.006272 per year or about one accident every 159 years.

Further, it is important to note that a portion of the PAR 1134 universe of equipment and the associated ammonia storage, use and truck deliveries were previously evaluated in the Final

Program EA for NOx RECLAIM that was certified in December 2015°. The following table presents the list of facilities that would be subject to PAR 1134 and identifies which facilities were previously evaluated in the December 2015 Final Program EA for NOx RECLAIM.

PAR 1134 List of Affected Facilities that were Previously Evaluated in the December 2015 Fina					
Program EA for NOx RECLAIM					

Facility Name	Address	Evaluated in December 2015 Program EA for NOx RECLAIM
Altagas Pomona Energy Co.	1507 Mount Vernon, Pomona, CA, 91768	NO
Providence Saint John's Health Center	1328 22nd Street, Santa Monica, CA, 90404	NO
LA Co., Olive View/UCLA Medical Center	14445 Olive View Drive, Sylmar, CA, 91342	NO
Loma Linda University	11100 Anderson Street, Loma Linda, CA, 92350	NO
Berry Petroleum Company, LLC	25121 North Sierra Highway, Santa Clarita, CA, 91321	YES
San Diego Gas & Electric	14601 Virginia Street, Moreno Valley, CA, 92555	YES
Wheelabrator Norwalk Energy Co. Inc. ¹	11500 Balsam Street, Norwalk, CA, 90650	YES
LA City, Department of Airports (LAX) ²	275 Center Way, Los Angeles, CA, 90045	YES
OLS Energy-Chino	5601 Eucalyptus Avenue, Chino, CA, 91710	NO
LA Co. Sheriff Department	29300 The Old Road, Saugus, CA, 91350	NO
LA Co. Internal Services Department	301 N Broadway, Los Angeles, CA, 90012	NO
California State University, Fullerton	800 N State College Boulevard, Fullerton, CA, 92831	NO
Beta Offshore	OCS Lease Parcels P-300 Huntington Beach, CA 92648 (This facility is an oil platform in the Pacific Ocean)	YES
B Braun Medical, Inc.	2525 McGaw Ave, Irvine, CA, 92614	NO
Thums Long Beach Co.	1411 Pier D Street, Long Beach, CA, 90802	YES
Bridge Energy, LLC	2000 Tonner Canyon Road, Brea, CA, 92821	NO
Tin, Inc., International Paper ³	5110 E. Jurupa Ave, Ontario, CA, 91761	YES
SoCalGas Aliso Canyon ⁴	12801 Tampa Avenue, Northridge, CA, 91326	YES

¹ Wheelabrator underwent a change of ownership in 2018 and is now DSH-Metropolitan State Hospital. In addition, the stationary gas turbines at this facility location are no longer in operation and they do not have any active permits with the SCAQMD. The Final SEA evaluates the physical changes and the environmental impacts that may be associated with these turbines. Because these turbines are no longer operational, the analysis in the Final SEA overestimates the environmental impacts.

² Prior to the adoption of PAR 1134, Los Angeles City, Department of Airports (LAX) replaced their turbines with equipment that currently meets the emission limits in PAR 1134. However, the Final SEA evaluates the physical changes and the environmental impacts that may be associated with the old turbines. Because these turbines no longer exist, the analysis in the Final SEA overestimates the environmental impacts.

³ Tin, Inc., International Paper underwent a change of ownership and is now New-Indy. This facility was originally evaluated in the December 2015 Program EA for NOx RECLAIM. Prior to the adoption of PAR 1134, New-Indy submitted applications to replace their existing turbines. As such, these units were not analyzed in this Final SEA.

⁴This facility was originally identified as having equipment subject to PAR 1134; however this facility electrified the affected units prior to the adoption of PAR 1134. As such, these units were not analyzed in this Final SEA.

Appendix G

 $^{^{6} \}text{SCAQMD}, \underline{\text{http://www.aqmd.gov/docs/default-source/ceqa/documents/aqmd-projects/2015/regxxfinalpeaplusappendices.pdf}$

Appendix E-5 (see p. 71) of the December 2015 Final Program EA for NOx RECLAIM estimated 126 ammonia delivery trips per year at 100 miles per round-trip (which is equivalent to 12,600 VMT) would be specifically attributed to non-refinery turbines. Of the 23,600 VMT analyzed for PAR 1134, 12,600 VMT were previously evaluated in the December 2015 Final Program EA for NOx RECLAIM. Thus, the incremental increase of VMT due to ammonia deliveries for PAR 1134 is approximately 11,000 VMT (e.g., 23,600 - 12,600 = 11,000) with an estimated accident rate of 0.00308 or about one accident every 325 years.

