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

A G E N D A

MEETING, JANUARY 4, 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, any item may be considered in any order. ▪ After taking action on any agenda item not requiring a public hearing, the Board may reconsider or amend the item at any time during the meeting.
Questions About Progress of the Meeting	▪ During the meeting, the public may call the Clerk of the Board's Office at (909) 396-2500 for the number of the agenda item the Board is currently discussing.

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

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

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

CALL TO ORDER

- Pledge of Allegiance
- Opening Comments: William A. Burke, Ed.D., Chair
  Other Board Members
  Wayne Nastri, Executive Officer
- Swearing in of Reappointed Board Member Ben Benoit **Burke**

Staff/Phone (909) 396-

CONSENT CALENDAR (Items 1 through 16)[1]

Note: Consent Calendar items held for discussion will be moved to Item No. 17

1. Approve Minutes of December 7, 2018 Board Meeting **Garzaro/2500**

Budget/Fiscal Impact

2. Execute Contracts for Emission Reduction Projects Using Incentive Funding from SCAQMD Special Revenue Funds, and Reimburse General Fund for Administrative Costs for Contract Administration **Rees/2856**

   In January 2018, the Board released an RFP to solicit stationary and mobile source projects that will result in emission reductions of NOx, VOC, and PM, in accordance with the approved control strategy in the 2016 AQMP. Project funding is proposed from existing special revenue funds related to mitigation fees, settlements, or grants from other agencies, and was approved for up to $61 million. Twenty-six proposals are being recommended for a total amount not to exceed $47,385,792. The remaining balance of the $61 million allocated for this RFP will be reserved to expand or continue implementation of the awarded projects or for other future needs. This action is to execute contracts for air quality emission reduction projects in a total amount not to exceed $47,385,792. This action is to also reimburse the General Fund up to 6.25 percent for administration of the projects. (Reviewed: Administrative Committee, December 14, 2018; Recommended for Approval)

[1] *Note: At its December 7, 2018 meeting, the Board set a public hearing for February 1, 2019 to amend Rule 1403 – Asbestos Emissions from Renovation/Demolition Activities.*

3. Transfer and Appropriate Funds, Issue Solicitations and Purchase Orders, Approve Positions for Rule 1180 Implementation and Amend Contract **Low/2269**

In June 2018, the Board recognized over $7 million in revenue into the Rule 1180 Special Revenue Fund (78) for the installation and operation of community air monitoring stations near refineries by January 1, 2020. These actions are to transfer and appropriate up to $1,996,656 into Science & Technology Advancement's FYs 2018-19 and/or 2019-20 Budgets, issue solicitations and purchase orders for equipment, and add new positions necessary for the implementation of this program. This action is to also amend a contract with FluxSense Inc. for up to $110,000 to conduct additional community-scale air toxics ambient monitoring. (Reviewed: Administrative Committee, December 14, 2018; Recommended for Approval)

4. Approve Transfer of Monies from General Fund to Health Effects Research Fund **Jain/2804**

In 2008, the Board established a Health Effects Research Fund initially funded at $1.5 million from the BP Arco Settlement Fund. The Board further authorized, upon annual Board approval, the transfer of 20 percent of annual penalty money received that exceeds $4 million in receipts to the Health Effects Research Fund. This action is to transfer 20 percent of annual penalty money received in FY 2017-18 that exceeds $4 million to the Health Effects Research Fund. (Reviewed: Administrative Committee, December 14, 2018; Recommended for Approval)

5. Execute Contract for Biennial Audit of Motor Vehicle Registration Revenues for FYs 2015-16 and 2016-17 **Jain/2804**

Health and Safety Code Section 44244.1 requires any agency receiving fee revenues pursuant to Section 44243 or 44244 to be subject to an audit of each program or project funded at least once every two years. On September 7, 2018, the Board approved the release of an RFP to select an auditor to perform the biennial audit for FYs 2015-16 and 2016-17. This action is to award a contract to the firm of Simpson & Simpson, Certified Public Accountants. Local governments, the MSRC and SCAQMD will pay the cost of their own audits in the amounts of $89,240, $7,000 and $4,560 respectively. (Reviewed: Administrative Committee, December 14, 2018; Recommended for Approval)

6. Authorize Purchase of Telecommunication Services **Moskowitz/3329**

On October 5, 2018, SCAQMD released an RFP to select a vendor(s) capable of providing telecommunication services to the SCAQMD in the most cost-effective manner and if possible, qualifying vendors capable of providing telecommunication services through a competitive bid process that will be used to make buying decisions that are in the best interest of the SCAQMD. These telecommunications services include local, long distance, and toll-free; private IP (PIP)/frame relay network; dedicated T1 lines, MPLS two bundled IP T1's 3MB, and Ethernet PVL 100MB; primary internet access 200MB (with a redundant connection backup internet access 100MB); phone switch maintenance; and wireless voice and data. This action is to obtain approval to purchase telecommunications services from the selected vendor(s) for a period of three-years. Funds for this expense are included in the FY 2018-19 Budget ($750,000), and will be included in subsequent fiscal year budget requests, with the total value of the contract at $2,250,000.00. (Reviewed: Administrative Committee, December 14, 2018; Recommended for Approval)

7. Approve List of Prequalified Vendors for Document Conversion Services **Moskowitz/3329**

On October 5, 2018, the Board approved the release of an RFQ to select a vendor capable of providing document conversion services to digitize paper documents. As a result of successful responses to this RFQ, four vendors were identified as capable of providing these services. This action is to approve four vendors to provide document conversion services for a two-year period. Funds for the services will be identified, and approved as needed, as specific projects are defined. (Reviewed: Administrative Committee, December 14, 2018; Recommended for Approval)

8. Execute Contract for Janitorial Services at Diamond Bar Headquarters **Olvera/2309**

The current contract for Diamond Bar headquarters janitorial services expires on February 28, 2019. On September 7, 2018, the Board approved release of an RFP to solicit proposals from firms interested in providing these services. This action is to execute a three-year contract with Santa Fe Building Maintenance for a total amount not to exceed $1,717,845. Funding has been included in the FY 2018-19 Budget and will be requested in subsequent fiscal years. (Reviewed: Administrative Committee; December 14, 2018; Recommended for Approval)

9. Amend Career Development Intern Classification, Adopt New Job Classification, and Approve Staffing Changes to Upgrade Two Positions **Olvera/2309**

The Career Development Intern program provides young adults who have transitioned from the foster care system with on-the-job training and experience, to prepare them for future job opportunities. This action is to amend the classification to establish a new salary schedule. This action is also to adopt the new classification of Monitoring Operations Manager; add a Public Affairs Manager position and a Senior Information Technology Specialist position; and delete a Community Relations Manager position and an Information Technology Specialist II position. Funding for these actions is included in the FY 2018-19 Budget. (Reviewed: Administrative Committee, December 14, 2018; Recommended for Approval)

10. Issue Purchase Order to Promote "The Right to Breathe" Video **Atwood/3687**

This action is to add $500,000 to SCAQMD's Google AdWords campaign to promote the new "The Right to Breathe" video. Funding for this effort will come from the BP ARCO Settlement Projects Special Revenue Fund (46). (Reviewed: Special Administrative Committee, December 18, 2018; Recommended for Approval)

Items 11- through 16 - Information Only/Receive and File

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

This report highlights the November 2018 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)

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

This reports the actions taken by the Hearing Board during the period of November 1 through November 30, 2018. (No Committee Review)

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

This reports the monthly penalties from November 1 through November 30, 2018, and legal actions filed by the General Counsel's Office from November 1 through November 30, 2018. An Index of District Rules is attached with the penalty report. (Reviewed: Stationary Source Committee, December 19, 2018)

14. 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 November 1, 2018 and November 30, 2018, and those projects for which the SCAQMD is acting as lead agency pursuant to CEQA. (No Committee Review)

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

This report highlights SCAQMD rulemaking activities and public hearings scheduled for 2019, and provides a summary of implementation of the 2016 AQMP. (No Committee Review)

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

Information Management is responsible for data systems management services in support of all SCAQMD operations. This action is to provide the monthly status report on major automation contracts and planned projects. (Reviewed: Administrative Committee, December 14, 2018)

17. Items Deferred from Consent Calendar

BOARD CALENDAR

Note: The Mobile Source and Technology Committees did not meet in December. The next regular meetings of the Mobile Source and Technology Committees are scheduled for January 18, 2019. The December meeting of the Mobile Source Air Pollution Reduction Review Committee (MSRC) was canceled. The next meeting of the MSRC is scheduled for January 17, 2019.

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

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

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

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

Agenda Item	**Recommendation**
2019 Legislative Goals and Objectives	Approve

21. Stationary Source Committee (Receive & File) **Chair: Benoit** **Tisopulos/3123**

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

PUBLIC HEARINGS

23. Certify Final Environmental Assessment and Adopt Rule 1118.1 - Control of Emissions from Non-Refinery Flares **(*Continued from December 7, 2018 Board Meeting*)** **Nakamura/3105**

Proposed Rule 1118.1 applies to RECLAIM and non-RECLAIM facilities that operate non-refinery flares located at landfills, wastewater treatment plants, oil and gas production facilities, organic liquid loading stations, and tank farms. The proposed rule will implement, in part, the 2016 AQMP Control Measure CMB-03 - Emission Reductions from Non-Refinery Flares and facilitate the transition of the NOx RECLAIM program to a command-and-control regulatory structure. Proposed Rule 1118.1 establishes emission limits for NOx, VOC, and CO for new flares, and a capacity threshold for existing flares. In addition, some new flares at oil and gas production facilities will have additional limitations. Proposed Rule 1118.1 also establishes provisions for source testing, monitoring, reporting, recordkeeping, and provides exemptions for low-use and low-emitting flares. This action is to adopt the Resolution: 1) Certifying the Final Environmental Assessment for Proposed Rule 1118.1 - Control of Emissions from Non-Refinery Flares, and 2) Adopting Proposed Rule 1118.1 - Control of Emissions from Non-Refinery Flares. (Reviewed: Stationary Source Committee, October 19 and December 19, 2018)

24. Determine that Proposed Amendments to Rule 1325 – Federal PM2.5 New Source Review Program Are Exempt from CEQA and Amend Rule 1325 **Nakamura/3105**

Rule 1325 establishes requirements for new and modified sources to ensure compliance with federal PM2.5 NSR requirements. Rule 1325 was amended in 2016 to expand the definition of "precursors" to include VOC and ammonia (NH3), as required under U.S. EPA's 2016 implementation rule for PM2.5 State Implementation Plans and a court decision requiring states to regulate PM2.5 under the same part of the Federal Clean Air Act as PM10. The 2016 amendment expanded the definition of "precursors," however, it did not expand the definition of "regulated NSR pollutant" to explicitly reference the PM2.5 precursors VOC and NH3. Proposed Amended Rule 1325 will address this deficiency by referencing "precursors" in the definition of "regulated NSR pollutant." In addition, other revisions are made to improve clarity. This action is to adopt the Resolution: 1) Determining that the proposed amendments to Rule 1325 - Federal PM2.5 New Source Review Program are exempt from the California Environmental Quality Act, and 2) Amending Rule 1325 – Federal PM2.5 New Source Review Program. (Reviewed: Stationary Source Committee, November 16, 2018)

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

BOARD MEMBER TRAVEL – (*No Written Material*)

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

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

Under the approval authority of the Executive Officer the District will enter into contract modifications with the Southern California Gas Company (Contract No. C156671) and the California Air Resources Board (Contract No. C172091), and a contract renewal with Southern California Edison (Contract No. C18205). The Southern California Gas Company, the California Air Resources Board, and Southern California Edison are potential sources of income for Governing Board Member Joseph Lyou which qualify for the remote interest exception of Section 1090 of the California Government Code. Dr. Lyou abstained from any participation in the making of the contract modifications and contract renewal.

Under the approval authority of the Executive Officer the District will enter into a contract renewal with Southern California Edison (Contract No. C18205). Southern California Edison made a campaign contribution to Governing Board Member Janice Rutherford in the amount of $4,400 on May 7, 2018. Supervisor Rutherford abstained from any participation in the making of the contract renewal.

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);
- SCAQMD v. Anaplex, Los Angeles Superior Court Case No. BC608322 (Paramount Hexavalent Chromium);
- In the Matter of SCAQMD v. Browning-Ferris Industries of California, Inc. dba Sunshine Canyon Landfill, SCAQMD Hearing Board Case No. 3448-14;
- Communities for a Better Environment v. SCAQMD, Los Angeles Superior Court Case No. BS161399 (RECLAIM);
- Communities for a Better Environment v. South Coast Air Quality Management District, Los Angeles Superior Court Case No. BS169841; Safe Fuel and Energy Resources California, et al. v. South Coast Air Quality Management District, Los Angeles Superior Court Case No. BS169923 (Tesoro);
- People of the State of California, ex rel. SCAQMD v. Exide Technologies, Inc., Los Angeles Superior Court Case No. BC533528;
- In re: Exide Technologies, Inc., U.S. Bankruptcy Court, District of Delaware, Case No. 13-11482 (KJC) (Bankruptcy Case);
- Fast Lane Transportation, Inc., et al. v. City of Los Angeles, et al., Court of Appeal, First Appellate District, Case No. A148993 (formerly Contra Costa County Superior Court Case No. MSN14-0300) (SCIG);
- In the Matter of SCAQMD v. Southern California Gas Company, Aliso Canyon Storage Facility, SCAQMD Hearing Board Case No. 137-76 (Order for Abatement); People of the State of California, ex rel SCAQMD v. Southern California Gas Company, Los Angeles Superior Court Case No. BC608322; Judicial Council Coordinated Proceeding No. 4861;

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

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

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

CONFERENCE WITH LEGAL COUNSEL – INITIATING LITIGATION

It is also necessary for the Board to recess to closed session pursuant to Government Code section 54956.9(a) and 54956.9(d)(4) to consider initiation of litigation (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 cob@aqmd.gov of 10 pages or less including attachment, in MS WORD, PDF, plain or HTML format will also be accepted by the Board and made part of the record if received no later than 5:00 p.m., on the Tuesday prior to the Board meeting.

ACRONYMS

AQ-SPEC = Air Quality Sensor Performance Evaluation Center
AQIP = Air Quality Investment Program
AQMP = Air Quality Management Plan
AVR = Average Vehicle Ridership
BACT = Best Available Control Technology
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 $\leq$ 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

Back to Agenda

BOARD MEETING DATE: January 4, 2019 AGENDA NO. 1

MINUTES: Governing Board Monthly Meeting

SYNOPSIS: Attached are the Minutes of the December 7, 2018 meeting.

RECOMMENDED ACTION:
Approve Minutes of the December 7, 2018 Board Meeting.

Denise Garzaro
Clerk of the Boards

DG

FRIDAY, DECEMBER 7, 2018

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

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

Mayor Ben Benoit
Cities of Riverside County

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 Larry McCallon
Cities of San Bernardino County

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

Supervisor V. Manuel Perez
County of Riverside

Supervisor Janice Rutherford
County of San Bernardino

Members absent:

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

Supervisor Shawn Nelson
County of Orange

Council Member Dwight Robinson
Cities of Orange County

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

- Pledge of Allegiance: Led by Mayor Pro Tem Mitchell.

- Opening Comments.

  Mayor Pro Tem Mitchell announced that she attended the Los Angeles Auto Show and that she was impressed with the autonomous SUV EV demonstration. She added that she also attended a lunch discussion hosted by the California Electric Transportation Coalition on efforts to connect the faith-based community to the EV market.

  Council Member Cacciotti noted that BMW, Mercedes, Audi, Kia and Porsche will introduce new EV models in 2019 and 2020. He added that he will be traveling to China at the end of December and is willing to meet with government officials to assist with clean air initiatives.

  Mr. Nastri announced the release of an update to the District's mobile application for iPhone and displayed photos of the various functions of the application. He explained that an Android version would be available in the future. He noted that U.S. EPA will be moving forward on a heavy-duty truck rule and the District will remain involved throughout the process. He added that the District hosted an Ocean Vessels Technology Forum on December 5, 2018 which included participants from Finland, Norway and China. Ocean going vessels are one of the largest contributors of uncontrolled NOx emissions in the region and the District will continue to leverage and maximize regulatory efforts at the international level.

  Council Member Buscaino applauded the use of technology to inform the public and promote clean air initiatives. He noted the importance of reducing emissions from ocean going vessels and acknowledged the leadership and commitment of District staff.

  Vice Chairman Parker noted that Chairman Burke was absent from the meeting to attend a memorial service for his sister and expressed condolences on behalf of the Board to Chairman Burke and his family.

- Recognize Employees with Twenty, Twenty-Five, Thirty and Thirty-Five Years of Service

  John Olvera, Assistant DEO/Administrative and Human Resources, read the names of the employees that have reached employment milestones.

  Twenty Years: Thomas Chang, Xin Chen, Elizabeth Krebs, Eric Martinez, Martha Rivera, Michelle White

  Twenty-Five Years: Sam Atwood, Shah Dabirian

Thirty Years: Alfonso Baez, Sidney Baker, Tereso Banuelos, Penny Shaw Cedillo, Devorlyn Celestine, Jayanta Chakrabarti, Mitali Datta, Alicia Diaz, Rosalinda Diaz, Raul Dominguez, Kennard Ellis, Javier Enriquez, Hiram Fong, Sally Gin, Tracy Goss, David Hauck, Richard Hawrylew, Mark Henninger, Donald Hopps, Saad Karam, Thomas Liebel, Lisa Mirisola, Thomas Moore, Tuyet-Le Pham, Genette Prudhomme, Ken Sanchez, Laki Tisopulos, Eduardo Tung, William Wong, Vasken Yardemian, Connie Yee, Hoshik Yoo

Thirty-Five Years: Leticia DeLaO, Douglas Gordon

Vice Chairman Parker thanked the employees on behalf of the Board, for their many years of dedicated service to the SCAQMD.

Vice Chairman Parker acknowledged outgoing Board Member Supervisor Solis for her service on the SCAQMD Board.

- Swearing In of Newly Appointed Board Member Janice Hahn

Vice Chairman Parker administered the oath of office to Supervisor Janice Hahn who was appointed to the Board by the Los Angeles County Board of Supervisors for a term ending January 15, 2023. Supervisor Hahn expressed appreciation for the opportunity to serve on the Board.

Council Member Buscaino acknowledged Supervisor Hahn's work in EJ communities and her efforts to obtain emission reductions at the Ports.

CONSENT CALENDAR

1. Approve Minutes of November 2, 2018 Board Meeting

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

   January 4, 2019:

   A. Determine that Proposed Amendments to Rule 1325 – Federal PM2.5 New Source Review Program Are Exempt from CEQA and Amend Rule 1325

   February 1, 2019:

   B. Determine that Proposed Amendments to Rule 1403 - Asbestos Emissions from Renovation/Demolition Activities Are Exempt from CEQA and Amend Rule 1403

Budget/Fiscal Impact

3. Develop and Demonstrate Near-Zero and Zero Emissions Vehicles and Equipment at Ports

4. Conduct Emissions Study on Use of Alternative Diesel Blends in Off-Road Heavy-Duty Engines and Amend SOON Provision Awards

5. Execute Contract to Conduct Preliminary Cost and Economic Impact Analysis of Proposed Warehouse Indirect Source Rule

6. Issue RFP for Engineering Consultant to Assess BARCT for Proposed Rule 1109.1 – NOx Emission Reductions for Refinery Equipment

7. Execute Contracts for Legislative Representation in Washington, D.C.

8. Issue RFP for Consultant Services for SCAQMD Environmental Justice Outreach and Initiatives

9. Execute Contract for Operation of Diamond Bar Headquarters Cafeteria

10. Transfer and Appropriate Funds, Recognize Revenue, Approve Positions, Issue Solicitations and Purchase Orders, and Execute Contracts and Agreements for Mid-Year Budget Adjustments, AB 617 Implementation, Volkswagen Mitigation Projects, and China Partnership for Cleaner Shipping; and Amend Salary Resolution

Action Item/No Fiscal Impact

11. Rule and Control Measure Forecast and AB 617 Expedited BARCT Implementation Schedule

Items 12 through 17 – 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. Annual Audited Financial Statements for FY Ended June 30, 2018

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

Dr. Lyou announced his abstention on Item No. 3 because the Port of Long Beach, Southern California Edison, UPS and CARB are potential sources of income to him; and on Item Nos. 4 and 10 because CARB is a potential source of income to him.

Supervisor Rutherford announced her abstention on Item No. 3 due to campaign contributions from Southern California Edison.

Mayor Pro Tem Mitchell noted that she is a Board Member of the CARB which is involved with Item Nos. 3, 4 and 10.

Due to a number of requests to speak received on Consent Calendar items 2A, 2B, 3, 5, 6, 8, 10, 11, 15 and 16, the vote on the Consent Calendar was deferred until after those comments were made.

18. Items Deferred from Consent Calendar

Dr. Lyou left the room during the discussion of Item Nos. 2A, 3, 5, 6, 8, 11 and 15.

2. Set Public Hearing January 4, 2019 to Consider Adoption of and/or Amendments to SCAQMD Rules and Regulations:

A. Determine that Proposed Amendments to Rule 1325 – Federal PM2.5 New Source Review Program Are Exempt from CEQA and Amend Rule 1325

Harvey Eder, Public Solar Power Coalition, noted the benefits of solar-power energy and recommended that it be evaluated as BARCT. He also suggested funding solar power and clean air programs in EJ communities and referenced a low income solar-equity program he participated in.

2. Set Public Hearing February 1, 2019 to Consider Adoption of and/or Amendments to SCAQMD Rules and Regulations:

   B. Determine that Proposed Amendments to Rule 1403 - Asbestos Emissions from Renovation/Demolition Activities Are Exempt from CEQA and Amend Rule 1403

   F. Stephen Masek, Masek Consulting Services, Inc., thanked staff for working with stakeholders to develop the proposed rule and urged for the set hearing to be delayed to allow further collaboration with stakeholders. (Submitted Written Comments)

3. Develop and Demonstrate Near-Zero and Zero Emissions Vehicles and Equipment at Ports

5. Execute Contract to Conduct Preliminary Cost and Economic Impact Analysis of Proposed Warehouse Indirect Source Rule

6. Issue RFP for Engineering Consultant to Assess BARCT for Proposed Rule 1109.1 – NOx Emission Reductions for Refinery Equipment

8. Issue RFP for Consultant Services for SCAQMD Environmental Justice Outreach and Initiatives

11. Rule and Control Measure Forecast and AB 617 Expedited BARCT Implementation Schedule

15. Lead Agency Projects and Environmental Documents Received by SCAQMD

Mr. Eder expressed support for EV technologies and commented on the recent developments by Tesla and BYD Auto Company to manufacture EVs and heavy-duty trucks and noted that solar power should be evaluated as BARCT.

MOVED BY BUSCAINO, SECONDED BY BENOIT, AGENDA ITEMS 1 THROUGH 9, 11 THROUGH 15 AND 17 APPROVED AS RECOMMENDED, BY THE FOLLOWING VOTE:

AYES:	Benoit, Buscaino, Cacciotti, Hahn, Lyou *(except Items #3 and #4)*, McCallon, Mitchell, Parker, Perez and Rutherford *(except Item #3)*
NOES:	None
ABSTAIN:	Lyou *(Items #3 and #4 only)* and Rutherford *(Item #3 only)*
ABSENT:	Burke, Nelson and Robinson

10. Transfer and Appropriate Funds, Recognize Revenue, Approve Positions, Issue Solicitations and Purchase Orders, and Execute Contracts and Agreements for Mid-Year Budget Adjustments, AB 617 Implementation, Volkswagen Mitigation Projects, and China Partnership for Cleaner Shipping; and Amend Salary Resolution

Mayor McCallon asked if the additional staffing being requested was in addition to the 36.5 positions the Board previously approved for AB 617. He expressed concern that an additional 47.5 positions seems excessive.

Jill Whynot, Chief Operating Officer, responded that the additional positions are necessary to handle the significant work load required to manage the emission reduction plans and the community steering committees for the three AB 617 communities. She added that the positions will be filled by both new hires and current staff will be able to take advantage of transfer or promotional opportunities for the AB 617 specific positions.

Mr. Nastri explained that the implementation of AB 617 signals a major shift in how air quality services are provided to the public by moving from a regional approach to a localized community-based approach which is labor intensive as it requires more involvement and investigation of emission sources within the identified communities. The staff positions required to undertake these efforts have been funded by the legislature and there is a commitment for continued funding. Staff will continue to advocate for the need for permanent funding. The District will also look at potential additional fees that could be collected to help offset costs. He added that recruiting and retaining qualified staff is a challenge due to the amount of recruiting being done by other air districts and CARB to implement AB 617.

Council Member Buscaino noted the significant equipment required for AB 617 and asked if there are funds budgeted to support the ongoing maintenance of that equipment. Mr. Nastri responded that the District has the capability and funds available to maintain the equipment.

Mayor McCallon asked staff to provide him additional information about the staffing and positions proposed for AB 617 implementation.

Dr. Parker inquired about the amount of funding that the District will receive to implement AB 617 and whether some funds may come out of the District's operating budget.

Mr. Nastri responded that while the original funding for the implementation of AB 617 was $25 million in total, as a result of efforts with the legislature, that amount has been significantly increased. All staff positions for AB 617 are currently funded and staff will closely monitor the budget on an ongoing basis. Staff will provide the Board with additional information regarding the new positions and internal transfers and promotions.

Supervisor Rutherford asked about continued funding for AB 617 and expressed concerns about the need to restructure the budget in the event funds are no longer provided.

Mr. Nastri explained that in addition to funding from the legislature, staff is exploring the opportunity to utilize funds from other sources such as penalties and settlements. He added that the long-term budget forecast is positive and staff could provide the Board updates on the budget on a quarterly basis.

Council Member Cacciotti noted that the proposal includes the purchase of fleet vehicles and encouraged purchasing EVs.

Dr. Matt Miyasato, DEO/Science and Technology Advancement, explained that staff tries to procure the cleanest vehicles possible while accounting for range requirements and cargo capacity.

MOVED BY CACCIOTTI, SECONDED BY BENOIT, AGENDA ITEM 10 APPROVED AS RECOMMENDED, ADOPTING RESOLUTION NO. 18-21 AMENDING SCAQMD'S SALARY RESOLUTION TO ADD THE DESIGNATED DEPUTY TITLE OF CHIEF INFORMATION OFFICER, BY THE FOLLOWING VOTE:

AYES: Benoit, Buscaino, Cacciotti, Hahn, McCallon, Mitchell, Parker, Perez and Rutherford

NOES: None

ABSTAIN: Lyou

ABSENT: Burke, Nelson and Robinson

16. Annual Audited Financial Statements for FY Ended June 30, 2018

Dr. Lyou congratulated staff on the commendable audit results. He expressed concerns about the increase in the pension liability and asked how that is being addressed.

Council Member Cacciotti commented that eight years ago, the City of South Pasadena began setting aside funds in a separate reserve fund for pension liability. He suggested that this option be considered at the District.

Sujata Jain, Assistant DEO/Finance, explained that existing pension obligation bonds will be paid off in 2022 and 2024 and at that time the funds being used to pay the bonds could be placed into a debt service fund to build up reserves for the pension liability. She noted that the debt service fund currently has a balance of one million dollars. In an effort to balance the current budget, no additional funds were allocated to that fund.

Dr. Lyou commented that some of the items that were removed from the budget are proposed to be restored and suggested that if a surplus exists it could be designated to the debt service fund.

Mr. Nastri explained that the Board can allocate any surplus funds.

Dr. Parker noted that a number of issues have created the pension problem including current interest rates, projected rates of returns and longer life spans.

Supervisor Rutherford mentioned that she attended the SBCERA meeting and funds are stable and in good condition.

MOVED BY LYOU, SECONDED BY CACCIOTTI, AGENDA ITEM 16 APPROVED AS RECOMMENDED, BY THE FOLLOWING VOTE:

AYES: Benoit, Buscaino, Cacciotti, Hahn, Lyou, McCallon, Mitchell, Parker, Perez and Rutherford

NOES: None

ABSENT: Burke, Nelson and Robinson

BOARD CALENDAR

19. Administrative Committee

20. Investment Oversight Source Committee

21. Legislative Committee

22. Mobile Source Committee

23. Refinery Committee

24. Stationary Source Committee

25. Technology Committee

26. California Air Resources Board Monthly Report

Agenda Item Nos. 19 and 21 were withheld for comment and discussion.

19. Administrative Committee

Mr. Eder urged the Board to consider contracts that support solar technologies and cautioned against using renewable natural gas due to toxicity. He recommended additional funding for solar technologies and EVs for low to moderate income residents.

MOVED BY LYOU, SECONDED BY CACCIOTTI, AGENDA ITEMS 19, 20 AND 22 THROUGH 26, APPROVED AS RECOMMENDED, RECEIVING AND FILING THE COMMITTEE REPORTS, BY THE FOLLOWING VOTE:

AYES: Benoit, Buscaino, Cacciotti, Hahn, Lyou, McCallon, Mitchell, Parker, Perez and Rutherford

NOES: None

ABSENT: Burke, Nelson and Robinson

21. Legislative Committee

Mayor McCallon questioned whether three lobbyist firms are necessary and recommended sending the item back to the Legislative Committee for further review.

Mayor Pro Tem Mitchell explained that each lobbying firm represents different capabilities and provides a unique expertise to best represent the District.

Mr. Nastri explained that the Legislative Committee took action to retain and recommend all three lobbyists. Each firm provides a unique skill set and representation to the District. He noted that a substantial effort is required in the coming years to bring about necessary change and regulations, and that will offer significant return on investment.

Supervisor Hahn commented on her experience in Congress and noted the importance of the extensive relationships that members of all three firms possess. She added that the Board can evaluate the accomplishments of the firms at the end of the initial contract period to determine if they have met the goals and objectives of the District.

Dr. Parker commented on his trips to Washington D.C. and the access that the legislative representatives provide to senators and the administration and emphasized the importance of long-term relationships that each of the lobbying firms hold. He asked Mr. Nastri to elaborate on some of the gains that have been realized as a result of this work.

Mr. Nastri provided examples of funding obtained for clean air programs and explained how the relationships that have been formed with key individuals has resulted in sustained and increased funding for these programs.

Dr. Lyou suggested that Mayor McCallon visit Washington D.C. with staff to meet with the legislative representatives and elected officials.

MOVED BY MITCHELL, SECONDED BY HAHN, AGENDA ITEM 21 APPROVED AS RECOMMENDED, RECEIVING AND FILING THE LEGISLATIVE REPORT AND APPROVING THE RECOMMENDATION BELOW, BY THE FOLLOWING VOTE:

AYES: Benoit, Buscaino, Cacciotti, Hahn, Lyou, McCallon, Mitchell, Parker, Perez and Rutherford

NOES: None

ABSENT: Burke, Nelson and Robinson

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

PUBLIC HEARINGS

27. Certify Final Environmental Assessment and Adopt Rule 1118.1 - Control of Emissions from Non-Refinery Flares

Barbara Baird, Chief Deputy Counsel, noted that staff is recommending that the public hearing on Rule 1118.1 be continued to the January 4, 2019 Board meeting.

Mr. Eder expressed concerns about the use of non-renewable natural gas and the connection to drug resistant antibiotics. He also stated that he opposes low-carbon fuel trading credits for flaring by refineries and noted the success of solar plants in the high desert.

MAYOR PRO TEM MITCHELL MOVED TO CONTINUE THE PUBLIC HEARING ON PROPOSED RULE 1118.1 TO THE JANUARY 4, 2019 BOARD MEETING. THE MOTION WAS SECONDED BY DR. LYOU AND CARRIED BY THE FOLLOWING VOTE:

AYES: Benoit, Buscaino, Cacciotti, Hahn, Lyou, McCallon, Mitchell, Parker, Perez and Rutherford

NOES: None

ABSENT: Burke, Nelson and Robinson

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29. Determine that Proposed Rule 1407.1 – Emissions of Toxic Air Contaminants from Chromium Alloy Melting Operations Is Exempt from CEQA and Adopt Rule 1407.1 **(*Continued from November 2, 2018 Board Meeting*)**

Mr. Nastri announced that staff is requesting that this item be withdrawn from consideration.

DR. LYOU MOVED TO WITHDRAW THE PUBLIC HEARING ON PROPOSED RULE 1407.1. THE MOTION WAS SECONDED BY COUNCIL MEMBER CACCIOTTI AND CARRIED BY THE FOLLOWING VOTE:

AYES: Benoit, Buscaino, Cacciotti, Hahn, Lyou, McCallon, Mitchell, Parker, Perez and Rutherford

NOES: None

ABSENT: Burke, Nelson and Robinson

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28. Certify Final Subsequent Environmental Assessment and Amend Rules 1146, 1146.1, 1146.2 and Adopt Rule 1100

Susan Nakamura, Assistant DEO/Planning, Rule Development and Area Sources, gave the staff presentation on Item No. 28.

The public hearing was opened and the following individuals addressed the Board on Item 28.

Mr. Eder expressed support for solar power and recommended that it be evaluated as BARCT. He noted the success of solar facilities in the high desert.

John Loiler, Shaw Inc., expressed concerns that in order to meet the Rule 1146 NOx requirements for two boilers, his company would need to use a selective catalytic reduction (SCR) process with ammonia that creates safety hazards for employees and nearby residents.

Michael Carroll, Latham & Watkins LLP on behalf of Western States Petroleum Association and Regulatory Flexibility Group, expressed appreciation to staff for working with stakeholders during the rulemaking process. He did not object to this proposed rule, but expressed broad concerns for future rule making efforts and New Source Review issues. He stressed the need for a more comprehensive assessment of the environmental and economic impacts associated with the transition from RECLAIM. He added concern for BARCT standards that could require the complete replacement of equipment rather than retrofit. (Submitted Written Comments)

Susan Stark, Marathon Petroleum, requested clarification on the 15 year compliance date for equipment that was permitted prior to 2008 and explained that the rule language is unclear as to whether a burner at their facility would be subject to the rules. Ms. Nakamura suggested that Ms. Stark meet with staff to discuss the rule provisions and the equipment in question.

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

Mayor Pro Tem Mitchell asked staff to work with Ms. Stark to address the concerns regarding the provision that may be unclear regarding the equipment at Marathon and asked staff to comment on the ammonia risk.

Ms. Nakamura explained that the District only permits aqueous ammonia which is far less hazardous then anhydrous ammonia.

Written Comments Submitted By:
Jeff Kleiss, Lochinvar, LLC
Adriano L. Martinez, on behalf of Earthjustice and seven additional environmental organizations
Mark Phair, Ultramar, Inc., a Valero Company

MOVED BY MITCHELL, SECONDED BY CACCIOTTI, AGENDA ITEM NO. 28 APPROVED AS RECOMMENDED, ADOPTING RESOLUTION NO. 18-22 CERTIFYING THE FINAL SUBSEQUENT ENVIRONMENTAL ASSESSMENT FOR PROPOSED AMENDED RULE 1146 – EMISSION OF OXIDES OF NITROGEN FROM INDUSTRIAL, INSTITUTIONAL, AND COMMERCIAL BOILERS, STEAM GENERATORS, AND PROCESS HEATERS; PROPOSED AMENDED RULE 1146.1— EMISSIONS OF OXIDES OF NITROGEN FROM SMALL INDUSTRIAL, INSTITUTIONAL, AND COMMERCIAL BOILERS, STEAM GENERATORS, AND PROCESS HEATERS; PROPOSED AMENDED RULE 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, BY THE FOLLOWING VOTE:

AYES: Benoit, Buscaino, Cacciotti, Lyou, McCallon, Mitchell, Parker, Perez and Rutherford

NOES: None

ABSENT: Burke, Hahn, Nelson and Robinson

Mayor Benoit noted that Supervisor Hahn had briefly left the room and was not present for her first vote as a Board Member. He requested that the item be reconsidered to allow her participation.

DR. LYOU MOVED TO RECONSIDER ITEM NO. 28, THE MOTION WAS SECONDED BY MAYOR BENOIT AND PASSED BY THE FOLLOWING VOTE:

AYES: Benoit, Buscaino, Cacciotti, Hahn, Lyou, McCallon, Mitchell, Parker, Perez and Rutherford

NOES: None

ABSENT: Burke, Nelson and Robinson

MOVED BY MITCHELL, SECONDED BY CACCIOTTI, AGENDA ITEM NO. 28 APPROVED AS RECOMMENDED, ADOPTING RESOLUTION NO. 18-22 CERTIFYING THE FINAL SUBSEQUENT ENVIRONMENTAL ASSESSMENT FOR PROPOSED AMENDED RULE 1146 – EMISSION OF OXIDES OF NITROGEN FROM INDUSTRIAL, INSTITUTIONAL, AND COMMERCIAL BOILERS, STEAM GENERATORS, AND PROCESS HEATERS; PROPOSED AMENDED RULE 1146.1— EMISSIONS OF OXIDES OF NITROGEN FROM SMALL INDUSTRIAL, INSTITUTIONAL, AND COMMERCIAL BOILERS, STEAM GENERATORS, AND PROCESS HEATERS; PROPOSED AMENDED RULE 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, BY THE FOLLOWING VOTE:

AYES: Benoit, Buscaino, Cacciotti, Hahn, Lyou, McCallon, Mitchell, Parker, Perez and Rutherford

NOES: None

ABSENT: Burke, Nelson and Robinson

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

Mr. Eder commented on his work in solar education and expressed support for complete solar conversion.

CLOSED SESSION

Mr. Eder noted that Communities for a Better Environment has expressed interest in his litigation against the District. He stated that solar technology should be considered to be BARCT.

The Board recessed to closed session at 11:15 a.m., pursuant to Government Code sections:

CONFERENCE WITH LEGAL COUNSEL – EXISTING LITIGATION

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

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

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

  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); and

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

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 11:45 a.m.

The foregoing is a true statement of the proceedings held by the South Coast Air Quality Management District Board on December 7, 2018.

Respectfully Submitted,

Denise Garzaro
Clerk of the Boards

Date Minutes Approved: _____

_____
Dr. William A. Burke, Chairman

ACRONYMS

BARCT = Best Available Retrofit Control Technology
CARB = California Air Resources Board
CEQA = California Environmental Quality Act
DEO = Deputy Executive Officer
EJ = Environmental Justice
EV = Electric Vehicle
FY = Fiscal Year
GGRF = Greenhouse Gas Reduction Fund
MSRC = Mobile Source (Air Pollution Reduction) Review Committee
NOx = Oxides of Nitrogen
NSR = New Source Review
PM2.5 = Particulate Matter ≤ 2.5 microns
PPM = Parts per million
RECLAIM = Regional Clean Air Incentives Market
RFP = Request for Proposals
U.S. EPA = United States Environmental Protection Agency

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BOARD MEETING DATE: January 4, 2019 AGENDA NO. 2

PROPOSAL: Execute Contracts for Emission Reduction Projects Using Incentive Funding from SCAQMD Special Revenue Funds, and Reimburse General Fund for Administrative Costs for Contract Administration

SYNOPSIS: In January 2018, the Board released an RFP to solicit stationary and mobile source projects that will result in emission reductions of NOx, VOC, and PM, in accordance with the approved control strategy in the 2016 AQMP. Project funding is proposed from existing special revenue funds related to mitigation fees, settlements, or grants from other agencies, and was approved for up to $61 million. Twenty-six proposals are being recommended for a total amount not to exceed $47,385,792. The remaining balance of the $61 million allocated for this RFP will be reserved to expand or continue implementation of the awarded projects or for other future needs. This action is to execute contracts for air quality emission reduction projects in a total amount not to exceed $47,385,792. This action is to also reimburse the General Fund up to 6.25 percent for administration of the projects.

COMMITTEE: Administrative, December 14, 2018; Recommended for Approval

RECOMMENDED ACTIONS:

1. Authorize the Chairman to execute contracts for air quality emission reduction projects from the Special Revenue Funds as listed in Table 3 in a total amount not to exceed $47,385,792;
2. Authorize the Executive Officer to reallocate any funding that becomes available due to unexecuted or reduced-cost contracts among the recommended projects as listed in Table 3 as appropriate; and
3. Authorize reimbursement to the General Fund for administrative costs of up to 6.25 percent from the various Special Revenue Funds to cover the program administration of emission reduction projects.

Wayne Nastri
Executive Officer

PMF:SR:ZP:KC:KTG

Background
The South Coast Air Quality Management District (SCAQMD) is committed to achieving healthful air in the South Coast Air Basin and Coachella Valley. The 2016 AQMP seeks to achieve and maintain federal air quality standards within attainment deadlines by the earliest date achievable to comply with Federal Clean Air Act requirements. In particular, the region must meet the 8-hour ozone, 1-hour ozone, 24-hour PM2.5, and annual PM2.5 National Ambient Air Quality Standards over the next 5 years. Although great strides have been made in air pollution control programs, these health-based air quality standards cannot be achieved without significant further emission reductions. In order to meet these goals, the 2016 AQMP includes an integrated control strategy addressing multiple objectives for a more efficient path in meeting all air quality standards. The 2016 AQMP uses a variety of implementation approaches to meet air quality standards such as regulation, accelerated deployment of available cleaner technologies (e.g., zero emission and near-zero emission technologies), and co-benefits from existing programs (e.g., climate and energy efficiency). Additional demonstration and commercialization projects will be crucial to help deploy and reduce costs for zero and near-zero emission technologies. A key element of the 2016 AQMP is to make available private and public funding to help further the development and deployment of these advanced technologies. Further, many of the same technologies will address both air quality and climate goals, such as increased energy efficiency and reduced fuel usage.

The SCAQMD is taking an initial step toward establishing an incentive funding program for stationary sources as well as continuing mobile source incentive funding to achieve emission reductions, in accordance with the approved control strategy in the 2016 AQMP. Incentives can be best applied where controls are cost-effective overall, but not necessarily affordable to the affected sector, especially when controls are considered for smaller businesses or residences. Incentive funds can be used to subsidize low-emitting equipment purchases or encourage the use of alternative approaches. For example, replacement of older, high-emitting vehicles with the cleanest vehicles available through incentive funding is one of the most effective control strategies. Programs that expand supporting infrastructure for implementation of cleaner fuels (e.g., charging infrastructure, alternative fueling stations, etc.) also help to accelerate the use of ultra-low emitting vehicles. The SCAQMD will continue to support technology demonstration projects for both mobile and stationary sources and will work to create new or expanded funding opportunities for early deployment of cleaner technologies. The SCAQMD will also prioritize distribution of incentive funding in environmental justice (EJ) areas and seek opportunities to expand funding to benefit the most disadvantaged communities.

RFP Proposal
On January 5, 2018, the Board approved the release of RFP #P2018-06 to announce the availability of funds and solicit proposals for emission reduction projects in accordance with the approved control strategy in the 2016 AQMP. The broad-based RFP was open

to a wide variety of project types including but not limited to zero and near zero technologies, equipment replacement/repower/retrofit, infrastructure, energy efficiency improvement, and technology demonstration to achieve NOx, PM, and VOC emission reductions with up to $61 million available from a combination of several SCAQMD Special Revenue Funds.

Outreach

A significant effort was made to conduct outreach to potential applicants including five community meetings held in each of the four counties with two meetings in the proximity of refineries in the South Bay (Table 1). Approximately 60 representatives from local communities, environmental groups, consulting firms, local governments and utilities attended the community meetings.

Table 1. List of Public Community Meetings

Date	Location	Venue	Meeting Time
Tues 2/20/18	Torrance	Torrance Community Center Garden Room 3330 Civic Center Dr, Torrance, CA 90503	1PM – 3PM
Tues 2/20/18	Wilmington	Wilmington Senior Center 1371 Eubank Ave, Wilmington, CA 90744	6PM - 8PM
Wed 2/21/18	Buena Park	Buena Park Community Center 6688 Beach Blvd., Buena Park, CA 90621	2PM – 4PM
Thurs 2/22/18	San Bernardino	San Bernardino County Transportation Authority 1170 W 3rd St, San Bernardino, CA 92410	9:30AM – 11:30AM
Thurs 2/22/18	Riverside	Louis Rubidoux Public Library 5840 Mission Blvd., Jurupa Valley, CA 92509	2PM – 4PM

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 and sent to over 900 email recipients. Additionally, a bidder's conference was held at the SCAQMD Headquarters on January 24, 2018 with approximately 60 people in attendance.

Staff also developed a webpage specific to the incentive funding program and RFP with supporting documents such as a project summary sheet, frequently asked questions, community meetings, and bidders conference times, locations and presentations.

Proposals Received

Eighty-two proposals were received by the submittal deadline of April 11, 2018, requesting a total of more than $385 million in SCAQMD Special Revenue funds. A list of all proposals received is provided in Attachment A. Of the eighty-two proposals, one proposal was withdrawn and one proposal failed to meet the minimum standards for evaluation as it was not legible, resulting in eighty proposals requesting for a total of $310 million in funding. The twenty-six proposals recommended for funding meet the

technical merits of the RFP, complement existing SCAQMD funding portfolios, and meet the policy objectives of the District. One project has been added to those recommended for approval after the matter was considered by the Administrative Committee, Item 69, Alcal Specialty Contracting.

Fund Restrictions

The SCAQMD Special Revenue Funds for this RFP were established with monies from various sources including settlements, mitigation fees, or monies from other agencies. A majority of the Special Revenue Funds are reserved for projects that achieve NOx emission reductions or have other specific restrictions, such as being available for VOC or PM2.5 reductions. A limited number of these funds require funded projects to be "in proximity" of particular emission sources such as refineries, peaker plants or chemical plants. Since "in proximity" is not clearly distinguished, staff recommends defining it as a 6-mile radial distance from the boundary of an emission source. The 6-mile radial distance definition has been previously used to identify emission mitigation projects in proximity of power plants for the AB 1318 program.

RFP Evaluation

The broad-based nature of the RFP allowed for a wide variety of proposed projects, with no particular restriction on the types of projects, process or methodology to achieve emission reductions. As a result, the 80 proposals evaluated were from a variety of disciplines, varying from mobile source to stationary source, and implementation projects to technology demonstrations. To streamline the evaluation process, the eighty eligible proposals were categorized into four categories: (1) mobile source replacement/repower/retrofit and related infrastructure, (2) mobile source technology demonstration and infrastructure, (3) stationary source replacement/repower/retrofit, efficiency improvement and related infrastructure, and (4) stationary source technology demonstration and infrastructure. By grouping proposals together into one of the categories, each proposal was evaluated along with other similar projects. Each of the evaluation panels consisted of four members, including three internal SCAQMD staff and one external member from either CARB or U.S. EPA. Proposals were evaluated using criteria as outlined in the RFP and shown in Table 2. Panel members were selected based on their knowledge and expertise.

Table 2. Project Evaluation Criteria

Project Evaluation Criteria	Maximum Points
Aids in achievement of SCAQMD's regional air quality goals in the jurisdiction of the SCAQMD and/or promotes long-term emission reduction technologies/strategies associated with state/federal regulatory clean air plans	35
Experience and expertise of proposer or other evidence of capacity to complete the project	20
Effective use of funds (e.g. cost effectiveness and/ or funding partnerships)	15
Co-contaminant reduction benefits (e.g. control/mitigation of toxics or GHGs)	10
EJ Area benefits	10
Job creation within the jurisdiction of the SCAQMD	5
Community/government support	5
Total	**100**
Additional Points (17 maximum)	
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 Pricing	2

As outlined above, priority for distribution of incentive funding was placed on cost-effective and feasible projects that aid in achieving SCAQMD's air quality goals. Additional points were also awarded to projects in EJ areas and to projects which provide co-benefits of other air contaminants including greenhouse gases and air toxics as well as projects having local and community support. Evaluators used the criteria listed in Table 2 to rank the proposed projects. Projects which did not result in a minimum technical score of 70 percent (56 points) were not considered for funding since the evaluation panels believed that proposals below this threshold lacked information demonstrating a likelihood of success in achieving emission reductions and thus should not be considered for funding at this time. The technical score was comprised of the first four criteria listed in Table 2. In addition, for the purpose of this RFP, schools and local governments were considered as local businesses in the evaluation.

Proposed Awards and Recommendations
Based on the panel evaluations, 58 proposals received a technical score at or above the 70 percent threshold, totaling approximately $211 million in requested funding. The 58 qualifying proposals were further considered in terms of certainty and permanency of emission reductions, number of projects already funded / proposals to be funded for a particular source category or technology, the eligibility of funding opportunities from other sources such as utilities or federal grants, if proposals complemented the existing SCAQMD funding portfolio, and other policy considerations.

As a result, a total of 26 proposals are recommended for funding for an amount not to exceed $47,385,792 from the Special Revenue Funds as shown in Table 3. The funding amount for each recommended project has been matched to the RFP funding sources[1], as outlined in the original release of the RFP (Table 1–RFP Funding Sources by Fund #). The recommended projects support AQMP goals, have a long-term positive impact on air quality goals of the SCAQMD, complement other incentive programs, and provide the basis for new incentive programs to expand the District's funding portfolio. Staff recommends the Board approve the projects in Table 3 for up to the amount indicated. Several of the recommended project funds are contingent on the proposer obtaining additional funding or forming project partnerships. For these projects (denoted with an asterisk in Table 3), the recommended funding amount will be set aside for a period of up to 18 months to complete contract negotiations. If additional funding or partnerships cannot be established or projects are awarded/completed at a reduced amount, then these funds will be released to continue or expand on the awarded projects or for other future projects. Therefore, staff recommends authorizing the Executive Officer to reallocate this funding to continue or expand on the awarded projects as appropriate. Furthermore, staff recommends partial funding for some of the proposals based on implementation of a portion of the projects or minor changes to the scope of work, as denoted in Table 3. The Special Revenue Funds and amounts listed in Table 4 have been identified as eligible sources of funding for the projects selected for this RFP program.

[1] Exact amount from each funding source is subject to change based on the available funding balance at the time of Board approval

Table 3. List of SCAQMD Staff Recommended Projects

#	Project Proponent	Project Title	Requested Funding Amount	Recommended Funding Amount (up to)	SCAQMD Funding Source^
1	Institute of Gas Technology	Ultra Low-NOx Commercial Foodservice Deep Fat Fryer Development	$321,970	$321,970	Fund 27 (AQIP Prefunding) $93,650 Fund 27 (Rule 1110.2) $213,708 Fund 27 (Rule 1121) $14,612
3	Institute of Gas Technology	High Efficient and Low-NOx Combo Ribbon Burner Combustion System Demonstration	$1,282,000	$1,282,000	Fund 27 (Rule 1111) $1,282,000
5	Nett Technologies	Commercial Harbor Craft Nox and PM Emission Reduction Technology Demonstration	$1,785,000	*$1,338,750	Fund 54 (Rule 1118) $1,338,750
6	Rialto Bioenergy Facility, LLC	Rialto Bioenergy Facility RNG Upgrading and Interconnection Project	$4,365,801	$4,365,801	Fund 27 (Rule 1111) $4,365,801
7	Chanje Energy, Inc.	Chanje Zero-Emission Panel Van Deployment Project	$11,793,135	***$3,000,000	Fund 27 (EO Mitigation) $3,000,000
8	Grant Farm	AMPCaddy Deployment Program	$722,060	*$361,030	Fund 54 (Rule 1118) $361,030
12	Harley Marine Services	Electric Drive Tugboat Technology Project	$3,000,000	$3,000,000	Fund 54 (Rule 1118) $3,000,000
14	Beckett Gas, Inc.	Application of Swirl-Pattern Burner Head Technology (Rule 1111)	$791,992	$791,992	Fund 27 (Rule 1111) $791,992
16	BioFuels Energy, LLC	Aquarium of the Pacific 1320 kW Fuel Cell Power Generation System	$650,000	$650,000	Fund 27 (EO Mitigation) $650,000
23	University of Redlands	Microgrid System at University of Redlands	$1,962,000	$1,962,000	Fund 27 (EO Mitigation) $1,962,000
24	Transportation Power, Inc.	Electric Class 8 Refuse Trucks Using Advanced Charging and Renewable Energy	$5,999,988	***$2,250,000	Fund 27 (Rule 1111) $2,250,000
34	Port of Long Beach	The Port of Long Beach Zero-Emission and Hybrid Terminal Equipment Deployment and Demonstration Project	$11,570,713	***$2,500,000	Fund 54 (Rule 1118) $2,500,000
38	FuelCell Energy, Inc.	Riverside Flare Reduction Project: Producing Renewable Hydrogen & Power and Avoiding NOx and VOC	$3,767,380	$3,767,380	Fund 27 (Rule 1111) $3,767,380
41	Southern California Gas Company	Midstream Commercial Water Heating Incentive Program	$1,221,237	$1,221,237	Fund 20 (Air Quality Assistance) $610,619 Fund 27 (Rule 1121) $610,618
43	Southern California Gas Company	Residential Fuel Cell Demonstration with PV and Storage	$490,000	$490,000	Fund 27 (EO Mitigation) $490,000
44	University of Southern California	Transient Pulsed Plasma Technology for Retrofit Treatment of Diesel Emissions	$688,045	$688,045	Fund 27 (Rule 1111) $354,313 Fund 41 (State Backup Generator Program) $333,732
47	Clean Energy	Market Acceleration Program (MAP) (HD NZ NG Truck Replacement)	$6,000,000	***$3,000,000	Fund 54 (Rule 1118) $3,000,000

Table 3. List of SCAQMD Staff Recommended Projects (Concluded)

#	Project Proponent	Project Title	Requested Funding Amount	Recommended Funding Amount (up to)	SCAQMD Funding Source^
62	Lantec Products	Next Generation Ultra Low NOx Forced Air Forced Air Furnace	$340,000	$340,000	Fund 27 (Rule 1121) $340,000
65	Healthy Hearth, LLC	HearthCAT Retrofit Program	$4,560,000	****$2,280,000	Fund 27 (Rule 1121) $934,800 Fund 27 (EO Mitigation) $205,200 Fund 27 (Rule 1111) $1,140,000
66	PureFlame Technologies, LLC	Restaurant Emissions - PM Reduction Program	$1,072,000	*****$100,000	Fund 27 (Rule 1111) $100,000
69	Alcal Specialty Contracting	Residential Energy Efficiency Retrofit Project (Coachella Valley)	$3,866,667	*$966,667	Fund 27 (EO Mitigation) $966,667
70	Coachella Valley Association of Governments	Regional PM-10 Street Sweeping Operations in Coachella Valley	$1,100,000	**$1,150,000	Fund 35 (AES Settlement) $750,320 Fund 36 (Rule 1309.1 Priority Reserve) $189,496 Fund 45 (CBE/OCE Settlement) $210,184
71	Association for Energy Affordability, Inc.	Multifamily Affordable Housing Electrification Project: Zero-NOx Water Heating, Space Heating, Cooking and Laundry Systems	$7,740,000	$7,740,000	Fund 27 (Rule 1111) $2,534,926 Fund 37 (CARB ERC Bank) $561,074 Fund 54 (Rule 1118) $4,644,000
76	Advanced Energy Machines	Zero emission transport refrigeration at Heart of Compassion Distribution	$338,920	$338,920	Fund 27 (Rule 1121) $338,920
81	Bloom Energy, Corp.	Fuel Cells Integrated with Energy Storage on College of the Canyons Campus	$3,000,000	$3,000,000	Fund 27 (EO Mitigation) $3,000,000
82	Alcal Specialty Contracting	Residential Energy Efficiency Retrofit Project (San Fernando Valley)	$1,933,333	*$480,000	Fund 27 (EO Mitigation) $480,000
Total Recommended Funding Amount (Up To)					**$47,385,792**

* Recommended funding is contingent on proposer obtaining additional co-funding or forming project partnerships for the remaining portions of the requested amount.

** Recommend funding for 1 out of the 5 years requested, and allocating an additional $50,000 for a study to improve program efficiency, with remaining funds released once report is completed.

*** Partial funding for a subset of the proposals including, but not limited to, reduced recommended amount or reduced number of equipment.

**** Recommend to start with 500 units, and reserve funds for up to 2000 additional installations and for project expansion to other areas.

*****Recommend funding for certification package and then subsequent installations of up to 10 units.

^ Fund 20 - Restricted to provide small business assistance
Fund 27 - Restricted to NOx mitigations
Fund 36 - Restricted to offset PM10 emissions
Fund 37 - Restricted to provide emission reductions in vicinity of new or expanded peaker plants
Fund 41 - Restricted to reduction in toxics exposure and NOx emissions
Fund 45 - Restricted to NOx / PM10 mitigations
Fund 54 - Restricted to offset refinery flare emissions

Table 4. Proposed Project Funding by Funding Source

Fund #	Fund Description	Funding Source with Estimated Fund Balance Approved by Governing Board on Jan. 5, 2018	Proposed Funding Source for Recommended Proposals		
			Amount*	SCAQMD 6.25% Administrative Cost (up to)*	Grand Total
20	Air Quality Assistance	$1,590,230	$610,619	$38,164	$648,783
27	AQIP Prefunding	$99,503	$93,650	$5,853	$99,503
27	Rule 1110.2	$227,065	$213,708	$13,357	$227,065
27	Rule 1121	$2,385,065	$2,238,950	$139,934	$2,378,884
27	EO Mitigation	$11,428,260	$10,753,867	$672,117	$11,425,984
27	Rule 1111	$15,025,150	$16,586,412	$1,036,651	$17,623,063***
35	AES Settlement	$554,469	$750,320	$46,895	$797,215***
36	1309.1 Priority Reserve	$3,732,020	$189,496	$11,844	$201,340
37	CARB ERC Bank	$596,141	$561,074	$35,067	$596,141
38	LADWP Settlement**	$397,266	-	-	-
41	State Backup Generator Program	$354,590	$333,732	$20,858	$354,590
44	Rule 1173 Mitigation Fee	$3,322,166	-	-	-
45	CBE/OCE Settlement	$223,320	$210,184	$13,136	$223,320
54	Rule 1118 Mitigation	$18,931,843	$14,843,780	$927,736	$15,771,516
62	Rule 1470 Risk Reduction Fund	$2,454,935	-	-	-
	Total	**$61,322,023**	**$47,385,792**	**$2,961,612**	**$50,347,404**

* Exact amount from each funding source is subject to change based on the available funding balance at the time of Board approval.

** Funds were used for other contracts approved by Board actions subsequent to Board approval on January 5, 2018.

*** Additional funds were received subsequent to Board approval on January 5, 2018, which were more appropriate for the proposed projects.

Administration

Staff proposes to reimburse the General Fund for administrative costs up to 6.25 percent from the Special Revenue Funds listed in Table 4 to cover the program administration of the emission reduction projects. This administration cost is consistent with the cost for administrating other incentive programs such as the Carl Moyer Program. Additional staff may be requested in the next budget to handle contract management and tracking emission reductions to ensure they are creditable to the State Implementation Plan and develop guidelines for future stationary source incentive programs.

Benefits to SCAQMD
A total of 26 stationary and mobile source projects are recommended for funding. Of the 26 projects, 15 are selected to implement commercially available zero or near zero control technology as well as to support infrastructure for implementation of cleaner fuels. These projects are anticipated to result in approximately 88 tons per year (tpy) of NOx and 2 tpy of PM2.5 emissions reductions in the Basin with the majority of projects in EJ communities. Additionally, 11 technology demonstration projects are recommended for funding. Upon successful demonstration and deployment, these projects have the potential to provide long term emission reduction benefits of up to 1,369 tpy of NOx. Out of the $47,385,792 of the recommended funding, over $36 million are allocated for implementation/deployment projects, of which 80% of the funding will be spent in EJ areas and disadvantaged communities. The remainders of the recommended funding (over $11 million) is allocated for technology demonstration projects, which would provide benefits to EJ areas and disadvantaged communities upon successful demonstration and deployment.

Resource Impacts
A total of $61 million from SCAQMD Special Revenue Funds was identified by the Board on January 5, 2018. The total cost for the recommended projects is not to exceed $47,385,792 from the various Special Revenue Funds. The remaining will be reserved for this RFP to expand or continue implementation of the awarded projects or for other future projects. Staff also recommends reimbursement to the General Fund for administrative costs up to 6.25 percent from the various Special Revenue Funds to cover the program administration of the emission reduction projects.

Attachments
A. List of Proposals Received
B. Scores of Proposals Evaluated

Attachment A
Table A-1
List of Proposals Received

Proposal Number	Project Title	Proposer Name	Requested Funding Amount
1	Ultra Low-Nox Commercial Foodservice Deep Fat Fryer Development	Institute of Gas Technology	$ 321,970
2	Retrofit of Diesel Tugboat with Natural Gas & Diesel Blends	Blue Gas Marine	$ 150,000
3	High Efficient and Low-Nox Combo Ribbon Burner Combustion System Demonstration	Institute of Gas Technology	$ 1,282,000
4	Novel Efficient Combustion for Char broilers with Reduced Particulate Emissions	Institute of Gas Technology	$ 258,000
5	Commercial Harbor Craft Nox and PM Emission Reduction Technology Demonstration	Nett Technologies	$ 1,785,000
6	Rialto Bioenergy Facility RNG Upgrading and Interconnection Project	Rialto Bioenergy Facility, LLC (RBF)	$ 4,365,801
7	Chanje Zero-Emission Panel Van Deployment Project	Chanje Energy, Inc.	$ 11,793,135
8	AMPCaddy Deployment Program	Grant Farm	$ 722,060
9	Zero-Emission RTG Advanced Infrastructure Program	Grant Farm	$ 10,118,010
10	Bettery-Electric Truck Ferry Project	Curtin Maritime	$ 11,322,365
11	Combstion System Optimization on a Gas-Fired Residential Heat Pump Water Heater (5ng/J)	Stone Mountain Technologies	$ 317,195
12	Electric Drive Tugboat Technology Project	Harley Marine Services	$ 3,000,000
13	Selective Cool Particulate Regeneration Technology Demo for Marine/Diesel Engines	Global Clean Diesel	$ 2,869,036
14	Application of Swirl-Pattern Burner Head Technology (Rule 1111)	Beckett Gas, Inc.	$ 791,992
15	Greater Ontario Convention & Visitors Bureau Airport Shuttle Project (12 ZEV Shuttle Buses)	Greater Ontario Convention and Visitors Bureau (GOCVB)	$ 9,149,024
16	Aquarium of the Pacific 1320 kW Fuel Cell Power Generation System	BioFuels Energy, LLC	$ 650,000
17	The Solar for Schools Pilot Program	City of Anaheim, Public Utilities Department	$ 6,122,344
18	Fuel Cells at Owens Corning Roofing Plant	Bloom Energy, Corp.	$ 1,000,000
19	Near-Zero Aftertreatment System for Medium/Heavy Duty Natural Gas Truck Engines	Tecogen Inc.	$ 785,220
20	Auxiliary Catalytic Converter for LD Gasoline Cars and Trucks	Compliance and Research Services	$ 125,000
21	Playground Repair, Solar PV, Lighting Retrofit, Heating and A/C Replacement	Los Angeles Unified School District	$ 43,620,177
22	Integrated Microgrid Emission Reduction Project	Applied Medical Resources, Inc.	$ 640,000
23	Microgrid System at University of Redlands	University of Redlands	$ 1,962,000
24	Electric Class 8 Refuse Trucks Using Advanced Charging and Renewable Energy	Transportation Power, Inc.	$ 5,999,988
25	New Indy Containerboard's (NICB) Ontario Mill Repowering Project	New-Indy Ontario, LLC	$ 2,617,500
26	Green Street Asbestos Abatement & Mobility Improvements	City of Pasadena, Dept. of Public Works	$ 1,480,950
27	Emergency Standby Generator Bi-Fuel Retrofit	Diesel 2 Gas Solutions, LLC	$ 7,000,000
28	Electric Landscape Equipment Trial & Evaluation Program	Wildan Energy Solutions	$ 948,973

Table A-1
List of Proposals Received (Continued)

Proposal Number	Project Title	Proposer Name	Requested Funding Amount
29	BYD-SCAQMD Zero-Emission Incentive Project (17 ZE TRU Trucks Replacement)	BYD Motors, Inc.	$ 2,125,000
30	Deploying Hydrogen in Heavy-Duty Trucks and Ancillary Markets in Southern California	Robert V. Jensen, Inc.	$ 10,967,373
31	Deployment of 5 Electrified Power Take-Off Units	Viatec, Inc.	$ 1,110,807
32	C2P Consolidated Interstate Pipeline	Guillette & Cos., LLC	$ 1,290,000
33	Solar Renewable Energy Project	City of South Pasadena	$ 3,295,670
34	The Port of Long Beach Zero-Emission and Hybrid Terminal Equipment Deployment and Demonstration Project	Port of Long Beach	$ 11,570,713
35	San Pedro Bay Ports' Clean Air Action Plan Ocean-Going Vessel Emissions Reduction Program	San Bedro Bay Ports	$ 10,000,000
36	#ElectrifyAnaheim: Changing the Transit Paradigm in Southern California	Anaheim Transportation Network (ATN)	$ 28,617,000
37	Portable Off-Grid Solar Wireless Charging System	Wireless Advanced Vehicle Electrtification, Inc.	$ 2,846,592
38	Riverside Flare Reduction Project: Producing Renewable Hydrogen & Power and Avoiding NOx and VOC	FuelCell Energy, Inc. (FCE)	$ 3,767,380
39	Deployment of 20 Heavy-Duty Commercial Zero-Emissions Trucks and Associated EV Charging Infrastructure	Daimler Trucks North America	$ 15,670,072
40	Schools Energy Efficiency Program (SEEP) - Direct Installation of Advanced Low-NOx Technologies	Southern California Gas Company (SoCalGas)	$ 246,193
41	Midstream Commercial Water Heating Incentive Program	Southern California Gas Company (SoCalGas)	$ 1,221,237
42	New CNG Stations: Fast-Fill, Heavy-Duty, Public Access	Southern California Gas Company (SoCalGas)	$ 4,800,000
43	Residential Fuel Cell Demonstration with PV and Storage	Southern California Gas Company (SoCalGas)	$ 490,000
44	Transient Pulsed Plasma Technology for Retrofit Treatment of Diesel Emissions	University of Southern California, Dept. of Contracts and Grants	$ 688,045
45	Reducing Habor Craft Emissions with Nanosecond Pulsed Plasma Treatment	University of Southern California, Dept. of Contracts and Grants	$ 688,045
46	Restaurant Smoke Emissions Remediation using Transient Pulsed Plasma	Transient Plasma Systems	$ 474,618
47	Market Acceleration Program (MAP) (HD NZ NG Truck Replacement)	Clean Energy	$ 6,000,000
48	SCR Operation R&D and Demonstration	Fossil Energy Research Crop. (FERCo)	$ 732,309
49	Battery Energy Storage System	City of Glendale Water & Power	$ 10,000,000
50	Clean Energy Automotive Training	San Bernardino Valley College Foundation	$ 1,415,000
51	Replacement of Caterpillar Scrapers (Tier 4)	Sukut Equipment, Inc.	$ 10,280,452
52	Replacement of Caterpillar Scraper (Tier 4)	Sukut Equipment, Inc.	$ 1,468,636
53	Replacement of Caterpillar Crawler Dozers (Tier 4)	Sukut Equipment, Inc.	$ 616,518
54	Replacement of Caterpillar Crawler Dozers (Tier 4)	Sukut Equipment, Inc.	$ 932,200
55	Replacement of Caterpillar Dozers (Tier 4)	Sukut Equipment, Inc.	$ 759,392

Table A-1
List of Proposals Received (Concluded)

Proposal Number	Project Title	Proposer Name	Requested Funding Amount
56	Replacement of Caterpillar Dozers (Tier 4)	Sukut Equipment, Inc.	$ 844,300
57	Replacement of Caterpillar Wheel Loaders (Tier 4)	Sukut Equipment, Inc.	$ 183,864
58	Replacement of Caterpillar Off-Highway Trucks (Tier 4)	Sukut Equipment, Inc.	$ 636,769
59	Repower of Caterpillar Scrapers	Sukut Equipment, Inc.	$ 2,598,350
60	Replacement of Caterpillar Tractor/Loader/Backhoes (Tier 4)	Sukut Equipment, Inc.	$ 54,160
61	Replacement of Caterpillar Dozers (Tier 4)	Sukut Equipment, Inc.	$ 355,203
62	Next Generation Ultra Low Nox Forced Air Forced Air Furnace	Lantec Products	$ 340,000
63	Zero Emission Battery Switcher Locomotive	Rail Propulsion Systems	$ 1,872,425
64	Demonstration of Game Changer Technology Platform for Cost-effective Emissions Mitigation in Refineries and EJ Communities	T2M Global, LLC	$ 4,989,975
65	HearthCAT Retrofit Program	Healthy Hearth, LLC	$ 4,560,000
66	Restaurant Emissions - PM Reduction Program	PureFlame Technologies, LLC	$ 1,072,000
67	Solvent Absorption and Electrochemical Reduction (SAER) Process Demonstration	RealEnergy	$ 927,500
68	Landfill Gas Treatment and Upgrade Project	US Biogas	n/a
69	Residential Energy Efficiency Retrofit Project (Coachella Valley)	Alcal Specialty Contracting, Inc.	$ 3,866,667
70	Regional PM-10 Street Sweeping Operations in Coachella Valley	Coachella Valley Association of Governments	$ 1,100,000
71	Multifamily Affordable Housing Electrification Project (MAHEP): Zero-NOx Water Heating, Space Heating, Cooking and Laundry Systems	Association for Energy Affordability, Inc.	$ 7,740,000
72	Electric Vehicle Charging Project	LA County Dept of Public Works	$ 247,320
73	Commercial Cooking Emissions Reduction Project	Frontier Energy	$ 365,810
74	Adaptive Camless Technology Demonstration	UCLA	$ 2,250,000
75	Beta Offshore - Nox Reduction Plan	Beta Offshore	$ 7,400,000
76	Zero emission transport refrigeration at Heart of Compassion Distribution	Advanced Energy Machines (AEM)	$ 338,920
77	Equity, Health and Pollution Controls Program (EHPC)	Build It Green	$ 10,135,892
78	Zero Emissions Multi-Family Swimming Pools Demonstration	Energx Controls Incorporated	$ 1,075,850
79	Implementation of Immediate Total Solar Conversion of SCAQMD	Harvey Eder / Public Solar Power Coalition	$ 61,000,000
80	Fuel Cells at San Manuel Casino	Bloom Energy, Corp.	$ 5,000,000
81	Fuel Cells Integrated with Energy Storage on College of the Canyons Campus	Bloom Energy, Corp.	$ 3,000,000
82	Residential Energy Efficiency Retrofit Project (San Fernando Valley)	Alcal Specialty Contracting	$ 1,933,333

Attachment B
Table B-1
Scores of Proposals Evaluated* - Panel A (Mobile Source Replacement/Repower/Retrofit and Related Infrastructure)

Final Score	Technical Score	Proposal Number	Project Title	Proposer Name	Requested Funding Amount
100	64	7	Chanje Zero-Emission Panel Van Deployment Project	Chanje Energy, Inc.	$ 11,793,135
88	68	34	The Port of Long Beach Zero-Emission and Hybrid Terminal Equipment Deployment and Demonstration Project	Port of Long Beach	$ 11,570,713
87	68	59	Repower of Caterpillar Scrapers	Sukut Equipment, Inc.	$ 2,598,350
86	64	36	#ElectrifyAnaheim: Changing the Transit Paradigm in Southern California	Anaheim Transportation Network (ATN)	$ 28,617,000
84	65	61	Replacement of Caterpillar Dozers (Tier 4)	Sukut Equipment, Inc.	$ 355,203
84	65	58	Replacement of Caterpillar Off-Highway Trucks (Tier 4)	Sukut Equipment, Inc.	$ 636,769
84	61	15	Greater Ontario Convention & Visitors Bureau Airport Shuttle Project (12 ZEV Shuttle Buses)	Greater Ontario Convention and Visitors Bureau (GOCVB)	$ 9,149,024
84	65	60	Replacement of Caterpillar Tractor/Loader/Backhoes (Tier 4)	Sukut Equipment, Inc.	$ 54,160
83	64	53	Replacement of Caterpillar Crawler Dozers (Tier 4)	Sukut Equipment, Inc.	$ 616,518
83	64	52	Replacement of Caterpillar Scraper (Tier 4)	Sukut Equipment, Inc.	$ 1,468,636
83	64	57	Replacement of Caterpillar Wheel Loaders (Tier 4)	Sukut Equipment, Inc.	$ 183,864
82	63	51	Replacement of Caterpillar Scrapers (Tier 4)	Sukut Equipment, Inc.	$ 10,280,452
82	63	55	Replacement of Caterpillar Dozers (Tier 4)	Sukut Equipment, Inc.	$ 759,392
82	63	56	Replacement of Caterpillar Dozers (Tier 4)	Sukut Equipment, Inc.	$ 844,300
80	64	47	Market Acceleration Program (MAP) (HD NZ NG Truck Replacement)	Clean Energy	$ 6,000,000
80	61	54	Replacement of Caterpillar Crawler Dozers (Tier 4)	Sukut Equipment, Inc.	$ 932,200
78	60	29	BYD-SCAQMD Zero-Emission Incentive Project (17 ZE TRU Trucks Replacement)	BYD Motors, Inc.	$ 2,125,000

Technical Score Below 70% Cutoff (56 points):

n/a	*30*	*50*	*Clean Energy Automotive Training*	*San Bernardino Valley College Foundation*	*$ 1,415,000*

** Proposals selected for award are highlighted in gray*

Attachment B
Table B-2
Scores of Proposals Evaluated* - Panel B (Mobile Source Technology Demonstration and Infrastructure)

Final Score	Technical Score	Proposal Number	Project Title	Proposer Name	Requested Funding Amount
100	65	76	Zero emission transport refrigeration at Heart of Compassion Distribution	Advanced Energy Machines (AEM)	$ 338,920
96	66	8	AMPCaddy Deployment Program	Grant Farm	$ 722,060
95	66	10	Bettery-Electric Truck Ferry Project	Curtin Maritime	$ 11,322,365
93	64	9	Zero-Emission RTG Advanced Infrastructure Program	Grant Farm	$ 10,118,010
90	62	63	Zero Emission Battery Switcher Locomotive	Rail Propulsion Systems	$ 1,872,425
86	60	5	Commercial Harbor Craft Nox and PM Emission Reduction Technology Demonstration	Nett Technologies	$ 1,785,000
84	65	24	Electric Class 8 Refuse Trucks Using Advanced Charging and Renewable Energy	Transportation Power, Inc.	$ 5,999,988
82	63	12	Electric Drive Tugboat Technology Project	Harley Marine Services	$ 3,000,000
78	63	42	New CNG Stations: Fast-Fill, Heavy-Duty, Public Access	Southern California Gas Company (SoCalGas)	$ 4,800,000
72	58	30	Deploying Hydrogen in Heavy-Duty Trucks and Ancillary Markets in Southern California	Robert V. Jensen, Inc.	$ 10,967,373

Technical Score Below 70% Cutoff (56 points):

n/a	*52*	*31*	*Deployment of 5 Electrified Power Take-Off Units*	*Viatec, Inc.*	*$ 1,110,807*
n/a	*51*	*19*	*Near-Zero Aftertreatment System for Medium/Heavy Duty Natural Gas Truck Engines*	*Tecogen Inc.*	*$ 785,220*
n/a	*50*	*35*	*San Pedro Bay Ports' Clean Air Action Plan Ocean-Going Vessel Emissions Reduction Program*	*San Bedro Bay Ports*	*$ 10,000,000*
n/a	*48*	*37*	*Portable Off-Grid Solar Wireless Charging System*	*Wireless Advanced Vehicle Electrtification, Inc.*	*$ 2,846,592*
n/a	*45*	*72*	*Electric Vehicle Charging Project*	*LA County Dept of Public Works*	*$ 247,320*
n/a	*44*	*2*	*Retrofit of Diesel Tugboat with Natural Gas & Diesel Blends*	*Blue Gas Marine*	*$ 150,000*
n/a	*44*	*45*	*Reducing Habor Craft Emissions with Nanosecond Pulsed Plasma Treatment*	*University of Southern California, Dept. of Contracts and Grants*	*$ 688,045*
n/a	*41*	*28*	*Electric Landscape Equipment Trial & Evaluation Program*	*Wildan Energy Solutions*	*$ 948,973*
n/a	*36*	*13*	*Selective Cool Particulate Regeneration Technology Demo for Marine/Diesel Engines*	*Global Clean Diesel*	*$ 2,869,036*
n/a	*25*	*20*	*Auxiliary Catalytic Converter for LD Gasoline Cars and Trucks*	*Compliance and Research Services*	*$ 125,000*

** Proposals selected for award are highlighted in gray*

Attachment B
Table B-3
Scores of Proposals Evaluated* - Panel C (Stationary Source Replacement /Repower/Retrofit, Efficiency Improvement and Related Infrastructure)

Final Score	Technical Score	Proposal Number	Project Title	Proposer Name	Requested Funding Amount
99	71	6	Rialto Bioenergy Facility RNG Upgrading and Interconnection Project	Rialto Bioenergy Facility, LLC (RBF)	$ 4,365,801
95	70	65	HearthCAT Retrofit Program	Healthy Hearth, LLC	$ 4,560,000
92	72	16	Aquarium of the Pacific 1320 kW Fuel Cell Power Generation System	BioFuels Energy, LLC	$ 650,000
87	71	71	Multifamily Affordable Housing Electrification Project (MAHEP): Zero-NOx Water Heating, Space Heating, Cooking and Laundry Systems	Association for Energy Affordability, Inc.	$ 7,740,000
86	66	66	Restaurant Emissions - PM Reduction Program	PureFlame Technologies, LLC	$ 1,072,000
84	66	82	Residential Energy Efficiency Retrofit Project (San Fernando Valley)	Alcal Specialty Contracting	$ 1,933,333
82	72	38	Riverside Flare Reduction Project: Producing Renewable Hydrogen & Power and Avoiding NOx and VOC	FuelCell Energy, Inc. (FCE)	$ 3,767,380
77	68	22	Integrated Microgrid Emission Reduction Project	Applied Medical Resources, Inc.	$ 640,000
75	56	70	Regional PM-10 Street Sweeping Operations in Coachella Valley	Coachella Valley Association of Governments	$ 1,100,000
74	56	69	Residential Energy Efficiency Retrofit Project (Coachella Valley)	Alcal Specialty Contracting, Inc.	$ 3,866,667
73	56	75	Beta Offshore - Nox Reduction Plan	Beta Offshore	$ 7,400,000
73	67	41	Midstream Commercial Water Heating Incentive Program	Southern California Gas Company (SoCalGas)	$ 1,221,237
70	57	18	Fuel Cells at Owens Corning Roofing Plant	Bloom Energy, Corp.	$ 1,000,000
70	66	81	Fuel Cells Integrated with Energy Storage on College of the Canyons Campus	Bloom Energy, Corp.	$ 3,000,000
67	62	23	Microgrid System at University of Redlands	University of Redlands	$ 1,962,000
67	57	27	Emergency Standby Generator Bi-Fuel Retrofit	Diesel 2 Gas Solutions, LLC	$ 7,000,000
66	63	80	Fuel Cells at San Manuel Casino	Bloom Energy, Corp.	$ 5,000,000
64	61	40	Schools Energy Efficiency Program (SEEP) - Direct Installation of Advanced Low-NOx Technologies	Southern California Gas Company (SoCalGas)	$ 246,193

Technical Score Below 70% Cutoff (56 points):

n/a	*54*	*77*	*Equity, Health and Pollution Controls Program (EHPC)*	*Build It Green*	*$ 10,135,892*
n/a	*52*	*21.2*	*Solar Photovoltaic (PV) Carport Installations*	*Los Angeles Unified School District*	*$ 8,366,259*

Attachment B
Table B-3
Proposals Evaluated - Panel C* (Stationary Source Replacement /Repower/Retrofit, Efficiency Improvement and Related Infrastructure)

n/a	*51*	*25*	*New Indy Containerboard's (NICB) Ontario Mill Repowering Project*	*New-Indy Ontario, LLC*	*$ 2,617,500*
n/a	*49*	*17*	*The Solar for Schools Pilot Program*	*City of Anaheim, Public Utilities Department*	*$ 6,122,344*
n/a	*49*	*21.3*	*Energy Efficient Lighting Retrofit*	*Los Angeles Unified School District*	*$ 12,097,385*
n/a	*49*	*33*	*Solar Renewable Energy Project*	*City of South Pasadena*	*$ 3,295,670*
n/a	*47*	*21.4*	*Heating Ventilation and Air Conditioning (HVAC) Replacement*	*Los Angeles Unified School District*	*$ 22,277,130*
n/a	*44*	*21.1*	*Playground Area Repair and Greening*	*Los Angeles Unified School District*	*$ 879,403*

** Proposals selected for award are highlighted in gray*

Attachment B
Table B-4
Scores of Proposals Evaluated* - Panel D (Stationary Source Technology Demonstration and Infrastructure)

Final Score	Technical Score	Proposal Number	Project Title	Proposer Name	Requested Funding Amount ($)
85	67	49	Battery Energy Storage System	City of Glendale Water & Power	$ 10,000,000
82	67	44	Transient Pulsed Plasma Technology for Retrofit Treatment of Diesel Emissions	University of Southern California, Dept. of Contracts and Grants	$ 688,045
81	59	48	SCR Operation R&D and Demonstration	Fossil Energy Research Crop. (FERCo)	$ 732,309
80	68	3	High Efficient and Low-Nox Combo Ribbon Burner Combustion System Demonstration	Institute of Gas Technology	$ 1,282,000
78	70	1	Ultra Low-Nox Commercial Foodservice Deep Fat Fryer Development	Institute of Gas Technology	$ 321,970
77	57	46	Restaurant Smoke Emissions Remediation using Transient Pulsed Plasma	Transient Plasma Systems	$ 474,618
76	59	11	Combstion System Optimization on a Gas-Fired Residential Heat Pump Water Heater (5ng/J)	Stone Mountain Technologies	$ 317,195
76	63	73	Commercial Cooking Emissions Reduction Project	Frontier Energy	$ 365,810
75	69	62	Next Generation Ultra Low Nox Forced Air Forced Air Furnace	Lantec Products	$ 340,000
74	68	43	Residential Fuel Cell Demonstration with PV and Storage	Southern California Gas Company (SoCalGas)	$ 490,000
73	58	74	Adaptive Camless Technology Demonstration	UCLA	$ 2,250,000
73	66	4	Novel Efficient Combustion for Char broilers with Reduced Particulate Emissions	Institute of Gas Technology	$ 258,000
73	68	14	Application of Swirl-Pattern Burner Head Technology (Rule 1111)	Beckett Gas, Inc.	$ 791,992

Technical Score Below 70% Cutoff (56 points):

n/a	*53*	*78*	*Zero Emissions Multi-Family Swimming Pools Demonstration*	*Energx Controls Incorporated*	*$ 1,075,850*
n/a	*51*	*67*	*Solvent Absorption and Electrochemical Reduction (SAER) Process Demonstration*	*RealEnergy*	*$ 927,500*
n/a	*49*	*26*	*Green Street Asbestos Abatement & Mobility Improvements*	*City of Pasadena, Dept. of Public Works*	*$ 1,480,950*
n/a	*49*	*64*	*Demonstration of Game Changer Technology Platform for Cost-effective Emissions Mitigation in Refineries and EJ Communities*	*T2M Global, LLC*	*$ 4,989,975*
n/a	*47*	*32*	*C2P Consolidated Interstate Pipeline*	*Guillette & Cos., LLC*	*$ 1,290,000*
n/a	*37*	*68*	*Landfill Gas Treatment and Upgrade Project*	*US Biogas*	*n/a*

** Proposals selected for award are highlighted in gray*

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BOARD MEETING DATE: January 4, 2019 AGENDA NO. 3

PROPOSAL: Transfer and Appropriate Funds, Issue Solicitations and Purchase Orders, Approve Positions for Rule 1180 Implementation and Amend Contract

SYNOPSIS: In June 2018, the Board recognized over $7 million in revenue into the Rule 1180 Special Revenue Fund (78) for the installation and operation of community air monitoring stations near refineries by January 1, 2020. These actions are to transfer and appropriate up to $1,996,656 into Science & Technology Advancement's FYs 2018-19 and/or 2019-20 Budgets, issue solicitations and purchase orders for equipment, and add new positions necessary for the implementation of this program. This action is to also amend a contract with FluxSense Inc. for up to $110,000 to conduct additional community-scale air toxics ambient monitoring.

COMMITTEE: Administrative, December 14, 2018; Recommended for Approval

RECOMMENDED ACTIONS:

1. Transfer and appropriate, upon receipt, up to $750,000 from the Rule 1180 Special Revenue Fund (78) into Science & Technology Advancement's FYs 2018-19 and/or 2019-20 Budgets, Capital Outlays Major Object, as indicated in Table 1.
2. Authorize the Executive Officer to issue solicitations and, based on results, issue purchase orders for monitoring trailers or containers listed in Table 1.
3. Authorize the Procurement Manager, in accordance with SCAQMD's Procurement Policy and Procedure, to issue sole source, 'prior bid, last price,' or cooperative purchasing purchase order(s) for low emissions vehicles (sedan, truck or van) as listed in Table 1.
4. Transfer and appropriate, upon receipt, up to $980,000 from the Rule 1180 Special Revenue Fund (78) into Science & Technology Advancement's FYs 2018-19 and/or 2019-20 Budgets, Services and Supplies Major Object, as indicated in Table 2.

5. Transfer and appropriate, upon receipt, up to $266,656 from the Rule 1180 Special Revenue Fund (78) into Science & Technology Advancement's FY 2018-19 Budget, Salaries and Employee Benefits Major Object, and approve the addition of four positions for Rule 1180 air monitoring planning and implementation, as indicated in Table 3.
6. Authorize the Executive Officer to amend contract with FluxSense Inc. for up to $110,000 from Science & Technology Advancement's FYs 2018-19 and/or 2019-20 Budgets, Professional and Special Services Account, to conduct additional optical remote sensing surveys to better characterize air toxic emissions from refineries and assess potential impacts in surrounding communities.

Wayne Nastri
Executive Officer

MMM:JCL:AP:ld

Background

Petroleum refineries are among the largest stationary sources of air pollution in the South Coast Air Basin (Basin). These sources process crude oil into various products, such as gasoline, diesel fuel, aviation fuel and other fuel oils. These and other refinery-related activities can result in emissions of greenhouse gases, criteria pollutants, toxic air contaminants and other air pollutants. In recent years, community concerns over emissions from refineries have increased, both from routine facility operations and potential releases due to emergency or other unforeseen conditions.

Starting in 2013, SCAQMD has conducted technology demonstration studies to assess the level of air toxics and criteria pollutants on-site and near refineries and compare levels of this shorter-duration sampling to estimated levels expected from reported annual emissions inventories. Ongoing work with optical remote sensing (ORS) and low-cost sensors continue to study air pollutants in communities near refineries. Refinery-related monitoring is also a component of MATES V, which is currently ongoing.

Rule 1180, which was adopted in December 2017, requires real-time fenceline air monitoring systems and establishes a fee schedule to fund refinery-related community air monitoring systems that will provide air quality information to the public about levels of various criteria air pollutants, volatile organic compounds, metals and other compounds at or near the property boundaries of petroleum refineries and in nearby communities. In accordance with Rule 1180 Refinery Fenceline and Community Air Monitoring requirements, staff is developing a draft plan for community air monitoring systems that will be made available for public review. In June 2018, the Board recognized revenue up to $7,508,861 in Rule 1180 payments into the Rule 1180 Special

Revenue Fund (78) for the installation of community air monitoring stations near refineries by January 1, 2020. The original estimated payments were reduced to $7,151,297 because during the rulemaking process one of the eight refineries did not meet the established criteria. Of this amount, $2,145,390 has already been received and $5,005,907 is expected to be received by January 30, 2019. Beginning January 2020, the seven refineries will also fund annual operating and maintenance costs for community air monitoring.