For all of these VMT values, based on the low probability of an ammonia tanker truck accident with a major release and the potential for exposure to low concentrations because aqueous ammonia is comprised of 81 percent water, if any, the conclusion of less than significant impacts due to an accidental release of ammonia during transportation scenario would remain unchanged.

Response 3-11

As explained in the hazards and hazardous materials impacts discussion in the Final SEA, the proposed project is not expected to generate significant adverse impacts related to the accidental release of ammonia during transport. However, because some of the affected facilities are located within ¼-mile of a sensitive receptor, implementation of the proposed project is expected to generate significant adverse impacts related to the potential for a rupture of an aqueous ammonia storage tank. Mitigation measures were crafted and applied to the proposed project, but they will not conclusively reduce the impacts to less than significant levels at all of the affected facilities. Thus, the overall conclusion in the Final SEA is that hazards and hazardous materials impacts for the proposed project due to ammonia tank rupture will remain significant after mitigation measures are applied.

If an aqueous ammonia delivery truck malfunctions and spills the entire contents of the truck (which could be up to 6,000 gallons) during a delivery, the contents will be routed to same berm/ammonia containment system in place for when there is a storage tank rupture and the same mitigation measures would apply. The offsite consequence analysis conducted for a storage tank rupture actually assumed a larger volume of aqueous ammonia spilled than what would occur if a truck spills its entire contents during a delivery. As such, there is no need to conduct a separate analysis for a truck spill during delivery, since the offsite consequence analysis for the aqueous ammonia storage tank already analyzes a larger quantity of ammonia released, and is therefore, more conservative and representative of a worst-case analysis at a given facility. Thus, the Final SEA does not need to include a third analysis specific to a spill during truck offloading.

In addition, facilities retrofitting units with SCR systems and installing an accompanying ammonia storage tank are required to submit permit applications to modify their equipment. Thus, SCAQMD staff will conduct a CEQA evaluation of the facility-specific project to determine if the project is covered by the analysis in the Final SEA. If significant adverse environmental impacts are identified that are specific to the facility's applications, the facility will also be required to employ the mitigation measures (HZ-1 through HZ-6) as part of their overall project to reduce the risk of an offsite consequence to any nearby sensitive receptor(s). It is important to note that mitigation measure HZ -5 specifically addresses an accidental release as a result of truck loading or unloading of aqueous ammonia. HZ-5 is stated as follows:

HZ-5 Equip the truck loading/unloading area with an underground gravity drain that flows to a large on-site retention basin to provide sufficient ammonia dilution to the extent that no hazards impact is possible in the event of an accidental release during transfer of aqueous ammonia.

Comment Letter #4

WSPA

WSPA

Bridget McCann Manager, Technical and Regulatory Affairs

March 15, 2019

Dr. Philip Fine Deputy Executive Officer, Planning and Rules South Coast Air Quality Management District 21865 Copley Drive Diamond Bar, CA 91765 sent via email: pfine@aqmd.gov

Re: WSPA Comments on Subsequent Environmental Assessment (SEA) for Proposed Amended Rule 1134, Emissions of Oxides of Nitrogen from Stationary Gas Turbines

Dear Dr. Fine:

Western States Petroleum Association (WSPA) is a non-profit trade association representing companies that explore for, produce, refine, transport, and market petroleum, petroleum products, natural gas, and other energy supplies in five western states including California. WSPA has been an active participant in air quality planning issues for over 30 years. WSPAmember companies operate petroleum refineries and other facilities in the South Coast Air Basin that will be impacted by the transition out of the Regional Clean Air Incentives Market (RECLAIM) Program.

Proposed Amended Rule (PAR) 1134 intends to transition stationary gas turbines at RECLAIM facilities to a command-and-control regulatory structure. This rulemaking has raised a number of issues that cut across other RECLAIM "landing rules" that are slated for amendment or adoption and that will directly affect our member companies. Many of these issues have been raised with staff and, in some cases, with Governing Board members through written and verbal comments at working group meetings, public workshops, public hearings, committee meetings, and individual company or coalition meetings.

WSPA offers the following comments on the Subsequent Environmental Assessment (SEA) for PAR 1134[°] which was prepared to satisfy the District's obligations under the California Environmental Quality Act (CEQA).

Western States Petroleum Association 44

1415 L. Street, Suite 900, Szcramento, CA 95814 835 701 9142

WSD3.org

4-1

¹ SCAQMD, Draft Subsequent Environmental Assessment for Proposed Amended Rule 1134 – Emissions of Oxides of Nitrogen from Stationary Gas Lurpines, January 25, 2019.