In 2015, SCAQMD applied for a U.S. EPA "Community-Scale Air Toxics Ambient Monitoring" grant and was awarded $569,682 to study air toxic emissions from refineries and the potential impact of such emissions on local communities, utilizing next generation monitoring technologies. On October 2, 2015, the Board authorized the recognition of $569,682 in revenue into the General Fund and the appropriation of $508,729 to Science & Technology Advancement's FYs 2015-16, 2016-17 and/or 2017-18 Budget to conduct a comprehensive study, including assessing the long-term use of Solar Occultation Flux (SOF), an ORS method to monitor air toxic emissions from refineries and estimate annual VOC emissions. FluxSense Inc. was contracted to perform periodic mobile measurements of refinery emissions and conduct continuous mobile measurements of air toxic concentrations in communities adjacent to the refineries in the Basin. FluxSense has performed surveys seasonally (i.e., winter, spring, summer and fall), each lasting for at least two weeks, since 2016. On July 6, 2018, the Board authorized the reallocation and appropriation of up to $184,000 in estimated remaining community-scale air toxics monitoring funds into Science & Technology Advancement's FYs 2018-19 and/or 2019-20 Budgets, allocating $110,000 into the Professional and Special Services Account. The goals and objectives of this EPA-funded community study are in line with those related to the implementation of Rule 1180.

Proposal

These actions are to transfer and appropriate up to $1,996,656 into Science & Technology Advancement's FYs 2018-19 and/or 2019-20 Budgets for expenditures in Capital Outlays (Table 1), Services and Supplies (Table 2) and Salaries & Employee Benefits (Table 3) Major Objects to support work required under Rule 1180. Services and Supplies in Table 2 include $650,000 in Building Maintenance Operation which will be used to install ten community monitoring stations near refineries. These actions represent the initial resource appropriations to implement the Rule 1180 monitoring network and will be fully supported by the funding received from the refineries subject to Rule 1180. As plans are further developed with additional stakeholder input, staff may seek Board approval for additional appropriations.

Proposed Purchases through Solicitation Process

Monitoring stations (each comprised of either an air monitoring trailer or container) will be deployed at ten locations that will be selected for community monitoring near seven major refineries in the Basin. These refineries are:

- Tesoro Refining & Marketing Company, LLC, Carson Refinery, Carson;
- Tesoro Refining & Marketing Company, LLC, Wilmington Refinery, Wilmington;
- PBF Energy, Torrance Refining Company, Torrance;
- Chevron Products Company, Chevron El Segundo Refinery, El Segundo;
- Phillips 66 Company, Carson;
- Phillips 66 Company, Wilmington; and
- Valero Energy Corporation, Valero Wilmington Refinery, Wilmington.

One or more solicitations will be issued, as appropriate, to solicit formal bid(s), in accordance with SCAQMD's Procurement Policy and Procedure. Based on the results of the formal bid(s), one or more purchase orders will be issued to purchase air monitoring trailers and/or containers in an amount not to exceed $500,000, as shown in Table 1.

Proposed Purchases through Sole Source, 'Prior Bid, Last Price,' and/or Cooperative Purchasing Purchase Orders

This action is to authorize the Procurement Manager to purchase up to five vehicles, as listed in Table 1, through sole source, 'prior bid, last price,' and/or cooperative purchasing purchase orders. The vehicles will be used by Rule 1180 staff to perform installation, routine and non-routine calibration, and maintenance and repair of air monitoring equipment for Rule 1180 community air monitoring stations. Low emission vehicles are available from vendors through cooperative purchasing under the State of California, Department of General Services, Procurement Division, and Alternative Fueled Vehicles Contract 1-18-23-23A through H. Low emission sedans, trucks and/or vans will be selected from the vendor on the list with the most competitive price for these types of vehicles. The cost of five vehicles is approximately $250,000.

Amend Contract

This action is to amend a contract with FluxSense Inc. for up to an additional $110,000 from Science & Technology Advancement's FYs 2018-19 and/or 2019-20 Budgets, Professional and Special Services Account, to conduct additional ORS surveys.

Staffing Request

This action is to approve the addition of four staff positions for Rule 1180 air monitoring planning and implementation (Table 3). The new staff will be responsible for installation, operation, calibration, maintenance and repair of air monitoring equipment for Rule 1180 community air monitoring stations.

Resource Impacts

Initial and final payments required from petroleum refineries under Rule 1180 will provide sufficient resources to plan and establish the required community air monitoring program. Future annual funding will provide sufficient resources for the ongoing community air monitoring operation and maintenance through Rule 301 fees. Sufficient funds are available to amend the contract with FluxSense Inc.

Attachments

Table 1: FYs 2018-19 and/or 2019-20 Proposed Capital Outlays Expenditures for Rule 1180

Table 2: FYs 2018-19 and/or 2019-20 Proposed Services and Supplies Expenditures for Rule 1180

Table 3: FY 2018-19 Proposed Appropriation for Staffing Additions for Rule 1180

Table 1
FYs 2018-19 and/or 2019-20 Proposed Capital Outlays
Expenditures for Rule 1180

Description	Account Number	Quantity	Estimated Amount	Action
Monitoring Container or Trailer	77000	10	$500,000	RFQ or 'Prior Bid, Last Price'
Vehicles for Field Staff	77000	5	250,000	Sole Source, 'Prior Bid, Last Price,' Cooperative Purchasing
FYs 2018-19 and/or 2019-20 Appropriations			**Up to $750,000**	

Table 2
FYs 2018-19 and/or 2019-20 Proposed Services and Supplies
Expenditures for Rule 1180

Description	Account Number	Estimated Amount
Rents and Leases Structure	67350	$150,000
Building Maintenance Operation	67650	650,000
Auto Mileage	67700	10,000
Communications*	67900	40,000
Office Supplies	68100	25,000
Office Furniture	68200	40,000
Small Tools, Instruments, Equipment*	68300	65,000
FYs 2018-19 and/or 2019-20 Appropriations		**$980,000**

*Note: Expenditures may be appropriated in the Capital Outlays Major Object as warranted.

Table 3
FY 2018-19 Proposed Appropriation for
Staffing Additions for Rule 1180

Position Title	Quantity	Estimated Amount
Senior Air Quality Instrument Specialist	1	$ 70,667
Air Quality Instrument Specialists II	3	195,989
Total:	**4**	**$266,656**

Note: Appropriations for Salary and Benefits are for January–June 2019.

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BOARD MEETING DATE: January 4, 2019 AGENDA NO. 4

PROPOSAL: Approve Transfer of Monies from General Fund to Health Effects Research Fund

SYNOPSIS: In 2008, the Board established a Health Effects Research Fund initially funded at $1.5 million from the BP Arco Settlement Fund. The Board further authorized, upon annual Board approval, the transfer of 20 percent of annual penalty money received that exceeds $4 million in receipts to the Health Effects Research Fund. This action is to transfer 20 percent of annual penalty money received in FY 2017-18 that exceeds $4 million to the Health Effects Research Fund.

COMMITTEE: Administrative, December 14, 2018; Recommended for Approval

RECOMMENDED ACTION:
Authorize the transfer of $2,063,229 from the General Fund, Undesignated Fund Balance to the Health Effects Research Fund (Fund 48).

Wayne Nastri
Executive Officer

SJ:JKG:av

Background

At the June 2008 meeting, the Board established a Health Effects Research Fund and initially funded it with $1.5 million from the BP Arco Settlement Fund. The Board further authorized, upon annual Board approval, the transfer of 20 percent of annual penalty money received that exceeds $4 million in receipts to the Health Effects Research Fund. For FY 2017-18, this amount was $2,063,229.

These monies have been used to fund a number of research projects at local universities and research institutions. The funding of the Health Effects Research Fund has been used to fund research through the Health Effects of Air Pollution Foundation. Findings from the Health Effects of Air Pollution Foundation funded research indicated that fine particulate exposure is associated with biochemical changes in the brains of laboratory

animals that are consistent with the biochemical pattern found in human brain tumors. Another funded project found preliminary associations of particulate matter levels and the risk of childhood brain tumors. These findings are being followed up with additional study to better understand the relation of pollution exposure to the risk of contracting brain tumors. In a current study, laboratory animals were exposed to ambient particulate matter, including ultrafine particles, for investigation of potential stem cell activation into cancer precursor cells. The elucidation of molecular pathways involved in survival, proliferation, and differentiation of cancer stem cells may be fundamental information to help develop therapies for brain tumors and to develop potential preventive measures.

The requested Board action will provide funding to conduct additional health effects research, which may include follow-up on the results described above, and will provide information to better assess the health risks of exposure to air pollutants.

Results from these studies will provide scientific information to inform policy choices for reducing emissions and exposures to pollutants in the South Coast Air Basin and in other areas.

Proposal
Staff is proposing that the Board authorize the transfer of 20 percent of annual penalty money received in FY 2017-18 that exceeds $4 million in receipts, which is $2,063,229, to the Health Effects Research Fund.

Resource Impacts
Funds are available from the General Fund, Unreserved (Unassigned) Fund Balance.

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BOARD MEETING DATE: January 4, 2019 AGENDA NO. 5

PROPOSAL: Execute Contract for Biennial Audit of Motor Vehicle Registration Revenues for FYs 2015-16 and 2016-17

SYNOPSIS: Health and Safety Code Section 44244.1 requires any agency receiving fee revenues pursuant to Section 44243 or 44244 to be subject to an audit of each program or project funded at least once every two years. On September 7, 2018, the Board approved the release of an RFP to select an auditor to perform the biennial audit for FYs 2015-16 and 2016-17. This action is to award a contract to the firm of Simpson & Simpson, Certified Public Accountants. Local governments, the MSRC and SCAQMD will pay the cost of their own audits in the amounts of $89,240, $7,000 and $4,560 respectively.

COMMITTEE: Administrative, December 14, 2018; Recommended for Approval

RECOMMENDED ACTION:
Authorize the Chairman to execute a contract with Simpson & Simpson Certified Public Accountants for performance of the biennial audit of Motor Vehicle Registration revenues for FYs 2015-16 and 2016-17 at a total cost not to exceed $100,980.

Wayne Nastri
Executive Officer

SJ:JK:av

Background
AB 2766, chaptered into law as Health and Safety Code Sections 44220-44247, was enacted to authorize air pollution control districts to impose fees on motor vehicles. Fees are expended on mobile source air pollution reduction measures pursuant to the California Clean Air Act of 1988 or the SCAQMD's AQMP pursuant to Article 5 of Chapter 5.5 of Part 3 of the Health and Safety Code. Health and Safety Code Section 44244.1(a) states that any agency receiving fee revenues pursuant to Section 44243 or 44244 shall, at least once every two years, be subject to an audit of each program or project funded. The audit is to be conducted by an independent auditor selected by the

SCAQMD in accordance with Division 2 (commencing with Section 1100) of the Public Contract Code. Audit program guidelines for local government recipients of fee revenues under Health and Safety Code Sections 44220-44247 were prepared by the SCAQMD with input from the Technical Advisory Committee Audit Subcommittee of the Interagency AQMP Implementation Committee (IAIC), representatives of the Finance Committee of the League of California Cities and with CPA firms whose clients include local governments. These audit guidelines were approved by the IAIC, MSRC and by the Board on December 4, 1992 and further revised and approved in January 1995, and again in August 2003. This is the twelfth biennial audit of these fee revenues and covers FYs 2015-16 and 2016-17.

Proposal

On September 7, 2018, the Board approved an RFP to conduct the biennial audit of recipients of AB 2766 fee revenues. The audit will cover recipients in all three segments of the AB 2766 fee distribution to determine whether the fee revenues collected in FYs 2015-16 and 2016-17 were spent on the reduction of pollution from motor vehicles as described above. The primary purpose of the audit is to set forth an opinion regarding the propriety of the expenditures incurred, not the degree of efficacy in reducing air pollution.

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 Press Enterprise newspapers to leverage the most cost-effective method of outreach to the South Coast Basin..

Additionally, potential bidders were notified utilizing SCAQMD's own electronic listing of certified minority vendors. Notice of the RFP was e-mailed to the Black and Latino Legislative Caucuses and various minority chambers of commerce and business associations, and placed on the Internet at SCAQMD's website (http://www.aqmd.gov) where it could be viewed by making the selection "Grants & Bids." Information was also available on SCAQMD's bidder's 24-hour telephone message line (909) 396-2724.

Bid Evaluation

The SCAQMD received two proposals from CPA firms that are qualified to perform audits in the State of California. All of the proposals were received by the 3:00 p.m., October 12, 2018 deadline and were evaluated by a technically qualified panel in accordance with criteria contained in the RFP.

Panel Composition
The panel convened to evaluate the proposals consisted of: the MSRC Contract Administrator (MSRC), Los Angeles County's Transportation Manager (Local Governments), SCAQMD Senior Accountant (CPA) and the SCAQMD Financial Services Manager. Of the four panelists that scored the proposals two are female and two are male. One of the panelists is African American and three are Caucasian.

Of the two proposals received, both were rated technically qualified to perform the audit of the AB 2766 program and were scored for cost. The evaluation results for the proposals are:

BIDDER	TECHNICAL SCORE	BID AMOUNT	COST	SMALL/ LOCAL BUSINESS	TOTAL POINTS	OVERALL RANK
Simpson & Simpson, Certified Public Accountants	66.5	$100,980	30.0	15	111.5	1st
BCA Watson Rice, LLP.	64.8	$123,475	23.3	15	103.1	2nd

The selection criteria used to rank the proposals included responsiveness to the RFP; technical expertise; qualifications and experience; past performance; cost; and SB/SBJV/DVBE/DVBEJV/DVBE/SB subcontractors/local business designation (non-EPA). Based on the panel's assessment of the criteria, Simpson & Simpson Certified Public Accountants is being recommended to the Board.

Resource Impacts:
The maximum audit cost is $100,980. The total audit costs will be borne by the entities being audited as follows:

- The cost of the audit of the SCAQMD's portion of motor vehicle registration revenues is $4,560. Sufficient funds are included in the FY 2018-19 Budget;
- The cost of the audit of ten projects of the Mobile Source Air Pollution Reduction Trust Fund is $7,000 and shall be deducted from the FY 2018-19 revenues subvened to the Mobile Source Air Pollution Reduction Review Committee; and
- The total cost of the audit of local governments is up to a maximum of $89,420. The average cost for a non-compliant local government is $1,574 and the average cost for a compliant local government is $871. This cost will be borne by the entities being audited in the manner set forth in the audit program guidelines and will be deducted from quarterly fee revenues prior to distribution.

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BOARD MEETING DATE: January 4, 2019 AGENDA NO. 6

PROPOSAL: Authorize Purchase of Telecommunication Services

SYNOPSIS: On October 5, 2018, SCAQMD released an RFP to select a vendor(s) capable of providing telecommunication services to the SCAQMD in the most cost-effective manner and, if possible, to consolidate all telephone company-related services to a single telecommunications provider. These telecommunication services included local, long distance, and toll-free; private IP network; MPLS bundled T1s and EVLP lines; internet access (with a redundant connection); phone system maintenance; and wireless voice and data. This action is to obtain approval to purchase telecommunication services from the selected vendor(s) for a period of three years. Funds for this purchase are included in the FY 2018-19 Budget ($750,000) and will be included in subsequent fiscal year budget requests.

COMMITTEE: Administrative, December 14, 2018; Recommended for Approval

RECOMMENDED ACTIONS:
Authorize the Executive Officer to execute contracts to purchase telecommunication services required by the SCAQMD from the following vendors for a three-year period:

1. Contracts with CenturyLink for local, long distance, and toll free services; and internet access in an estimated amount of $165,000, depending on usage.
2. A contract with Verizon Enterprise Solutions for air monitoring private internet protocol (PIP) network in an estimated amount of $145,000, depending on usage.
3. A contract with Airespring for dedicated Long Beach MPLS bundled T1s and EVPL 100MB in an estimated amount of $20,000, depending on usage
4. A contract with PCM-G for phone system maintenance services in an estimated amount of $250,000, depending on usage.

5. A contract with T-Mobile USA, Inc. for wireless voice and data services in an estimated amount of $170,000, depending on usage.

Wayne Nastri
Executive Officer

HJ: MH: AT:agg

Background
On October 5, 2018 the SCAQMD released RFP #P2019-04 for Telecommunication Services. The purpose of this RFP was to solicit and identify vendors capable of providing high quality and reliable telecommunication services to the SCAQMD in the most cost-effective manner, and if possible, to consolidate all telephone company related services to a single telecommunications provider. The overall goal is to reduce current expenses for voice and data communication services, optimize the use of the SCAQMD's current voice communication network, and provide the SCAQMD with the necessary flexibility to take full advantage of new telecommunications technologies as they evolve. Telecommunication services solicited under this RFP include local, long distance, and toll-free; air monitoring Private Internet Protocol (PIP) network; dedicated Multiprotocol Label Switching (MPLS) bundled digital transmission lines (T1s) and Ethernet virtual private line (EVPL); internet access; phone system maintenance; and wireless voice and data.

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

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

Bid Evaluation
Seventy-two copies of the RFP were mailed out and fifteen vendors attended the mandatory bidders conference held on October 25, 2018. Eleven bids were received in response to the RFP when final bidding closed at 1:00 p.m. on November 6, 2018.

Attachment 1 reflects the evaluation of the proposals and the respective ratings for contract bids. The evaluation committee rated CenturyLink the highest for local, long distance, toll free, and internet services; PCM-G the highest for phone system maintenance services; T-Mobile USA, Inc. the highest for wireless voice and data services; Verizon Enterprise Solutions the highest for air-monitoring telemetry PIP network; and Airespring the highest for dedicated Long Beach MPLS bundled T1s and EVPL 100MB. The cost of entering into three-year term contracts results in approximately $96,000 savings over the three years, as compared to one-year terms. In addition, staff evaluated consolidating telephone company services further and determined that the cost savings of the recommendation outweighed further consolidation. Therefore, staff recommends these vendors for the purchase of the identified telecommunication services for three-year terms.

Panel Composition

The panel consisted of one Staff Specialist, two Information Technology Supervisors, one Program and Systems Supervisor, three Senior Information Technology Specialists and one outside IT consultant. Of these eight panelists, four are Asian-Pacific Islander, two are Caucasian, and two are Hispanic; one is female, seven are male.

Resource Impacts

Sufficient funds were included in the FY 2018-19 Budget, Services & Supplies Major Object, Communications and Maintenance of Equipment accounts. Funding for subsequent years will be included in future budget requests.

Attachments

Attachment 1 - Bid Evaluation Summary to RFP #P2019-04

- 1-A: Category 1 – Local, Long Distance, and Toll Free
- 1-B: Category 2 – Air Monitoring Telemetry PIP network
- 1-C: Category 3 – Dedicated Long Beach MPLS bundled T1's and EVPL
- 1-D: Category 4 – Internet Access
- 1-E: Category 5 – Cisco Phone System Maintenance
- 1-F: Category 6 – Wireless Connectivity

ATTACHMENT 1
Bid Evaluation Summary to RFP #P2019-04

1-A: Category 1 – Local, Long Distance, and Toll Free

Three proposals meeting the stated criteria were received in response to Category 1 (Local, Long Distance and Toll Free Services) of this RFP. They were from CenturyLink, Airespring are Granite Telecom. One non-responsive proposal was received.

Standard Services Criteria (50 points maximum)

	Proposer		
	CenturyLink	Airespring	Granite Telecom
Panel Average	50	26	35

Cost (50 points maximum)

	Proposer		
	CenturyLink	Airespring	Granite Telecom
Actual $ Amount per Year	$48,853.56	$62,102.16	$53,893.96
Points	50	39	45

Additional Points (17 points maximum)

Criteria	Proposer		
	CenturyLink	Airespring	Granite Telecom
Small Business or Small Business Joint Ventures Points (Maximum = 10)		10	
DVBE or DVBE Joint Ventures Points (Maximum = 10)			
Use of DVBE or Small Business Subcontractors Points (Maximum = 7)			
Low-Emission Vehicle Business Points (Maximum = 5)			
Local Business (Non-EPA Funded Projects Only Points (Maximum = 5)		5	
Off-Peak Hours Delivery Business Points (Maximum = 2)			
Most Favored Customer (Maximum = 2)			
Points		15	

Total	100	80	80

1-B: Category 2 – Air Monitoring Telemetry PIP Network

Two proposals meeting the stated criteria were received in response to Category 2 (Air Monitoring Telemetry PIP Network) of this RFP. They were from Verizon and Airespring.

Standard Services Criteria (50 points maximum)

	Proposer	
	Verizon	Airespring
Panel Average	50	26

Cost (50 points maximum)

	Proposer	
	Verizon	Airespring
Actual $ Amount per Year	$132,449.00	$117,465.00
Points	44	50

Additional Points (17 points maximum)

Criteria	Proposer	
	Verizon	Airespring
Small Business or SB Joint Ventures (Max = 10)		10
DVBE or DVBE Joint Ventures (Max = 10)		
Use of DVBE or Small Business Subcontractor (Max = 7)		
Low-Emission Vehicle Business (Max = 5)		
Local Business (Non-EPA Funded Projects Only (Max = 5)		5
Off-Peak Hours Delivery Business Points (Maximum = 2)		
Most Favored Customer (Maximum = 2)		
Points		15

Total	94	91

1-C: Category 3 – Dedicated Long Beach MPLS Bundles T1s and EVPL

Four proposals meeting the stated criteria were received in response to Category 3 (Dedicated Long Beach T1) of this RFP. They were from: Airespring, CenturyLink, Verizon and Granite Telecomm.

Standard Services Criteria (50 points maximum)

	Proposer			
	Airespring	CenturyLink	Verizon	Granite Telecomm
Panel Average	26	50	50	24

Cost (50 points maximum)

	Proposer			
	Airespring	CenturyLink	Verizon	Granite Telecomm
Actual $ Amount per Year	$16,609.44	$21,971.00	$23,226.00	$32,580.00
Points	50	38	36	25

Additional Points (17 points maximum)

Criteria	Proposer			
	Airespring	CenturyLink	Verizon	Granite Telecomm
Small Business or Small Business Joint Ventures Points (Maximum = 10)	10			
DVBE or DVBE Joint Ventures Points (Maximum = 10)				
Use of DVBE or Small Business Subcontractors Points (Maximum = 7)				
Low-Emission Vehicle Business Points (Maximum = 5)				
Local Business (Non-EPA Funded Projects Only Points (Maximum = 5)	5			
Off-Peak Hours Delivery Business Points (Maximum = 2)				
Most Favored Customer (Maximum = 2)				
Points	15			

Total	91	88	86	49

1-D: Category 4 – Internet Access

Two proposals meeting the stated criteria were received in response to Category 4 (Internet Access) of this RFP. They were from: CenturyLink and Verizon. Two non-responsive proposals were received.

Note: The District used least cost analysis for internet access options with redundant (diverse) connection (200 Mbps minimum for primary circuit and 100 Mbps minimum for the secondary circuit) for all proposals.

Standard Services Criteria (50 points maximum)

	Proposer	
	CenturyLink	Verizon
Panel Average	50	50

Cost (50 points maximum)

	Proposer	
	CenturyLink	Verizon
Actual $ Amount per Year	$53,943.60	$65,951.88
Points	50	41

Additional Points (17 points maximum)

Criteria	Proposer	
	CenturyLink	Verizon
Small Business or Small Business Joint Ventures Points (Maximum = 10)		
DVBE or DVBE Joint Ventures Points (Maximum = 10)		
Use of DVBE or Small Business Subcontractors Points (Maximum = 7)		
Low-Emission Vehicle Business Points (Maximum = 5)		
Local Business (Non-EPA Funded Projects Only Points (Maximum = 5)		
Off-Peak Hours Delivery Business Points (Maximum = 2)		
Most Favored Customer (Maximum = 2)		
Points		

Total	100	91

1-E: Category 5 – Cisco Phone System Maintenance

Four proposals meeting the stated criteria were received in response to Category 5 (Phone System Maintenance) of this RFP. They were from: PCM-G, Black Box, Convergeone and Logicalis.

Standard Services Criteria (50 points maximum)

	Proposer			
	PCM-G	Black Box	Convergeone	Logicalis
Panel Average	50	50	50	30

Cost (50 points maximum)

	Proposer			
	PCM-G	Black Box	Convergeone	Logicalis
Actual $ Amount per Year	$ 211,126.13	$ 224,204.28	$ 351,392.98	$ 285,357.95
Points	50	47	30	37

Additional Points (17 points maximum)

Criteria	Proposer			
	PCM-G	Black Box	Verizon	Logicalis
Small Business or Small Business Joint Ventures Points (Maximum = 10)				
DVBE or DVBE Joint Ventures Points (Maximum = 10)				
Use of DVBE or Small Business Subcontractors Points (Maximum = 7)				
Low-Emission Vehicle Business Points (Maximum = 5)				
Local Business (Non-EPA Funded Projects Only Points (Maximum = 5)	5			
Off-Peak Hours Delivery Business Points (Maximum = 2)				
Most Favored Customer (Maximum = 2)	2			
Points	7			

Total	107	97	80	67

1-F: Category 6 – Wireless Connectivity

Four proposals meeting the stated criteria were received in response to Category 6 (Wireless Connectivity) of this RFP. They were T-Mobile, AT&T, Sprint and Granite Govt. Solutions.

Standard Services Criteria (50 points maximum)

	Proposer			
	T-Mobile	AT&T	Sprint	Granite Govt. Solutions
Panel Average	50	50	50	46

Cost (50 points maximum)

	Proposer			
	T-Mobile	AT&T	Sprint	Granite Govt. Solutions
Actual $ Amount per Year	$139,740.00	$155,700.00	$228,000.00	$217,308.00
Points	50	45	31	32

Additional Points (17 points maximum)

Criteria	Proposer			
	T-Mobile	AT&T	Sprint	Granite Govt. Solutions
Small Business or Small Business Joint Ventures Points (Maximum = 10)				
DVBE or DVBE Joint Ventures Points (Maximum = 10)				
Use of DVBE or Small Business Subcontractors Points (Maximum = 7)				
Low-Emission Vehicle Business Points (Maximum = 5)				
Local Business (Non-EPA Funded Projects Only Points (Maximum = 5)				
Off-Peak Hours Delivery Business Points (Maximum = 2)				
Most Favored Customer (Maximum = 2)				
Points				

Total	100	95	81	78

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BOARD MEETING DATE: January 4, 2019 AGENDA NO. 7

PROPOSAL: Approve List of Prequalified Vendors for Document Conversion Services

SYNOPSIS: On October 5, 2018, the Board approved the release of an RFQ to select a vendor capable of providing document conversion services to digitize paper documents. As a result of successful responses to this RFQ, four vendors were identified as capable of providing these services. This action is to approve four vendors to provide document conversion services for a two-year period. Funds for the services will be identified, and approved as needed, as specific projects are defined.

COMMITTEE: Administrative, December 14, 2018; Recommended for Approval

RECOMMENDED ACTION:
Approve the following prequalified vendors for a two-year period to provide document conversion services to digitize paper documents: Tier Five, Inc., Omnipro, Inc., File Keepers LLC, and Matrix Imaging Products, Inc.

Wayne Nastri
Executive Officer

RM:MH:SJ:cj

Background

On October 5, 2018, SCAQMD released RFQ #Q2019-01 for document conversion services. The purpose of the RFQ was to obtain document conversion services from qualified vendors that are qualified and cost-effective and that can provide all of the services required including boxing, manifesting, transporting with geo-tracking, document imaging, indexing including match and merge with digital index file, certified shredding, storage, bar code tracking, customer portal twenty-four hours a day, seven days a week, and complete chain of custody without subcontracting. Purchase orders may be placed with any or all of the vendors on the prequalified vendor list. Orders for services purchased under this RFQ will be placed with the vendors who are determined to be the most advantageous to the SCAQMD at the time of placing the order.

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

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

Bid Evaluation
Twelve copies of the RFQ were mailed out and five vendors responded when final bidding closed at 4:00 p.m. on November 7, 2018. Of the five responses, three were small business enterprises; two were local business enterprises, and four offered most favored customer pricing status.

The Attachment reflects the evaluation of the bids, the respective ratings, and costs. The evaluation panel found that four of the five responses received met the requirements of the RFQ. Therefore, staff recommends that the Board approve the four qualified vendors for future conversion projects.

Panel Composition
The evaluation panel consisted of a Systems and Programming Supervisor, a Principal Office Assistant, a Senior Administrative Secretary, and a Senior Public Affairs Manager. Of the four panelists, one is Asian-Pacific Islander, one is Caucasian, and two are Hispanic; one is male and three are female.

Resource Impacts
Funds for the document conversion services to be provided by the prequalified vendors will be identified, and approved as needed, once specific projects are defined and costed out.

Attachment
Bid Evaluation Summary to RFQ #Q2019-01

ATTACHMENT
Bid Evaluation Summary to RFQ #Q2019-01

Five proposals were received in response to this RFQ. Of the five proposals, four were found to be responsive: Tier Five, Omnipro, File Keepers, and Matrix Imaging. One non-responsive proposal was received from Sourcecorp.

Standard Services Criteria (50 points maximum)

	Proposer				
	Tier Five	Sourcecorp	Omnipro	File Keepers	Matrix Imaging
Panel Average	48.7	26	38.7	47.5	41.25

Cost (50 points maximum)

	Proposer				
	Tier Five	Sourcecorp	Omnipro	File Keepers	Matrix Imaging
Sample Bid Costs	$39,675.00	n/a	$43,125.00	$42,550.00	$95,450.00
Panel Average	50	n/a	46	46.6	20.8

Additional Points (17 points maximum)

Criteria	Proposer				
	Tier Five	Sourcecorp	Omnipro	File Keepers	Matrix Imaging
Small Business or Small Business Joint Ventures Points (Maximum = 10)			10		10
DVBE or DVBE Joint Ventures Points (Maximum = 10)					
Use of DVBE or Small Business Subcontractors Points (Maximum = 7)			7		
Low-Emission Vehicle Business Points (Maximum = 5)					

Criteria	Proposer				
	Tier Five	Sourcecorp	Omnipro	File Keepers	Matrix Imaging
Local Business (Non-EPA Funded Projects OnlyPoints (Maximum = 5)	5		5	5	
Off-Peak Hours Delivery Business Points (Maximum = 2)					
Most Favored Customer (Maximum = 2)					
Panel Average	5	n/a	22	5	10

Total	103.5	n/a	106.7	99.1	72

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BOARD MEETING DATE: January 4, 2019 AGENDA NO. 8

PROPOSAL: Execute Contract for Janitorial Services at Diamond Bar Headquarters

SYNOPSIS: The current contract for Diamond Bar headquarters janitorial services expires on February 28, 2019. On September 7, 2018, the Board approved release of an RFP to solicit proposals from firms interested in providing these services. This action is to execute a three-year contract with Santa Fe Building Maintenance for a total amount not to exceed $1,717,845. Funding has been included in the FY 2018-19 Budget and will be requested in subsequent fiscal years.

COMMITTEE: Administrative, December 14, 2018; Recommended for Approval

RECOMMENDED ACTION:
Authorize the Chairman to execute a three-year contract with Santa Fe Building Maintenance for janitorial services for the period of March 1, 2019 through February 28, 2022, for a total amount not to exceed $1,717,845.

Wayne Nastri
Executive Officer

AJO:GT:VR:LM

Background
SCAQMD contracts with a firm to provide routine janitorial services and supplies at its Diamond Bar headquarters. The contract term with the current contractor, Santa Fe Building Maintenance, expires February 28, 2019. On September 7, 2018, SCAQMD released RFP #P2019-01 to solicit proposals from janitorial services providers interested in contracting with SCAQMD for a three-year period.

In addition to routine janitorial services, SCAQMD may require occasional special and/or emergency cleanup services. While it is difficult to anticipate the costs for these special incident(s), past experience indicates they typically increase costs by about five percent. As a consequence, the costs listed in this Board letter include an added five

percent beyond proposal costs submitted, as a contingency amount to meet special janitorial needs.

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

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

Proposal Evaluation
Sixty eight copies of the RFP were mailed out and eleven vendors attended the mandatory bidders conference held on September 20, 2018. Seven proposals were received when final bidding closed at 2:00 p.m. on October 9, 2018. Four of the seven proposals received were complete and met RFP requirements.

The panel evaluating proposals included four SCAQMD employees: a Business Services Manager, Air Quality Chemist, Mail/Subscription Supervisor, and Facilities Services Technician. Of these four panel members, one is Caucasian, one is Hispanic, one is Asian American and one is African American; one is female and three are male.

The panel evaluated the four qualified and responsive proposals based on criteria specified in the RFP, which included completeness and responsiveness of the proposal, cost, understanding of the required janitorial services, contractor qualifications, and past experience.

The Attachment summarizes scores of the qualified bids. Santa Fe Building Maintenance received the most points in the evaluation process, and was the firm that submitted the lowest cost and highest-scored qualified bid, which included excellent references for comparable public sector janitorial services. The firm has been providing janitorial services to SCAQMD since 2012. Staff recommends the contract be awarded to Santa Fe Building Maintenance.

Resource Impacts
Sufficient funds in the amount of $171,378 are available in the approved FY 2018-19 Budget for the remainder of this fiscal year. Since this will be a three-year contract, continued funding will need to be included in the budgets for each of the remaining fiscal years of the contract. Annual costs are $554,864 for FY 2019-20; $594,962 for FY 2020-21; and $396,641 for the eight months of the contract that fall within FY 2021-22. Funding for subsequent years will be included in future budget requests.

Attachment
RFP #P2019-01 Bid Evaluation Summary

ATTACHMENT

RFP #P2019-01 Bid Evaluation Summary
Janitorial Services

NAME	Total 3-yr Cost	Technical Score (60)	Cost Points (40)	Additional Points	Total Points
SANTA FE MAINTENANCE	$1,584,725	57	40	15	**112**
SERVICON SYSTEMS	$1,824,172	60	34	14	**108**
DMS FACILITY SERVICES, INC.	$1,839,419	55	34	0	**89**
ALLIED UNIVERSAL	$1,727,254	49	36	0	**85**

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BOARD MEETING DATE: January 4, 2019 AGENDA NO. 9

PROPOSAL: Amend Career Development Intern Classification, Adopt New Job Classification, and Approve Staffing Changes to Upgrade Two Positions

SYNOPSIS: The Career Development Intern program provides young adults who have transitioned from the foster care system with on-the-job training and experience, to prepare them for future job opportunities. This action is to amend the classification to establish a new salary schedule. This action is also to adopt the new classification of Monitoring Operations Manager; add a Public Affairs Manager position and a Senior Information Technology Specialist position; and delete a Community Relations Manager position and an Information Technology Specialist II position. Funding for these actions is included in the FY 2018-19 Budget.

COMMITTEE: Administrative, December 14, 2018; Recommended for Approval

RECOMMENDED ACTIONS:
1. Amend the Career Development Intern class specification (Attachment A).
2. Adopt the Monitoring Operations Manager class specification (Attachment B).
3. Add a Public Affairs Manager position and a Senior Information Technology Specialist position to the budget; and delete a Community Relations Manager position and an Information Technology Specialist II position from the budget.

Wayne Nastri
Executive Officer

AJO:BB:mm

Background

In May 2015, SCAQMD initiated a career development internship program, providing young adults who have transitioned from the foster care system with opportunities to gain on-the-job training and experience to increase their potential to successfully compete for full-time employment in the job market. In September 2018, the Board amended the job classification to expand its scope and requirements by extending the

pool of eligible young adults to those in programs run by nonprofit organizations that provide young adults emancipated from a state or local foster care system with job training and career development, and to allow assignments in the position to be extended for up to three years.

In December 2018, the Board approved funding for a new Manager position for the AB 617 program, reporting to the Science and Technology Advancement Unit. However, a job classification was not adopted at that time.

To better serve their operational needs, the Information Management and Science & Technology Advancement Units are each seeking approval to upgrade one position.

Proposal

Career Development Intern

The Career Development Intern program provides transition-aged foster youth with on-the-job training in one of several existing SCAQMD job classifications for which they may not otherwise meet the minimum qualifications of education or experience, such as Office Assistant, General Maintenance Helper, and Fleet Services Worker I.

The salary for this job classification has not been increased since 2015. In addition, with the availability of long-term assignments, it is appropriate to provide wage growth on an annual basis, similar to other SCAQMD job classifications. Therefore, staff recommends amending the Career Development Intern classification to establish three salary steps for the position, which includes an increase to the current rate for the first year (Attachment A).

Monitoring Operations Manager

A Monitoring Operations Manager position allocated under the AB 617 program was added to Science & Technology Advancement by the Board in December 2018. This new position will be responsible for managing, overseeing and participating in the planning, organization, development, and implementation of complex air monitoring projects and programs, including AB617. In order to initiate the recruitment process for this critical position, staff recommends the adoption of the new classification of Monitoring Operations Manager (Attachment B).

Staffing Changes

In September 2017, the Board approved a new Information Technology Specialist class series to merge and update the existing Computer Operator and Telecommunications Technician class series. The new Information Technology Specialist class specifications require knowledge and experience dealing with data servers, networking systems, software applications, and multiple media for communications to meet existing and future needs in those positions. An evaluation of the functions of the new class series for

the first year has identified a need to upgrade an Information Technology Specialist II position in the Network Services unit to Senior Information Technology Specialist.

The Legislative & Public Affairs, & Media Unit is responsible for legislation, environmental justice, outreach and education, small business assistance, and media activities for the SCAQMD. Currently, the Local Government/Community Outreach program and staff are overseen by a Community Relations Manager, who is responsible for the planning and administration of District-wide communications with government agencies, business representatives, and residents. With an increase in the need to engage with these stakeholders, based on Board priorities and new programs such as AB 617, it is recommended that the position be upgraded to a Public Affairs Manager position.

Staff recommends adding a Senior Information Technology Specialist position, offset by deleting an Information Technology Specialist II position in Information Management, and adding a Public Affairs Manager position, offset by deleting a Community Relations Manager position in Legislative & Public Affairs/Media.

Resource Impacts
Funding for a Monitoring Operations Manager position, the revised Career Development Intern salary schedule, and the two added positions is included in the FY 2018-19 Budget.

Existing Class Title	Current Salary	Recommendation	Annual Top-Step Salary Cost/[Savings]
Career Development Intern	$31,782	Amend Classification to add Salary Range $33,280 - $36,379	$27,582 (6 FTEs x $4,597)
Senior Information Technology Specialist	$96,064 Step 6	Add Position	$96,064
Information Technology Specialist II	$77,474 Step 6	Delete Position	[$77,474]
Public Affairs Manager	$119,190 Step 6	Add Position	$119,190
Community Relations Manager	$108,304 Step 6	Delete Position	[$108,304]
		Approximate Net Annual Cost:	**$57,058**

Attachments
A. Revised Class Specification for Career Development Intern
B. Proposed New Class Specification for Monitoring Operations Manager

ATTACHMENT A
CLASSIFICATION SPECIFICATION

TITLE: CAREER DEVELOPMENT INTERN APPROVED:

SALARY

~~$15.28~~$16.00 - $17.49 Hourly
~~$1,222.40~~$1,280.00 - $1,399.20 Bi-Weekly
~~$2,648.53 Monthly~~
~~$31,782.40~~$33,280.00 - $36,379.00 Annually

DEFINITION: Under close supervision in a training capacity, performs a variety of structured, on-the-job training duties depending on the assignment. Depending on assignment, participates in entry-level work in fleet services, general maintenance, mail room, general office administration, print shop, or storekeeping.

CLASSIFICATION STANDARDS: This is a multi-position, training-level class. Incumbents participate in entry-level work in a training capacity in one of the following job classifications: Fleet Services Worker I, General Maintenance Helper, Mail Subscription Services Clerk, Office Assistant, Print Shop Duplicator, or Stock Clerk. Career Development Interns participate in a structured on-the-job training assignment in preparation for successful progression into one of the above jobs. Such jobs are not guaranteed, as they are only filled through competitive processes. Career Development Intern assignments are limited, and are not to exceed three years. Incumbents are expected to gain valuable competitive experience, knowledge, skills and abilities as they engage in the following essential job functions:

ESSENTIAL DUTIES (Depending on assignment, may include, but not be limited to):

Fleet Services Worker: Under close supervision, may remove and replace oil filters, air filters, hoses, fan belts, light bulbs, windshield wipers, or other vehicle accessories, as needed; dispense fuel to fleet and rideshare vehicles and control~~s~~ the parking of vehicles in SCAQMD parking lots; load and unload vehicles operated; sort and route mail and do clerical work as required; clean automotive compound area; keep records and make reports; ensure vehicles are checked and serviced.

General Maintenance Helper: Under close supervision, may assist others in the repair of machinery and equipment and may perform less difficult tasks independently; assist in the installation and maintenance of electrical equipment such as generators, motors, transformers, switches, controls and circuits; set up machinery and tools and prepare~~s~~ work sites; move materials, equipment and machinery; assist in the construction and repair of structures and fixtures, painting, and installation of hardware.

Mail/Subscription Services Clerk: Under close supervision, may collect and deliver United States, private carrier, and intra-SCAQMD mail, correspondence, packages, and other materials according to established procedures and routes; sort, weigh, and determine means of mail delivery for outgoing mail and packages; pack or unpack materials; operate, maintain, and monitor postage meter machines, electronic scales, and other equipment; operate labeling and printing equipment when preparing mailing labels; assemble and insert materials for mailing; may operate a computer or word processor while making additions, deletions, and other modifications to mailing lists; research mailing list databases and compile new lists for targeted mailings.

Office Assistant: Under close supervision, may type letters, reports, charts, tables, case records, vouchers, or similar documents; proofread finished copy to correct grammar, punctuation, and spelling; process a variety of documents according to established policies and procedures; refer difficult or technical inquiries to other staff; file documents; prepare, arrange, index, cross file and maintain computerized and manual records, logs, rosters and registers; compile data for general information purposes and individual requests for special reports and projects by extracting and/or tabulating information from a variety of sources and predetermined forms or procedures; answer telephone and route incoming calls; direct individuals to appropriate offices and staff; receive, open, and time stamp mail; sort and log correspondence; deliver and pick up various materials, stuff envelopes, and assemble packages for mailing; provide a variety of basic, administrative support duties for management and supervisory personnel, as directed.

Print Shop Duplicator: Under close supervision, may set up and operate computer-controlled duplicating equipment in the production of forms, notices, reports, maps, specifications and other materials, utilizing various sizes and weights of paper, large solids, continuous tone, half-tone and line work; provide advice regarding format, layout, and machine capabilities and alternative methods of duplication; clean, lubricate, adjust and make minor repairs to equipment; perform related work, such as collating, binding, cutting, trimming, padding and punching; operate other types of duplicating equipment.

Stock Clerk: Under close supervision, may stock inventory supply items on shelves or in bins; receive, stock or store supplies, furniture, and equipment; assemble and complete requisition orders; deliver and distribute supplies, equipment, and furniture to various divisions and offices; receive supplies, equipment, and furniture delivered from vendors; move items to the stockroom and warehouse; assist in the inventory and tagging of fixed assets; assist in the disposition of surplus equipment; prepare and maintain records pertaining to the receipt, storage, and distribution of supplies, furniture, and equipment; inventory and reorder stockroom supplies as directed.

All Classes: May perform other related duties as required or assigned.

MINIMUM REQUIREMENTS:

Special Requirements: Current enrollment in, completion of, or current or past eligibility for a California County Department of Children and Family Services' and Probation Department's Independent Living Program; or current enrollment in the Department of Public Works' and Probation Department's Youth Opportunity Program; or current participation in a nonprofit organization program that provides young adults emancipated from a state or local foster care system with job training and career development.

Preparation: Education, knowledge, skills, training OR experience that would demonstrate the capacity to learn and perform the essential duties of the position to which assigned.

Driver's License: Some positions in this classification, depending upon assignment, require possession of a valid California Class C Driver's License to perform job-related essential functions. Candidates offered these positions would be required to show proof of a driver's license before appointment. Some applicants for this position will be required to present a copy of his/her driving record from the California State Department of Motor Vehicles before being appointed. License must not be suspended, restricted, or revoked. An applicant whose driving record shows significant moving violations, and/or at fault accidents, may not be appointed to position that would require operation of a motor vehicle while on duty.

Americans with Disabilities Act of 1990: All positions are open to qualified men and women. Pursuant to the Americans with Disabilities Act of 1990, persons with disabilities who believe they need reasonable accommodation, or help in order to apply for a position, may contact the Human Resources Manager over Recruitment and Selection for assistance.

Physical Classes:

General Maintenance Helper is Physical Class III – Moderate: This class requires that the incumbent stand or walk most of the time with bending, stooping, squatting, twisting, reaching, working or irregular surfaces, occasional lifting of objects weighing over 25 pounds, and frequent lifting of 10-25 pounds.

Fleet Services Worker is Physical Class III – Moderate: This class requires that the incumbent stand or walk most of the time with bending, stooping, squatting, twisting, reaching, working or irregular surfaces, occasional lifting of objects weighing over 25 pounds, and frequent lifting of 10-25 pounds.

Mail/Subscription Service Clerk is Physical Class II – Light: This class includes administrative and clerical positions requiring light physical effort, which may include occasional light lifting to a 10-pound limit, and some bending, stooping, or squatting. Considerable ambulation may be involved.

Office Assistant is Physical Class II – Light: This class includes administrative and clerical positions requiring light physical effort, which may include occasional light lifting to a 10-pound limit, and some bending, stooping, or squatting. Considerable ambulation may be involved.

Print Shop Duplicator is Physical Class III – Moderate: This class requires that the incumbent stand or walk most of the time with bending, stooping, squatting, twisting, reaching, occasional lifting of objects weighing over 70 pounds, and frequent lifting of 10-25 pounds.

Stock Clerk is Physical Class III – Moderate: This class requires that the incumbent stand or walk most of the time with bending, stooping, squatting, twisting, reaching, working or irregular surfaces, occasional lifting of objects weighing over 25 pounds, and frequent lifting of 10-25 pounds.

ATTACHMENT B

TITLE: MONITORING OPERATIONS MANAGER

DEFINITION: Under direction of the Assistant Deputy Executive Officer, manages and provides technical direction to a unit engaged in a program of air quality control; and does other related work as required.

CLASSIFICATION STANDARDS: This single-position management class is characterized by the responsibility for managing the daily administration of the Source Testing Branch. This class is distinguished by the technical knowledge of source testing of commercial and industrial plant operations, especially energy-generation, chemical and petroleum processes.

ESSENTIAL DUTIES: Manages a technical staff unit; plans, organizes, assigns, reviews, and evaluates the work of assigned staff; prepares performance appraisals, and provides technical and administrative support, coaching, and guidance, as necessary.

Helps in the preparation of evaluations, analyses, and other forms of quantitative assessment of air quality data, reports, scientific papers, and other written documents; reviews and edits materials prepared by team members; and evaluates the effectiveness of programs and projects in progress and redirects or modifies them as necessary in order to achieve SCAQMD goals.

Assists in the coordination of investigative projects concerned with the measurement and analysis of air quality or emission inventories and in the determination of emission reduction and source performance standards, working with engineering, source testing, and other technical personnel.

Conducts workshops and meetings or provide consultation and advice to individuals and businesses in matters related to area of expertise.

Reviews and reports on reports and technical literature pertinent to air quality planning, emissions, control, and rule development.

Reviews legislation and provides technical assistance and expertise in preparation of briefs and testimony for legal proceedings affecting the SCAQMD.

EXPERIENCE: Five or more years of technical or professional air quality experience, or demonstrated supervisory experience in the air monitoring field which would demonstrate the requisite knowledge, skills and abilities defined in the job announcement for the position to which assigned.

KNOWLEDGE OF: technical methods and applications involved in measurement of criteria and air toxic pollutants; advanced air monitoring methods and techniques; principles and practices of supervision and management; and Local, State and Federal laws relating to air pollution matters with particular emphasis on the monitoring requirements of AB617.

TITLE: MONITORING OPERATIONS MANAGER

SKILL OR ABILITY TO: direct and evaluate comprehensive planning and research studies; understand and interpret applicable laws, rules, and regulations; read, understand, and follow verbal and written directions; communicate clearly and concisely, both orally and in writing; prepare and present concise, logical reports of a technical nature; establish and maintain effective relationships with all those contacted in the course of work; plan, organize, assign, review, and evaluate the work of assigned staff; communicate effectively with all levels of management both orally and in writing; resolve sensitive problems involving the public and industry representatives; represent SCAQMD at public meetings and hearings; and make effective public presentations.

Evidence of the required knowledge, skills and abilities may be demonstrated, in part, by graduation from an accredited college or university, preferably with a major emphasis in chemistry, engineering, physics or a related field; and/or technical experience working on field and air monitoring studies, and community monitoring projects; and experience supervising professional and technical staff involved in air pollution measurements.

LICENSE: Possession of a valid California Class "C" Driver's License.

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BOARD MEETING DATE: January 4, 2019 AGENDA NO. 10

PROPOSAL: Issue Purchase Order to Promote "The Right to Breathe" Video

SYNOPSIS: This action is to add $500,000 to SCAQMD's Google AdWords campaign to promote the updated "The Right to Breathe" video. Funding for this effort will come from the BP ARCO Settlement Projects Special Revenue Fund (46).

COMMITTEE: Special Administrative, December 18, 2018; Recommended for Approval

RECOMMENDED ACTION:
Authorize the Executive Officer to issue a purchase order in an amount up to $500,000 to pay monthly invoices for a 12-month Google AdWords campaign. Funding will come from the BP ARCO Settlement Projects Special Revenue Fund (46).

Wayne Nastri
Executive Officer

SA

Background

"The Right to Breathe" Video Update

In early 2017, the Chairman requested an update to SCAQMD's signature film, "The Right to Breathe," which was released in 2011. Like the original film, the goal of this update is to educate viewers about air quality and environmental justice challenges as well as current solutions. The updated video was completed in March 2018.

Google AdWords Campaign

During the fall of 2015, SCAQMD implemented a highly successful pilot advertising program with Google AdWords. Since then, the Board has approved seven Google AdWords advertising campaigns to promote various SCAQMD programs including the original and updated "The Right to Breathe" videos and the annual Check Before You Burn campaign.

Google AdWords have included YouTube "pre-roll" as well as display/banner ads. Pre-roll is a short video ad that plays automatically before a desired video selected by a YouTube viewer.

The most recent AdWords campaign promoting the updated "The Right to Breathe" video covers the period of March 8, 2018 to December 31, 2018. The total campaign budget, approved by the Board at its March 2, 2018 meeting, was $652,957.

As of November 28, 2018, the campaign had achieved 43.9 million impressions, 19 million views and 45,584 clicks at a cost of $577,918.

Proposal

To continue to promote SCAQMD's mission of cleaning the air and its environmental justice messages, staff proposes a 12-month Google AdWords campaign promoting the updated "The Right to Breathe" video.

With Board approval, the 2019 AdWords campaign would start immediately following issuance of a purchase order, projected on January 8, 2019. The campaign would conclude on December 31, 2019.

Staff proposes a daily AdWords budget of $2,184 – the same amount as the current campaign – for a total 12-month campaign budget of $500,000.

Sole Source Justification

Section VIII.B.2 of the Procurement Policy and Procedure identifies four major provisions under which a sole source award may be justified. This request for a sole source award is made under provision B.2.c.: The desired services are available from only the sole source, specifically, B.2.c.(1): The unique experience and capabilities of the proposed contractor or contractor team.

<u>Google, Inc.</u>

Consumers are increasingly relying on digital media for news and information. In turn, companies are making increasing use of digital advertising to promote their brand and services. Google is a leader in providing online advertising and its ownership of YouTube positions the company as a leader in online video messaging. For these reasons, Google remains uniquely qualified to assist SCAQMD with outreach for the "The Right to Breathe" campaign, utilizing online digital advertising featuring video pre-roll ads and website image ads.

Resource Impacts

The purchase order for the proposed 2019 Google AdWords campaign is not to exceed $500,000. Sufficient funding is available in the BP ARCO Settlement Projects Special Revenue Fund (46).

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BOARD MEETING DATE: January 4, 2019 AGENDA NO. 11

REPORT: Legislative, Public Affairs and Media Report

SYNOPSIS: This report highlights the November 2018 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 Government.

COMMITTEE: No Committee Review

RECOMMENDED ACTION:
Receive and file.

Wayne Nastri
Executive Officer

DJA:LTO:DM

BACKGROUND
This report summarizes the activities of the Legislative, Public Affairs and Media Office for November 2018. 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.

November 3, 4 and 18
SCAQMD sponsored three American Lung Association Lung Force Walks including Orange County, the Inland Empire and Los Angeles. SCAQMD hosted a booth at each walk with information on air quality and the agency, as well as the Check Before You Burn program. SCAQMD staff also won awards for the largest number of team partcipants at all the walks.

COMMUNITY EVENTS/PUBLIC MEETINGS
Each year SCAQMD staff engage with thousands of residents, providing valuable information about the agency, incentive programs and ways individuals can help reduce air pollution through events and meetings sponsored solely by SCAQMD or in partnership with others. Attendees typically receive the following information:

- Tips on reducing their exposure to smog and its health effects;
- Clean air technologies and their deployment;
- Invitations or notices of conferences, seminars, workshops and other public events;
- SCAQMD incentive programs;
- Ways to participate in SCAQMD's rule and policy development; and
- Assistance in resolving air pollution-related problems.

SCAQMD staff attended and/or provided information and updates at the following events:

November 2
- San Bernardino Department of Education STEMapolooza Event, San Bernardino Valley College, San Bernardino

November 3
- City of Diamond Bar "America Recycles Day" Event, SCAQMD parking lot, Diamond Bar

November 7
- Sustainable Claremont Community Meeting, Lenz Building at Rancho Santa Ana Botanic Garden, Claremont

November 15
- SCAQMD hosted the Community Meeting, "Update on SCAQMD Compliance Efforts in Colton" at the Hutton Community Center, Colton

November 16
- Zócalo Fiesta Fundraiser Event, Laguna Beach

November 17

- 4th Annual Green STEM Summit, College of Canyons, Santa Clarita

ENVIRONMENTAL JUSTICE UPDATE

The following are key environmental justice-related activities in which staff participated throughout the month of November 2018. These events involve communities affected disproportionately from adverse air quality impacts.

November 7

Staff attended the Boyle Heights Neighborhood Council Committee meeting and discussed the AB 617 Community Steering Committee for the Boyle Heights, East Los Angeles and West Commerce communities.

November 8

Staff held a Community Steering Committee meeting in San Bernardino for the AB 617 program, which focuses on reducing air pollution in environmental justice communities. The purpose of the meeting was to convene Steering Committee Members for their first meeting for the San Bernardino/Muscoy area. Steering Committee Members and the public participated in a mapping exercise where they identified areas of concern.

Staff attended the Coachella Valley Association of Governments Energy & Environmental Resources Committee meeting. The committee discussed increased advocacy efforts through the state legislative process to ensure that the Coachella Valley receives an equitable allocation of cap and trade funding.

November 14

Staff participated in the California Climate Equity Coalition (CCEC) Annual Convening titled, "From Climate Investments to a Just Transition: Building Resilient Communities" in Los Angeles. CCEC is led by The Greenlining Institute, the Asian Pacific Environmental Network, Public Advocates, Coalition for Clean Air, and Strategic Concepts in Organizing and Policy Education (SCOPE). Some of the topics covered included: defining a Just Transition, the pillars of a Just Transition, and climate investments to a Just Transition. Staff participated in the breakout group about the role of government in a Just Transition.

November 15

Staff presented information regarding the AB 617 Community Steering Committee in East Los Angeles, Boyle Heights, and West Commerce to students at California State University Los Angeles. There were about 40 students in attendance. Students were given a flyer for the next AB 617 meeting, applications to apply to become a steering committee member, and informed about the AB 617 work that will be ongoing within their community.

November 27

Staff participated in an Environmental Justice tour led by Manuel Arredondo, a member of SCAQMD's Environmental Justice Advisory Group and resident of the Coachella Valley. Some locations that were visited include the North Shore community, revitalized Polanco Parks, local schools near industrialfacilities, and agricultural communities.

Staff participated in the Transformative Climate Communities meeting hosted by Leadership Counsel for Justice & Accountability, Supervisor V. Manuel Perez's office, City of Coachella, and Coachella Valley Association of Governments. Community members and local stakeholders shared information for the Eastern Coachella Valley Climate Resilience Action Plan. Some of the topics included: public transit, air pollution, urban greening, infrastructure, and affordable housing.

November 28

Staff held a Community Steering Community meeting in Boyle Heights for the AB 617 program, which focuses on reducing air pollution in environmental justice communities. The purpose of the meeting was to convene the Steering Committee Members for their first meeting for the Boyle Heights, East Los Angeles and West Commerce area. The Community Steering Committee will help guide program implementation in the Boyle Heights, East Los Angeles, and West Commerce communities.

Staff attended the Coachella Valley Environmental Justice Enforcement Task Force meeting in Indio. SCAQMD Board Member Supervisor V. Manuel Perez attended the meeting, as well as representatives from U.S. EPA, CARB, Leadership Counsel for Justice & Accountability, and business and community members. The meeting was held to help identify and address Environmental Justice concerns in the Coachella Valley.

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.

November 1

- Staff hosted five representatives from the Korea Environmental Corporation, provided presentations, and had discussions on SCAQMD, and its emissions estimates, permitting, monitoring, emission detection, and rule development for stationary sources of air pollution.

November 2

- Staff hosted 50 students from Cal Poly Pomona University, Civil Engineering Department. The visit included a presentation on SCAQMD, tour of the laboratory, alternative fuel vehicles and alternative fueling stations at SCAQMD headquarters.

November 13

- Staff presented information on SCAQMD, air quality, clean air technologies, and displayed an alternative fuel vehicle to three classes of 75 students at Providence High School in Burbank.

November 29

- Staff presented information on SCAQMD and how to file air quality complaints to 20 members of the Downtown Riverside Kiwanis Club at their monthly meeting.

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 November were:

Calls to SCAQMD's Main Line and 1-800-CUT-SMOG® Line	3,814
Calls to SCAQMD's Spanish-language Line	35
Total Calls	3,849

PUBLIC INFORMATION CENTER STATISTICS

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

Calls Received by PIC Staff	128
Calls to Automated System	962
Total Calls	1,090
Visitor Transactions	158
Email Advisories Sent	5,066

BUSINESS ASSISTANCE

SCAQMD notifies local businesses of proposed regulations so they can participate in the agency's rule development process. SCAQMD also works with other agencies and governments to identify efficient, cost-effective ways to reduce air pollution and shares that information broadly. Staff provides personalized assistance to small businesses both over the telephone and via on-site consultation. The information is summarized below:

- Provided permit application assistance to 139 companies
- Processed 58 Air Quality Permit Checklists
- Conducted 7 free on-site consultations

Types of businesses assisted

Auto Body Shops	Dry Cleaners	Furniture Refinishing Facilities
Plating Facilities	Gas Stations	Manufacturing Facilities
Auto Repair Centers	Restaurants	Printing Facilities

Engineering, Construction, & Architecture Firms

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: 86
No-Burn Alerts: 5
Press Releases/Air Quality Advisories Issued: 13

Major Media Topics for November
All inquiries closed unless noted as pending

- Aliso Canyon – Southern California News Group inquired about storage tanks for crude oil at the SoCalGas Aliso Canyon site.
- No-Burn Notices – KPCC requested an interview to discuss the details about no-burn notices, including enforcement actions taken when a resident was found to be burning wood on a no-burn day.
- Torrance Refinery – The Press-Telegram requested information on an unplanned flaring event.
- Battery-Electric Trucks – Government Technology Magazine requested more information on proposed efforts to turn over to alternative fuel transport trucks in the near future.
- Smoke Advisories and Fire – KPCC/NPR, KNX 1070 AM, Bloomberg, OC Register, LA Times, KNBC inquired regarding the Woolsey Fire, and the related smoke and ash advisories.
- Tanker Cited for Coastal Odors– Following receipt of our November 9 news release, Bloomberg News, Orange County Register, LA Times, The Sun News, and Long Beach Post inquired about the number of complaints received in relation to coastal odors; whether the Notice of Violation carried a fine or was simply a "fix-it ticket"; odor sample results, etc.
- Ultra-Low NOx Truck Emissions Petition – E&E News, Bloomberg News, LA Times requested SCAQMD's reaction to a U.S. EPA announcement regarding its Clean Truck Initiative. Staff issued a statement to reporters who inquired, and also posted the statement to our social media platforms.

- Metrolink NOVs – Staff responded to written questions from Southern California News Group regarding two NOVs issued in 2018 to Metrolink's Central Maintenance Facility in Los Angeles.
- Portable Air Monitors – Staff conducted an interview with New York Times regarding portable air monitors.
- EPA Administration Leaders – Staff responded to a request for statement by E&E News.
- Commuter Impact on Local Climate –The Daily Titan inquired regarding the impacts of the commuter lifestyle in and around USC, and how it could affect student health.

News Releases

- U.S. EPA Requires Trucking Companies to Reduce Air Pollution Near Los Angeles Schools - November 1, 2018
- SCAQMD Approves $90.7 Million Zero-Emission Truck Demonstration - November 2, 2018
- SCAQMD Launches Investigation Following Disturbance of Asbestos-Containing Material at Senior Apartments in Mission Hills - November 6, 2018
- SCAQMD Enhances Regulation to Further Reduce Hexavalent Chromium Emissions - November 6, 2018
- SCAQMD Issues Windblown Dust & Ash Advisory - November 8, 2018
- SCAQMD Issues Smoke Advisory Due to Hill and Woolsey Fires - November 9, 2018
- SCAQMD Continues Windblown Dust & Ash Advisory - November 9, 2018
- SCAQMD Issues Violation to Oil Tanker Ship for Fugitive Emissions - November 9, 2018
- SCAQMD Continues Smoke Advisory Due to Hill and Woolsey Fires - November 10, 2018
- SCAQMD Continues Smoke Advisory Due to Hill and Woolsey Fires - November, 11, 2018
- SCAQMD Continues Smoke Advisory Due to Hill and Woolsey Fires - November 12, 2018
- SCAQMD Continues Smoke Advisory Due to Hill and Woolsey Fires - November 13, 2018
- SCAQMD Launches Upgraded Air Quality Mobile Phone App - November 21, 2018

Media Campaigns

Check Before You Burn

- All paid ad campaigns, including radio, digital and Google AdWords, started on November 1, 2018.
- Three short video vignettes completed for social media.
- Five No-burn days issued during November.

OUTREACH TO COMMUNITY GROUPS AND FEDERAL, STATE, AND LOCAL GOVERNMENTS

Field visits and/or communications were conducted with elected officials or staff from the following cities:

Alhambra
Anaheim
Arcadia
Azusa
Baldwin Park
Banning
Buena Park
Carson
Claremont
Coachella
Covina
Colton
Cypress
Diamond Bar
Duarte
El Monte
Fountain Valley
Fullerton
Grand Terrace
Glendora
Huntington Beach
Irvine
Laguna Niguel
La Cañada Flintridge
Lake Elsinore
Lake Forest
La Habra
La Puente
La Verne
Los Angeles
Menifee
Mission Viejo
Moreno Valley
Monrovia
Monterey Park
Murrieta
Newport Beach
Pomona
Rancho Cucamonga
Riverside
Rosemead
San Dimas
San Gabriel
San Marino
Sierra Madre
South El Monte
South Pasadena
Temple City
Temecula
Tustin
Upland
Walnut
West Covina
Wildomar
Yucaipa

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

- U.S. Senator Ben Cardin
- U.S. Senator Dianne Feinstein
- U.S. Senator Kamala Harris
- U.S. Representative Jimmy Garcia
- U.S. Representative Lucille Roybal-Allard
- Senator Kevin de León
- Senator Ed Hernandez
- Assembly Member Wendy Carrillo
- Assembly Majority Floor Leader Ian Calderon
- Assembly Member Tom Daly
- Assembly Member Miguel Santiago
- Assembly Member Al Muratsuchi

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

Association of California Cities, Orange County
Los Angeles Department of Water and Power
Los Angeles Area Chamber of Commerce
Newport Beach Chamber of Commerce
Omnitrans, San Bernardino
Orange County Council of Governments
Orange County Business Council
Riverside Chamber of Commerce
Riverside Public Utilities
Riverside County Transportation Commission
Riverside Transit Agency
Transportation Now, -Moreno Valley/Perris - Southwest Chapter
San Bernardino County Transportation Authority
San Gabriel Valley Economic Partnership
Santa Ana Chamber of Commerce
South Bay Association of Chambers of Commerce
Southern California Association of Governments
Southern California Gas Company
Upland Chamber of Commerce
Valley Industry & Commerce Association (VICA)
Western Riverside Council of Governments

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

American Lung Association
California Polytechnic State University, Pomona
California State University, Los Angeles
Eastern Metropolitan Water District
Providence High School, Burbank
Riverside Kiwanis Club
San Bernardino Valley College
San Gabriel Valley Community Alliance
University of California, Riverside

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BOARD MEETING DATE: January 4, 2019 AGENDA NO. 12

REPORT: Hearing Board Report

SYNOPSIS: This reports the actions taken by the Hearing Board during the period of November 1 through November 30, 2018.

COMMITTEE: No Committee Review

RECOMMENDED ACTION:
Receive and file.

Julie Prussack
Chairman of Hearing Board

DG

Two summaries are attached: **November 2018 Hearing Board Cases** and **Rules From Which Variances and Orders for Abatement Were Requested in 2018**. An Index of District Rules is also attached.

The total number of appeals filed during the period November 1 to November 30, 2018 is 0; and total number of appeals filed during the period of January 1 to November 30, 2018 is 0.

Report of November 2018 Hearing Board Cases

Case Name and Case No. (SCAQMD Attorney)	Rules	Reason for Petition/Hearing	District Position/ Hearing Board Action	Type and Length of Variance or Order	Excess Emissions
1. American Tower Corporation Case No. 6123-1 (S. Pruitt)	203(b)	ICE exceeded annual permitted hours of operation due to Cranston fire.	Not Opposed/Denied	Ex Parte EV denied.	N/A
2. American Tower Corporation Case No. 6123-1 (N. Feldman)	203(b)	ICE exceeded annual permitted hours of operation due to Cranston fire.	Not Opposed/Granted	SV granted commencing 11/27/18 and continuing through 12/31/18.	CO: 12 lbs/day NOx+NMHC:14 lbs/day PM: 0.5 lb/day
3. Costco Wholesale c/o Barghausen Consulting Engineers, Inc. Case No. 6125-1 (S. Pruitt)	203(b) 461(c)(1)(A) 461(e)(5)	Requested relief from testing requirement.	Not Opposed/Granted	Ex Parte EV granted commencing 11/8/18 and continuing until the IV hearing currently scheduled for 11/15/18; but in no event longer than 30 days.	None
4. Los Angeles County - Internal Services Department –Network Services Division Case No. 6127-1 (T. Barrera)	203(b)	ICE exceeded annual permitted hours of operation due to high winds and power disruptions by SoCal Gas Company.	Not Opposed/Granted	Ex Parte EV granted commencing 11/20/18 and continuing for 30 days or until the SV hearing currently scheduled for 12/11/18, whichever comes first.	CO: 1075 lbs/day NOx: 29 lbs/day SO2: 1.9 lbs/day
5. Los Angeles County – Internal Services Department –Network Services Division Case No. 6127-2 (T. Barrera)	203(b)	ICE exceeded annual permitted hours of operation due to Woolsey fire.	Not Opposed/Granted	Ex Parte EV granted commencing 11/20/18 and continuing for 30 days or until the SV hearing currently scheduled for 12/11/18, whichever comes first.	CO: 1075 lbs/day NOx: 29 lbs/day SO2: 1.9 lbs/day
6. SCAQMD vs. Aerocraft Heat Treating Co., Anaplex Corp. Case No. 6066-1 (W. Wong)	N/A	Respondent Anaplex sought to modify the O/A without stipulation of the District to change the curtailment conditions.	Not Stipulated/Dismissed	The Board granted the District's Motion to Dismiss Anaplex's Amended Request for Mod. O/A for lack of jurisdiction.	N/A

Acronyms

CO: Carbon Monoxide
EV: Emergency Variance
H&S: Health & Safety Code
ICE: Internal Combustion Engine
IV: Interim Variance
MFCD/EXT: Modification of a Final Compliance Date & Extension of Variance
Mod. O/A: Modification of an Order for Abatement
N/A: Not Applicable
NOx: Oxides of Nitrogen
NOx +NMHC: Oxides of Nitrogen + Non-Methane Hyrdocarbons
O/A: Order for Abatement
RV: Regular Variance
SO2: Sulfur Dioxide
SV: Short Variance

Rules from which Variances and Orders for Abatement were Requested in 2018														
	2018	***Jan***	***Feb***	***Mar***	***Apr***	***May***	***Jun***	***Jul***	***Aug***	***Sep***	***Oct***	***Nov***	***Dec***	***Total Actions***
# of HB Actions Involving Rules														
109(c)(1)				1										1
202(a)								1		1				2
203											1			1
203(a)				2			1	1	1					5
203(b)		2	4	2	4	2	3	2	4	3		5		31
218(f)										1				1
222							1							1
401(b)(1)										1				1
402								1			1			2
431.1(c)(2)					2	1	1							4
461										1				1
461(c)(1)(A)												1		1
461(c)(2)(B)								1						1
461(c)(3)(P)								1						1
461(e)(5)								3				1		4
463(c)(2)							2							2
463(d)(2)							2							2
463(e)(4)							2							2
463(f)(1)(C)							2							2
1110.2(d)(1)(F)							1							1
1110.2(d)(1)(H)							1							1
1110.2(d)(1)(L)				1										1
1110.2(e)(3)(b)										1				1
1110.2(f)(1)										1				1
1146(d)(6)							1			1				2
1146(d)(8)							1			1				2
1146.2							1							1
1146.2(e)							1							1
1147							1	1						2
1147(c)(1)		1							1					2
1149(c)(1)							1							1
1149(c)(2)							1							1
1149(c)(7)							1							1
1173(g)(1)										1				1
1178(d)(3)							2							2
1178(g)							2							2
1178(h)(4)							2							2
1401											1			1
1407				1										1
1415(d)(1)(A)							1							1
1420.2				2		1			1					4
1420.2(g)(3)(B)									1					1
1430									1					1
1430(d)(8)(A)									1	1				2
1470							1							1

Rules from which Variances and Orders for Abatement were Requested in 2018														
	2018	***Jan***	***Feb***	***Mar***	***Apr***	***May***	***Jun***	***Jul***	***Aug***	***Sep***	***Oct***	***Nov***	***Dec***	***Total Actions***
2004(f)(1)		2	3		2		2	1	1	1				12
2011(c)(2)(A)		1												1
2011(c)(2)(B)		1												1
2011(e)(1)		1												1
2012(c)(2)(A)		1												1
2012(c)(2)(B)		1												1
2012(g)(1)		1												1
3002(c)		1												1
3002(c)(1)		1	3		3		3	2	2	1				15
H&S 41700								1			1			2
H&S 41701										1				1
H&S 42401										1				1

DISTRICT RULES AND REGULATIONS INDEX
FOR 2018 HEARING BOARD CASES AS OF NOVEMBER 30, 2018

REGULATION I – GENERAL PROVISIONS

Rule 109 Recordkeeping for Volatile Organic Compound Emissions

REGULATION II – PERMITS

Rule 202 Temporary Permit to Operate
Rule 203 Permit to Operate
Rule 218 Continuous Emission Monitoring
Rule 222 Filing Requirements for Specific Emission Sources Not Requiring a Written Permit Pursuant to Regulation II

REGULATION IV – PROHIBITIONS

Rule 401 Visible Emissions
Rule 402 Nuisance
Rule 431.1 Sulfur Content of Gaseous Fuels
Rule 461 Gasoline Transfer and Dispensing
Rule 463 Organic Liquid Storage

REGULATION XI - SOURCE SPECIFIC STANDARDS

Rule 1110.2 Emissions from Gaseous- and Liquid-Fueled Internal Combustion Engines
Rule 1143 Consumer Paint Thinners and Multi-Purpose Solvents
Rule 1146 Emissions of Oxides of Nitrogen from Industrial, Institutional and Commercial Boilers, Steam Generators, and Process Heaters
Rule 1146.2 Emissions of Oxides of Nitrogen from Large Water Heaters and Small Boilers and Process Heaters
Rule 1147 NOx Reductions from Miscellaneous Sources
Rule 1149 Storage Tank and Pipeline Cleaning and Degassing
Rule 1173 Control of Volatile Organic Compound Leaks and Releases from Components at Petroleum Facilities and Chemical Plants
Rule 1178 Further Reductions of VOC Emissions from Storage Tanks at Petroleum Facilities

REGULATION XIV – TOXICS AND OTHER NON-CRITERIA POLLUTANTS

Rule 1401	New Source Review of Toxic Air Contaminants
Rule 1407	Control of Emissions of Arsenic, Cadmium, and Nickel from Non-Ferrous Metal Melting Operations
Rule 1415	Reduction of Refrigerant Emissions from Stationary Air Conditioning Systems
Rule 1420.2	Emission Standard for Lead from Metal Melting Facilities
Rule 1430	Control of Emissions from Metal Grinding Operations at Metal Forging Facilities
Rule 1470	Requirements for Stationary Diesel-Fueled Internal Combustion and Other Ignition Engines

REGULATION XX - REGIONAL CLEAN AIR INCENTIVES MARKET (RECLAIM)

Rule 2004	Requirements
Rule 2011	Requirements for Monitoring, Reporting, and Recordkeeping for Oxides of Sulfur (SOx) Emissions
Rule 2012	Requirements for Monitoring, Reporting, and Recordkeeping for Oxides of Nitrogen (NOx) Emissions

REGULATION XXX - TITLE V PERMITS

Rule 3002	Requirements

CALIFORNIA HEALTH AND SAFETY CODE

§41700	Prohibited Discharges
§41701	Restricted Discharges
§42401	Violation of Abatement Order; Civil Penalty

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BOARD MEETING DATE: January 4, 2019 AGENDA NO. 13

REPORT: Civil Filings and Civil Penalties Report

SYNOPSIS: This reports the monthly penalties from November 1, 2018 through November 30, 2018, and legal actions filed by the General Counsel's Office from November 1 through November 30, 2018. An Index of District Rules is attached with the penalty report.

COMMITTEE: Stationary Source, December 19, 2018, Reviewed

RECOMMENDED ACTION:
Receive and file this report.

Bayron T. Gilchrist
General Counsel

BTG:ew

Civil Filings	Violations
1. The Sherwin-Williams Company Los Angeles Superior Court-Pomona Case No. 18PSCV00136; Filed 11.30.18 (WBW) P55313, P61803, P64805, and P64808 R. 1113 - Architectural Coatings R.1143 - Consumer Paint Thinners & Multi-Purpose Solvents R. 1168 - Adhesive and Sealant Applications	4
	4 Violations

Attachments
November 2018 Penalty Report
Index of District Rules and Regulations

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
General Counsel's Office

November 2018 Settlement Penalty Report

Total Penalties

Civil Settlements:	**$3,122,730.00**
MSPAP Settlements:	**$24,125.00**
Total Cash Settlements:	**$3,146,855.00**
Total SEP Value:	**$0.00**
Fiscal Year through 11 / 2018 Cash Total:	**$4,429,505.00**
Fiscal Year through 11 / 2018 SEP Value Only Total:	**$260,000.00**

Fac ID	Company Name	Rule Number	Settled Date	Init	Notice Nbr	Total Settlement
Civil Settlements						
19515	AJAX FORGE CO	1430 203(a)	11/15/2018	DH	P60692 P65216	$10,000.00
132266	AMERICA WOOD FINISHES CORP	1113(c)(1)	11/2/2018	WBW	P64670	$1,730.00
132068	BIMBO BAKERIES USA INC	2004(f)(1)	11/16/2018	TRB	P60697	$1,000.00
800209	BKK CORP (EIS USE)	3002	11/2/2018	MJR	P61074 P66452	$10,500.00
182064	CARIBBEAN SEA PETROLEUM INC	203(b)	11/8/2018	GV	P65704	$2,400.00
155698	FIELD ENERGY CORPORATION	461 (e) (2)	11/8/2018	GV	P64272	$625.00

Fac ID	Company Name	Rule Number	Settled Date	Init	Notice Nbr	Total Settlement
185880	GEMINI FOOD CORPORATION	1415.1	11/28/2018	SMP	P66953	$7,500.00
139799	LITHOGRAPHIX INC	3002	11/29/2018	WBW	P63665	$1,250.00
155877	MILLERCOORS USA LLC	2004 2012	11/2/2018	WBW	P63695	$2,250.00
104806	MM LOPEZ ENERGY LLC	1110.2 218 3002	11/15/2018	BST	P66261	$26,000.00
18294	NORTHROP GRUMMAN SYSTEMS CORP	1146 2004(f)(1) 3002(c)(1)	11/21/2018	BST	P66108	$2,000.00
7427	OWENS-BROCKWAY GLASS CONTAINER INC	2004 2011(c)(3)(A) 2012(c)(3)(A)	11/15/2018	BST	P66908	$2,200.00
800212	POMONA VALLEY COMM HOSP (EIS USE)	1146 222 1415 1470 1472 203(a) 203(b)	11/1/2018	NSF	P56728 P62030 P62040 P62042 P62045	$55,000.00
150363	REBILT METALIZING CO	1469	11/8/2018	GV	P64855	$250.00
8582	SO CAL GAS CO/PLAYA DEL REY STORAGE FAC	2004	11/28/2018	NSF	P66910	$3,000.00
800436	TESORO REFINING AND MARKETING CO, LLC	3002(c)(1)	11/28/2018	NSF	P63369	$30,000.00

Fac ID	Company Name	Rule Number	Settled Date	Init	Notice Nbr	Total Settlement
53729	TREND OFFSET PRINTING SERVICES, INC	2004	11/29/2018	WBW	P63694	$750.00
9053	VEOLIA ENERGY LOS ANGELES, INC	2004	11/30/2018	TRB	P62069	$1,500.00
168070	WM BARR & COMPANY INC	1143	11/6/2018	WBW	P55894 P55899 P60300 P60329 P60334 P60335 P64827	$2,964,775.00

Total Civil Settlements: $3,122,730.00

Fac ID	Company Name	Rule Number	Settled Date	Init	Notice Nbr	Total Settlement
MSPAP						
182118	AESOS OIL INC	461(c)(3)(Q)	11/1/2018	GC	P70583	$400.00
182732	B & J TREE SERVICE	403	11/15/2018	TF	P65762	$3,000.00
157660	BRENTWOOD 76 SERVICE	461	11/15/2018	TF	P64931	$450.00
146556	CITY OF WESTMINSTER	1415	11/15/2018	TF	P65164	$400.00
22962	DRIFTWOOD DAIRY	1146.1 203(b)	11/1/2018	GC	P60541	$1,200.00
173672	EZ FUEL AND EZ FOOD MART NAEEM ULLAH KHA	461(c)(3)(Q)	11/1/2018	GC	P70571	$200.00
55002	FAROOQ IFTIKHAR, LA PAZ SHELL DBA	461 41960.2	11/15/2018	TF	P68106	$800.00
186078	LA MIRADA SHELL	203(a) 461 41960.2	11/15/2018	TF	P65747	$1,360.00
186078	LA MIRADA SHELL	461 41960.2	11/15/2018	TF	P68103	$765.00
45317	MED CTR GARDEN GROVE	1415	11/1/2018	TF	P65158	$1,600.00
186430	MOHSEN MART 3	203(a)	11/15/2018	TF	P65741	$400.00
186430	MOHSEN MART 3	203(a)	11/15/2018	TF	P65743	$500.00
186430	MOHSEN MART 3	461	11/15/2018	TF	P68104	$2,600.00
180100	MY GOODS MARKET #5681	461	11/1/2018	TF	P64997	$800.00

Fac ID	Company Name	Rule Number	Settled Date	Init	Notice Nbr	Total Settlement
177227	NEWPORT BEACH CARWASH	461(c)(3)(Q)	11/8/2018	TF	P70655	$400.00
142821	NONO'S ENTERPRISES INC	461 41960	11/15/2018	TF	P64932	$800.00
169575	PAVEMENT RECYCLING SYSTEMS	PERP 2460	11/15/2018	TF	P66051	$2,500.00
15159	PUENTE READY MIX INC	203(b)	11/15/2018	TF	P67403	$500.00
160714	RON'S MINI MART, INC, PARAMJIT SINGH	461 41960.2	11/27/2018	TF	P64999	$850.00
186579	SMART & FINAL STORES LLC	203(a)	11/15/2018	TF	P67351	$800.00
185983	TESORO ARCO 42634	461	11/15/2018	TF	P66360	$800.00
164608	THRESHOLD TECHNOLOGIES, INC.	203	11/27/2018	GV	P59409	$1,000.00
125780	TOLL BROTHERS INC	203(a)	11/1/2018	TF	P67204	$800.00
43805	WESTMINSTER CITY	1415	11/15/2018	TF	P65163	$400.00
27127	WINALL OIL CO #15	201	11/1/2018	TF	P64929	$800.00

Total MSPAP Settlements: $24,125.00

DISTRICT'S RULES AND REGULATIONS INDEX
FOR NOVEMBER 2018 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 IV - PROHIBITIONS

Rule 403	Fugitive Dust - Pertains to solid particulate matter emitted from man-made activities
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 1143	Consumer Paint Thinners & Multi-Purpose Solvents
Rule 1146	Emissions of Oxides of Nitrogen from Industrial, Institutional and Commercial Boilers, Steam Generators, and Process Heaters
Rule 1146.1	Emissions of Oxides of Nitrogen from Small Industrial, Institutional, and Commercial Boilers, Steam Generators, and Process Heaters
Rule 1168	Adhesive and Sealant Applications

REGULATION XIV - TOXICS

Rule 1415	Reduction of Refrigerant Emissions from Stationary Refrigeration and Air Conditioning Systems
Rule 1415.1	Reduction of Refrigerant Emissions from Stationary Refrigeration Systems
Rule 1430	Control of Emissions from Metal Grinding Operations at Metal Forging Facilities
Rule 1469	Hexavalent Chromium Emissions From Chrome Plating and Chromic Acid Anodizing Operations
Rule 1470	Requirements for Stationary Diesel-Fueled Internal Combustion and Other Compression Ignition Engines
Rule 1472	Requirements for Facilities with Multiple Stationary Emergency Standby Diesel Fueled Internal Combustion Engines

REGULATION XX - REGIONAL CLEAN AIR INCENTIVES MARKET (RECLAIM)

Rule 2004	RECLAIM Program Requirements
Rule 2011	Requirements for Monitoring, Reporting, and Recordkeeping for Oxides of Sulfur (SO_X) Emissions
Rule 2012	Requirements for Monitoring, Reporting, and Recordkeeping for Oxides of Nitrogen (NO_X) Emissions

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

CALIFORNIA HEALTH AND SAFETY CODE

41960	Certification of Gasoline Vapor Recovery System
41960.2	Gasoline Vapor Recovery

CALIFORNIA CODE OF REGULATIONS

13 CCR 2460	Portable Equipment Testing Requirements

Back to Agenda

BOARD MEETING DATE: January 4, 2019 AGENDA NO. 14

REPORT: Lead Agency Projects and Environmental Documents Received By SCAQMD

SYNOPSIS: This report provides, for the Board's consideration, a listing of CEQA documents received by the SCAQMD between November 1, 2018 and November 30, 2018, and those projects for which the SCAQMD is acting as lead agency pursuant to CEQA.

COMMITTEE: No Committee Review

RECOMMENDED ACTION:
Receive and file.

Wayne Nastri
Executive Officer

PF:SN:JW:LS:LW

CEQA Document Receipt and Review Logs (Attachments A and B) – Each month, the SCAQMD receives numerous CEQA documents from other public agencies on projects that could adversely affect air quality. A listing of all documents received and reviewed during the reporting period November 1, 2018 through November 30, 2018 is included in Attachment A. A list of active projects from previous reporting periods for which SCAQMD staff is continuing to evaluate or has prepared comments is included in Attachment B. A total of 55 CEQA documents were received during this reporting period and 27 comment letters were sent. There are no notable projects to highlight in this report.

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 were compiled into a series of tables relative to: off-road engines; on-road engines; harbor craft; ocean-going vessels; locomotives; fugitive dust; and greenhouse gases. These mitigation measure tables are on the CEQA webpages portion of the SCAQMD's website at: http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/mitigation-measures-and-control-efficiencies. Staff will continue compiling tables of mitigation measures for other emission sources, including airport ground support equipment and other sources.

As resources permit, staff focuses on reviewing and preparing comments for projects: where the SCAQMD is a responsible agency; that may have significant adverse regional air quality impacts (e.g., special event centers, landfills, goods movement, etc.); that may have localized or toxic air quality impacts (e.g., warehouse and distribution centers); where environmental justice concerns have been raised; and those projects for which a lead or responsible agency has specifically requested SCAQMD review. If staff provided written comments to the lead agency as noted in the column "Comment Status," there is a link to the "SCAQMD Letter" under the Project Description. In addition, if staff testified at a hearing for the proposed project, a notation is provided under the "Comment Status." If there is no notation, then staff did not provide testimony at a hearing for the proposed project.

During the period November 1, 2018 through November 30, 2018, the SCAQMD received 55 CEQA documents. Of the total of 74 documents* listed in Attachments A and B:

- 27 comment letters were sent;
- 19 documents were reviewed, but no comments were made;
- 17 documents are currently under review;
- 0 documents did not require comments (e.g., public notices);
- 0 documents were not reviewed; and
- 11 documents were screened without additional review.

* These statistics are from November 1, 2018 to November 30, 2018 and may not include the most recent "Comment Status" updates in Attachments A and B.

Copies of all comment letters sent to lead agencies can be found on the SCAQMD's CEQA webpage at the following internet address: http://www.aqmd.gov/home/regulations/ceqa/commenting-agency.

SCAQMD Lead Agency Projects (Attachment C) – Pursuant to CEQA, the SCAQMD periodically acts as lead agency for stationary source permit projects. Under CEQA, the lead agency is responsible for determining the type of CEQA document to be prepared if the proposal is considered to be a "project" as defined by CEQA. For example, an Environmental Impact Report (EIR) is prepared when the SCAQMD, as lead agency, finds substantial evidence that the proposed project may have significant adverse effects on the environment. Similarly, a Negative Declaration (ND) or Mitigated Negative Declaration (MND) may be prepared if the SCAQMD determines that the proposed project will not generate significant adverse environmental impacts, or the impacts can be mitigated to less than significance. The ND and MND are written statements describing the reasons why proposed projects will not have a significant adverse effect on the environment and, therefore, do not require the preparation of an EIR.

Attachment C to this report summarizes the active projects for which the SCAQMD is lead agency and is currently preparing or has prepared environmental documentation. As noted in Attachment C, the SCAQMD continued working on the CEQA documents for three active projects during November.