Dr. Philip Fine March 15, 2019 Page 2

1. Piecemealing of the California Environmental Quality Act (CEQA) Analysis

It is a fundamental principle of California Environmental Quality Act (CEQA) review that all environmental impacts for the whole of a project be analyzed together. In this case, the "project" is the RECLAIM Transition as a whole as required by Control Measure CMB-05 as adopted in the 2016 Air Quality Management Plan (AQMP).² Yet, District staff is conducting the CEQA review through a series of Subsequent Environmental Assessments (SEAs) that analyze only the impacts associated with the particular landing rule under consideration. Staff argues that this approach is acceptable because the SEA "tiers off" of the March 2017 Final Program Environmental Impact Report for the 2016 AQMP ³ and several other earlier certified CEQA documents, which analyzed the transition as a whole. However, the March 2017 PEIR, which was completed in January 2018, did not analyze the transition of the RECLAIM program because that transition was not part of Control Measure CMB-05 as proposed at that time. Therefore, tiering off of the earlier CEQA documents to support rule amendments that seek to implement the transition is not possible because there is no comprehensive analysis in the earlier documents. In the absence of a program-level CEQA analysis that includes the whole of the RECLAIM transition project, staff's segmented analysis of each proposed rulemaking action constitutes a classic "piecemealing" in violation of CEQA. This issue is addressed in more detail in the following attachments:

- Attachment 1: May 1, 2018 comments from W/SPA
- Attachment 2: September 7, 2018 comments from Latham & Watkins LLP on behalf of WSPA

2. Incomplete and Inappropriate CEQA Baseline

The Draft SEA for PAR 1134 relies on a baseline representing implementation of control measure CMB-05 from the 2016 AQMP and the current version of Rule 1134. While the Draft SEA correctly notes that CEQA allows for baselines other than when the NOP/IS is circulated, the baseline used in the SEA is not time shifted. Rather, the baseline is incomplete and inappropriate as it reinforces the piecemealing discussed above. A more appropriate baseline would be the existing setting based on current conditions, or the existing setting used in the March 2017 PEIR.

4-3

4-2

This selection of the baseline inflates the starting point of the analysis and thus may miss impacts that could be significant. The SEA notes that PAR 1134, even with this distortion, is expected to have "significant effects that were not discussed in the March 2017 Final Program EIR" and "significant effects that were previously examined that will be substantially more severe than what was discussed in the March 2017 Final Program EIR for the 2016 AQMP." But the inflating of the baseline may also cause an understatement of the severity of the impacts which are already deemed significant.

Western States Perroleum Association 300 West 19th Street, Suite 304, Torrance, CA 90502 J10.808.2146 wspa.org

¹ SCAQMD, Final Air Quality Management Plan, March 2017.

³ SCAGMD, Final Program Environmental Impact Report for the 2016 Air Quality Management Plan, State Clearinghouse #2016071006, January 2017.

Dr. Philip Fine March 15, 2019 Page 3

3. Incremental Socioeconomic Analysis

For other landing rules included in the RECLAIM transition project, the SCAQMD has analyzed the socioeconomic impacts in an incremental fashion for each rulemaking. By analyzing the socioeconomic impacts associated with the transition in an incremental fashion for each rulemaking, as opposed to conducting a comprehensive analysis of the entire transition, staff is either underestimating the cumulative socioeconomic impacts or failing to identify them at all. The SCAQMD's current incremental approach to dismantling the program could cause serious economic harm to both RECLAIM facilities and the broader regional economy. In addition, the SCAQMD should analyze the potential future impacts of NOx RECLAIM Trading Credits (RTCs) to the reported emissions.

4-4

In the case of the PAR 1134, the District has attempted to analyze the potential economic impacts from the imposition of new BARCT requirements which "include one-time costs and annual recurring costs." ⁴ However, the analysis completely ignores other potential impacts which may be caused by the elimination of the current Regulation XX market-based program. As a result, the Governing Board is being provided a partial and incomplete assessment of the potential socioeconomic impacts associated with the proposal.

Thank you for considering these comments. If you have any questions, please contact me at (310) 808-2146, or via e-mail at <u>bridget@wspa.org</u>.

Sincerely.

Mans

Bridget McCann Manager, Technical and Regulatory Affairs

Cc: Wayne Nastri, SCAQMD Barbara Radlein, SCAQMD Michael Krause, SCAQMD Tom Umenhofer, WSPA Patty Senecal, WSPA

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⁴ SCAQMD, Draft Socioeconomic Impact Assessment for Proposed Amended Rule 1134 - Emissions of Oxides of N'trogen from Stationary Gas Turb'nes, March 2019, page II.