Attachments

A. Incoming CEQA Documents Log
B. Ongoing Active Projects for Which SCAQMD Has or Will Conduct a CEQA Review
C. Active SCAQMD Lead Agency Projects

ATTACHMENT A*
INCOMING CEQA DOCUMENTS LOG
November 01, 2018 to November 30, 2018

SCAQMD LOG-IN NUMBER PROJECT TITLE	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
Warehouse & Distribution Centers **LAC181120-04** ENV-2018-3190: 9201 N Winnetka Avenue	The proposed project consists of construction of 210,000 square feet of warehouses on 11.55 acres. The project is located on the southeast corner of Prairie Street and Oso Avenue in the community of Chatsworth-Porter Ranch. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2018/LAC181120-04.pdf Comment Period: 11/20/2018 - 12/7/2018 Public Hearing: N/A	Negative Declaration	City of Los Angeles	SCAQMD staff commented on 12/7/2018
Warehouse & Distribution Centers **RVC181113-08** Eastvale Storage Project No. PLN18-20034	The proposed project consists of construction of 148,670 square feet of self-storage buildings on 4.2 acres. The project is located on the northeast corner of Walters Street and Hellman Avenue. Comment Period: 11/9/2018 - 11/28/2018 Public Hearing: N/A	Notice of Intent to Adopt a Mitigated Negative Declaration	City of Eastvale	Document reviewed - No comments sent
Warehouse & Distribution Centers **RVC181127-06** The Merge Retail and Light Industrial Development (PLN18-20026)	The proposed project consists of construction of eight warehouses totaling 336,501 square feet, and 72,600 square feet of retail uses including a gas station with 16 pumps and car wash on 26 acres. The project is located on the northeast corner of Archibald Avenue and Limonite Avenue. Reference RVC180918-05 and RVC180628-02 Comment Period: N/A Public Hearing: 12/12/2018	Final Environmental Impact Report	City of Eastvale	Document reviewed - No comments sent
Warehouse & Distribution Centers **RVC181127-07** K4 and Cactus Channel Improvements Project	The proposed project consists of construction of a 718,000-square-foot warehouse and installation of a box culvert within the Cactus Channel on 35.4 acres. The project is located on the southwest corner of Cactus Avenue and Frederick Street. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2018/RVC181127-07.pdf Comment Period: 11/19/2018 - 12/19/2018 Public Hearing: N/A	Notice of Preparation	March Joint Powers Authority	SCAQMD staff commented on 12/7/2018

**Sorted by Land Use Type (in order of land uses most commonly associated with air quality impacts), followed by County, then date received.*

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

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

ATTACHMENT A
INCOMING CEQA DOCUMENTS LOG
November 01, 2018 to November 30, 2018

SCAQMD LOG-IN NUMBER PROJECT TITLE	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
Warehouse & Distribution Centers **SBC181107-07** CDRE Base Line Industrial Warehouse	The proposed project consists of construction of a 99,999-square-foot industrial building on five acres. The project is located on the northeast corner of Base Line Road and Palmetto Avenue. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2018/SBC181107-07.pdf Comment Period: 10/31/2018 - 11/19/2018 Public Hearing: 1/9/2018	Mitigated Negative Declaration	City of Rialto	SCAQMD staff commented on 11/14/2018
Warehouse & Distribution Centers **SBC181128-02** Baseline and Tamarind Warehouse Project	The proposed project consists of construction of a 156,500-square-foot warehouse on 8.01 acres. The project is located on the northwest corner of Base Line Road and Tamarind Avenue. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2018/SBC181128-02.pdf Comment Period: 11/25/2018 - 12/14/2018 Public Hearing: 1/9/2019	Mitigated Negative Declaration	City of Rialto	SCAQMD staff commented on 12/13/2018
Warehouse & Distribution Centers **SBC181128-03** Alere Warehouse at Cajon Boulevard Project	The proposed project consists of construction of a 321,496-square-foot warehouse on 20 acres. The project is located at 19416 Cajon Boulevard on the southwest corner of Cajon Boulevard and Kendall Drive. Comment Period: 11/19/2018 - 12/12/2018 Public Hearing: N/A	Mitigated Negative Declaration	County of San Bernardino	Document reviewed - No comments sent
Industrial and Commercial **LAC181127-01** Multi-Use Commercial Development Project	The proposed project consists of construction of 31,000 square feet of commercial building pads and repurposing of an existing 138,000-square-foot structure for commercial uses on 20.46 acres. The project is located at 1345 North Montebello Boulevard on the northwest corner of Montebello Boulevard and Paramount Boulevard. Comment Period: 11/19/2018 - 12/8/2018 Public Hearing: N/A	Negative Declaration	City of Montebello	Document reviewed - No comments sent

- Project has potential environmental justice concerns due to the nature and/or location of the project.
Documents received by the CEQA Intergovernmental Review program but not requiring review are not included in this report.

ATTACHMENT A
INCOMING CEQA DOCUMENTS LOG
November 01, 2018 to November 30, 2018

SCAQMD LOG-IN NUMBER PROJECT TITLE	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
Industrial and Commercial **RVC181107-02** Planning Cases P18-0768 (DR) and P18-0795 (PM)	The proposed project consists of demolition of 21,000 square feet of buildings and construction of 92,300 square feet of industrial buildings on 4.2 acres. The project is located at 1751 Spruce Street on the northeast corner of Spruce Street and Service Court. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2018/RVC181107-02.pdf Comment Period: 11/1/2018 - 11/21/2018 Public Hearing: N/A	Site Plan	City of Riverside	SCAQMD staff commented on 11/14/2018
Industrial and Commercial **RVC181128-01** Preliminary Review 18-026	The proposed project consists of conversion of an existing gas station storage area to 1,682 square feet of retail and office uses on 0.39 acres. The project is located at 202 North State Street on the northeast corner of State Street and Latham Avenue. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2018/RVC181128-01.pdf Comment Period: 11/21/2018 - 12/6/2018 Public Hearing: 12/6/2018	Site Plan	City of Hemet	SCAQMD staff commented on 11/30/2018
Waste and Water-related **LAC181107-09** Former Terminix Facility	The proposed project consists of development of remedial actions to clean up, excavate, and dispose pesticide contamination in soil. The project is located at 2828 London Street on the southeast corner of Occidental Boulevard and London Street in the community of Silver Lake-Echo Park-Elysian Valley. Reference LAC180322-06 Comment Period: 11/2/2018 - 12/7/2018 Public Hearing: N/A	Draft Removal Action Work Plan	Department of Toxic Substances Control	Document reviewed - No comments sent
Waste and Water-related **LAC181113-04** Pacoima Spreading Grounds Improvement Project	The proposed project consists of excavation of 1.6 million cubic yards of sediment to increase water storage capacity from 530 acre-feet (af) to 1,197 af and increase percolation rate from 65 cubic feet per second (cfs) to 142 cfs on 169 acres. The project is located on the southwest corner of Arleta Avenue and Devonshire Street in the City of Los Angeles. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2018/LAC181113-04.pdf Comment Period: 11/14/2018 - 12/13/2018 Public Hearing: 11/29/2018	Recirculated Mitigated Negative Declaration	Los Angeles County Flood Control District	SCAQMD staff commented on 12/12/2018

- Project has potential environmental justice concerns due to the nature and/or location of the project.
Documents received by the CEQA Intergovernmental Review program but not requiring review are not included in this report.

ATTACHMENT A
INCOMING CEQA DOCUMENTS LOG
November 01, 2018 to November 30, 2018

SCAQMD LOG-IN NUMBER PROJECT TITLE	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
Waste and Water-related **ORC181107-05** Westminster, East Garden Grove, CA Flood Risk Management Study	The proposed project consists of modifications to drainage channels, widening of existing roadways, replacement of tide gates, and construction of a floodwall. The project is located on the northeast corner of Beach Boulevard and Pacific Coast Highway in the County of Orange. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2018/ORC181107-05.pdf Comment Period: 11/1/2018 - 12/3/2018 Public Hearing: N/A	Notice of Preparation	United States Army Corps of Engineers	SCAQMD staff commented on 11/30/2018
Waste and Water-related **RVC181107-01** Santa Ana River Conservation and Conjunctive Use Program	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 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 RVC161216-05, RVC161101-07 http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2018/RVC181107-01.pdf Comment Period: 11/6/2018 - 12/21/2018 Public Hearing: N/A	Draft Environmental Impact Report	Inland Empire Utilities Agency	SCAQMD staff commented on 12/19/2018
Waste and Water-related **RVC181107-04** Monroe Master Drainage Plan Line E Stages 2 and 3, Line E-2, and Line E-5 Storm Drain Improvements	The proposed project consists of construction of 11,200 linear feet of underground storm drain pipeline. The project is located along Gratton Street, Dufferin Avenue, and Hermosa Drive. Comment Period: 11/6/2018 - 12/6/2018 Public Hearing: 1/15/2019	Notice of Intent to Adopt a Mitigated Negative Declaration	City of Riverside	Document reviewed - No comments sent
Waste and Water-related **SBC181128-06** Draft Removal Action Workplan (RAW) Alexan Montclair Apartments	The proposed project consists of development of remedial actions to clean up elevated levels of chlorinated hydrocarbon through soil vapor extraction wells. The project is located at 4835 East Arrow Highway in the City of Montclair. Comment Period: 11/16/2018 - 12/17/2018 Public Hearing: N/A	Draft Removal Action Workplan	Department of Toxic Substances Control	Document reviewed - No comments sent

- Project has potential environmental justice concerns due to the nature and/or location of the project.
Documents received by the CEQA Intergovernmental Review program but not requiring review are not included in this report.

ATTACHMENT A
INCOMING CEQA DOCUMENTS LOG
November 01, 2018 to November 30, 2018

SCAQMD LOG-IN NUMBER PROJECT TITLE	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
Transportation **ORC181108-01** University Drive Widening Improvements - Ridgeline Drive to I-405 Project	The proposed project consists of widening of 0.5 miles from two lanes to three lanes on 6.13 acres. The project is located in the eastbound direction from the intersection of Ridgeline Drive and University Drive to the southbound Interstate Highway 405 on-ramp. Comment Period: 11/8/2018 - 12/13/2018 Public Hearing: N/A	Mitigated Negative Declaration	City of Irvine	Document reviewed - No comments sent
Institutional (schools, government, etc.) **RVC181107-03** Mobility Hub and Central Campus Linkages	The proposed project consists of demolition of a 195,000-square-foot parking lot and construction of a 304,920-square-foot parking lot and a 100-square-foot transit center on seven acres. The project is located at the southeast corner of Linden Street and Canyon Crest Drive in the City of Riverside. Comment Period: 11/6/2018 - 12/5/2018 Public Hearing: N/A	Notice of Intent to Adopt a Mitigated Negative Declaration	University of California Riverside	Document reviewed - No comments sent
Institutional (schools, government, etc.) **RVC181128-07** Temporary Relocation of Sixteen C-17s	The proposed project consists of temporary relocation and operation of 16 aircrafts from Joint Base Lewis-McChord, Washington to March Air Reserve Base. The project is located at March Air Reserve Base in Riverside County. Comment Period: 11/2/2018 - 12/1/2018 Public Hearing: N/A	Notice of Preparation	United States Department of Defense	Document reviewed - No comments sent
Medical Facility **RVC181107-10** Menifee Meadows Project - CUP 2017-173, TPM 2017-174, and Plot Plan 2017-175	The proposed project consists of construction of 119,300 square feet of medical offices, a 179,059-square-foot assisted living facility, and 226,861 square feet of open space. The project is located on the southeast corner of Sherman Road and Holland Road in the City of Menifee. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2018/RVC181107-10.pdf Comment Period: 11/7/2018 - 11/27/2018 Public Hearing: N/A	Mitigated Negative Declaration	City of Menifee	SCAQMD staff commented on 11/21/2018

- Project has potential environmental justice concerns due to the nature and/or location of the project.
Documents received by the CEQA Intergovernmental Review program but not requiring review are not included in this report.

ATTACHMENT A
INCOMING CEQA DOCUMENTS LOG
November 01, 2018 to November 30, 2018

SCAQMD LOG-IN NUMBER PROJECT TITLE	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
Medical Facility **RVC181127-02** Menifee Meadows Project - CUP 2017-173, TPM 2017-174, and Plot Plan 2017-175	The proposed project consists of construction of 119,300 square feet of medical offices, a 179,059-square-foot assisted living facility, and 226,861 square feet of open space. The project is located on the southeast corner of Sherman Road and Holland Road in the City of Menifee. Reference RVC181107-10 Comment Period: N/A Public Hearing: N/A	Response to Comments	City of Menifee	Document reviewed - No comments sent
Medical Facility **RVC181127-05** Kaiser Permanente Moreno Valley Medical Center Master Plan	The proposed project consists of construction of 1,125,000 square feet of buildings with 460 hospital beds on 30 acres. The project is located at 27300 Iris Avenue on the northwest corner of Iris Avenue and Oliver Street. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2018/RVC181127-05.pdf Comment Period: 11/23/2018 - 12/31/2018 Public Hearing: 12/12/2018	Notice of Preparation	City of Moreno Valley	SCAQMD staff commented on 12/7/2018
Retail **RVC181102-01** Planning Case P18-0646 (CUP) P18-0648 (DR) & P18-0649 (VR)	The proposed project consists of construction of a 2,356-square-foot convenience store and a gas station with eight pumps on 0.48 acres. The project is located at 8283 Arlington Avenue on the northeast corner of Arlington Avenue and Lake Street. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2018/RVC181102-01_.pdf Comment Period: 10/31/2018 - 11/13/2018 Public Hearing: N/A	Site Plan	City of Riverside	SCAQMD staff commented on 11/8/2018
Retail **RVC181107-11** Conditional Use Permit No. 180023	The proposed project consists of construction of a gas station with eight pumps, two underground storage tanks, a 7,250-square-foot convenience store, and a 1,870-square-foot drive thru car wash on 4.16 acres. The project is located on the southeast corner of Auld Road and Leon Road in the community of French Valley. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2018/RVC181107-11.pdf Comment Period: 11/1/2018 - 11/15/2018 Public Hearing: N/A	Site Plan	Riverside County Planning Department	SCAQMD staff commented on 11/13/2018

- Project has potential environmental justice concerns due to the nature and/or location of the project.
Documents received by the CEQA Intergovernmental Review program but not requiring review are not included in this report.

ATTACHMENT A
INCOMING CEQA DOCUMENTS LOG
November 01, 2018 to November 30, 2018

SCAQMD LOG-IN NUMBER PROJECT TITLE	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
Retail **RVC181114-01** McCall Square (Change of Zone No. 2017-92, TPM 2017-091, PP 2017-090, CUP 2017-089, CUP 2018-250)	The proposed project consists of construction of seven self-storage buildings totaling 150,541 square feet, 84,200 square of retail uses, and a gas station with six pumps on 18.1 acres. The project is located on the northwest corner of Menifee Road and McCall Boulevard. Reference RVC181024-02, RVC170406-07, and RVC100511-02 Comment Period: N/A Public Hearing: 12/19/2018	Response to Comments	City of Menifee	Document reviewed - No comments sent
Retail **RVC181114-02** Ethanac Square (Plot Plan No. 2017-060, CUP 2017-061, CUP 2018-257, TPM 2017-062)	The proposed project consists of construction of a 3,800-square-foot convenience store, a gas station with eight pumps, a 2,080-square-foot car wash service, and 8,065 square feet of restaurants on 2.5 acres. The project is located on the southwest corner of Ethanac Road and Barnett Road. Reference RVC181024-03 and RVC170317-03 Comment Period: N/A Public Hearing: N/A	Response to Comments	City of Menifee	Document reviewed - No comments sent
Retail **RVC181120-01** Morongo Casino Expansion	The proposed project consists of construction of a 65,004-square-foot casino extension and a 264,222-square-foot parking garage on seven acres. The project is located on the northeast corner of Seminole Drive and Morongo Trail in the community of Cabazon. Comment Period: 10/30/2018 - 11/30/2018 Public Hearing: N/A	Mitigated Negative Declaration	Morongo Band of Mission Indians	Document reviewed - No comments sent
Retail **SBC181107-06** Casmalia - Ayala Gas Station Project	The proposed project consists of construction of a gas station with twelve pumps, a 3,000-square-foot drive thru restaurant, a 3,500-square-foot convenience store, and an 8,500-square-foot retail building on 2.98 acres. The project is located on the southwest corner of Casmalia Street and Ayala Drive. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2018/SBC181107-06.pdf Comment Period: 10/29/2018 - 11/17/2018 Public Hearing: 11/28/2018	Mitigated Negative Declaration	City of Rialto	SCAQMD staff commented on 11/14/2018

- Project has potential environmental justice concerns due to the nature and/or location of the project.
Documents received by the CEQA Intergovernmental Review program but not requiring review are not included in this report.

ATTACHMENT A
INCOMING CEQA DOCUMENTS LOG
November 01, 2018 to November 30, 2018

SCAQMD LOG-IN NUMBER PROJECT TITLE	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
Retail **SBC181120-03** Casmalia - Ayala Gas Station Project	The proposed project consists of construction of a gas station with 12 pumps, a 3,000-square-foot drive thru restaurant, a 3,500-square-foot convenience store, and an 8,500-square-foot retail building on 2.98 acres. The project is located on the southwest corner of Casmalia Street and Ayala Drive. Reference SBC181107-06 Comment Period: N/A Public Hearing: 11/28/2018	Response to Comments	City of Rialto	Document reviewed - No comments sent
General Land Use (residential, etc.) **LAC181107-08** 5th and Hill Project (ENV-2016-3766-EIR)	The proposed project consists of construction of a 261,000-square-foot building and subterranean parking on 16,663 square feet. The project is located on the northeast corner of South Hill Street and West 5th Street in the community of Central City. Reference LAC170307-02 Comment Period: 11/1/2018 - 12/17/2018 Public Hearing: N/A	Draft Environmental Impact Report	City of Los Angeles	Document reviewed - No comments sent
General Land Use (residential, etc.) **LAC181109-02** 2110 Bay Street Mixed-Used Project	The proposed project consists of construction of 110 dwelling units, 111,350 square feet of office uses, and 50,848 square feet of commercial uses on 1.78 acres. The project is located on the southeast corner of Santa Fe Avenue and Bay Street in the community of Central City North. Reference LAC170308-01 http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2018/LAC181109-02.pdf Comment Period: 11/8/2018 - 12/26/2018 Public Hearing: N/A	Draft Environmental Impact Report	City of Los Angeles	SCAQMD staff commented on 12/20/2018
General Land Use (residential, etc.) **LAC181109-03** Palmetto Mixed-Use Project	The proposed project consists of construction of 310 dwelling units, 27,401 square feet of commercial uses, 32,315 square feet of open space, and subterranean parking on 1.38 acres. The project is located at 527 South Colton Street on the northeast corner of Alameda Street and Palmetto Street in the community of Central City North. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2018/LAC181109-03.pdf Comment Period: 11/8/2018 - 12/10/2018 Public Hearing: 11/29/2018	Notice of Preparation	City of Los Angeles	SCAQMD staff commented on 12/7/2018

- Project has potential environmental justice concerns due to the nature and/or location of the project.
Documents received by the CEQA Intergovernmental Review program but not requiring review are not included in this report.

ATTACHMENT A
INCOMING CEQA DOCUMENTS LOG
November 01, 2018 to November 30, 2018

SCAQMD LOG-IN NUMBER PROJECT TITLE	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
General Land Use (residential, etc.) **LAC181113-07** ENV-2017-258: 3800 West 6th Street	The proposed project consists of demolition of 6,314 square feet of commercial uses and construction of a 313,017-square-foot building with 122 dwelling units, a hotel with 192 rooms, 14,495 square feet of commercial uses, and subterranean parking on 1.03 acres. The project is located on the southeast corner of 6th Street and Serrano Avenue in the community of Wilshire. Reference LAC180222-03 Comment Period: 11/8/2018 - 11/28/2018 Public Hearing: N/A	Mitigated Negative Declaration	City of Los Angeles	Document reviewed - No comments sent
General Land Use (residential, etc.) **LAC181120-05** ENV-2018-1095: 200-224 Washington Boulevard & 1910-1914 Los Angeles Street	The proposed project consists of demolition of three warehouses, one apartment building, and one commercial building. The project will also include construction of a 141,796-square-foot residential building with 112 units and 7,300 square feet of commercial uses on 1.4 acres. The project is located on the southeast corner of Los Angeles Street and Washington Boulevard in the community of Southeast Los Angeles. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2018/LAC181120-05.pdf Comment Period: 11/20/2018 - 12/7/2018 Public Hearing: N/A	Mitigated Negative Declaration	City of Los Angeles	SCAQMD staff commented on 12/6/2018
General Land Use (residential, etc.) **LAC181127-08** 1001 Olympic (Olympia) - ENV-2016-4889-EIR	The proposed project consists of demolition of a 43,892-square-foot medical facility, and construction of three buildings totaling 1,845,831 square feet with subterranean parking on 3.26 acres. The project will be developed with one of the two options. Option one will include 1,367 residential units. Option two will include 879 residential units and a hotel with 1,000 rooms. The project will also include 163,015 square feet of open space. The project is located on the northwest corner of Olympic Boulevard and Georgia Street in the community of Central City. Reference LAC180703-02 and LAC171006-06 Comment Period: N/A Public Hearing: 12/19/2018	Final Environmental Impact Report	City of Los Angeles	Document reviewed - No comments sent
General Land Use (residential, etc.) **ORC181114-03** The Trails at Santiago Creek Project	The proposed project consists of construction of 128 residential units on a 40.7-acre portion of 109 acres. The project will also include 69 acres of natural greenway and open space. The project is located at 6118 East Santiago Canyon Road on the northwest corner of East Santiago Canyon Road and Orange Park Boulevard. Reference ORC180223-01 and ORC170307-07 Comment Period: 11/14/2018 - 12/31/2018 Public Hearing: N/A	Recirculated Draft Environmental Impact Report	City of Orange	Under review, may submit written comments

- Project has potential environmental justice concerns due to the nature and/or location of the project.
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ATTACHMENT A
INCOMING CEQA DOCUMENTS LOG
November 01, 2018 to November 30, 2018

SCAQMD LOG-IN NUMBER PROJECT TITLE	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
General Land Use (residential, etc.) **ORC181127-04** Magnolia at the Park Multi-Family Residential Project (DP No. 2017-34)	The proposed project consists of demolition of an existing 81,172-square-foot building and surface parking lot, and construction of 496 residential units and a 358,630-square-foot parking structure on 5.93 acres. The project is located at 2525 North Main Street on the northeast corner of Main Street and Edgewood Road. Reference ORC180807-02 and ORC180213-02 Comment Period: N/A Public Hearing: 11/26/2018	Final Environmental Impact Report	City of Santa Ana	Document reviewed - No comments sent
General Land Use (residential, etc.) **RVC181101-02** Paradise Valley (Specific Plan No. 339, General Plan Amendment No. 686, Change of Zone No. 6915, EIR 506)	The proposed project consists of construction of six villages including 8,500 residential units, 1.38 million square feet of non-residential land uses, and 110 acres of recreational trails and parks on a 1,800-acre portion of 5,000 acres. The project will also preserve 3,000 acres of open space. The project is located approximately eight miles east of the City of Coachella and 10 miles west of Chiriaco Summit near the interchange between Frontage Road and Interstate 10 in the community of Shavers Valley. Reference RVC180102-01 and RVC151009-01 Comment Period: N/A Public Hearing: 11/28/2018	Final Environmental Impact Report	County of Riverside	Document reviewed - No comments sent
General Land Use (residential, etc.) **RVC181113-03** MA18141 (TTM37640 & Amendment to PUD-02 Development Plan)	The proposed project consists of design changes to a previously approved tentative tract map for construction of 118 townhomes on 24.9 acres. The project is located on the southwest corner of Rubidoux Boulevard and 28th Street. Reference RVC15113-03, RVC160406-07, RVC161216-01, RVC170511-02 Comment Period: 10/31/2018 - 11/19/2018 Public Hearing: N/A	Site Plan	City of Jurupa Valley	Document reviewed - No comments sent
General Land Use (residential, etc.) **RVC181128-04** Planning Cases P18-0836 (PRD), P18-0839 (SPA), P18-0840 (TM), P18-0841 (DR), and P18-0842 (VR)	The proposed project consists of subdivision of 18.38 acres for future development of 90 residential units. The project is located on the southwest corner of Lurin Avenue and Newsome Road. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2018/RVC181128-04.pdf Comment Period: 11/16/2018 - 12/14/2018 Public Hearing: N/A	Site Plan	City of Riverside	SCAQMD staff commented on 12/7/2018

- Project has potential environmental justice concerns due to the nature and/or location of the project.
Documents received by the CEQA Intergovernmental Review program but not requiring review are not included in this report.

ATTACHMENT A
INCOMING CEQA DOCUMENTS LOG
November 01, 2018 to November 30, 2018

SCAQMD LOG-IN NUMBER PROJECT TITLE	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
General Land Use (residential, etc.) **RVC181128-05** Master Application (MA) No. 18089 (CZ18001, TTM37470 with exception, and VAR 18004)	The proposed project consists of subdivision of 6.75 acres for future development of 34 residential units. The project is located on the southeast corner of 30th Street and Sierra Avenue. Comment Period: 11/20/2018 - 12/19/2018 Public Hearing: N/A	Mitigated Negative Declaration	City of Jurupa Valley	Document reviewed - No comments sent
General Land Use (residential, etc.) **SBC181113-05** Tentative Tract Map-018-001 (TTM 20142 - Kiel 54) ENV-018-014	The proposed project consists of construction of 54 dwelling units on 21.6 acres. The project is located at 29996 Santa Ana Canyon Road on the northeast corner of Gypsum Canyon Road and Santa Ana Canyon Road. Comment Period: 11/9/2018 - 12/3/2018 Public Hearing: N/A	Mitigated Negative Declaration	City of Highland	Document reviewed - No comments sent
Plans and Regulations **LAC181120-08** Hollywood Community Plan Update	The proposed project consists of development of amendments to land use policies, land use map, zoning ordinances, and development of a community plan implementation overlay district on 13,962 acres. The project is located southwest of the State Highway 134 and Interstate Highway 5 junction. Reference LAC160527-06, LAC160503-16, LAC111007-01 and LAC110308-06 Comment Period: 11/15/2018 - 1/31/2019 Public Hearing: N/A	Notice of Availability of a Draft Environmental Impact Report	City of Los Angeles	Under review, may submit written comments
Plans and Regulations **RVC181120-07** Winchester Hills Specific Plan Amendment No. 6 (GPA 01162, SPA00293A6, CZ 07897, EA 42865)	The proposed project consists of addition of seven planning areas totaling 211.2 acres, and change in land use designation from Mixed-Use Area to Medium-High Density Residential, High-Density Residential, Mixed-Use Area, Commercial Retail, Open Space-Recreation, Open Space-Water, and Circulation. The project is located on the southwest corner of Briggs Road and Case Road in the community of Winchester. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2018/RVC181120-07.pdf Comment Period: 11/20/2018 - 12/7/2018 Public Hearing: 12/10/2018	Notice of Preparation	Riverside County Planning Department	SCAQMD staff commented on 12/7/2018

- Project has potential environmental justice concerns due to the nature and/or location of the project.
Documents received by the CEQA Intergovernmental Review program but not requiring review are not included in this report.

ATTACHMENT B*
ONGOING ACTIVE PROJECTS FOR WHICH SCAQMD HAS OR IS CONTINUING TO CONDUCT A CEQA REVIEW

SCAQMD LOG-IN NUMBER PROJECT TITLE	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
Goods Movement **LAC181002-11** Berths 97-109 [China Shipping] Container Terminal Project	The proposed project consists of modifications to ten of 52 mitigation measures that were previously approved in the 2008 EIS/EIR, and six of ten modified mitigation measures are related to air quality. The project would also include an increase in the cargo throughput by 147,504 twenty-foot equivalent units (TEUs) from 1,551,000 to 1,698,504 TEUs in 2030. The project is located at the Port of Los Angeles on the northeast corner of State Route 47 and Interstate 110 in the communities of San Pedro and Wilmington. Reference LAC170616-02, LAC150918-02, LAC081218-01, LAC080501-01, LAC060822-02, and LAC170725-01 http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2018/LAC181002-11.pdf Comment Period: 9/28/2018 - 11/30/2018 Public Hearing: 10/25/2018	Notice of Availability of a Recirculated Draft Supplemental Environmental Impact Report	City of Los Angeles Harbor Department	SCAQMD staff commented on 11/30/2018
Airports **ORC180920-06** John Wayne Airport General Aviation Improvement Program	The proposed project consists of demolition of 134,000 square feet of existing facilities and construction of two full service fixed base operators (FBO) totaling 97,000 square feet on 504 acres. The project is located at 18601 Airport Way on the southwest corner of Main Street and MacArthur Boulevard in the City of Santa Ana. Reference ORC170330-14 http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2018/ORC180920-06.pdf Comment Period: 9/20/2018 - 11/21/2018 Public Hearing: 9/26/2018	Draft Program Environmental Impact Report	County of Orange	SCAQMD staff commented on 11/6/2018
Industrial and Commercial **LAC181002-13** City Yards Master Plan Project	The proposed project consists of demolition, removal, and redevelopment of 16 existing buildings totaling 65,348 square feet, and construction of 51,013 square feet of new industrial buildings on 14.2 acres. The project is located at 2500 Michigan Avenue on the southeast corner of Michigan Avenue and 24th Street. Ref LAC171117-06 http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2018/LAC181002-13.pdf Comment Period: 10/2/2018 - 11/16/2018 Public Hearing: N/A	Draft Environmental Impact Report	City of Santa Monica	SCAQMD staff commented on 11/14/2018
Waste and Water-related **LAC181009-03** Polynt Composites USA, INC.	The proposed project consists of improvements to the soil vapor extraction system including installation of four extraction wells, seven injection wells, and an above ground groundwater treatment system on two acres. The project is located at 2801 Lynwood Road on the northwest corner of Lynwood Road and Franklin Street in the City of Lynwood. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2018/LAC181009-03.pdf Comment Period: 10/4/2018 - 11/5/2018 Public Hearing: N/A	Negative Declaration	Department of Toxic Substances Control	SCAQMD staff commented on 11/2/2018

Sorted by Comment Status, followed by Land Use, then County, then date received.

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

ATTACHMENT B
ONGOING ACTIVE PROJECTS FOR WHICH SCAQMD HAS OR IS CONTINUING TO CONDUCT A CEQA REVIEW

SCAQMD LOG-IN NUMBER PROJECT TITLE	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
Transportation **LAC180927-04** Park Place Extension and Grade Separation Project	The proposed project consists of extension of Park Place from Allied Way to Nash Street with a railroad grade separation for 0.25 miles. The project is located on the northeast corner of Sepulveda Boulevard and Rosecrans Avenue. Reference LAC161101-06 http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2018/LAC180927-04.pdf Comment Period: 9/27/2018 - 11/13/2018 Public Hearing: 10/30/2018	Notice of Availability of a Draft Environmental Impact Report/ Environmental Assessment	City of El Segundo	SCAQMD staff commented on 11/13/2018
Institutional (schools, government, etc.) **LAC180918-03** 2041 Facilities Master Plan Liberal Arts Campus Improvements	The proposed project consists of demolition of four buildings totaling 109,156 square feet, renovation of 10 buildings totaling 387,341 square feet, and construction of seven buildings totaling 264,018 square feet on 29.84 acres. The project is located at 4901 East Carson Street on the northwest corner of East Carson Street and Clark Avenue in the City of Long Beach. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2018/LAC180918-03.pdf Comment Period: 9/19/2018 - 11/2/2018 Public Hearing: N/A	Draft Supplemental Environmental Impact Report	Long Beach Community College District	SCAQMD staff commented on 11/2/2018
Institutional (schools, government, etc.) **ORC181030-16** Transit Security and Operations (TSOC) Project	The proposed project consists of construction of 30,000 square feet 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 in the City of Anaheim. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2018/ORC181030-16.pdf Comment Period: 10/30/2018 - 11/30/2018 Public Hearing: N/A	Mitigated Negative Declaration	Orange County Transportation Authority	SCAQMD staff commented on 11/27/2018
Institutional (schools, government, etc.) **RVC181031-02** Casa Blanca Elementary School	The proposed project consists of construction of three academic buildings totaling 100,500 square feet, 240,870 square feet of outdoor recreation space and landscaping on 9.8 acres. The project is located at 7351 Lincoln Avenue on the northeast corner of Bunker Street and Lincoln Avenue in the City of Riverside. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2018/RVC181031-02.pdf Comment Period: 10/31/2018 - 11/30/2018 Public Hearing: 11/14/2018	Notice of Preparation	Riverside Unified School District	SCAQMD staff commented on 11/8/2018

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ATTACHMENT B
ONGOING ACTIVE PROJECTS FOR WHICH SCAQMD HAS OR IS CONTINUING TO CONDUCT A CEQA REVIEW

SCAQMD LOG-IN NUMBER PROJECT TITLE	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
Medical Facility **LAC181030-15** Queen of the Valley Hospital Specific Plan	The proposed project consists of demolition of 70,000 square feet and construction of 490,000 square feet of medical facilities on 28.8 acres. The project is located at 3940 and 1115 South Sunset Ave on the southwest corner of Sunset Avenue and Merced Avenue. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2018/LAC181030-15.pdf Comment Period: 10/30/2018 - 11/30/2018 Public Hearing: 11/15/2018	Notice of Preparation	City of West Covina	SCAQMD staff commented on 11/30/2018
Retail **RVC180918-05** The Merge Retail and Light Industrial Development (PLN18-20026)	The proposed project consists of construction of eight industrial and warehouse buildings totaling 336,501 square feet, and 72,600 square feet of retail uses including a 16-pump gas station and car wash on 26 acres. The project is located on the northeast corner of Archibald Avenue and Limonite Avenue. Reference RVC180628-02 http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2018/RVC180918-05.pdf Comment Period: 9/18/2018 - 11/2/2018 Public Hearing: N/A	Draft Environmental Impact Report	City of Eastvale	SCAQMD staff commented on 11/2/2018
Retail **RVC181024-01** PP2018-0147/CUP2018-0023	The proposed project consists of construction of an eight-pump gas station with a 4,463-square-foot canopy fueling area, two restaurants with drive-thrus totaling 3,700 square feet, and 9,500 square feet of retail uses on 2.3 acres. The project is located on the northwest corner of Oak Valley Parkway and Golf Club Drive. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2018/RVC181024-01.pdf Comment Period: 10/22/2018 - 11/12/2018 Public Hearing: N/A	Site Plan	City of Beaumont	SCAQMD staff commented on 11/7/2018
Retail **RVC181024-02** McCall Square (Change of Zone No. 2017-92, TPM 2017-091, PP 2017-090, CUP 2017-089, CUP 2018-250)	The proposed project consists of construction of seven self-storage buildings totaling 150,541 square feet and an 84,200-square-foot retail center including a six-pump gas station on 18.1 acres. The project is located on the northwest corner of Menifee Road and McCall Boulevard. Reference RVC170406-07, and RVC100511-02 http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2018/RVC181024-02.pdf Comment Period: 10/25/2018 - 11/13/2018 Public Hearing: N/A	Notice of Intent to Adopt a Mitigated Negative Declaration	City of Menifee	SCAQMD staff commented on 11/13/2018
Retail **RVC181024-03** Ethanac Square (Plot Plan No. 2017-060, CUP 2017-061, CUP 2018-257, TPM 2017-062)	The proposed project consists of construction of a 3,800-square-foot convenience store, a gas station with eight pumps, a 2,080-square-foot car wash service, a 4,365-square-foot fast food restaurant, and a 3,700-square-foot drive-thru fast food restaurant on 2.5 acres. The project is located on the southwest corner of Ethanac Road and Barnett Road. Reference RVC170317-03 http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2018/rvc181024-03.pdf Comment Period: 10/25/2018 - 11/13/2018 Public Hearing: N/A	Notice of Intent to Adopt a Mitigated Negative Declaration	City of Menifee	SCAQMD staff commented on 11/13/2018

- 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 TITLE	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
General Land Use (residential, etc.) **LAC181005-05** Olympic Tower Project	The proposed project consists of demolition of all existing structures on the site and the construction of a mixed use development containing 374 residential units, 373 hotel rooms, 33,498 square feet of office space, 10,801-square-foot conference center, and 65,074 square feet of commercial uses. The project is located at 813-815 West Olympic Boulevard and 947-951 South Figueroa Street on the northwest corner of West Olympic Boulevard and South Figueroa Street in the community of Central City. Reference LAC160624-02 http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2018/LAC181005-05.pdf Comment Period: 10/4/2018 - 11/19/2018 Public Hearing: N/A	Notice of Availability of a Draft Environmental Impact Report	Los Angeles Department of City Planning	SCAQMD staff commented on 11/14/2018
General Land Use (residential, etc.) **LAC181012-02** Beverly Hilton Specific Plan Amendment	The proposed project consists of demolition of 205,926 square feet of existing building and parking, and construction of 150 residential units, and subterranean parking on 8.94 acres. The project would also include 5.34 acres of open space. The project is located at 9876 Wilshire Boulevard on the southeast corner of Wilshire Boulevard and Merv Griffin Way. Reference LAC180522-06 http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2018/LAC181012-02.pdf Comment Period: 10/19/2018 - 12/3/2018 Public Hearing: 11/8/2018	Draft Supplemental Environmental Impact Report	City of Beverly Hills	SCAQMD staff commented on 11/30/2018
General Land Use (residential, etc.) **LAC181030-01** Alexan Specific Plan and General Plan/Zoning Code Amendment	The proposed project consists of construction of 436 dwelling units and an eight-story parking structure on 6.77 acres. The project is located at 1625 South Magnolia Avenue on the West Evergreen Avenue and South Magnolia Avenue. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2018/LAC181030-01.pdf Comment Period: 10/22/2018 - 11/26/2018 Public Hearing: N/A	Notice of Preparation	City of Monrovia	SCAQMD staff commented on 11/8/2018
General Land Use (residential, etc.) **LAC181030-13** AVE Project	The proposed project consists of construction of 118 multi-family dwelling units, 40,890 square feet of retail use, 8,910 square feet of office space, and a 120-room 70,000 square foot hotel on 12.37 acres. The project is located on the southeast corner of Kanan Road and Agoura Road. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2018/LAC181030-13.pdf Comment Period: 10/19/2018 - 11/16/2018 Public Hearing: 11/27/2018	Notice of Preparation	City of Agoura Hills	SCAQMD staff commented on 11/14/2018

- 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 TITLE	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
General Land Use (residential, etc.) **RVC181009-12** Canterwood: Change of Zone No. 1800007, Tentative Tract Map 37439, Plot Plan No. 180024	The proposed project consists of construction of 574 residential units and a nine-acre park on 158 acres. The project is located on the northwest corner of Eucalyptus Avenue and Craig Avenue in the City of Winchester. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2018/RVC181009-12.pdf Comment Period: 10/8/2018 - 11/8/2018 Public Hearing: 11/5/2018	Notice of Preparation	County of Riverside	SCAQMD staff commented on 11/7/2018
Plans and Regulations **ORC181016-07** Rich Heritage, Bright Future, The Placentia General Plan	The proposed project consists of updates to the General Plan to allow for the future development of 1,696 residential units, 525,000 square feet of non-residential uses and 175,000 square feet of commercial, office and industrial development. The project is located northeast of East La Palma Avenue and South State College Boulevard. http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2018/ORC181016-07.pdf Comment Period: 10/15/2018 - 11/15/2018 Public Hearing: N/A	Notice of Preparation	City of Placentia	SCAQMD staff commented on 11/7/2018

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

ATTACHMENT C
ACTIVE SCAQMD LEAD AGENCY PROJECTS
THROUGH NOVEMBER 30, 2018

PROJECT DESCRIPTION	PROPONENT	TYPE OF DOCUMENT	STATUS	CONSULTANT
The Phillips 66 (formerly ConocoPhillips) Los Angeles Refinery Ultra Low Sulfur Diesel project was originally proposed to comply with federal, state and SCAQMD requirements to limit the sulfur content of diesel fuels. Litigation against the CEQA document was filed. Ultimately, the California Supreme Court concluded that the SCAQMD had used an inappropriate baseline and directed the SCAQMD to prepare an EIR, even though the project has been built and has been in operation since 2006. The purpose of this CEQA document is to comply with the Supreme Court's direction to prepare an EIR.	Phillips 66 (formerly ConocoPhillips), Los Angeles Refinery	Environmental Impact Report (EIR)	The Notice of Preparation/Initial Study (NOP/IS) was circulated for a 30-day public comment period on March 26, 2012 to April 26, 2012. The consultant submitted the administrative Draft EIR to SCAQMD in late July 2013. The Draft EIR was circulated for a 45-day public review and comment period from September 30, 2014 to November 13, 2014. Two comment letters were received and the consultant has prepared responses to comments. 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. SCAQMD staff is reviewing the comment letters.	Trinity Consultants

ATTACHMENT C
ACTIVE SCAQMD LEAD AGENCY PROJECTS
THROUGH NOVEMBER 30, 2018

PROJECT DESCRIPTION	PROPONENT	TYPE OF DOCUMENT	STATUS	CONSULTANT
Southern California Edison (SCE) is proposing to modify the air pollution control system for the Mira Loma Peaker unit to repair current and prevent future water damage by: 1) decreasing the water-injection rate into the turbine's combustor; 2) replacing the oxidation catalyst and increasing the overall area of catalyst beds in the Selective Catalytic Reduction (SCR) unit; 3) replacing the ammonia injection grid to improve the deliverability of ammonia to the catalyst; and, 4) increasing the concentration of the aqueous ammonia that is delivered to the facility, stored on-site, and injected into the SCR unit from 19% to 29%. In addition, SCE is proposing to revise its SCAQMD Title V Operating Permit to allow the turbine to generate power over its full operating range, from less than one megawatt (MW) to full load (e.g., 45 MW net), while continuing to meet the emission limits in the current permit.	Southern California Edison	Addendum to the April 2007 Final Mitigated Negative Declaration for the Southern California Edison Mira Loma Peaker Project in Ontario	SCAQMD staff has provided revisions to the Draft Addendum for the consultant to incorporate.	Yorke Engineering, LLC

Back to Agenda

BOARD MEETING DATE: January 4, 2019 AGENDA NO. 15

REPORT: Rule and Control Measure Forecast

SYNOPSIS: This report highlights SCAQMD rulemaking activities and public hearings scheduled for 2019, and provides a summary of implementation of the 2016 AQMP.

COMMITTEE: No Committee Review

RECOMMENDED ACTION:
Receive and file.

Wayne Nastri
Executive Officer

PMF:SN:AF:EG

2019 MASTER CALENDAR

The SCAQMD is required by state law to publish a list of all rules potentially scheduled for consideration during the coming year. The Rule and Control Measure Forecast is expanded for this purpose and includes a list of the proposed and proposed amended rules scheduled for 2019. This constitutes a revision to the 2019 rule calendar that was published in December 2018.

For each month, a description of the proposed rule or proposed amended rule is provided with 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 indicate 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*

[#] *Part of the transition of RECLAIM to a command-and-control regulatory structure*

2019 MASTER CALENDAR

Month	Title and Description	Type of Rulemaking
February		
1403*	**Asbestos Emissions from Demolition/Renovation Activities** 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*	Toxics
March		
110	**Rule Adoption Procedures to Assure Protection and Enhancement of the Environment**	Other
212	**Standards for Approving Permits and Issuing Public Notice**	
301	**Permitting and Associated Fees**	
303	**Hearing Board Fees**	
306	**Plan Fees**	
307.1	**Alternative Fees for Air Toxics Emissions Inventory**	
309	**Fees for Regulation XVI and Regulation XXV**	
315	**Fees for Training Classes and License Renewal**	
510	**Notice of Hearing**	
515	**Findings and Decision**	
518.2	**Federal Alternative Operating Conditions**	
812	**Notice of Hearing**	
1309	**Emission Reduction Credits and Short Term Credits**	
1310	**Analysis and Reporting**	
1605	**Credits For The Voluntary Repair of On-Road Motor Vehicles Identified Through Remote Sensing Devices**	
1610	**Old-Vehicle Scrapping**	
1620	**Credits for Clean Off-Road Mobile Equipment**	
1623	**Credits for Clean Lawn and Garden Equipment**	
1710	**Analysis, Notice, and Reporting**	
1714	**Prevention of Significant Deterioration for Greenhouse Gases**	
3006	**Public Participation** The above proposed amended rules will revise noticing requirements to reflect recent amendments to state law that allow certain public notices to be sent via electronic mail (email) and streamline other types of noticing requirements. *Michael Morris 909.396.3282; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244*	

** Potentially significant hearing*

[+] Reduce criteria air contaminants and assist toward attainment of ambient air quality standards

[#] Part of the transition of RECLAIM to a command-and-control regulatory structure

2019 MASTER CALENDAR (Continued)

Month	Title and Description	Type of Rulemaking
April		
1106[+] 1106.1[+]	**Marine Coating Operations** **Pleasure Craft Coating Operations** Rule 1106 would subsume the requirements of Rule 1106.1, revise VOC content limits for several categories in order to align limits with U.S. EPA Control Techniques Guidelines and other California air districts, and add new 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*	AQMP/ AB 617 BARCT
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
1134[*+#]	**Emissions of Oxides of Nitrogen from Stationary Gas Turbines** Proposed Amended Rule 1134 will update the NOx emission standard to reflect Best Available Retrofit Control Technology for RECLAIM and non-RECLAIM facilities. Proposed Rule 1134 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. *Michael Morris 909.396.3282 CEQA: Jillian Wong 909.396.3176 and Socio: Ian MacMillan 909.396.3244*	
May		
1410[*]	**Hydrogen Fluoride Use at Refineries** 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. *Michael Krause 909.396.2706; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244*	Toxics
Reg. III	**Fees** Proposed amendments to Regulation III will incorporate the Consumer Price Index adjustment to reflect inflation, pursuant to Rule 320. 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*	Other

** Potentially significant hearing*

[+] Reduce criteria air contaminants and assist toward attainment of ambient air quality standards

[#] Part of the transition of RECLAIM to a command-and-control regulatory structure

2019 MASTER CALENDAR (Continued)

Month	Title and Description	Type of Rulemaking
June		
Reg. IX Reg. X	**Standards of Performance for New Stationary Sources (NSPS)** **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*	Other
1480*	**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*	Toxics
July		
Reg. XIII*# Reg. XX	**New Source Review** **RECLAIM** 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*	AQMP
1138*+	**Control of Emissions from Restaurant Operations** Proposed Amended Rule 1138 will reduce NOx emissions from establishments utilizing commercial cooking ovens, ranges, fryers, and charbroilers. *David DeBoer 909.396.2329; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244*	AQMP/ AB 617 BARCT
1450	**Control of Methylene Chloride Emissions** 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*	Toxics

** Potentially significant hearing*

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 # Part of the transition of RECLAIM to a command-and-control regulatory structure

2019 MASTER CALENDAR (Continued)

Month	Title and Description	Type of Rulemaking
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. *Michael Morris 909.396.3282; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244*	
1147*+#	**NOx Reductions from Miscellaneous Sources**	Other/ AB 617 BARCT
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.	
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. *Michael Krause 909.396.2706; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244*	
October		
113*#	**Monitoring, Reporting, and Recordkeeping (MRR) Requirements for NOx and SOx Sources** Proposed Rule 113 will establish MRR requirements for facilities exiting RECLAIM and transitioning to a command-and-control regulatory structure. *Michael Krause 909.396.2706; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244*	AQMP
218*#	**Continuous Emission Monitoring**	AQMP
218.1	**Continuous Emission Monitoring Performance Specificiations** 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*	

** Potentially significant hearing*

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 # Part of the transition of RECLAIM to a command-and-control regulatory structure

2019 MASTER CALENDAR (Continued)

Month	Title and Description	Type of Rulemaking
October *(Continued)*		
1109*+#	**Emissions of Oxides of Nitrogen from Boilers and Process Heaters in Petroleum Refineries**	AQMP/ BARCT (AB 617)
1109.1	**Reduction of Emissions of Oxides of Nitrogen from Refinery 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*	
November		
N/A	**Airports MOU/Ports MOU/Potential Regulation** 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. *Zorik Pirveysian 909.396.2431; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244*	AQMP
1147*+#	**NOx Reductions from Miscellaneous Sources**	AQMP/ AB617 BARCT
1147.2	**NOx Reductions from Metal Melting and Heat Treating Furnaces** Proposed Rule 1147.2 will establish NOx emission limits to reflect Best 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*	
1435*	**Control of Emissions from Metal Heat Treating Processes** 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. *Jillian Wong 909.396.3176; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244*	Toxics

** Potentially significant hearing*

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 # Part of the transition of RECLAIM to a command-and-control regulatory structure

2019 MASTER CALENDAR (Continued)

Month December	Title and Description	Type of Rulemaking
1117[+#]	**Emissions of Oxides of Nitrogen from Glass Melting Furnaces** Proposed Amended Rule 1117 will establish NOx emission limits to reflect Best Available Retrofit Control Technology for glass melting 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*	AQMP/ AB 617 BARCT
1147[*+#] 1147.3	**NOx Reductions from Miscellaneous Sources** **NOx Reductions for Equipment at Aggregate Facilities** Proposed Rule 1147.3 will establish NOx emission limits to reflect Best 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. *Michael Krause 909.396.2706 CEQA: Jillian Wong 909.396.3176 and Socio: Ian MacMillan 909.396.3244*	AQMP/ AB 617 BARCT
1150.3[*+]	**NOx Emission Reduction from Combustion Equipment at Landfills** Proposed Rule 1150.3 will establish NOx emission limits for boilers, process heaters, furnaces, and engines to reflect Best Available Retrofit Control Technology at landfills. 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*	AQMP/ AB 617 BARCT
1179.1[*+]	**NOx Emission Reduction from Combustion Equipment at Publicly Owned Treatment Work Facilities** Proposed Rule 1179.1 will establish NOx emission limits for boilers, 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*	AQMP/ AB 617 BARCT
1426[*]	**Reduction of Toxic Air Contaminants from Metal Finishing Operations** 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*	Toxics

** Potentially significant hearing*

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[#] Part of the transition of RECLAIM to a command-and-control regulatory structure

2019 MASTER CALENDAR (Continued)

Month **December** *(Continued)*	Title and Description	Type of Rulemaking
Reg. XXIII[*+]	**Facility Based Mobile Sources** 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*	AQMP

** Potentially significant hearing*

[+] Reduce criteria air contaminants and assist toward attainment of ambient air quality standards

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2019 To-Be-Determined

2019	Title and Description	Type of Rulemaking
102	**Definition of Terms (VOC)** Staff may propose amendments to Rule 102 to add or revise definitions in order to support amendments to other Regulation XI rules. *Carol Gomez 909.396.3264; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244*	Other
209 301	**Transfer and Voiding of Permits; Permitting and Associated Fees** Staff may propose amendments to clarify requirements for change of ownership and permits and the assessment of associated fees.	Other
219	**Equipment Not Requiring a Written Permit Pursuant to 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*	Other
222	**Filing Requirements for Specific Emission Sources Not Requiring a Written Permit Pursuant to Regulation II** Proposed Amended Rule 222 will add or revise equipment subject to filing requirements. *Michael Krause 909.396.2706; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244*	Other
223 1133.3	**Emission Reduction Permits for Large Confined Animal Facilities** 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*	AQMP
416	**Odors from Kitchen Grease Processing** 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. *TBD; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244*	Other
425	**Odors from Cannabis Processing** Proposed Rule 425 will establish requirements to control the odors from cannabis processing. *David DeBoer 909.396.2329; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244*	Other
429	**Start-Up and Shutdown Exemption Provisions for Oxides of 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. *Michael Krause 909.396.2706; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244*	Other

2019 To-Be-Determined (Continued)

2019	Title and Description	Type of Rulemaking
445	**Wood Burning Devices (PM 2.5 Contingency)** Proposed Amendments to Rule 445 will include provisions for 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*	AQMP
461	**Gasoline Transfer and Dispensing** Proposed Amendments to Rule 461 will reflect information from the 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*	AQMP/ Toxics
462	**Organic Liquid Loading** 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*	Other
463	**Organic Liquid Storage** 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*	Other
464	**Wastewater Separators** Proposed Amendments to Rule 464 will improve the effectiveness, enforceability, and clarity of the rule. *TBD; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244*	Other
1107	**Coating of Metal Parts and Products** Proposed Amended Rule 1107 will lower VOC emission limits for 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*	AQMP
1111.1	**Reduction of NOx Emissions from Natural Gas Fired Commercial Furnaces (CMB-01)** Proposed Rule 1111.1 will establish equipment-specific NOx emission limits and other requirements for the operation of commercial furnaces. *TBD; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244*	AQMP Other
1113	**Architectural Coatings** 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. *Michael Krause 909.396.2706; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244*	Other

2019 To-Be-Determined (Continued)

2019	Title and Description	Type of Rulemaking
1118	**Refinery Flares** Proposed Amended Rule 1118 will revise provisions to improve the enforceability of the rule. *Michael Krause 909.396.2706; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244*	Other
1123	**Refinery Process Turnarounds** Proposed Amended Rule 1123 will establish procedures that better quantify emission impacts from start-up, shutdown or turnaround activities. *Michael Krause 909.396.2706; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244*	AQMP
1135	**Emissions of Oxides of Nitrogen from Electricity Generating Facilities** 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*	Other
1136	**Wood Products Coatings** Proposed Amended Rule 1136 will revise VOC limits for wood product coatings and other clarifications. *David DeBoer 909.396.2329; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244*	AQMP
1142	**Marine Tank Vessel Operations** Proposed Amended Rule 1142 will 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*	Other
1146.2	**Emissions of Oxides of Nitrogen from Large Water Heaters and Small Boilers and Process Heaters** Proposed Amended Rule 1146.2 may be revised to lower the NOx emission limit to reflect a Best Available Retrofit Control Technology assessment. *Michael Morris 909.396.3282; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244*	AQMP/ AB617 BARCT
1148.1 1148.2	**Oil and Gas Production Wells** **Notification and Reporting Requirements for Oil and Gas Wells and 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*	Other

2019 To-Be-Determined (Continued)

2019	Title and Description	Type of Rulemaking
1149	**Tank Degassing** Proposed Amended Rule 1149 will improve the effectiveness, enforceability, and clarity of the rule. *Jillian Wong 909.396.3176; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244*	Other
1148.3	**Requirements for Natural Gas Underground Storage Facilities** Proposed Rule 1148.3 will establish requirements to address public nuisance and VOC emissions from underground natural gas storage facilities. *Jillian Wong 909.396.3176; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244*	Other
1150.1	**Control of Gaseous Emissions from Municipal Solid Waste Landfills** 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. *Ian MacMillan 909.396.3244; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244*	Other
1151	**Motor Vehicle and Mobile Equipment Non-Assembly Line Coating 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*	Other
1153.1	**Emissions of Oxides of Nitrogen from Commercial Food Ovens** Proposed Amendments to Rule 1153.1 may be needed to address applicability and technological feasibility of low-NOx burner technologies for new commercial food ovens. *Michael Krause 909.396.2706 CEQA: Jillian Wong 909.396.3176 and Socio: Ian MacMillan 909.396.3244*	AQMP/ AB 617 BARCT
1157	**PM10 Emission Reductions from Aggregate Related Operations** Proposed Amended Rule 1157 will remove outdated language, revise opacity requirements, and improve the effectiveness, enforceability, and clarity of the rule. *TBD; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244*	Other
1159.1	**Nitric Acid Units – Oxides of Nitrogen** Proposed Rule 1159.1 will address NOx emissions from processes using nitric acid and is needed as part of the transition of RECLAIM to command-and-control. *David DeBoer 909.396.2329; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244*	AQMP AB 617 BARCT

2019 To-Be-Determined (Continued)

2019	Title and Description	Type of Rulemaking
1166	**VOC Emissions from Decontamination of Soil** 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*	Other
1166	**VOC Emissions from Decontamination of Soil** 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*	Other
1173	**Control of Volatile Organic Compound Leaks and Releases from Components at Petroleum Facilities and Chemical Plants** Proposed revisions to Rule 1173 are being considered based on recent U.S. EPA regulations and CARB oil and gas regulations and revisions to improve the effectiveness, enforceability, and clarity of the rule. *TBD; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244*	Other
1190, 1191, 1192, 1193, 1194,1195, 1196, & 1186.1	**Fleet Vehicle Requirements** Proposed amendments to fleet rules may be necessary to improve rule implementation. In addition, the current fleet rules may be expanded to achieve criteria pollutant and air toxic emission reductions pending new legislative authority. *Zorik Pirveysian 909.396.2431; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244*	Other
1304.2 1304.3	**California Public Utilities Commission Regulated Electrical Local Publicly Owned Electrical Utility Fee for Use of SOx, PM10 and NOx Offsets** **Local Publicly Owned Electrical Generating Facility Fee for Use of SOx, PM10 and NOx Offsets** Proposed Rules 1304.2 and 1304.3 would allow new greenfield facilities and additions to existing electricity generating facilities conditional access to SCAQMD internal offset accounts for a fee, for subsequent funding of qualifying improvement projects consistent with the AQMP. *TBD; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244*	Other Other

2019 To-Be-Determined (Continued)

2019	Title and Description	Type of Rulemaking
1401	**New Source Review of Toxic Air Contaminants** 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*	Toxics
1402	**Control of Toxic Air Contaminant Emissions from Existing Sources** 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*	Toxics
1407.1	**Control of Toxic Air Contaminant Emissions from Chromium Alloy 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*	Toxics
1415 1415.1	**Reduction of Refrigerant Emissions from Stationary Air 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*	Other
1426	**Emissions from Metal Finishing Operations** Proposed Amended Rule 1426 will establish requirements to control point and fugitive toxic air contaminant emissions from metal finishing operations. *Jillian Wong 909.396.3176; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244*	Toxics
1430	**Control of Emissions from Metal Grinding Operations at Metal 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*	Toxics
1445	**Control of Toxic Emissions from Laser Arc Cutting** Proposed Rule 1445 will establish requirements to reduce toxic metal particulate emissions from laser arc cutting. *David DeBoer 909.396.2329; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244*	Toxics

2019 To-Be-Determined (Continued)

2019	Title and Description	Type of Rulemaking
1469.1	**Spraying Operations Using Coatings Containing Chromium** 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*	Toxics
1470	**Requirements for Stationary Diesel-Fueled Internal Combustion and Other Compression Ignition Engines** 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. *David DeBoer 909.396.2329; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244*	Toxics
1902	**Transportation Conformity** Proposed Amended Rule 1902 may be necessary to align the rule with current U.S. EPA requirements. *Ian MacMillan 909.396.3244; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244*	Other
1905	**Pollution Controls for Automotive Tunnel Vents** 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*	Other
2202	**On-Road Motor Vehicle Mitigation Options** 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*	Other
Reg. XVI	**Mobile Source Offset Programs** 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*	AQMP

2019 To-Be-Determined (Continued)

2019	Title and Description	Type of Rulemaking
Reg. XVII	**Prevention of Significant Deterioration(PSD)** Proposed Amendments to Regulation XVII are being considered for 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*	Other
Reg. XXVII	**Climate Change** Changes may be needed to Regulation XXVII to add or update protocols for GHG reductions, and other changes. *Zorik Pirveysian 909.396.2431; CEQA: Jillian Wong 909.396.3176; Socio: Ian MacMillan 909.396.3244*	Other
Reg. II, IV, XIV, XI, XXIII, XXIV, XXX and XXXV	Various rule amendments may be needed to meet the requirements of state and federal laws, implement OEHHA's 2015 revised risk assessment guidance, address variance issues/ technology-forcing limits, to abate a substantial endangerment to public health or additional reductions to meet the SIP short-term measure commitment. The associated rule development or amendments include, but are not limited to, SCAQMD existing rules, new or amended rules to implement the 2012 or 2016 AQMP measures. This includes measures in the 2010 Clean Communities Plan (CCP) or 2016 AQMP to reduce toxic air contaminants or reduce exposure to air toxics from stationary, mobile, and area sources. Rule 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.	Other/ AQMP

The following is a summary of implementation of the 2016 AQMP.

Summary of 2016 AQMP Implementation: The 2016 AQMP was adopted in March 2017 and approved by the California Air Resources Board in the same month. The purpose of the 2016 AQMP was to describe the control measures needed to attain the 2008 8-hour ozone standard (75 ppb), 2012 annual PM2.5 standard (12 µg/m^3), 2006 24-hour PM2.5 standard (35 µg/m^3) and provide an update in meeting the 1997 8-hour (80 ppb) and 1979 1-hour (120 ppb) ozone standards. The following summarizes emission reductions achieved and anticipated in the near-term.

- The emission reduction commitments are achieved through control measures to be adopted into rules or federally enforceable commitments (Table 1). As noted in Table 1, one control measure commitment, CTS-01, was fulfilled with the October 2017 amendment to Rule 1168 – Adhesive and Sealant Applications, resulting in a VOC reduction of 1.4 tons per day (tpd) by 2023, exceeding the commitment of 1.0 tpd in the 2016 AQMP.
- The Board has set a hearing in January 2019 to consider approval of Proposed Rule 1118.1 – Non-Refinery Flares that seeks to fulfill the purpose of CMB-03. During rule development, the emissions inventory was updated for the affected industry and the baseline emissions inventory was not as high as estimated in the AQMP, thus the estimated reductions to be achieved will fall short of the goal of the control measure. The rule, however, will satisfy RACT/RACM requirements to approve a measure targeting a source not yet regulated in our region.
- Approved amendments to Rule 1135 and the Rule 1146 series assisted in achieving the goals of control measure CMB-05 to transition RECLAIM facilities into command and control rules.

There are also a number of 2016 AQMP control measures for which development has been initiated in 2018, including rules (Rules 1109.1, 1110.2, 1118.1, 1134, 1135, 1146, 1146.1, 1146.2), incentive programs, and continuing implementation of ongoing mobile source programs such as Surplus Off-Road Opt-In for NOx (SOON) exchange program and Carl Moyer, but those reductions have not yet been submitted into the State Implementation Plan (SIP) as they still need to be quantified, verified, and be shown to be compliant with U.S. EPA requirements.

A Request For Proposals (RFP) was issued to award a number of zero and near-zero stationary and mobile source emission reduction projects for which staff will seek SIP credit and assist in satisfying incentive control measures within CMB-01, CMB-02, CMB-04, ECC-02. ECC-04, and MOB-14. Program Guidelines and Source Guidelines for incentivized stationary source emission reduction projects, similar to the Carl Moyer Guidelines for mobile sources, need to be developed and adopted to ensure SIP credit. In addition, staff has been developing an emissions tool to estimate changes in criteria and GHG emissions and costs associated with upgrades in commercial and residential appliances, in conjunction with installation of zero and near-zero emission technologies. The Net Emissions Analysis Tool (NEAT) will assist in implementing control measures

CMB-02 and ECC-03, which seek emission reductions with zero and near-zero NOx appliances in commercial and residential applications, and integrate energy efficiency enhancements with criteria pollutant (e.g., NOx) co-benefits.

TABLE 1

2016 AQMP Emission Reductions (tons per day) by Measure/Adoption Date

Control Measure #	CONTROL MEASURE TITLE	Adoption Date	COMMITMENT		ADOPTED TO BE ACHIEVED	
			2023	2031	2023	2031
VOC EMISSIONS						
CTS-01	Further Emission Reductions from Coatings, Solvents, Adhesives, and Sealants [R1168]	2017/2021	1.0	2.0	1.4	--
FUG-01	Improved Leak Detection and Repair	2019	2.0	2.0	--	--
CMB-01	Transition to Zero and Near-Zero Emission Technologies for Stationary Sources	2018	1.2	2.8	--	--
CMB-03	Emission Reductions from Non-Refinery Flares [R1118.1]	2018	0.4	0.4	0.014	--
ECC-02	Co-Benefits from Existing Residential and Commercial Building Energy Efficiency Measures	2018	0.07	0.3	--	--
ECC-03	Additional Enhancements in Reducing Existing Residential Building Energy Use	2018	0.2	0.3	--	--
BCM-10	Emission Reductions from Greenwaste Composting	2019	1.5	1.8	--	--
	TOTAL VOC REDUCTIONS		**6.4**	**9.6**	**1.4**	**--**

TABLE 1 (Continued)

2016 AQMP Emission Reductions (tons per day) by Measure/Adoption Date

Control Measure #	CONTROL MEASURE TITLE	Adoption Date	COMMITMENT		ADOPTED TO BE ACHIEVED	
			2023	2031	2023	2031
NOx EMISSIONS						
CMB-01	Transition to Zero and Near-Zero Emission Technologies for Stationary Sources	2018	2.5	6.0	--	--
CMB-02	Emission Reductions from Replacement with Zero or Near-Zero NOx Appliances in Commercial and Residential Applications	2018	1.1	2.8	--	--
CMB-03	Emission Reductions from Non-Refinery Flares [R1118.1]	2018	1.4	1.5	0.2	--
CMB-04	Emission Reductions from Restaurant Burners and Residential Cooking	2018	0.8	1.6	--	--
CMB-05	Further NOx Reductions from RECLAIM Assessment [R1135, R1146 series]	2022	0.0	5.0	0.8-2.0	--
ECC-02	Co-Benefits from Existing Residential and Commercial Building Energy Efficiency Measures	2018	0.3	1.1	--	--
ECC-03	Additional Enhancements in Reducing Existing Residential Building Energy Use	2018	1.2	2.1	--	--
MOB-10	Extension of the SOON Provision for Construction/Industrial Equipment	Ongoing	1.9	1.9	*	TBD
MOB-11	Extended Exchange Program	Ongoing	2.9	1.0	TBD	TBD
MOB-14	Emission Reductions from Incentive Programs	Ongoing	11	7.8	1.54	TBD
TOTAL NOx REDUCTIONS			**23.1**	**31.0**	**2.5-3.7**	**TBD**

TABLE 1 (Concluded)

2016 AQMP Emission Reductions (tons per day) by Measure/Adoption Date

Control Measure #	CONTROL MEASURE TITLE	Adoption Date	COMMITMENT		ADOPTED TO BE ACHIEVED	
			2021	2025	2021	2025
PM2.5 EMISSIONS						
BCM-01	Further Emission Reductions from Commercial Cooking	2018	0.0	3.3	--	--
BCM-04	Emission Reductions from Manure Management Strategies [NH3]	2019	0.26	0.2	--	--
BCM-10	Emission Reductions from Greenwaste Composting [NH3]	2019	0.1	0.1	--	--
	TOTAL PM2.5 REDUCTIONS		**TBD**	**3.3**	**0.0**	**0.0**

***** Emission reductions included in MOB-14 (listed in Table 2)

2018 Rule Activities

In 2018, there were twelve amendments to rules approved by the SCAQMD Governing Board along with amendments to the Best Available Control Technology (BACT) Guidelines.

- One of the rules strengthened toxic regulations from hexavalent chromium emissions at chromium electroplating and chromic acid and anodizing operations.
- One rule has the potential to achieve VOC emission reductions by providing storage tank operators with an additional option for controlling VOC emissions from aboveground floating roof tanks.
- Seven rules addressed sources of NOx emissions including natural gas furnaces (2 amendments), electricity generating facilities, and boilers, steam generators, and process heaters (3 rules).
- Three rules focused on necessary administrative tasks such as fee updates, clarification of circumvention, and allowing any facility to exit RECLAIM so long as it meets certain specific criteria.

The natural gas furnaces are currently reducing less NOx emissions than originally projected in the 2007 AQMP, however, the shortfall is offset with a set aside account used in the modeling demonstrating attainment. The electricity generating facilities have the potential to reduce NOx emissions by 0.5 tpd after implementation of the BARCT limits. Non-refinery facilities with boilers, steam generators, and process heaters have the potential to reduce NOx emissions by 0.3 tpd after implementation of the BARCT limits.

2018 Ongoing Activities

In 2018, Planning and Rules staff continued working on fulfilling the Governing Board directive from the 2016 AQMP development and control measure CMB-05 to transition facilities in the REgional CLean Air Incentives Market (RECLAIM) Program to

command-and-control regulations. Accomplishing this task includes restricting new facilities into the RECLAIM program, and providing exit and opt-out provisions.

Planning and Rules staff also continued work on the development of facility-based measures for the Ports, warehouses, airports, railyards, and development projects pursuant to the 2016 AQMP control measures MOB-01 through MOB-04 and EGM-01. Planning and Rules staff continues to lead an effort to address concerns with the use of hydrogen fluoride at two refineries through numerous working groups, site visits, and presentations from a variety of stakeholders and interested parties. All of these activities will continue in year 2019.

Mobile Source Incentive Programs

Table 2 lists the number of affected mobile source equipment and emission reductions in tons per year (tpy) for projects approved in year 2018.

TABLE 2

Summary of SCAQMD's Board Approved 2018 Incentive Programs

Program	Funding Amount	No. of Equipment	NOx (tpy)	PM2.5 (tpy)
Carl Moyer & SOON	$35,559,645	558	415	7.8
AB 134	$49,060,072			
Near-Zero Trucks with CEC Grant, Ports, and AB 134 funds	$14,000,000	140	63.2	_
Near-Zero Emission School Buses	$35,638,000	206	27.1	1.5
EFMP	$8,257,730	1,023	14.4	--
Voucher Incentive (VIP)	$2,745,000	65	44.2	0.12
TOTAL	**$ 145,260,447**	**1,992**	**563.9**	**9.42**

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BOARD MEETING DATE: January 4, 2019 AGENDA NO. 16

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, December 14, 2018, Reviewed

RECOMMENDED ACTION:
Receive and file.

Wayne Nastri
Executive Officer

RMM:MAH: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
January 4, 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 three prioritized EGIS projects: o GIS Data Development o System Documentation o Portal/Mobile Development	• Complete the three prioritized EGIS projects: o OnBase Expansion and GIS Integration o CLASS GIS Integration o 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	• Request Board Approval January 4, 2019 • Execute contract(s) January 31, 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	• Acquire 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 • Facility ID Creation Module deployed to production • Phase 1.1 Automated 400A form filing, application processing, and online permit generation for Automotive Spray Booth and Gas Station Modules deployed to production • Upgraded GIS Map integration and enhanced sensitive receptor identification and distance measurement work	• Continue Phase 1.1 project outreach support • Enhanced calculations of sensitive receptor distances • Enhanced processing of school locations with associated parcels
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	• User testing of completed Rule 222 forms including Negative Air Machines, Boilers/Water Heaters/Process Heaters, Cooling Towers, Portable Heaters, and Food Ovens

Project	Brief Description	Budget	Completed Actions	Upcoming Milestones
Permitting System Automation Phase 2 (Continued)			• 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, user stories, and code development for Tar Pots/Tar Kettles, Asphalt Day Tankers, and Asphalt Pavement Heaters completed	• Wireframes, user stories, and code development for Micro Turbines, Storage of Odorants, and Storage of Aqueous Urea Solutions
Information Technology Review Implementation	Complete Board requested Information Technology review and initiate work on implementation of key recommendations	$75,000	• Initiated Implementation Planning and Resource Requirements for key recommendations • Conducted recruitment process to fill Systems & Programming Supervisor position • Completed Microsoft Project Plan training for all IM Managers, Supervisors and Secretaries	• Office 365 deployment planning

Project	Brief Description	Budget	Completed Actions	Upcoming Milestones
Information Technology Review Implementation (continued)			• Established Information Technology Steering Committee, members and charter • Configured and deployed Project Management software for IM team	
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 • Code development for application search module • User acceptance testing for data capture module • User acceptance testing for user reports
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	• Identify funding source

Project	Brief Description	Budget	Completed Actions	Upcoming Milestones
Agenda Tracking System Replacement (continued)			• Revised project scope to include custom user interface • Developed plan and schedule for revised scope	
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	• Approve qualified vendors January 4, 2019
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 • 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	• Phase 3 user approval for production • Implementation of Electric Vehicle Service Equipment and alternative mode of transportation in the RYR application • 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

Project	Brief Description	Budget	Completed Actions	Upcoming Milestones
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
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	• Move to production • Phase 2 requirements gathering
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 • Code development for Sprint 1 – NOV tracking and MSPAP case management
Flare Event Notification – Rule 1118	Develop new web-based application to comply with the Rule 1118 to improve current flare notifications to the public and the compliance team	$100,000	• Vision & Scope issued • Charter Document and proposal approved	• Requirement gathering • Task order to be issued • Functional and system design

Project	Brief Description	Budget	Completed Actions	Upcoming Milestones
VW Environmental Mitigation Action Plan Project	California Air Resource Board 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. It will be SCAQMD's responsibility to develop a web application for both incentive programs, and maintain a database that will be queried for reporting perspectives for California Air Resource Board	$650,000	• Draft Charter Document issued	• Approve timeline and milestones • Approve Charter • Budget Transfer • Approve qualifying vendor • Requirement gathering • Functional and system design

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: January 4, 2019 AGENDA NO. 18

REPORT: Administrative Committee

SYNOPSIS: The Administrative Committee held a meeting on Friday, December 14, 2018. The following is a summary of the meeting.

RECOMMENDED ACTION:
Receive and file.

Dr. William A. Burke, Chair
Administrative Committee

nv

Committee Members

Present: Dr. William A. Burke/Chair (videoconference)
Mayor Ben Benoit/Vice Chair
Dr. Clark E. Parker, Sr. (videoconference)

Absent: Mayor Pro Tem Judith Mitchell

Call to Order

Dr. Burke called the meeting to order at 10:00 a.m.

DISCUSSION ITEMS:

1. **Board Members' Concerns:** None to report.

2. **Chairman's Report of Approved Travel:** As noted on the travel report, Mayor Pro Tem Mitchell will attend the monthly CARB Board meeting as the SCAQMD Board representative in Sacramento, CA, December 13-14, 2018.

3. **Report of Approved Out-of-Country Travel**: None to report.

4. **Review January 4, 2019 Governing Board Agenda**: None to report.

5. **Approval of Compensation for Board Member Assistant(s)/Consultant(s):** None to report.

6. **Update on SCAQMD Succession Planning:** Chief Operating Officer Jill Whynot provided an update on succession planning efforts. Succession planning offers opportunities for promotional and transfer opportunities, helps to identify targeted training needs for performance enhancement, and leads to a stronger organization. Executive staff met to identify staff in key positions and to determine what is needed to assume those positions. Dr. Parker commented that having more assistant levels can be helpful to provide staff with opportunities to promote to higher positions. Dr. Burke commented that a job can change over time with technology shifts which may change the relevancy of a job.

7. **Status Report on Major Ongoing and Upcoming Projects for Information Management:** Assistant Deputy Executive Officer/Information Management Ron Moskowitz reported that all projects are going well and provided an update on current projects. Dr. Burke inquired whether all of the contracts and their expiration dates are stored electronically. Mr. Moskowitz responded yes. Dr. Burke further inquired about how the expiration dates are treated. Mr. Moskowitz responded that a process review may be in order. Mr. Nastri stated that he will work with Mr. Moskowitz to develop a system that would provide notification when contracts are near expiration to ensure there is no lapse in contract time.

ACTION ITEMS:

8. **Authorize Purchase of Telecommunication Services:** Mr. Moskowitz reported that this item is a standard request to purchase telecommunication services for a period of three years. The Telecommunications Services are needed to run the SCAQMD's telephone services, internet access, wireless voice and data. The funds are available in the budget.

   Moved by Benoit; seconded by Parker, unanimously approved.

Ayes:	Benoit, Burke, Parker
Noes:	None
Absent:	Mitchell

9. **Approve List of Prequalified Vendors for Document Conversion Services:** Mr. Moskowitz reported that this action is to approve four vendors over a two-year period to provide document conversion services to digitize paper documents. Funds will be identified and approved as needed as specific projects are defined. Mayor Benoit inquired if this is to digitize documents that are currently in paper form. Mr. Moskowitz responded that we are trying to

eliminate all paper documents at the SCAQMD. Mayor Benoit inquired about the backup capacity and setup. Mr. Moskowitz responded that there are multiple levels of backup: disk-to-disk, and once information is put on the server, it gets backed up immediately, then the backup is placed on tape and the tape goes out to offsite storage. Mayor Benoit inquired about a disaster recovery plan in the case where staff has to leave the building. Mr. Nastri responded that staff has almost completed a Continuity of Operations Plan (COOP). The COOP will include strategies for data backup and the agency's ability to operate quickly from an emergency perspective. Dr. Parker inquired about the number of years data are stored. Mr. Moskowitz responded that there is a records retention policy, which establishes a retention schedule for documents that spans from three years to the life of the agency.

Moved by Benoit; seconded by Parker, unanimously approved.

Ayes:	Benoit, Burke, Parker
Noes:	None
Absent:	Mitchell

10. **Approve Transfer of Monies from General Fund to Health Effects Research Fund:** Assistant Deputy Executive Officer/Finance Sujata Jain reported that this item is to transfer $2,063,229 from the Undesignated General Fund balance to the Health Effects Research Fund. Dr. Burke inquired if the money was already designated for a purpose. Mr. Nastri responded that the money will sit there for now and accrue; however, there are three projects that are currently underway and Dr. Black is seeking additional funds to further extend a project. Once the funds are there, we are going back to the researchers to find out the status of the projects. If there are still remaining funds, we will let the Committee know there are funds for additional research projects. Dr. Burke requested that the Health Effects Officer provide a one-page status of research projects.

Mr. Harvey Eder expressed his concern regarding toxicity as it relates to natural gas.

Dr. Burke requested that the Health Effects Officer provide a one-page response to Mr. Eder's comments.

Moved by Benoit; seconded by Parker, unanimously approved.

Ayes:	Benoit, Burke, Parker
Noes:	None
Absent:	Mitchell

11. **Execute Contract for Biennial Audit of Motor Vehicle Registration Revenues for FYs 2015-16 and 2016-17**: Ms. Jain reported that this item is to execute a two-year contract with Simpson & Simpson for the Biennial audit. The cost of the audit is $100,980.
Moved by Parker; seconded by Benoit, unanimously approved.

Ayes:	Benoit, Burke, Parker
Noes:	None
Absent:	Mitchell

12. **Execute Contract for Janitorial Services at Diamond Bar Headquarters:** Assistant Deputy Executive Officer/Administrative & Human Resources John Olvera reported that this item is to request approval to enter into a three-year contract with Santa Fe Building Maintenance for janitorial services. The total amount is not to exceed $1.7 million. Santa Fe Building Maintenance has been providing janitorial services for the SCAQMD since 2012.

Moved by Parker; seconded by Benoit, unanimously approved.

Ayes:	Benoit, Burke, Parker
Noes:	None
Absent:	Mitchell

13. **Amend Career Development Intern Classification, Adopt New Job Classification, and Approve Staffing Changes to Upgrade Two Positions**: Mr. Olvera reported that this item is to seek approval of staff related changes; amend the Career Development Intern classification to establish three salary steps; adopt the new Monitoring Operations Manager class specification, add a Public Affairs Manager position and a Senior Information Technology Specialist position to the budget; delete a Community Relations Manager position and add an Information Technology Specialist position from the budget. Funding is included in the FY 2018-19 budget.

Moved by Parker; seconded by Benoit, unanimously approved.

Ayes:	Benoit, Burke, Parker
Noes:	None
Absent:	Mitchell

14. **Approve Membership of Home Rule Advisory Group**: Mr. Nastri reported that the Home Rule Advisory Group's proposed membership roster is provided for consideration. Dr. Burke commented that the candidates have impressive resumes.

Moved by Benoit; seconded by Parker, unanimously approved.

Ayes: Benoit, Burke, Parker
Noes: None
Absent: Mitchell

15. **Execute Contracts for Emission Reduction Projects Using Incentive Funding from SCAQMD Special Revenue Funds, and Reimburse General Fund for Administrative Costs for Contract Administration:** Assistant Deputy Executive Officer/Planning, Rule Development & Area Sources Dr. Sarah Rees reported that the Board approved the release of an RFP to execute contracts to achieve NOx, PM, and VOC emission reductions. Project funding was approved up to $61 million. Mr. Nastri reported that there are additional funds available and there are a few projects that staff would like to further review; one in particular–Coachella Valley–and return to the Committee with a recommendation. Dr. Parker asked what makes up the $61 million. Chief Deputy Counsel Barbara Baird referred Dr. Parker to Table 4 on page 9 of the Board letter. Mr. Nastri commented that information on the funds and balances can be included in the January Board package.

Mr. Eder commented that he submitted a proposal for $61 million as part of solar and had concerns with the process and concerns about District staff. Dr. Burke directed General Counsel Bay Gilchrist to speak to Mr. Eder to discuss his concerns about District staff. Mr. Greg Suluff commented that he has two proposals for Board consideration to provide energy efficiency for Homeowners in the Coachella and San Fernando valleys. Mr. Sean Garvey commended staff on its handling of various funding sources and appreciated the clarity in the RFP, as well as the outreach efforts. Dr. Burke inquired how staff are selected to determine how funds are allocated to each project. Mr. Nastri responded that the senior management team asked the panelists to participate. Ms. Rees added that we ask internal staff to participate on the panel, as well as an external panelist from either CARB or U.S. EPA. Dr. Burke commented that there should be guidelines in place for panel selection and directed staff to provide proposed guidelines within 60 days for Board consideration.

Moved by Benoit; seconded by Parker, unanimously approved.

Ayes: Benoit, Burke, Parker
Noes: None
Absent: Mitchell

16. **Transfer and Appropriate Funds, Issue Solicitations and Purchase Orders, Approve Positions for Rule 1180 Implementation and Amend Contract**: Assistant Deputy Executive Officer/Science & Technology Advancement Dr. Jason Low reported that back in January the Board recognized over $7 million for the Rule 1180 funds for the installation and operation of air monitoring stations near refineries. This action is to transfer and appropriate just under $2 million into the STA budget for the initial purchases of equipment and staffing to implement this program. In addition, staff is seeking approval to amend a contract with FluxSense with an additional $110,000 to conduct additional optical remote sensing surveys.

    Moved by Benoit; seconded by Parker, unanimously approved.

Ayes:	Benoit, Burke, Parker
Noes:	None
Absent:	Mitchell

17. **Recommendation to Appoint Members to SCAQMD Environmental Justice Advisory Group**: Assistant Deputy Executive Officer/Legislative, Public Affairs & Media Fabian Wesson reported that this item is to appoint Marc Ang and Humberto Lugo to serve on the Environmental Justice Advisory Group.

    Moved by Parker; seconded by Benoit, unanimously approved.

Ayes:	Benoit, Burke, Parker
Noes:	None
Absent:	Mitchell

18. **Recommendation to Appoint Member to SCAQMD Environmental Justice Community Partnership Advisory Council:** Ms. Wesson reported that this item is to appoint Vallerie Gonzalez to serve on the Environmental Justice Community Partnership.

    Moved by Benoit; seconded by Parker, unanimously approved.

Ayes:	Benoit, Burke, Parker
Noes:	None
Absent:	Mitchell

19. **Recommendation to Appoint Members to SCAQMD Young Leaders Advisory Council:** Ms. Wesson reported that this item is to appoint Kimberly Duong, Ana Gonzalez, Mayra Jackson and Leeann Tran to serve on the Young Leaders Advisory Council.

Moved by Benoit; seconded by Parker, unanimously approved.

Ayes:	Benoit, Burke, Parker
Noes:	None
Absent:	Mitchell

WRITTEN REPORT:

20. **Local Government & Small Business Assistance Advisory Group Minutes for the October 12, 2018 Meeting:** Mr. Alatorre reported that this item is a written report.

OTHER MATTERS:

21. **Other Business:** None to report.

22. **Public Comment:**
There were no public comments.

23. **Next Meeting Date**
The next regular Administrative Committee meeting is scheduled for January 11, 2019 at 10:00 a.m.

Adjournment
The meeting adjourned at 11:25 a.m.

Attachment
Local Government & Small Business Assistance Advisory Group Minutes for the October 12, 2018 Meeting

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

LOCAL GOVERNMENT & SMALL BUSINESS ASSISTANCE ADVISORY GROUP
FRIDAY, OCTOBER 12, 2018
MEETING MINUTES

MEMBERS PRESENT:
V. Manuel Perez, Supervisor
Felipe Aguirre
Rachelle Arizmendi, Mayor Pro Tempore, City of Sierra Madre
Geoffrey Blake, Metal Finishers of Southern California
Todd Campbell, Clean Energy
John DeWitt, JE DeWitt, Inc.
Bill LaMarr, California Small Business Alliance
Rita Loof, RadTech International
Eddie Marquez, Paramount Petroleum
David Rothbart, Los Angeles County Sanitation District

MEMBERS ABSENT:
Ben Benoit, Mayor Pro Tem, City of Wildomar and LGSBA Chairman
Dr. Clark E. Parker, Sr., Senate Rules Committee Appointee
Janice Rutherford, Supervisor, Second District, San Bernardino County
Paul Avila, P.B.A. & Associates
LaVaughn Daniel, DancoEN
Cynthia Moran, Council Member, City of Chino Hills

OTHERS PRESENT:
Mark Abramowitz, Board Member Consultant *(Lyou)*

SCAQMD STAFF:
Derrick Alatorre, Deputy Executive Officer
Laki Tisopulos, Ph.D., Deputy Executive Officer
Nancy Feldman, Principal Deputy District Counsel
Michael Krause, Planning & Rules Manager
De Groeneveld, Sr. Information Technology Specialist
Elaine-Joy Hills, AQ Inspector II
Stacy Garcia, Secretary

Agenda Item #1 - Call to Order/Opening Remarks
Supervisor V. Manuel Perez called the meeting to order at 11:33 a.m.

Agenda Item #2 – Approval of September 14, 2018 Meeting Minutes/Review of Follow-Up/Action Items

Supervisor Perez called for approval of the September 14, 2018 meeting minutes. The minutes were approved with two abstentions from Supervisor Perez and Mr. Todd Campbell.

Agenda Item #3 – Follow Up/Action Items

Mr. Derrick Alatorre indicated that Ms. Rita Loof requested a presentation on Rule 219. Mr. Alatorre stated that he confirmed with SCAQMD staff that there is currently nothing to present. A presentation will be agendized when SCAQMD staff is ready to provide an update on Rule 219.

Mr. Alatorre said that Mr. Paul Avila had requested information on the Sriracha case. Mr. Avila was not present at the meeting for Ms. Nancy Feldman to address Mr. Avila's questions.

Mr. Alatorre stated that Mr. Avila also requested for the sales tax poll performed earlier this year, which was e-mailed to him by SCAQMD staff on October 2, 2018.

Agenda Item #4 – Permit Backlog Reduction

Dr. Laki Tisopulos presented on permit backlog reduction.

Mr. Bill LaMarr asked what the permit backlog is as of this date. Dr. Tisopulos responded that the backlog is currently less than 3,600, excluding the permits to construct issued, which serve as temporary permits to operate, and the net inventory is around 2,500. Mr. LaMarr inquired if the backlog reduction was done with existing staff on a voluntary basis and if overtime was involved. Dr. Tisopulos stated that there was voluntary overtime, and only a fraction of the budget set aside for this effort was used. By processing more permits at a fraction of the budgetary cost, SCAQMD brought in close to $4 million. Mr. LaMarr asked about fostering a culture of excellence and asked if that was a reason for the permit backlog. Dr. Tisopulos said that the backlog was from a variety of different reasons.

Ms. Loof asked if AB 617 will have an impact on the permit backlog. Dr. Tisopulos responded that it is too soon to tell because there may be new rules coming, but he is not anticipating the impact to be insurmountable.

Mr. David Rothbart stated that streamlining the permitting process would be beneficial. Dr. Tisopulos acknowledged that there is always room for improvement and further standardizing and simplifying the process is something to strive for.

Mr. Eddie Marquez asked if the application process will be all electronic. Dr. Tisopulos explained that the goal is to convert the forms to electronically fillable smart forms, which will happen as early as 1 to 1 ½ years. In addition, online permitting tools are being developed, where applicants can write their own permits. Only applicants with simpler applications will be able to do this.

Agenda Item #5 – Local Government Land Use Policies to Reduce Air Pollution Exposure from Mobile Sources

Mr. Michael Krause presented on local government land use policies to reduce air pollution exposure from mobile sources.

Ms. Loof asked for elaboration of the Western Riverside County Good Neighbor Guidelines and mitigation funds. Mr. Krause indicated that the Western Riverside County Good Neighbor Guidelines

basically state that for new companies coming into the region, to distance themselves from schools if they have pollutants, do their best to stay in contact with their neighbors, and encourage clean technology. In regards to the mitigation fund, it is still new, but there may be other ways instead of imposing restrictive limits or thresholds, and there could be more specific items to where the funds could be directed. Other air districts are working on similar programs and we will be looking to them for ideas.

Mr. LaMarr suggested a symposium for companies who bid on projects to convey what SCAQMD wants them to do and get their feedback with respect to feasibility, cost impact, and workability. Mr. Krause responded that one of the facility-based measures does address new and redeveloped facilities similar to the indirect source rule in San Joaquin. There has been a working group that the realtors and builders have been involved in and he will take the suggestion back to that group.