Responses to Comment Letter #4

Response 4-1

This comment begins by introducing the parties represented by the letter; no response to this comment is necessary. SCAQMD staff appreciates your participation with our rule development process.

Response 4-2

This comment raises the same issues as presented in Comment Letter #2, Comment 2-5, and Comment Letter #3, Comment 3-2. See Responses 2-5 and 3-2 of this Final SEA. Also, the commentator references Attachment 1, a letter dated May 1, 2018. This letter was not included with the comment letter so SCAQMD staff is unable to respond to Attachment 1. The commentator references Attachment 2, a letter from Latham & Watkins dated September 7, 2008. Attachment 2 was provided as an attachment to Comment Letter #3, and is addressed as part of Comment 3-2/Response 3-2.

Response 4-3

Between the time when the amendments to the NOx RECLAIM program were adopted in December 2015 (and the corresponding Final Program EA was certified) and when the 2016 AQMP was adopted in March 2017 (and the corresponding Final Program EIR was certified), RECLAIM facilities that have equipment that will now be subject to Rule 1134 (and all the other landing rules) did not previously make any physical modifications to reduce NOx emissions from the affected equipment. As explained in Response 2-5, that is why CMB-05 was revised to specifically contemplate the unwinding of the RECLAIM program, as follows. "One approach under serious consideration is a long-term transition to a traditional command-and-control regulatory structure. As many of the program's original advantages appear to be diminishing and generating increased scrutiny, an orderly sunset of the RECLAIM program may be the best way to create more regulatory certainty and reduce compliance burdens for RECLAIM facilities, while also achieving more actual and SIP creditable emissions reductions."

Thus, the baseline or existing setting for equipment subject to PAR 1134 as well as the other RECLAIM landing rules is the same at the time of the adoption of the 2016 AQMP and the analysis in the Final Program EIR for the 2016 AQMP. In addition, the Final SEA for PAR 1134 does not include an analysis of the full implementation of CMB-05 but rather only analyzes impacts that have not been previously analyzed in relation to the implementation of PAR 1134.

Response 4-4

The SCAQMD is required to examine the socioeconomic impacts of rule changes to the extent data is available. In addition, while the SCAQMD is not legally required to conduct cumulative socioeconomic analyses, the Final Socioeconomic Report for the 2016 AQMP fully analyzed the socioeconomic impacts for the 2016 AQMP, including the entire RECLAIM transition project. CMB-5 was presented in the socioeconomic report where the potential cost of reducing 5 TPD NOx emissions were estimated and the associated regional economic impacts projected. Specifically, the costs presented were scaled from a thorough BARCT assessment conducted as part of the 2015 NOx RECLAIM Amendments, and the analysis conservatively assumed that the estimated cost per ton of NOx emission reduction would be 50 percent higher than the cost-perton of installing all BARCT control equipment identified in the 2015 NOx RECLAIM

Amendments. The analysis comports with the applicable Governing Board resolutions and statutory requirements.

The PAR 1134 Socioeconomic Impact Assessment only accounts for the "one-time capital costs and annual recurring costs" in the net present worth and annual cost estimates, as well as the costs inputs in the Regional Economic Modeling Inc. (REMI) software used to project macroeconomic impacts from direct compliance costs. Comments provided by WSPA state that the socioeconomic analysis "ignores other potential impacts which may be caused by the elimination of the current Regulation XX market-based program". As it currently stands, facilities that received initial determination notifications and meet the proposed criteria to exit, would not receive a final determination notification to exit RECLAIM until key elements such as NSR and permitting are resolved. However, these facilities may request to opt-out of RECLAIM before these key elements are resolved, upon meeting specific conditions specified in subdivision (g) of Rule 2001. Beginning with PAR 1135 - Emissions of Oxides of Nitrogen from Electricity Generating Facilities and in each subsequent RECLAIM landing rule staff has made attempts to perform basic accounting of potential market impacts of potentially eligible facilities transitioned out of RECLAIM upon rule amendment. The current PAR 1134 Socioeconomic Assessment provides estimates of the foregone market supply and forgone market demand if all eligible facilities elect to exit upon rule amendment. In addition, the socioeconomic analysis provides estimated cost impacts across all facilities eligible to exit as a result of PAR 1134 being amended. Staff believes that attempting to quantify ancillary market impacts resulting from the RECLAIM transitions is highly speculative, and does not warrant inclusion in annual compliance cost estimates and REMI model inputs.