Mr. Todd Campbell asked about the City of Los Angeles's direction of pulling back Health Risk Assessments. Mr. Krause said that there are concerns when you are located close to freeways. Further, Mr. Campbell inquired about SB 743, the significance of vehicle miles traveled, and if it is less important. Mr. Krause stated that he was merely pointing out the debate regarding the bill, but did not take a position.

Supervisor Perez asked what efforts are being done to inform people in Eastern Riverside County. Mr. Alatorre said that the information will be passed on to Eastern Riverside County, as well as other parts of the region. Supervisor Perez requested a symposium in Eastern Riverside County.

Action Item: *Schedule a symposium in Eastern Riverside County.*

Agenda Item #6 –Monthly Report on Small Business Assistance Activities
No comments.

Agenda Item #7 - Other Business
Ms. Loof said indicated that at the last Board meeting, there was discussion regarding AB 617 and the process by which trade associations would participate or be allowed to represent the community. Ms. Loof is requesting a report on activities that SCAQMD staff is working on with the California Air Resources Board (CARB). Mr. Alatorre indicated he will make that a future item.

Action Item: *Provide a report on activities that SCAQMD staff is working on with CARB.*

Agenda Item #8 - Public Comment
No comments.

Agenda Item #9 – Next Meeting Date
The next regular Local Government & Small Business Assistance Advisory Group meeting is scheduled for Friday, November 9, 2018 at 11:30 a.m.

Adjournment
The meeting adjourned at 12:33 p.m.

Back to Agenda

BOARD MEETING DATE: January 4, 2019 AGENDA NO. 19

REPORT: Special Meeting of the Administrative Committee

SYNOPSIS: The Administrative Committee held a special meeting on Tuesday, December 18, 2018. The following is a summary of the meeting.

RECOMMENDED ACTION:
Receive and file.

Dr. William A. Burke, Chair
Administrative Committee

nv

Committee Members

Present: Dr. William A. Burke/Chair (teleconference)
Mayor Ben Benoit/Vice Chair (teleconference)
Dr. Clark E. Parker, Sr. (teleconference)

Absent: Mayor Pro Tem Judith Mitchell

Call to Order

Chair Burke called the meeting to order at 9:00 a.m.

ACTION ITEM:

1. **Issue Purchase Order to Promote "The Right to Breathe" Video:** Media Relations Manager Sam Atwood reported that staff is proposing to add $500,000 to SCAQMD's Google AdWords campaign to promote the updated "The Right to Breathe" video. Dr. Burke asked how many people took the time to watch the video. Mr. Atwood responded that according to Google, there were 20.5 million complete viewings of the 45-second pre-roll video. Dr. Burke inquired about the viewing by city. Mr. Atwood responded that analytics show the number of views were ranked as follows: 1. Los Angeles; 2. Santa Ana; 3. Long Beach; 4. City of Riverside; and 5. Irvine.

Moved by Benoit; seconded by Parker, unanimously approved.

Ayes:	Benoit, Burke, Parker
Noes:	None
Absent:	Mitchell

OTHER MATTERS:

2. **Public Comment**
   There were no public comments.

3. **Next Meeting Date**
   The next regular Administrative Committee meeting is scheduled for January 11, 2019 at 10:00 a.m.

Adjournment
The meeting adjourned at 9:05 a.m.

Back to Agenda

BOARD MEETING DATE: January 4, 2019 AGENDA NO. 20

REPORT: Legislative Committee

SYNOPSIS: The Legislative Committee held a meeting on Friday, December 14, 2018. The following is a summary of the meeting.

Agenda Item	Recommendation/Action
2019 Legislative Goals and Objectives	APPROVE

RECOMMENDED ACTION:
Receive and file this report, and approve agenda item as specified in this letter.

Dr. Clarke E. Parker, Acting Chair
Legislative Committee

DJA:PFC:LTO:jns

Committee Members

Present: Dr. William A. Burke (videoconference)
Dr. Clark E. Parker, Sr. (videoconference)
Supervisor Janice Rutherford (videoconference)

Absent: Mayor Pro Tem Judith Mitchell/Chair
Council Member Joe Buscaino/Vice Chair
Supervisor V. Manuel Perez

Call to Order

Dr. Clarke E. Parker, Sr. was appointed to the committee as Chairman for this meeting. The meeting was called to order at 9:05 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, federal legislative consultant, reported that the U.S. EPA announced the Clean Truck Initiative which would include a rulemaking for Ultra-Low NOx Emission Standards for Heavy-Duty Trucks and Engines. Mr. Hoitsma also stated that Congress may begin work on an infrastructure bill after the New Year.

Dr. Parker asked Mr. Hoitsma about the status of the proposed rule affecting Corporate Average Fuel Standards (CAFE) for passenger vehicles and light-duty trucks, as well as the California Waiver. Mr. Hoitsma indicated that the proposed rule to rollback CAFE standards and potentially revoke the California Waiver has been contentious and may come down to a negotiation between the President and the Governor elect of California.

Ms. Amelia Jenkins, a federal legislative consultant, reported that the new Democratic Majority of Congress has agreed to support Congresswoman Nancy Pelosi in her bid to become the Speaker of the House of Representatives. As part of the negotiations, Congresswoman Pelosi has agreed to a four-year term limit as Speaker. Ms. Jenkins also noted that the 116th Congress would begin on January 3, 2019, and the House is likely to begin the session with hearings related to climate change.

Mr. Mark Kadesh, a federal legislative consultant, reported that there are several new members of the California Congressional delegation with several in the South Coast region. He reported that they would be watching closely as committee assignments are made for the newly elected Members of Congress in preparation for SCAQMD's advocacy trip to Washington, D.C. in January.

Mr. Harvey Eder of the Public Solar Power Coalition made comments urging that solar tax credits be refundable for low income individuals.

2. Update on State Legislative Issues

SCAQMD's state legislative consultants (The Quintana Cruz Company, California Advisors, LLC and Joe A. Gonsalves & Son) provided written reports on various key issues in Sacramento.

Ms. Caity Maple, state legislative consultant, informed the Committee about recent key changes to public voting processes that have led to late changes in vote counts and election results in various races, including:

1) A law that allows ballots to be postmarked as late as election day;

2) A law that allows voters who forgot to sign their ballot, to come back within a certain time period to sign their ballot; and

3) A recently created "vote center model" utilized in various counties throughout California. Voters were mailed a ballot that can be placed in a dropbox, sent in by mail, or submitted at various vote centers over a ten-day period up until election day.

Mr. Will Gonzalez, state legislative consultant, reported on recent meetings in Sacramento regarding educating stakeholders about the proposed sales tax measure for air quality legislation sponsored by SCAQMD. The stakeholders included representatives from unions, the trucking and railroad industries, among others.

Mr. Paul Gonsalves, state legislative consultant, provided a fiscal update. He informed the Committee that the state Legislative Analyst's Office reported that the state has a $15 billion surplus in new revenue for 2019, with about $14.5 billion in reserve. To provide context, the pool of bills thus far introduced for 2019 have a combined cost of over $40 billion, with more legislation to come. Governor-elect Gavin Newsom met with legislative leadership and expressed that the legislative requests for funding will be limited and that the state will live within its means.

Mr. Harvey Eder of the Public Solar Power Coalition made comments regarding the poor financial state of investor owned utilities, indicating that they should no longer be used for providing energy, expressed concerns about climate change and encouraged the use of solar power.

ACTION ITEM:

3. Recommend 2019 Legislative Goals and Objectives

Mr. Philip Crabbe and Ms. Lisa Tanaka O'Malley, Public Affairs Managers of Legislative, Public Affairs and Media, presented the proposed SCAQMD 2019 state and federal legislative goals and objectives to the Committee for approval.

Mr. Crabbe informed the Committee that the 2019 state legislative goals and objectives are intended to protect public health and facilitate attainment of state and federal clean air standards within the South Coast, while working with and serving as a resource to state legislators; the Governor; federal, state, and local agencies; business, environmental and community groups; as well as other stakeholders.

Mr. Crabbe also indicated that the goal to seek new and increase existing funding sources for clean air programs that support the 2016 AQMP, especially through incentive funding, is very much in line with SCAQMD's proposed legislation to obtain authorization for a sales tax ballot measure within the South Coast that funds implementation of the AQMP, helps solve the air pollution problem in the South Coast, allows for attainment of federal standards, and protects public health.

Ms. Tanaka O'Malley informed the Committee that the proposed 2019 federal legislative goals and objectives were drafted in a manner consistent with the major themes of the state legislative goals. She stated that some of the key proposed federal policy priorities will include: 1) federal rulemaking for the ultra-low NOx standard for heavy-duty trucks and engines; 2) Corporate Average Fuel Economy (CAFE) standards; 3) the California Waiver issue; and 4) transparency in regulatory science. Additionally, Ms. Tanaka O'Malley indicated that obtaining federal funding to support the SCAQMD is also a top priority, including funding relating to the Diesel Emissions Reduction Act (DERA), Targeted Airshed Grants, and Clean Air Act Section 103/105. Finally, infrastructure development was emphasized as a key priority, which may also include climate change efforts and possibly funding in 2019.

Ms. Tanaka O'Malley also reviewed edits to the Federal Goals and Objectives for the Committee's consideration:

- On page 2, under Technology Advancement, add the word "policies" to the first sentence and remove a misplaced "and";
- On page 2, under Technology Advancement, remove "and eliminate the use of technologies generating NOx and particulate matter emissions" from the last two bullet points to be consistent with SCAQMD's technology neutral platform; and,
- Strike the last item "New Source Review Offsets" from the Goals and Objectives. Staff recommends removing this item. If there are any Administrative or Legislative actions on the federal level, staff will bring the issues back to the Legislative Committee for discussion and direction.

Mr. Harvey Eder of the Public Solar Power Coalition made comments encouraging the use of solar power, including equity for low income people.

Staff recommended a position of APPROVE on this item.
Moved by Burke; seconded by Rutherford; unanimously approved
Ayes: Burke, Parker, Rutherford
Noes: None
Abstain: None
Absent: Buscaino, Mitchell, Perez

WRITTEN REPORT:

4. Report from SCAQMD Home Rule Advisory Group
Please refer to Attachment 5 for the written report.

OTHER MATTERS:

5. **Other Business**
   There was no other business.

6. **Public Comment Period**
   There were no public comments.

7. **Next Meeting Date**
   The next regular Legislative Committee meeting is scheduled for Friday, January 11, 2019 at 9:00 a.m.

Adjournment
The meeting adjourned at 9:40 a.m.

Attachments
1. Attendance Record
2. Update on Federal Legislative Issues – Written Reports
3. Update on State Legislative Issues – Written Reports
4. Draft 2019 State and Federal Legislative Goals and Objectives
5. Report from the SCAQMD Home Rule Advisory Group

ATTACHMENT 1

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
LEGISLATIVE COMMITTEE MEETING
ATTENDANCE RECORD – December 14, 2018

Dr. William A. Burke (videoconference)	SCAQMD Board Member
Dr. Clark E. Parker, Sr. (videoconference)	SCAQMD Board Member
Supervisor Janice Rutherford (videoconference)	SCAQMD Board Member
Mark Abramowitz	Board Consultant (Lyou)
Guillermo Gonzalez	Board Consultant (V. Manuel Perez)
Ron Ketcham	Board Consultant (McCallon)
Andrew Silva	Board Consultant (Rutherford)
Mark Taylor	Board Consultant (Rutherford)
Gary Hoitsma (teleconference)	Carmen Group, Inc.
Amelia Jenkins (teleconference)	Cassidy & Associates
Mark Kadesh (teleconference)	Kadesh & Associates
Caity Maple (teleconference)	The Quintana Cruz Company
Will Gonzalez (teleconference)	California Advisors, LLC
Paul Gonsalves (teleconference)	Joe A. Gonsalves & Son
Harvey Eder	Public Solar Power Coalition
Bill LaMarr	California Small Business Alliance
Rita Loof	RadTech
David Rothbart	Los Angeles County Sanitation Districts
Tammy Yamasaki	Southern California Edison
Derrick Alatorre	SCAQMD Staff
Leeor Alpern	SCAQMD Staff
Philip Crabbe	SCAQMD Staff
Stacy Garcia	SCAQMD Staff
Bayron Gilchrist	SCAQMD Staff
Monika Kim	SCAQMD Staff
Megan Lorenz	SCAQMD Staff
Matt Miyasato	SCAQMD Staff
Ron Moskowitz	SCAQMD Staff
Wayne Nastri	SCAQMD Staff
Robert Paud	SCAQMD Staff
Sarah Rees	SCAQMD Staff
Mary Reichert	SCAQMD Staff
Jeanette Short	SCAQMD Staff
Lisa Tanaka O'Malley	SCAQMD Staff
Fabian Wesson	SCAQMD Staff
Todd Warden	SCAQMD Staff
Kim White	SCAQMD Staff
Jill Whynot	SCAQMD Staff

ATTACHMENT 2

Carmen Group
INCORPORATED

MEMORANDUM

To: South Coast AQMD Legislative Committee

From: Carmen Group

Date: November 29, 2018

Re: Federal Update -- Executive Branch

EPA Announces Start of Rulemaking Process on Heavy Truck Emissions: On November 13, Environmental Protection Agency Acting Administrator Andrew Wheeler announced the beginning of a formal rulemaking process to adopt a new nationwide ultra-low NOx emission standard for heavy duty trucks, naming it the Cleaner Truck Initiative (CTI). The announcement marked a major milestone for SCAQMD, which in December 2016 led a broad coalition of local and state agencies and others in formally petitioning the EPA to take this step in pursuit of a future rulemaking that will significantly tighten the existing NOx standard which was last set in 2001. For an administration that has sought to avoid new stricter environmental regulations in many areas, this was a major step. And it was made possible in no small part by the coalition of industry support that SCAQMD played a key role in assembling – support that was vital to bringing the White House political team on board. Attending the announcement at EPA headquarters in Washington, DC was SCAQMD's Executive Officer along an array of federal and state officials and leaders from the trucking and engine manufacturing industry, many of whom had been recruited by SCAQMD to work on the issue over the last two years and more. These included representatives from such business entities and trade associations as the American Trucking Associations (ATA), the Owner-Operator Independent Drivers Association (OIDA), the Truck and Engine Manufacturers Association (EMA), the National Association of Manufacturers (NAM), the Manufacturers of Emission Controls Association (MECA), the Diesel Technology Forum, Cummins, Daimler, Navistar, PACCAR, and many others. The announcement event included a roundtable discussion at which these and other representatives were given an opportunity weigh in with the EPA leadership on the importance of this overall effort. Many emphasized the importance they saw in setting one national standard. For his part, Acting EPA Administrator Wheeler said the initiative "makes clear that reducing NOx emissions is a clean air priority for this administration …(and) an important signal to all interested stakeholders that we will work hard on reducing emissions while producing a more effective and efficient program." He also made clear in response to a pointed question that the rule would have an actual tightening of the current standard, while also including a streamlining of compliance and certification requirements. The agency further said that areas of deregulatory focus in the initiative would include "onboard diagnostic requirements, cost effective means of reassuring real-world compliance by using modern and advanced technologies, the deterioration factor testing process, and concerns regarding annual recertification of engine families." The EPA

intends to publish a proposed rule in early 2020 and a final rule later that year.

Midterm Elections Set Stage for New Push on Infrastructure: In the recent midterms elections, Republicans won 2 seats in the Senate increasing their majority to 53-47. At the same time, Democrats won 40 seats in the House, taking over majority control by a margin of 235-200. When the new Congress convenes in January, there will likely be a short window of opportunity (maybe three to six months at best) during which the political and legislative waters will be tested to determine if any significant policy or program initiatives might have a chance to win legislative success before the overt partisanship of the presidential election cycle tends to freeze on most big things. At the top of everyone's wish list on both sides at this time is the subject of infrastructure, something which the President along with Republicans and Democrats say they want, but which no one so far can figure out exactly how to do. Across a divided Congress and down to the White House, it is expected that new and old ideas and proposals on infrastructure will be floated, each requiring serous compromise if there is to be chance of success. While it will be a classic Washington game of "Deal or No Deal," it will also be a unique opportunity for interested parties like SCAQMD and their supporters to be prepared to help members and the administration to find the right path forward on issues of most importance to them.

EPA Announces Funding Availability for Environmental Justice Small Grants: EPA has announced the availability of $1.5 million for Environmental Justice Small grants (EJSG). These funds will be distributed to approximately 50-community-based organizations nationwide that will work to address environmental justice issues in local communities. According to the EPA, each recipient will receive up to $30,000 for one-year, community-driven projects that engage, educate, and empower communities to better understand local environmental and public health issues and to identify ways to address these issues at the local level.

EPA Cracks Down on Emissions Control "Defeat Devices": In November, the EPA announced settlements with three Southern California automotive parts manufacturers for violations of the Clean Air Act. The companies sold or distributes aftermarket auto parts known as defeat devices which bypass or ender in operative required emissions control systems. The three firms will pay a total of $322,000 in penalties.

Trump Gives Wheeler the Nod: Shortly after the midterm elections, President Trump formally announced that he will nominate Andrew Wheeler to be EPA Administrator, saying Wheeler had done a "great job" serving in an "Acting" capacity since July. Wheeler will face a Senate confirmation hearing and vote after the next Congress convenes in the New Year.

Subcabinet Appointment:
Neil Chatterjee of Kentucky has been named to be **Chair** of the **Federal Energy Regulatory Commission.** Chatterjee is currently a member of the commission and was formerly senior policy advisor to Senate Majority Leader Mitch McConnell.

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CASSIDY&ASSOCIATES
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: December 4, 2018

Re: Federal Update

Issues of Interest to SCAQMD

House Elects New Democratic Leadership

Throughout the week of November 27th, the incoming House Democratic Caucus elected new Leadership. Below is a summary of the Caucus elections. House Democrats nominated Minority Leader Nancy Pelosi to serve as the next speaker of the House. If approved by the full House, Pelosi would again wield the gavel in January. The vote was 203 voting for Pelosi, 32 opposing her and three members leaving their ballot blank.

Representative Steny Hoyer from Maryland ran unopposed for House majority leader. He has long been the number two House Democrat for years. He currently serves as the House minority whip and is a former majority leader.

Jim Clyburn of South Carolina was elected majority whip after the Democratic Caucus unanimously selected him by acclamation. This vote returns Clyburn to the third-highest post in the House. Clyburn has been a representative in the House since 1992 and was serving as Assistant Democratic Leader.

Ben Ray Lujan of New Mexico ran unopposed as the assistant Democratic leader after Cheri Bustos and David Cicilline dropped their bids after Lujan declared his candidacy. Lujan was the Democratic Congressional Campaign Committee Chairman during the midterm elections which saw the Democrats take back control of the House for the first time in 8 years.

Diana DeGette of Colorado retained her position as Chief Deputy Whip. She initially announced a bid to be majority whip but withdrew after further consideration and some criticism from other Democratic members. She has already served 7 terms as the Chief Deputy Whip.

Hakeem Jeffries narrowly defeated Barbara Lee in the race for Democratic Caucus Chair after a vote of 123 to 113. Lee is a former chair of the Congressional Black Caucus and the Congressional Progressive Caucus, while Jeffries is considered a rising star among House Democrats. Jeffries was a co-chair of the House Democratic Policy and Communication Committee.

Massachusetts representative Katherine Clark was elected House Democratic Caucus vice-chair after defeating Pete Aguilar 144 to 90. Clark worked with the DCCC on candidate recruitment in 2018 while Aguilar is best known for co-writing a bipartisan immigration reform bill to fix DACA. Clark's win gives a better sense of the ideological direction of party leadership given that Aguilar is a member of the moderate New Democrat Coalition while Clark is a member of the Congressional Progressive Caucus.

Jamie Raskin of Maryland defeated Terri Sewell of Alabama with a vote of 65-57 for Democratic Caucus Leadership Representative. The position was only created two years ago to give junior members of the Democratic Caucus a greater voice in party leadership. For Raskin, this marks another step up the House leadership ladder after he was elected to the Democratic Steering and Policy Committee as a freshman.

In the race for Democratic Congressional Campaign Committee chair, Cheri Bustos beat out Denny Heck and Suzan DelBene with 117 votes going to Bustos, 83 for Heck, and 32 for DelBene. Heck and DelBene already had DCCC experience, but Bustos was able to convince her colleagues that she should lead to help Democratic candidates in the Midwest in 2020.

David Cicilline was elected by acclamation for the newly created top position at the Democratic Policy and Communication Committee. Representatives Ted Lieu of California, Debbie Dingell of Michigan, and Matt Cartwright of Pennsylvania were elected as the three co-chairs. The three other candidates who ran for the position but fell short are Chrissy Houlahan, Adriano Espaillat and John Garamendi. The DPCC serves as the messaging arm of the Democratic Party.

Senate Committee Shuffle

Senator Bill Nelson (D-FL) conceded defeat to Rick Scott (R-FL) which opens his spot as Ranking Member of the Senate Commerce Committee. It is anticipated that Maria Cantwell (D-WA) will move from the Senate Energy and Natural Resource Committee Ranking Member position to the Senate Commerce Committee Ranking Member position. This leaves the Energy and Natural Resources Ranking Member slot open. Senator Joe Manchin (D-WV) is the heir apparent to this position and has expressed interest in assuming it.

Senator Chuck Grassley (R-IA) has expressed his desired to take the helm of the Senate Finance Committee, which directs tax policy, in the next Congress as the current Chairman Orrin Hatch (R-UT) is retiring.

The current Chairman and Ranking Member of the Environment and Public Works Committee, Sen. John Barrasso (R-WY) and Tom Carper (D-DE) respectively, are expected to remain the same.

Electric and Zero Emission Vehicle Deployment

Senators Whitehouse and Merkley introduced legislation on November 28 which would put the United States on a path for achieving 100% zero-emissions vehicle in coming decade, by setting a comprehensive federal zero emission vehicle standard, requiring that of all new car sales in America, at least 50% be zero-emission vehicles by 2030 and ultimately, 100% by 2040. The press release for the legislation specifically notes their intent to build up on the movements of states like California which have enacted state-level zero emission vehicle standards. Much like renewable energy standards, these

ZEV standards require a certain percentage of new vehicles sold in the state to be vehicles that emit no carbon pollution, such as fully battery-powered electric or hydrogen fuel cell vehicles.

Year-End Funding

The current Continuing Resolution funding agreements for Interior-EPA and several other Appropriations segments had been set to expire on December 7th. On December 4, House and Senate leaders released a short-term extension of this funding through December 21st. Funding for the EPA will be part of this package of bills. It is anticipated that lawmakers will reach a final deal to see the remaining spending bills through the end of FY19 before the December deadline.

Hearings in the House of Representatives & 116th Congress

The incoming Democratic Chairmen of the House Energy and Commerce, Natural Resources, and Science, Space & Technology Committees released a joint statement in mid-November stating their intentions to hold a series of hearings over a two-day period early next year to assess the effects of climate change and the need for action. These hearings could provide a useful opportunity to highlight short and medium-term efforts that can reduce air pollution which align with South Coast priorities.

Review of November Meetings

SCAQMD met with the Council on Environmental Quality, senior staff for Senator Cardin (D-MD) who serves on the Senate Environment and Public Works Committee, and the American Lung Association during the November trip to Washington, DC. The CEQ meeting focused on the NOx rule announcement and air quality issues related to the California wildfires. SCAQMD also continued to advocate for the California waiver. The meeting with Senator Cardin's staff focused on opportunities to partner with ports on emissions reduction programs in any upcoming infrastructure legislation. The Port of Baltimore is a huge issue in the Senator's home state. The conversation with American Lung Association centered on how to move forward given EPA's action on the ultra-low NOx rulemaking.

SCAQMD
Report for December 2018 Legislative Meeting covering November 2018

Kadesh & Associates

Major action in November-
After considerable effort, led by SCAQMD Executive Director Wayne Nastri, the Trump Administration's EPA on November 13 initiated a rule-making for Ultra Low NOx Standards for Heavy Duty Trucks.

Midterm Elections-
The November elections ushered in a 40-seat pickup for House Democrats which is more than enough to secure the majority in the next session of Congress. Representative Nancy Pelosi appears to be on her way to serve as Speaker for a second time although a formal floor vote will not occur until January 3, 2019. It also appears that several Members of the California delegation will assume full committee and subcommittee posts in addition to what spots the seven new members of the California delegation will be assigned. Those changes will not be formalized until January. Five of the seven new Democratic Members have all or part of their Congressional districts within SCAQMD's area of responsibility.

Congressional Agenda in the Lame Duck Session-
Following the elections, Congress returned to Washington for a lame duck session to pass the remaining FY19 appropriations bills and avert a government shutdown. The remaining appropriations bills are: Agriculture, Commerce, Justice & Science, Financial Services, Homeland Security, Interior, Foreign Operations, and Transportation/Housing (THUD). While each of the bills has its own issues that staff are working to resolve, funding for the border wall is emerging as the single largest sticking point. The FY19 budget request sought $1.6 billion for new fencing in the Rio Grande Valley. The Senate Department of Homeland Security bill provides that amount. The President, however, is insisting on $5 billion as a down payment for new construction and is threatening a government shutdown over this issue. The current Continuing Resolution expires on December 7 and another week-long bill is in the works, but negotiations over this funding could come to a head sooner rather than later. This is an ongoing issue and we will keep staff apprised of new developments.

Excerpts from media coverage of the Ultra Low NOx announcement:
Trump EPA weighs new limits on truck pollution
By Timothy Cama - 11/13/18 03:00 PM EST 11 "The Hill"

The Environmental Protection Agency (EPA) kicked off its "Cleaner Trucks Initiative" Tuesday, under which officials will consider changes to the standard for nitrogen oxide (NOx) emissions from heavy-duty trucks. NOx emissions in the United States have dropped 52 percent since 2000, which was the last time the EPA updated the standard. But growing big truck traffic is forecast to be responsible for about a third of NOx from the transportation sector in 2025. Bill Wehrum, head of the EPA's air office, said that since the 2000 rule, some big factors have changed, including new technology that can help truck engines get cleaner and a realization that pollution testing procedures aren't the best way to measure emissions. ***A group of local and state air quality agencies, led by California's South Coast Air Quality Management District, had petitioned the EPA in 2016, under the Obama administration, to reduce the allowable NOx emissions from trucks. They wanted the standard to go from 0.2 grams per brake horsepower-hour (g/bhphr) to 0.02 g/bhp-hr.***

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EPA Targets Trucking Industry for New Air Pollution Rules
Push is rare move for administration focused on deregulation
"Wall Street Journal"
By Timothy Puko and Erica E. Phillips - Updated Nov. 13, 2018 3:10 p.m. ET

WASHINGTON—The Trump administration is pushing for new limits on pollution from commercial trucks, a rare move toward stricter air-quality rules for an administration that has prioritized deregulation. Leaders at the Environmental Protection Agency say pollution rules for commercial trucks are due for an update after going largely untouched for nearly 20 years.

The EPA's last round of nitrogen-oxide rules for commercial trucks were developed in 2000, and it took about a decade for those rules to be fully implemented. "It's definitely about time," said Bill Wehrum, assistant administrator of the EPA's Office of Air and Radiation. "The world has changed in a lot of ways over those 20 years. One thing we know is that these vehicles can be made cleaner, lower emitting." ***"I'm not sure, if California weren't insisting on lowering NOx for new trucks, that the EPA would be doing what they're doing today," said Mike Roeth, executive director of the North American Council for Freight Efficiency.***

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Trump's EPA Is Said to Propose Tougher Big-Rig Pollution Rules
By Ryan Beene | November 12, 2018 12:29PM ET
"Bloomberg Government – BGOV"

The U.S. Environmental Protection Agency plans to propose new rules to slash pollution emissions from heavy-duty trucks and engines, a person familiar with the matter said. ***The South Coast Air Quality Management District, which covers the Los Angeles area, asked EPA to issue rules reducing allowable NOx emissions by 90 percent from current levels. In granting the petition, EPA said it could not commit to a specific level but agreed to begin preparing a notice of proposed rule-making, which it estimated would take about two years.***

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"E&E News"
"EPA to toughen truck standards"
Maxine Joselow and Sean Reilly, E&E News reporters -- Monday, November 12, 2018

EPA plans to announce tighter tailpipe pollution standards for heavy-duty trucks tomorrow, according to three people with knowledge of the matter. The announcement will preview a future rulemaking to update heavy-duty truck standards for nitrogen oxides (NOx), those sources told E&E News. ***The ringleader of the petition was the South Coast Air Quality Management District, which has jurisdiction over California's South Coast Air Basin.***

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ATTACHMENT 3

THE QUINTANA CRUZ COMPANY

November 30, 2018

TO: South Coast Air Quality Management District
FROM: The Quintana Cruz Company
RE: November 2018 Report

GENERAL UPDATE:

- The Legislature is out of session until December 3rd
- December 3rd is member swearing in ceremony
- January 7th the legislature reconvenes from Winter recess

POLITICAL ITEMS OF NOTE:

- Democrats have had sweeping victories in the state Legislature
- There is now a Democratic supermajority in both houses (60 Dems in the Assembly, 29 in the Senate)
- Most recently, Umberg beat out Nguyen in Senate District 34
- There will be many Republican staff without jobs, and a shortage of experienced Democratic staff to fill new member offices
- New Insurance Commissioner Ricardo Lara's former Chief of Staff Erika Contreras has just been hired on as the new Secretary of the Senate
- Ann O'Leary was chosen as Gavin Newsom's Chief of Staff
- Jason Kinney will lead the transition team

LEGISLATIVE ITEMS OF NOTE:

- Members can begin introducing new legislation on December 3rd
- January 25th is deadline to submit bill requests to Legislative Counsel

CALIFORNIA ADVISORS, LLC

SCAQMD Report
California Advisors, LLC
December 14, 2018 Legislative Committee Hearing

General Update

While the congressional races garnered significant national attention, there were many important and impactful state and local races in California. The biggest takeaway for California is that the widely speculated 'blue wave' did, in fact, materialize and lifted many Democrats into previously Republican seats.

Statewide, all elected positions were won by Democrats. These positions include Governor, Lieutenant Governor, Secretary of State, Controller, Treasurer, Attorney General, Insurance Commissioner, and Superintendent of Public Instruction. Of note, the new Insurance Commissioner is Ricardo Lara, whose vacant seat will now need to be filled in a special election. Lara has been a critical champion for us during his time in office. There are only rumors as to possible replacement candidates at this time.

In the Senate, Democrats hoped to win back one senate seat in order to regain their recently held 2/3 supermajority. They vastly exceeded their own expectations as they were able to flip three seats, one from a termed-out Republican and two others by knocking two sitting senators out of office. Two of these seats are in the Central Valley and the other is in Orange County, both regions that have traditionally leaned Republican. The final Senate breakdown for 2019-20 will likely be 29 Democrats and 11 Republicans, pending both the special election to replace Democrat Ricardo Lara, who won his bid for Insurance Commissioner, and a race that was too close to call but likely to flip democratic.

In the Assembly, Democrats looked to defend their 2/3 supermajority. In the end, not only did the Democrats defend their supermajority, they flipped five additional Republican districts, with one race still too close to call but trending toward the Democratic candidate. This brings dramatic changes to the Assembly, as the Bay Area will no longer have a single Republican representative and areas like Orange County and Los Angeles County will be almost entirely blue. The makeup of the Assembly chamber in 2019-20 will be 60 or 61 Democrats and 19 or 20 Republicans.

Finally, there were a number of major initiatives on the ballot in 2018, some garnering record numbers of millions of dollars in campaign spending. The most high-profile measure was Proposition 6, which would have repealed the new transportation funding taxes enacted by the Legislature through SB 1 (Beall, 2017). The passage of SB 1 cost Senator Josh Newman, a Democrat from Orange County, his seat in a special election recall,

also ending the Senate's Democratic supermajority. Because of this, many people thought there was a possibility that Proposition 6 could pass, which would have thrown local government budgets into disarray across the state. However, with strong opposition from Democrats, business groups, and labor from across the state, the measure was defeated, 56.8% to 43.2%. That said, without missing a beat, proponents of the repeal have already indicated that they will be placing a new ballot measure on the ballot for 2020, with signature gatherers back to work trying to qualify the measure for the next election.

There are many new, and some familiar, faces coming to Sacramento for the 2019-20 legislative session. Legislators are sworn in on December 3, 2018 and can begin introducing new legislation. However, the new session does not officially begin until January 7, 2019, which is also the day Gavin Newsom will be sworn in as the state's next Governor. With this being the first Democrat-to-Democrat handoff for Governor in nearly 150 years, everyone is watching the transition closely to see who the new Governor's advisors will be on key environmental issues and who is named to lead various agencies and offices.

Notable Races

In SCAQMD territory, most of the state Senate and Assembly races were either won by the incumbents or the district did not flip to the other party. There were, however, a few notable exceptions:

Assembly District 38 – Incumbent Republican Dante Acosta (R) was defeated by Democrat Christy Smith by a margin of 51.5% to 48.5%. The district encompasses the mountainous inner northern suburbs of Los Angeles. It consists of the Santa Clarita Valley and Simi Valley, along with parts of Soledad Canyon and the San Fernando Valley.

Assembly District 74 – Incumbent Republican Matthew Harper was defeated by Democrat Cottie Petrie-Norris by a margin of 52.6% to 47.4%. The district encompasses coastal central Orange County.

Senate District 34 – Incumbent Republican Janet Nguyen was defeated by Democrat Tom Umberg by a margin of 50.6% to 49.4%. The district encompasses various parts of Los Angeles County and Orange County, including the county seat of Santa Ana, Little Saigon, and beachfront communities.

2018 Legislative Priorities

Sales Tax Ballot Initiative Authorization

We have begun the work of identifying an author and educating stakeholders regarding legislation in 2019 that will authorize a sales tax initiative to be placed on the ballot that will fund the AQMP. Thus far California Advisors has facilitated three days of meetings with key Capitol staff as well as multiple interest groups and public organizations that could

potentially be supportive of our efforts. Meetings have been positive, with great feedback and suggestions coming from multiple sources.

SB 210 (Leyva) Heavy-duty Vehicle Inspection and Maintenance Program
This bill would authorize the state board to develop and implement a Heavy-Duty Vehicle Inspection and Maintenance Program for non-gasoline heavy-duty on-road motor vehicles.

Status: 11/19/18: The California Air Resources Board held a briefing for stakeholders.

Joe A. Gonsalves & Son
Anthony D. Gonsalves
Jason A. Gonsalves
Paul A. Gonsalves
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TO: South Coast Air Quality Management District

FROM: Anthony, Jason & Paul Gonsalves

SUBJECT: Legislative Update – November 2018

DATE: Friday, November 30, 2018

The month of November has been very exciting around the State Capitol. The November 8 elections have made serious changes to the California Legislature. The Legislature once again has a supermajority in both houses; The Assembly has 60 Democrats and 20 Republicans and the Senate has 29 Democrats and 11 Republicans. Additionally, Gavin Newsome was elected as the State's next Governor.

The Legislature will convene an organizational, ceremonial swearing-in sessions at Noon on Monday, December 3rd, 2018 to kick-off the 2019-2020 legislative session. January 7, 2019 marks the first day of session for the 2019-2020 legislative session.

ELECTION RESULTS

While there are still some races that could change, it appears the legislature will enter the 2019-2020 session with the largest number of Democratic legislators in recent history, if not ever. Entering the November 6th, 2018 Elections, the 80-member Assembly was comprised of 55 Democrats and 25 Republicans and the 40-member Senate had 26 Democrats and 14 Republicans. As the provisional and absentee ballots continue to be tallied, it appears the Legislature in on December 3 will consist of at least 60 Democrats in the Assembly and 29 in the Senate (please note the 2/3 vote threshold in the Assembly is 54 and 27 in the Senate).

While the super-majority of the Democrats in the Legislature is more solid following the election, it remains to be seen whether the election results will translate into a drastic remake of the political landscape in Sacramento.

While Democrats have enjoyed supermajorities on paper, they have often struggled to get the votes necessary to pass 2/3 vote bills. Given the fact that several of the incoming members narrowly defeated their Republican opponents, they may be hesitant to vote for tax increases and against the business community.

As recently stated by Governor Brown: “I think the chances of getting the Legislature to vote by two-thirds on new taxes are very, very limited and unlikely,” Brown continued. “The fact is it’s a simple formula: The more Democrats win legislative seats, the more conservative are the ones who win. The caucus takes into itself more conservative-thinking people.”

The following will provide you with a list of the Newly Elected Legislator’s within the South Coast Region:

Assembly:

- 38th AD: Christy Smith (D) defeated incumbent Dante Acosta (R)
- 40th AD: James Ramos (D) won a historically Republican seat
- 72nd AD: Tyler Diep (R)
- 74th AD: Cottie Petrie-Norris (D) defeated incumbent Mathew Harper (R)

Senate:

- 22nd SD: Susan Rubio (D)
- 24th SD: Maria Elena Durazo (D)
- 32nd SD: Bob Archuleta (D)
- 34th SD: Tom Umberg (D) defeated incumbent Janet Nguyen (R)

2019 LEGISLATIVE CALENDAR

- Jan. 1 Statutes take effect
- Jan. 7 Legislature reconvenes
- Jan. 10 Budget must be submitted by Governor
- Jan. 21 Martin Luther King, Jr. Day.
- Jan. 25 Last day to submit bill requests to the Office of Legislative Counsel.
- 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
South Coast AQMD 21865 Copley Drive, Diamond Bar, CA 91765-4178
(909) 396-2000 • www.aqmd.gov

DRAFT

SCAQMD's State Legislative Goals & Objectives for 2019

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

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

SCAQMD Authority / Policy Implementation
Protect and ensure adequate SCAQMD authority for implementation of the Board's clean air policies and programs, as required by state and federal law, including the 2016 AQMP.

State Support
Work to ensure that the state government does its fair share to reduce air pollution within the South Coast region by providing ample funding and legislative and administrative support to SCAQMD to facilitate implementation of the 2016 AQMP and attainment of federal ozone and particulate matter ambient air quality standards by upcoming federal deadlines.

Environmental Justice
Support legislative policies and funding that: 1) promote and sustain environmental justice initiatives which reduce localized health risks resulting from criteria pollutant and toxic air contaminant emissions; 2) develop and expand access to clean air technology, especially in disproportionately impacted communities; 3) enhance community participation in decision-making; and 4) provide the resources necessary to fully implement local air districts' responsibilities and programs created through Assembly Bill 617 (C. Garcia, Chapter 136, Statutes of 2017).

Development and Deployment of Clean Technology
Support legislative policies and funding that promote the development and deployment of near-zero and zero emission infrastructure, equipment and vehicle technology to protect public health, facilitate attainment of clean air standards and support a healthy economy.

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

Clean Energy
Support legislative efforts that advance the Board's Energy Policy which promotes energy efficiency, demand reduction and reliable, cost effective and clean energy for all consumers in the District while facilitating attainment of clean air standards and providing support for a healthy economy.

Business/Jobs Climate
Support legislative policies and/or administrative actions that promote job retention and creation as well as economic growth, while working toward attainment of clean air standards; and that support and assist the regulated community in complying with rules and regulations in the most efficient and cost-effective manner.

Surface Transportation & Goods Movement
Support and expand air quality policy and funding considerations related to the implementation of state and federal surface transportation and goods movement policies and programs, including those related to the FAST Act.

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

Revised
DRAFT

SCAQMD's Federal Legislative Goals & Objectives for 2019

The following goals and objectives are identified to enable SCAQMD to seek rules, legislative policies, and funding levels from the federal government that will assist the South Coast Air Basin in meeting the National Ambient Air Quality Standards (NAAQS) to protect public health through practical and innovative strategies.

Air Quality Funding

- Seek adequate funding levels for air quality issues through existing and new opportunities to enable the South Coast Air Basin to reach attainment of NAAQS. Support key programs such as, but not limited to, the Diesel Emissions Reduction Act, Targeted Airshed Grants, Subvention Funds from Clean Air Act Section 103/105, Energy Efficiency & Renewable Energy grants, and other programs.

Clean Air Act, National Ambient Air Quality Standards (NAAQS) and SIP

Support policies, legislation and/or administrative efforts to:

- Protect science-driven and health-based determinations of national ambient air quality standards, and efforts to streamline and provide flexible implementation of SIP requirements, as needed, to ensure feasibility of attainment; and,
- Providing regulatory authority adequate for nonattainment areas to attain National Ambient Air Quality Standards (NAAQS) for upcoming federal deadlines, and in particular, the South Coast Air Quality Management District (SCAQMD) to implement the 2016 Air Quality Management Plan (AQMP) and attain federal ozone and particulate matter standards.
- Promulgating rules through a transparent process with equitable stakeholder participation to reduce air pollution and preserve local regulatory authority including, but not limited to, the Ultra-Low NOx Emission Standard for Heavy Duty Trucks known as the Cleaner Trucks Initiative, fuel efficiency standards for passenger vehicles and light duty trucks, and transparency in regulatory science.

Climate Change

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

Surface Transportation & Goods Movement

Pursue the adoption of legislation and/or policies which will reduce or eliminate air quality impacts from mobile sources with an emphasis on the goods movement sector (for both medium-duty and heavy duty vehicles), as well as off-road vehicles (such as agricultural vehicles, cargo handling equipment, freight handling equipment, and construction equipment).

Marine Vessels

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

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

Reduction of Toxic Emissions
Pursue efforts through legislative and administrative programs, to reduce toxic emissions, and the public's exposure to toxic emissions, within the South Coast region.

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

Technology Advancement
Expand funding opportunities, policies and federal tax incentives for advanced clean technology research, development, demonstration and deployment programs, including those related to:

- Zero and near-zero emission technologies;
- Clean vehicles (such as light-, medium- and heavy-duty vehicles, locomotives, marine vessels, and aircraft technologies);
- Clean fuels and refueling/recharging technologies and infrastructure;
- Clean energy sources;
- Technologies, systems and/or processes which reduce ambient concentrations of air pollutants and/or toxic air emissions; ~~and~~
- Reauthorizing DERA with an emphasis to assist extreme non-attainment areas;
- Authorizing and funding new programs which will reduce air pollution through the adoption and deployment of zero and near-zero emission technologies, fuels and recharging/refueling infrastructure;
- Establishing programs or policies that incentivize the federal government to purchase and use advanced clean technologies; and,~~and eliminate the use of technologies generating NOx and particulate matter emissions; and~~
- Incentivizing individuals, businesses, states, and local governments to purchase and use advanced clean technologies~~ and eliminate the use of technologies generating NOx and particulate matter emissions~~.

Business/Jobs
Support legislation, policies or administrative actions that support and assist the regulated community to comply with rules and regulations in the most efficient and cost-effective manner that protects and encourages job retention and creation, and promotes economic growth, while working toward attainment of clean air standards.

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

ATTACHMENT 5

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, September 12, 2018
MEETING MINUTES

CHAIR: Dr. Joseph Lyou, SCAQMD Governing Board Member

MEMBERS PRESENT:
Mike Carroll (Regulatory Flexibility Group); Curt Coleman (Southern California Air Quality Alliance); Jaclyn Ferlita (Air Quality Consultants); Nan Harrold (Orange County Waste & Recycling); Bill LaMarr (California Small Business Alliance); Bridget McCann (Western States Petroleum Association); Art Montez (AMA International); David Rothbart (Los Angeles County Sanitation District); and TyRon Turner (Dakota Communications).
The following members participated by conference call: Rongsheng Luo (SCAG); and Bill Quinn (California Council for Environmental & Economic Balance);

MEMBERS ABSENT:
Ben Benoit (SCAQMD Governing Board Member); Michael Downs (Downs Energy); Dan McGivney (Southern California Gas); Dr. Clark Parker (SCAQMD Governing Board Member); Larry Rubio (Riverside Transit Agency); Larry Smith (Cal Portland Cement); Kristen Torres Pawling (County of Los Angeles, Chief Sustainability Office); and Amy Zimpfer (EPA).