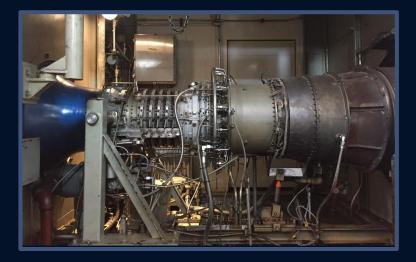


Proposed Amended Rule 1134 Emissions of Oxides of Nitrogen from Stationary Gas Turbines

Governing Board Meeting – April 5, 2019

Regulatory Background for Rule 1134 Stationary Gas Turbines

- Command-and-control landing rule for turbines
- Adopted in 1989 applies only to turbines ≥ 0.3 MW installed before August 4, 1989
- PAR 1134 affects 73 turbines at 35 facilities
 - Most are in RECLAIM or have been replaced since 1989



Key Features of Proposed Rule 1134

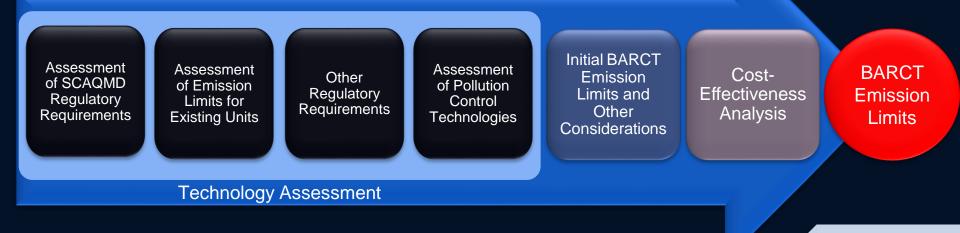
Technology-Based Emission Limits:

- Lowers NOx limits based on BARCT assessment
- Adds ammonia limits and quantifies impacts
- Expanded Applicability: Includes units installed after 1989
- Significant Emission Reductions: 2.8 tons of NOx per day
- Cost-Effective Reductions: < \$12,000 per ton of NOx reduced¹
 - Exempted low-use and near-limits turbines where cost-effectiveness is
 \$50,000 per ton of NOx reduced

¹ Average cost-effectiveness for each class and category is <\$12,000

BARCT Assessment

BARCT analysis is conducted for each equipment category and fuel type



Proposed Emission Limits

Emission Limits for Stationary Gas Turbines

Category and Fuel Type	NOx (ppmv @ 15% O2)	Ammonia (ppmv @ 15% O2)
Natural Gas – Combined Cycle	2	5
Natural Gas – Simple Cycle	2.5	5
Natural Gas – Compressor Turbine	3.5	10
Produced Gas	9	5
Produced Gas – Outer Continental Shelf	15	5
Liquid – Outer Continental Shelf	30	5
Other	12.5	5

- Effective Date: January 1, 2024
 - Additional time for compressor turbines meeting certain criteria

Key Issues

- WSPA and the Regulatory Flexibility Group have commented on PAR 1134 and issues related to the overall transition for RECLAIM
- Comments are similar to other rulemakings
- Refineries are not subject to PAR 1134
- <u>Comment 1</u>: SCAQMD lacks authority to require replacement as BARCT
 - SCAQMD has authority to require replacement as BARCT
 - ▷ Statutory definition of BARCT supports a broad interpretation
 - BARCT is not a limitation on SCAQMD's authority to adopt emission control requirements for stationary sources

Key Issues (Continued)

- <u>Comment 2</u>: Proposed NOx BARCT standards do not adequately consider other pollutants
 - ▷ PAR 1134 includes ammonia limits for each class and category
 - Staff report includes discussion of particulate matter
- <u>Comment 3</u>: Staff failed to provide information that forms the bases of its BARCT recommendations
 - Information presented during Working Group meetings and staff report

Key Issues (Continued)

- <u>Comment 4</u>: New Source Review (NSR) issues must be addressed comprehensively and expeditiously before facilities exit RECLAIM
 - ▷ Rule 2002 allows facilities to remain in RECLAIM until NSR is resolved
 - Staff continues to work with U.S. EPA and stakeholders to resolve NSR issues
- Comment 5: CEQA and Socioeconomic impacts are piecemealed
 - 2016 AQMP contains programmatic analyses
 - A CEQA document and socioeconomic impact analysis were conducted on changes in PAR 1134
 - ▷ Consistent with other rulemaking projects

Recommended Actions

- Adopt the Resolution:
 - Certifying Subsequent Environmental Assessment
 - Amending Rule 1134