OTHER ATTENDEES:
Mark Abramowitz (Board Consultant to Dr. Lyou); Brian Clerico (CARB); Priscilla Hamilton (Southern California Gas); Rita Loof (RadTech); Susan Stark (Andeavor); and John Ungvarsky (EPA).

SCAQMD STAFF:

Jill Whynot	Chief Operating Officer
Barbara Baird	Chief Deputy Council
William Wong	Principal Deputy District Counsel
Sarah Rees	Assistant Deputy Executive Officer
Philip Crabbe	Community Relations Manager
Ian MacMillian	Planning & Rules Manager
Pedro Piqueras	Air Quality Specialist
Cristina Lopez	Senior Administrative Secretary

OPENING COMMENTS AND SELF-INTRODUCTIONS

The meeting was called to order at 10:03 a.m. by Dr. Joseph Lyou (Chairman).

APPROVAL OF JULY 2018 MEETING MINUTES

Dr. Lyou asked for comments on the July 11, 2018 meeting minutes. Bridget McCann requested the addition of language on page six to reflect her comment that it is difficult to locate the

subscription pages on the AQMD website and staff committed to provide a follow-up. With the language added, the minutes were approved.

Action Item: Dr. Lyou requested for the membership to be provided with the link to the subscription page from the SCAQMD website. The following link was provided: http://www.aqmd.gov/sign-up

EPA AND FEDERAL ACTIVITIES

John Ungvarsky provided an update on recent U.S. Environmental Protection Agency (EPA) and federal activities.

SCAQMD Related Actions

- Proposed Safer Affordable Fuel Efficient (SAFE) vehicles rule.
- EPA continues to work closely with CARB and SCAQMD on the 2016 AQMP.
- Working with SCAQMD on MOU's for the ports.
- The 2018 Targeted Airshed Grant RFP will be announced soon and it is anticipated that $40M will be awarded in grant funding nationally.
- The Tribal DERA grant RFP opened on June 5, 2018 and will now close in April 2019.

National Update

- EPA's Lean Management System (ELAM) effort continues to be implemented.
- Proposed implementation rule related to the 2015 Ozone Standard.

Discussion

Dr. Lyou inquired about a possible SAFE hearing in Los Angeles area. Mr. Ungvarsky indicated that at this time the only California hearing will be in Fresno. Barbara Baird indicated that a hearing in Los Angeles has been requested.

Bill Quinn inquired about an update on EPA's proposal to rollback Obama-Era methane regulations. Mr. Ungvarsky indicated that he did not have any updates, but he would look into this and follow-up with a link to this information. The following link was provided: https://www.epa.gov/controlling-air-pollution-oil-and-natural-gas-industry/proposed-improvements-2016-new-source

Dr. Lyou inquired with staff on EPA's SAFE proposed rule, and if it is adopted as proposed, would it affect SCAQMD attainment plans. Barbara Baird indicated that staff was going to look to see if these rules were included in our SIP demonstration.

CARB REGULATORY ACTIVITIES

Brian Clerico provided updates on items scheduled to go to CARB's Board in September 2018 and recent regulatory activities.

- Global Climate Action Summit, September 12 – 14, 2018 in San Francisco.
- Governor Brown recently signed SB 100 - California Renewables Portfolio Standard Program: emissions of greenhouse gases, which commits California to 100% renewable zero emission electricity and carbon sources by 2045.
- There are currently no updates for CARB's tentative calendar for control measures and selected items.
- On September 21, 2018, at SCAQMD, there is a public workshop for a proposed amendment to the diesel particulate matter control measure for solid waste collection vehicles.

- CARB has selected two Los Angeles County communities for the Study of Neighborhood Air near Petroleum Sources (SNAPS), Baldwin Hills - Inglewood Oil Field and South Los Angeles - La Cienega Oil Field.
- In September 2018, the Clean Vehicle Assistance Program was launched to assist lower-income consumers with the purchase of the cleanest new and used cars available on the market.

Discussion
Dr. Lyou inquired if the SNAPS study would also include an inventory assessment. Mr. Clerico indicated that the study is focused on monitoring.

Bill LaMarr inquired if CARB plans to determine the recent California forest fires emissions impact on attainment goals. Mr. Clerico indicated that he would need to follow-up with their monitoring group. Dr. Lyou commented on the statewide Purple Air sensor network and the spike of PM2.5 levels near the fires. He added that we could potentially have fire season ten months out of the year, every year, and it would then no longer be considered an extraordinary event.

Dr. Lyou commented on a letter sent by the Governor to CARB requesting regulations for public and private fleets in California, and the subsequent September workshop and rule making process. Art Montez inquired whether the fleets locations could be monitored, especially those located near communities of color. Barbara Baird added that in SCAG's Regional Transportation Plan they look at environmental justice impacts for the transportation network. Rongsheng Luo confirmed that SCAG does track this data. Dr. Lyou mentioned CARB's AB 617 implementation meeting scheduled for September 27, 2018, and the proposed monitoring for communities.

Rongsheng Luo inquired if SNAPS is part of the AB 617 program. Mr. Clerico indicated that SNAPS is not formally part of AB 617, but it will complement the goals of AB 617. Jill Whynot pointed out that CARB recently adopted an oil and gas regulation, while SCAQMD was also working on a similar regulation, and ultimately SCAQMD's put theirs aside because of the similarity between the regulations. Ms. Whynot further explained that the SNAPS program is a regulation follow-up to see if there are leaks and a good understanding of the emissions identified.

LEGISLATIVE UPDATE
Philip Crabbe reported on key legislative updates.

There will be an end-of-year summary report on the State legislature & Governor's Actions for 2018, which will include:

- The State Legislature adjourned on August 31st for the 2018 legislative year. The State Assembly and Senate combined, introduced over 2,600 bills in 2018 and sent over 1,500 bills to the Governor for his consideration. The bills to the Governor include some leftover two-year bills from 2017. Bills that did not make it to the Governor's desk are now dead.
- The Governor has until September 30 to sign into law or veto all bills passed in 2018. Any bills not acted on by the Governor will also become law.
- Specifically for the South Coast region, this was a successful legislative year in several ways, including but not limited to:
    - The securing of $50 million in statewide funding for local air districts to support implementation of AB 617 (C. Garcia) requirements. This is an increase from last year's funding level of $27 million.
    - The securing of $245 million in statewide funding to local air districts for incentives to help accelerate turnover to clean vehicles, in support of the AQMP.

- SCAQMD's sponsored bill, SB 1502, was signed into law by the Governor. This bill allows local air districts to provide more modern forms of public notice, such as through electronic email; and
- Securing key amendments to SB 1260 (Jackson) - Fire prevention and protection is pending before the Governor. This bill would allow SCAQMD to permit mechanized burner equipment in Los Angeles Count and provides for cleaner controlled open burns.

There will be discussions on a new public survey being developed, which relates to a potential sales tax increase ballot measure for air quality funding. The Governing Board approved this as a legislative concept to pursue this on September 7, 2018.

Discussion
Bill LaMarr requested clarification on SCAQMD's intentions with the public survey. Philip Crabbe replied that the Governing Board has approved this as a legislative concept to pursue.

Dr. Lyou commented that since SCAQMD's position on bills has to be approved by the Governing Board or the Legislative Committee, the agency is often not in a good position at the end of legislative session. This is because we are unable to react as quickly as needed. He further indicated that SB 750 (Delgado) sailed through legislature and is now before the Governor, and AQMD has not even had an opportunity to take a position on it. Dr. Lyou recommended that this bill be placed on the Legislative Agenda to potentially take a position on it. He further suggested the possibility of a special Legislative Committee meeting to be held the last week of the legislative session, before the end of the 72-hour deadline.

David Rothbart inquired if SCAQMD has a position on SB 1440. Philip Crabbe replied no. Dr. Lyou indicated that there are thousands of bills to consider and the Legislative Committee is unable to address all of the bills being discussed, and only the highest priority bills are addressed.

UPDATE REGARDING LITIGATION ITEMS AND RELATED EPA ACTIONS
William Wong had no updates to report.

Discussion
Barbara Baird reported that both sides in the RECLAIM lawsuit are considering the option to stay the litigation, and to see how the RECLAIM amendments shakeout over the next sixteen months.

FACILITY-BASED MOBILE SOURCE MEASURES
Dr. Sarah Rees gave an update on the status of the Facility-Based Mobile Source Measures work. She described the activity to date for airports, ports, new and redevelopment, warehouses, and railyards and plans for future working group meetings. Barbara Baird gave a summary of the state and federal regulatory framework regarding mobile sources and the SCAQMD's legal authority to develop indirect source rules.

Discussion
Mike Carroll inquired which airports are covered by this measure. Dr. Rees replied Los Angeles, Burbank, John Wayne, Ontario and Long Beach airports.

Mike Carroll inquired about the major development community. Dr. Rees indicated there is an overlap from the Warehouse Working Group, as well as major real estate entities.

Art Montez expressed appreciation of the agency's desire to work with industry and not just to impose a regulatory burden. He also inquired if SCAQMD monitors their regulations to determine

if the desired targets are actually achieved. Dr. Lyou indicated that policies are developed for today's technologies and that the agency does consider changes that occur.

David Rothbart inquired about the status of the goals set for the 2016 AQMP. Dr. Rees outlined the progress achieved, as well as the current regulatory actions on stationary sources. Mr. Rothbart further expressed concern about not reaching attainment. Dr. Lyou commented on the attainment levels that need to be met and the possibility of Section 185.

Bill LaMarr expressed concern about CARB's fleet certifications and the potential liability for small businesses. Dr. Rees expressed that many details are still being worked out. Dr. Lyou indicated that there is a 30 percent non-compliance with existing truck and bus fleet retrofit certifications, and this is why CARB is looking at enforcement.

Mike Carroll inquired about additional information on the SCAQMD's indirect source rules. Dr. Rees indicated that information can be found on our website.

Due to comments expressed at the September Governing Board meeting, and at Dr. Lyou's request, Ms. Baird provided clarity and background on SCAQMD's legal authority to regulate indirect sources.

David Rothbart inquired if the San Joaquin litigation had any discussion on existing versus future sources. Ms. Baird responded no, because discussions applied only to new development.

Nan Harrold inquired about future indirect sources that will be regulated. Dr. Rees responded that the focus is on what we are working on now. Dr. Lyou added that there are still many potentially significant indirect sources that we are leaving off the table at this point.

Dr. Lyou commented that he found SCAQMD's characterization of backstopping the ports to be interesting and the need to not interfere with their incentive money, which would only occur if we adopted regulations. Dr. Rees indicated that SCAQMD does not want to impede their ability to get funding.

Dr. Lyou inquired about the development and re-development ISR economic impacts and what is going to be required of the ports. Dr. Rees indicated that the rulemaking process has not started, but it would probably be modeled according to scenarios. Dr. Lyou reiterated the importance of having a menu on what is being considered, this approach would help determine if the criteria are being met.

Dr. Lyou inquired why SCAQMD's CEQA guidance document has not been updated since 1993. Ms. Whynot indicated that it is due to resources. Ian MacMillian indicated that parts of the guidance have been updated.

SUBCOMMITTEE STATUS REPORTS

A. *Freight Sustainability (Dan McGivney)*

Dr. Lyou indicated that CARB has published a list of proposed freight projects.

B. Small Business Considerations *(Bill La Marr)*

An update was provided on the following items.

- CARB's criteria pollutants & toxic air contaminants proposed regulation;
- CARB's Clean Air Protection Blueprint;
- RECLAIM Working Group; and

- PAR 1469 discussions with the Metal Finishers Association

C. ***Environmental Justice and AB 617 Implementation (Curt Coleman)***
An update was provided on the following item.

- CARB staff has prepared its staff report on the recommendations on which communities will be subject to the initial round of the community air protection plan.

D. ***Climate Change (David Rothbart)***
An update was provided on the following items.

- Global Climate Action Summit starts today in the Bay area;
- Governor signed SB 100; and
- Governor signed Executive Order B5518

REPORT FROM AND TO THE STATIONARY SOURCE COMMITTEE
Jill Whynot provided a summary of items on the August and September 2018 meeting agendas.

- PAR 1135;
- Status report on Regulation XIII;
- Status update on underfired charboilers;
- PR 1407.1;
- PAR 2001 and 2002; and
- Draft Test Method Guidance Document for Rule 1168.

OTHER BUSINESS
There were no comments.

PUBLIC COMMENT
There were no comments.

ADJOURNMENT
The meeting was adjourned at 11:56 a.m. The next meeting of the Home Rule Advisory Group is scheduled for 10:00 a.m. on November 14, 2018, and will be held at SCAQMD in Conference Room CC-8.

Back to Agenda

BOARD MEETING DATE: January 4, 2019 AGENDA NO. 21

REPORT: Stationary Source Committee

SYNOPSIS: The Stationary Source Committee held a meeting on Wednesday, December 19, 2018. The following is a summary of the meeting.

RECOMMENDED ACTION:
Receive and file.

Ben Benoit, Chair
Stationary Source Committee

LT:rs

Committee Members

Present**:** Mayor Ben Benoit/Chair (videoconference)
Dr. Joseph Lyou/Vice Chair
Mayor Pro Tem Judith Mitchell (arrived at 10:37 a.m., listening only from a non-noticed videoconference location)
Supervisor V. Manuel Perez (videoconference)
Supervisor Janice Rutherford

Call to Order

Chair Benoit called the meeting to order at 10:31 a.m.

INFORMATIONAL ITEMS:

1. **Update on Proposed Rule 1118.1 – Control of Emissions from Non-Refinery Flares**

   Michael Krause, Planning and Rules Manager, presented an update on Proposed Rule 1118.1 – Control of Emissions from Non-Refinery Flares, in response to two issues raised at the last Stationary Source Committee meeting: impacts from food waste digestion and limits on new flares at oil and gas production sites. David Rothbart, representing the Southern California Alliance of Publically Owned Treatment Works (SCAP) stated that they support the rule and the Resolution language that will require a technology assessment to evaluate the NOx emissions

from food waste diversion under Senate Bill 1383. Michael Salman, Professor of History at University of California, Los Angeles (UCLA) who worked with Governor Brown on the World Bank Zero Routine Flaring by 2030 Initiative, requested that staff conduct a technology assessment on the viability and cost-effectiveness of beneficial use technology in the next two to three years. Mr. Salman stated beneficial uses exists, even for smaller remote sites there are beneficial use options beyond pipeline injection, and the proposed rule should not restrict beneficial use applications. Ivan Tether, an attorney representing the California Independent Petroleum Association (CIPA), stated their members prefer beneficial use to burning valuable product and requested that staff work with CARB and industry to create more opportunities for beneficial use. Mr. Tether also questioned the authority of the SCAQMD to curtail the use of Best Available Control Technology (BACT) equipment by rule.

Mr. Krause responded that beneficial use projects do exist in all sectors covered by the rule and the capacity thresholds encourage beneficial use. Dr. Philip Fine, Deputy Executive Officer/Planning, Rule Development, and Area Sources, commented that staff is not opposed to conducting a technology assessment on beneficial use at oil and gas production sites. Dr. Lyou indicated it would be helpful but not necessary as part of the rule.

Dr. Lyou inquired if the proposed rule includes an incentive for facilities to simply install more flares. Mr. Krause responded that any new flare installation would also have limitations on the amount of flaring allowed. Dr. Lyou inquired about the emission reductions forgone due to the higher limit proposed for minor sources combusting digester gas. Mr. Krause explained that the calculated emission reductions were based on existing flares because staff could not predict new flare installations. Dr. Lyou also inquired about including both the 800 hour limit and the current proposed fuel use limit. Susan Nakamura, Assistant Deputy Executive Officer/Planning, Rule Development, and Area Sources, responded that a gas usage limit is a better metric to limit annual flaring as it is more directly related to emissions and is more enforceable. Dr. Lyou also inquired about the authority to establish BACT in the rule versus through the permit and if BACT could change going forward. Ms. Nakamura stated that the rule establishes an emission limit that corresponds to current BACT and gives facilities the option to replace the flare or reduce emissions. The rule does not restrict BACT limits from changing in the future. Barbara Baird, Chief Deputy Counsel, stated the usage limitations would not be a violation of the "Takings Clause" as long as there is "reasonable use" of the property. Thus, establishing a limit through the rule is within the SCAQMD's authority and would not be a constitutional violation.

Mayor Benoit asked whether CR&R is a major or minor source under the proposed rule. Mr. Krause stated the facility is a minor facility, so any new flare would not be subject to a more stringent emission limit than the current requirements.

Supervisor Perez asked whether the proposed rule assists with the Zero Routine Flaring Initiative. Dr. Fine stated that the rule targets routine flaring and works toward the direction of the 2030 Zero Routine Flaring Initiative by encouraging beneficial use and requires cleaner flares to reduce emissions.

Mayor Benoit stated that he also supports the technology assessment, ways to support beneficial use at oil and gas production sites, and appreciates the efforts to reach a balance with the proposed rule.

2. Proposed Amended Rule 1403 – Asbestos Emissions from Demolition/Renovation Activities

Dr. Sarah Rees, Assistant Deputy Executive Officer/Planning, Rule Development and Area Sources, presented an update of Proposed Amended Rule (PAR) 1403. Dr. Rees discussed the remaining concerns of utility stakeholders regarding emergency notifications for asbestos work, and additional work by staff to address those concerns.

Cindy Parsons from the Los Angeles Department of Water and Power (LADWP), commented that they appreciate the ongoing dialog with staff on this rule and that while lots of issues have been discussed and have been resolved, there are still some that are unresolved. The biggest concern remains emergency notifications and the fact that any asbestos clean-up needs to be approved by SCAQMD staff prior to proceeding with the work. LADWP appreciates that in the event of a true emergency SCAQMD does not require approval in advance to restore utility service, but are concerned that once the work has been performed to restore service, there would still be a hole in the ground and work would stop to complete the necessary paperwork and get that preapproval. LADWP would like SCAQMD staff to develop a pre-approved plan for asbestos clean-up work that would allow utilities to proceed with asbestos work and then file the appropriate paperwork as a follow-up similar to what is provided for in Rule 1166.

Dr. Rees commented that the reason SCAQMD staff requires an emergency notification letter is that there is a standard notification period required by the federal rules for asbestos and that in order to waive that notification period that event has to qualify as an emergency. She clarified that in the event of a true emergency that provides an imminent risk to public health, paperwork does not need to be done in advance and that the utility should proceed and address the issue. The paperwork would then need to be completed and submitted to SCAQMD so that staff can confirm that the event was an emergency.

Dr. Lyou asked whether, in general, utilities were the biggest problem regarding compliance with Rule 1403. He further asked if it were possible for staff to create preapproval plans for various asbestos clean-up scenarios to allow utilities to clean up asbestos spills faster and not have to wait for SCAQMD approval for the case where the asbestos work results in a hole in a road.

Dr. Rees responded that SCAQMD staff can provide for pre-approved plans and that the current version of Rule 1403 provides for this but that notice is still required before performing the work. She explained that staff are continuing to look at this issue and are working to see if they can find a solution to this concern. She noted that in the case when there are pre-approved plans on file SCAQMD staff are able to provide approval very quickly – often as fast as 15 minutes – and that she was unaware of cases where SCAQMD approval of asbestos work had resulted in an unreasonable delay.

Dr. Lyou commented that it would be interesting to hear what the compliance timeline has been in turning around emergency notifications.

Supervisor Perez asked about the difference between Rule 1166 and Rule 1403 and whether that approach could work for Rule 1403.

Dr. Rees responded that Rule 1403 is specific for asbestos work and that it may be difficult to provide pre-approved plans as each event involves different amounts and location of asbestos contamination. Wayne Nastri, Executive Officer, responded that staff will continue to address and work on this issue and will notify Committee members regarding the outcome before the next Board meeting.

WRITTEN REPORTS

3. **Notice of Violation Summary**
   Dr. Lyou inquired about a settlement reached with WM Barr & Company, Inc. Staff provided a brief explanation of the settlement.

4. **Monthly Update on 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 received and filed by the Committee.

OTHER MATTERS:

5. **Other Business**
   There was no other business.

6. **Public Comment Period**
   There were no public comments.

7. **Next Meeting Date**
   The next Stationary Source Committee meeting is scheduled for Friday, January 18, 2019.

Adjournment
The meeting was adjourned at 11:25 a.m.

Attachments
1. Attendance Record
2. Notice of Violation Penalty Summary
3. December 2018 RECLAIM NSR Progress Report

ATTACHMENT 1

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
STATIONARY SOURCE COMMITTEE
Attendance – December 19, 2018

Mayor Ben Benoit (videoconference)	SCAQMD Governing Board
Dr. Joseph Lyou	SCAQMD Governing Board
Mayor Pro Tem Judith Mitchell (videoconference)	SCAQMD Governing Board
Supervisor V. Manuel Perez (videoconference)	SCAQMD Governing Board
Supervisor Janice Rutherford	SCAQMD Governing Board

Curtis Coleman	Southern California Air Quality Alliance
Bobby Gustafson	City of Riverside Public Works Department
Rita Loof	RadTech
Bridget McCann	Western States Petroleum Association
Joe Miceli	Tetra Tech
Cindy Parsons	Los Angeles Department of Water and Power
David Rothbart	Los Angeles County Sanitation Districts
Michael Salman	University of California, Los Angeles
Susan Stark	Marathon
Ivan Tether	California Independent Petroleum Association
Tammy Yamasaki	Southern California Edison

Barbara Baird	SCAQMD staff
Amir Dejbakhsh	SCAQMD staff
Marian Coleman	SCAQMD staff
Philip Fine	SCAQMD staff
Bayron Gilchrist	SCAQMD staff
Michael Krause	SCAQMD staff
Terrence Mann	SCAQMD staff
Susan Nakamura	SCAQMD staff
Wayne Nastri	SCAQMD staff
Sarah Rees	SCAQMD staff
Laki Tisopulos	SCAQMD staff
Jill Whynot	SCAQMD staff

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
General Counsel's Office
DRAFT
November 2018 Settlement Penalty Report

Total Penalties	
Civil Settlements:	**$3,122,730.00**
MSPAP Settlements:	**$24,125.00**
Total Cash Settlements:	**$3,146,855.00**
Total SEP Value:	**$0.00**
Fiscal Year through 11 / 2018 Cash Total:	**$4,429,505.00**
Fiscal Year through 11 / 2018 SEP Value Only Total:	**$260,000.00**

Fac ID	Company Name	Rule Number	Settled Date	Init	Notice Nbr	Total Settlement
Civil Settlements						
19515	AJAX FORGE CO	1430.1 203(a)	11/15/2018	DH	P60692 P65216	$10,000.00
132266	AMERICA WOOD FINISHES CORP	1113(c)(1)	11/2/2018	WBW	P64670	$1,730.00
132068	BIMBO BAKERIES USA INC	2004(f)(1)	11/16/2018	TRB	P60697	$1,000.00
800209	BKK CORP (EIS USE)	3002	11/2/2018	MJR	P61074 P66452	$10,500.00
182064	CARIBBEAN SEA PETROLEUM INC	203(b)	11/8/2018	GV	P65704	$2,400.00
155698	FIELD ENERGY CORPORATION	461 (e) (2)	11/8/2018	GV	P64272	$625.00

Fac ID	Company Name	Rule Number	Settled Date	Init	Notice Nbr	Total Settlement
185880	GEMINI FOOD CORPORATION	1415.1	11/28/2018	SMP	P66953	$7,500.00
139799	LITHOGRAPHIX INC	3002	11/29/2018	WBW	P63665	$1,250.00
155877	MILLERCOORS USA LLC	2004 2012	11/2/2018	WBW	P63695	$2,250.00
104806	MM LOPEZ ENERGY LLC	1110.2 218 3002	11/15/2018	BST	P66261	$26,000.00
18294	NORTHROP GRUMMAN SYSTEMS CORP	1146 2004(f)(1) 3002(c)(1)	11/21/2018	BST	P66108	$2,000.00
7427	OWENS-BROCKWAY GLASS CONTAINER INC	2004 2011(c)(3)(A) 2012(c)(3)(A)	11/15/2018	BST	P66908	$2,200.00
800212	POMONA VALLEY COMM HOSP (EIS USE)	1146 222 1415 1470 1472 203(a) 203(b)	11/1/2018	NSF	P56728 P62030 P62040 P62042 P62045	$55,000.00
150363	REBILT METALIZING CO	1469	11/8/2018	GV	P64855	$250.00
8582	SO CAL GAS CO/PLAYA DEL REY STORAGE FAC	2004	11/28/2018	NSF	P66910	$3,000.00
800436	TESORO REFINING AND MARKETING CO, LLC	3002(c)(1)	11/28/2018	NSF	P63369	$30,000.00

Fac ID	Company Name	Rule Number	Settled Date	Init	Notice Nbr	Total Settlement
53729	TREND OFFSET PRINTING SERVICES, INC	2004	11/29/2018	WBW	P63694	$750.00
9053	VEOLIA ENERGY LOS ANGELES, INC	2004	11/30/2018	TRB	P62069	$1,500.00
168070	WM BARR & COMPANY INC	1143	11/6/2018	WBW	P55894 P55899 P60300 P60329 P60334 P60335 P64827	$2,964,775.00

Total Civil Settlements: $3,122,730.00

Fac ID	Company Name	Rule Number	Settled Date	Init	Notice Nbr	Total Settlement
MSPAP						
182118	AESOS OIL INC	461(c)(3)(Q)	11/1/2018	GC	P70583	$400.00
182732	B & J TREE SERVICE	403	11/15/2018	TF	P65762	$3,000.00
157660	BRENTWOOD 76 SERVICE	461	11/15/2018	TF	P64931	$450.00
146556	CITY OF WESTMINSTER	1415	11/15/2018	TF	P65164	$400.00
22962	DRIFTWOOD DAIRY	1146.1 203(b)	11/1/2018	GC	P60541	$1,200.00
173672	EZ FUEL AND EZ FOOD MART NAEEM ULLAH KHA	461(c)(3)(Q)	11/1/2018	GC	P70571	$200.00
55002	FAROOQ IFTIKHAR, LA PAZ SHELL DBA	461 41960.2	11/15/2018	TF	P68106	$800.00
186078	LA MIRADA SHELL	203(a) 461 41960.2	11/15/2018	TF	P65747	$1,360.00
186078	LA MIRADA SHELL	461 41960.2	11/15/2018	TF	P68103	$765.00
45317	MED CTR GARDEN GROVE	1415	11/1/2018	TF	P65158	$1,600.00
186430	MOHSEN MART 3	203(a)	11/15/2018	TF	P65741	$400.00
186430	MOHSEN MART 3	203(a)	11/15/2018	TF	P65743	$500.00
186430	MOHSEN MART 3	461	11/15/2018	TF	P68104	$2,600.00
180100	MY GOODS MARKET #5681	461	11/1/2018	TF	P64997	$800.00

Fac ID	Company Name	Rule Number	Settled Date	Init	Notice Nbr	Total Settlement
177227	NEWPORT BEACH CARWASH	461(c)(3)(Q)	11/8/2018	TF	P70655	$400.00
142821	NONO'S ENTERPRISES INC	461 41960	11/15/2018	TF	P64932	$800.00
169575	PAVEMENT RECYCLING SYSTEMS	PERP 2460	11/15/2018	TF	P66051	$2,500.00
15159	PUENTE READY MIX INC	203(b)	11/15/2018	TF	P67403	$500.00
160714	RON'S MINI MART, INC, PARAMJIT SINGH	461 41960.2	11/27/2018	TF	P64999	$850.00
186579	SMART & FINAL STORES LLC	203(a)	11/15/2018	TF	P67351	$800.00
185983	TESORO ARCO 42634	461	11/15/2018	TF	P66360	$800.00
164608	THRESHOLD TECHNOLOGIES, INC.	203	11/27/2018	GV	P59409	$1,000.00
125780	TOLL BROTHERS INC	203(a)	11/1/2018	TF	P67204	$800.00
43805	WESTMINSTER CITY	1415	11/15/2018	TF	P65163	$400.00
27127	WINALL OIL CO #15	201	11/1/2018	TF	P64929	$800.00

Total MSPAP Settlements: $24,125.00

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DISTRICT'S RULES AND REGULATIONS INDEX
FOR NOVEMBER 2018 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 IV - PROHIBITIONS
Rule 403 Fugitive Dust - Pertains to solid particulate matter emitted from man-made activities
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 1143 Consumer Paint Thinners & Multi-Purpose Solvents
Rule 1146 Emissions of Oxides of Nitrogen from Industrial, Institutional and Commercial Boilers, Steam Generators, and Process Heaters
Rule 1146.1 Emissions of Oxides of Nitrogen from Small Industrial, Institutional, and Commercial Boilers, Steam Generators, and Process Heaters

REGULATION XIV - TOXICS
Rule 1415 Reduction of Refrigerant Emissions from Stationary Refrigeration and Air Conditioning Systems
Rule 1415.1 Reduction of Refrigerant Emissions from Stationary Refrigeration Systems
Rule 1430 Control of Emissions from Metal Grinding Operations at Metal Forging Facilities
Rule 1469 Hexavalent Chromium Emissions From Chrome Plating and Chromic Acid Anodizing Operations
Rule 1470 Requirements for Stationary Diesel-Fueled Internal Combustion and Other Compression Ignition Engines
Rule 1472 Requirements for Facilities with Multiple Stationary Emergency Standby Diesel Fueled Internal Combustion Engines

REGULATION XX - REGIONAL CLEAN AIR INCENTIVES MARKET (RECLAIM)
Rule 2004 RECLAIM Program Requirements
Rule 2011 Requirements for Monitoring, Reporting, and Recordkeeping for Oxides of Sulfur (SO_X) Emissions
Rule 2012 Requirements for Monitoring, Reporting, and Recordkeeping for Oxides of Nitrogen (NO_X) Emissions

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

CALIFORNIA HEALTH AND SAFETY CODE
41960 Certification of Gasoline Vapor Recovery System
41960.2 Gasoline Vapor Recovery

CALIFORNIA CODE OF REGULATIONS
13 CCR 2460 Portable Equipment Testing Requirements

December 2018 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 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.

Item	Discussion
RECLAIM Working Group Meeting - November 8, 2018	• Discussed offsetting requirements under Regulation XIII and Rule 2005 • Discussed future offsetting obligations post-RECLAIM • Discussed future programmatic offsetting demonstrations • Provided initial staff recommendations
Teleconference with U.S. EPA - November 20, 2018	• Staff discussed items discussed at November 8, 2018 RECLAIM Working Group Meeting with U.S. EPA staff • U.S. EPA is internally discussing staff's initial recommendations and findings • U.S. EPA requested specific data for facilities that have future offsetting obligations
RECLAIM Working Group Meeting – December 13, 2018	• Discussed permitting requirements under Regulation XIII • Discussed how permits issued during RECLAIM without a baseline Potential to Emit (PTE) will be calculated post-RECLAIM • Discussed implementation of Regulation XIII for RECLAIM facilities post-RECLAIM
Next scheduled teleconference with U.S. EPA - December 14, 2018	Staff will be discussing items discussed at December 13, RECLAIM Working Group with U.S. EPA
Face to face meeting with U.S. EPA staff	Scheduled for January 25, 2019

Back to Agenda

BOARD MEETING DATE: January 4, 2019 AGENDA NO. 22

REPORT: California Air Resources Board Monthly Meeting

SYNOPSIS: The California Air Resources Board met on December 13 and 14, 2018 in Sacramento, CA. The following is a summary of the meeting.

RECOMMENDED ACTION:
Receive and file.

Judith Mitchell, Member
SCAQMD Governing Board

dg

The California Air Resources Board (CARB or Board) held a meeting on December 13 and 14, 2018 in Sacramento at the California Environmental Protection Agency Headquarters Building. Key items presented are summarized below.

CONSENT ITEM

18-10-1: Public Meeting to Consider the Proposed Revision to the South Coast 1-Hour Ozone State Implementation Plan

The Board approved the South Coast 1-hour Ozone State Implementation Plan update. The 1-hour Ozone SIP update demonstrates that the South Coast Air District has identified all of the control measures needed to attain the 1-hour ozone standard without reliance on advanced technology measures allowed for extreme ozone nonattainment areas.

DISCUSSION ITEMS

18-10-9: Public Meeting to Consider Electrify America's Cycle 2 Zero-Emission Vehicles Investment Plan

The Board approved Electrify America's Cycle 2 Zero-Emission Vehicles Investment Plan (Investment Plan). At the November 2018 Board meeting, staff provided an assessment of the Investment Plan and the Board heard comments from the public. At this Board meeting, staff provided the Board with additional information on the Investment Plan and feedback received from a December stakeholder meeting.

18-10-6 and 18-10-7: Public Hearing to Consider Proposed Amendments to the Regulation for the Mandatory Reporting of Greenhouse Gas Emissions, and to Consider California Cap on Greenhouse Gas Emissions and Market-Based Compliance Mechanisms Regulation

The Board adopted amendments to the Regulation for the Mandatory Reporting of Greenhouse Gas Emissions (MRR), and amendments to the California Cap on Greenhouse Gas Emissions and Market-Based Compliance Mechanisms Regulation (Cap-and-Trade Regulation). This hearing was the second of two Board hearings on these amendments. The amendments to the MRR clarify how entities report their greenhouse gas emissions to support the Cap-and-Trade Program. Amendments to the Cap-and-Trade Regulation will conform it to requirements in AB 398 and Board direction in Resolution 17-21, and will also enhance program implementation and oversight. The amendments include changes to provisions relating to free allocation for minimizing leakage and transition assistance, offset usage limits and criteria related to direct environmental benefits in the State, and cost containment.

18-10-4: Public Meeting to Consider the PM10 State Implementation Plan for Imperial County

The Board approved the Imperial County 2018 Maintenance Plan (Plan) and Redesignation Request for the 150 $\mu g/m^3$ 24-hour PM10 standard. The Plan demonstrates that Imperial County has attained and will maintain the 24-hour PM10 standard out to 2030 when windblown exceptional events are excluded. CARB will submit the Plan to the United States Environmental Protection Agency as a revision to the California State Implementation Plan. Staff also provided the Board with an informational update on recommendations and actions developed by the CARB-sponsored Imperial County–Mexicali air quality working group to improve air quality in the border region. The Board also heard from a representative of the City of Mexicali regarding new air monitoring and control programs planned for Mexicali.

18-10-8: Public Hearing to Consider the Proposed Innovative Clean Transit Regulation, a Replacement of the Fleet Rule for Transit Agencies

The Board adopted the Innovative Clean Transit (ICT) regulation. This hearing was the second of two Board hearings on this regulation. The ICT regulation requires California transit agencies to gradually transition their buses to zero-emission technologies beginning with a requirement that only zero emission buses can be purchased starting in 2029. The ICT regulation is structured to allow transit agencies to take advantage of incentive programs by acting early, and to implement plans that are best suited to their own situations. The Board also certified the Final Environmental Analysis and approved the written response to comments received on the Draft Environmental Analysis.

18-10-3: Public Hearing to Consider the Proposed Regulation for the Reporting of Criteria Air Pollutants and Toxic Air Contaminants

The Board adopted the Regulation for the Reporting of Criteria Air Pollutants and Toxic Air Contaminants (CTR Regulation). The CTR Regulation requires the majority of permitted stationary source facilities to report annual emissions of criteria pollutants and toxic air contaminants so that uniform and consistent facility emissions data will be available statewide. The CTR Regulation provides facility specific emissions data that will support the implementation of Assembly Bill 617 and Assembly Bill 197. The Board also directed Staff to work closely with air districts and other stakeholders during the 15-day process to identify funding sources to support emissions reporting activities, minimize workload, and develop reporting thresholds for criteria pollutants and air toxics.

SCAQMD Staff Comments/Testimony: Staff provided comments on the CARB staff proposal including proposed 15-day modifications. SCAQMD staff strongly supports the goals of the legislature and CARB to provide more accurate and detailed facility-level emissions data to the public for both criteria air pollutants and toxic air contaminants (TACs). This will increase transparency and accountability that will aid in the implementation of regulatory programs, including AB 617. Given that AB 617 is a fundamental reshaping of how air quality is addressed by both CARB and air districts, CARB staff's ongoing willingness to work to ensure successful development and implementation of the program is appreciated.

Over the past months, SCAQMD staff have expressed concerns regarding regulatory development. These include potential redlining of AB 617 communities, reporting from facilities with negligible emissions, equity issues across air districts, timing, and resource constraints. SCAQMD staff also supports a closer look at individual TACs based on risk to avoid unintended consequences and to focus limited resources. Implementation will require rulemaking, software development, outreach to the

regulated community, and related training. SCAQMD staff supports CARB's approach and looks forward to continuing the dialogue during the 15-day change process.

18-10-5: Public Meeting to Hear an Informational Update on Implementation of Senate Bill 1's Requirement that Ties Department of Motor Vehicles Registration for Heavy-Duty Trucks and Buses to Compliance with CARB's Truck and Bus Regulation

The Board heard an update on the steps CARB staff have taken and will take to implement the piece of the Road Repair and Accountability Act of 2017 (Senate Bill 1) that requires, beginning on January 1, 2020, the Department of Motor Vehicles to only register heavy-duty trucks and buses that are either compliant with, or exempt from, CARB's Truck and Bus Regulation. The Board heard that staff is, among other things, conducting a wide-ranging outreach campaign to inform the regulated community and general public about this new compliance verification process, so that truck and bus owners have time to make the necessary changes before the new law takes effect. CARB has already put in place enhanced enforcement efforts to address vehicles currently out of compliance with the Truck and Bus Regulation, including CARB using its current authority to manually place approximately 10,000 registration holds on non-compliant trucks.

Attachment
CARB December 13 and 14, 2018 Meeting Agenda

CALIFORNIA AIR RESOURCES BOARD

PUBLIC MEETING AGENDA

Thursday, December 13, 2018 and Friday, December 14, 2018

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: http://www.sacrt.com
(This facility is accessible to persons with disabilities.)

TO SUBMIT WRITTEN COMMENTS ON AN AGENDA ITEM IN ADVANCE OF THE MEETING GO TO:
http://www.arb.ca.gov/lispub/comm/bclist.php

Thursday
December 13, 2018
9:00 a.m.

CONSENT CALENDAR:

The following item 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 Item #

18-10-1: Public Meeting to Consider the Proposed Revision to the South Coast 1-HR Ozone State Implementation Plan

The Board will consider adopting the South Coast 1-hour Ozone State Implementation Plan update. The 1-hour Ozone SIP update demonstrates that the South Coast Air District has identified all of the control measures needed to attain the 1-hour ozone standard and that attainment of the 1-hour ozone standard no longer relies on advanced technology measures allowed for extreme ozone nonattainment areas.

More Information *Proposed Resolution*

DISCUSSION ITEMS:

Note: The following agenda items may be heard in a different order at the Board meeting.

Agenda Item #

18-10-9: Public Meeting to Consider Electrify America's Cycle 2 Zero Emission Vehicles Investment Plan

The Board will decide whether to approve or disapprove, in whole or in part, Electrify America's Cycle 2 Zero Emission Vehicles (ZEV) Investment Plan. At the November 2018 Board meeting, staff provided an assessment of the Investment Plan and the public provided comments. At this Board meeting, the Board will further consider the Investment Plan.

More Information *Staff Presentation*

18-10-6: Public Hearing to Consider Proposed Amendments to the Regulation for the Mandatory Reporting of Greenhouse Gas Emissions

Spanish translation will be provided at the Board Meeting for this item, Item 18-10-6.

This is the second of two Board hearings where the Board will consider amendments to the Regulation for the Mandatory Reporting of Greenhouse Gas Emissions (MRR). The proposed MRR amendments are targeted revisions to clarify the existing regulation related to how entities report their greenhouse gas emissions to support the Cap-and-Trade Program, and to ensure the data that are collected for CARB's climate change programs are complete and accurate. The public comments for this item will be combined for purposes of the Board hearing with item 18-10-7.

More Information *Staff Presentation*

18-10-7: Public Hearing to Consider California Cap on Greenhouse Gas Emissions and Market-Based Compliance Mechanisms Regulation

Spanish translation will be provided at the Board Meeting for this item, Item 18-10-7.

This is the second of two Board hearings where the Board will consider amendments to the California Cap on Greenhouse Gas Emissions and Market-Based Compliance Mechanisms Regulation (Cap-and-Trade Regulation). The proposed Cap-and-Trade Regulation amendments are intended to conform with the requirements in AB 398, respond to Board direction in Resolution 17-21, and enhance program implementation and oversight. The proposed amendments include changes to provisions relating to free allocation for minimizing leakage and transition assistance, offsets usage limits and criteria related to direct environmental benefits in the State, and cost containment. The public comments for this item will be combined for purposes of the Board hearing with item 18-10-6.

More Information *Staff Presentation*

18-10-4: Public Meeting to Consider the PM10 State Implementation Plan for Imperial County

Spanish translation will be provided at the Board Meeting for this item, Item 18-10-4.

Staff will present to the Board the proposed Imperial County 2018 Maintenance Plan and Redesignation Request for the 150 µg/m3 24-hour PM10 standard. The Plan shows that Imperial County has attained and will maintain the 24-hour PM10 standard out to 2030 and addresses all requirements under the federal Clean Air Act. If adopted, CARB will submit the Plan to the United States Environmental Protection Agency as a revision to the California State Implementation Plan. Staff will also provide an informational update on recommendations and actions developed by the Imperial County - Mexicali air quality working group to improve air quality in the border region.

More Information *Staff Presentation*

Friday
December 14, 2018
8:30 a.m.

18-10-8: Public Hearing to Consider the Proposed Innovative Clean Transit Regulation, a Replacement of the Fleet Rule for Transit Agencies

Spanish translation will be provided at the Board Meeting for this item, Item 18-10-8.

The Board will consider adopting the proposed Innovative Clean Transit (ICT) Regulation that requires California transit agencies to gradually transition their buses to zero-emission technologies. The ICT regulation is structured to allow transit agencies to take advantage of incentive programs by acting early and in a manner to implement plans that are best suited for their own situations. This is the second of two Board hearings on this item; the Board will consider certifying the Final Environmental Analysis, approving the written response to comments received on the Draft Environmental Analysis, and adopting the amendments at this meeting.

More Information *Staff Presentation*

18-10-3: Public Hearing to Consider the Proposed Regulation for the Reporting of Criteria Air Pollutants and Toxic Air Contaminants

Spanish translation will be provided at the Board Meeting for this item, Item 18-10-3.

The Board will consider adoption of a regulation reguiring specified facilities to report annual emissions of criteria pollutants and toxic air contaminants to implement Assembly Bill 617 and to support Assembly Bill 197.

More Information *Staff Presentation*

18-10-5: Public Meeting to Hear an Informational Update on Implementation of Senate Bill 1's Requirement that Ties Department of Motor Vehicles Registration for Heavy-Duty Trucks and Buses to Compliance with CARB's Truck and Bus Regulation

The Board will hear an update on the steps that CARB staff has taken and will take to be ready for implementation of the piece of Senate Bill 1 that requires the Department of Motor Vehicles to only register heavy-duty trucks and buses that are either compliant with or exempt from CARB's Truck and Bus Regulation, beginning on January 1, 2020.

More Information *Staff Presentation*

18-10-2: Public Meeting to Hear an Informational Update on the 2017 Scoping Plan Implementation

The Board will hear an informational update item 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*

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.

POET, LLC, et al. v. California Air Resources Board, et al., Fresno County Superior Court, Case No. 15CECG03380.

Rocky Mountain Farmers Union, et al. v. Corey, U.S. District Court (E.D. Cal. Fresno), Case No. 1:09−CV−02234−LJO−DLB; ARB interlocutory appeal, U.S. Court of Appeals, Ninth Circuit, Case No. 12-15131 [remanded to trial court].

American Fuels and Petrochemical Manufacturers, et al. v. Corey, et al., U.S. District Court (E.D. Cal. Fresno), Case No. 1:10-CV-00163-AWI-GSA; ARB's interlocutory appeal, U.S. Court of Appeals, Ninth Circuit, Case No. 10-CV-00163 [remanded to trial court].

Sowinski v. California Air Resources Board, et al., U.S. District Court, Central District of California, Case No. 8:15-CV-02123*;* Orange County Superior Court, Case No. 30-2018-00970852-CU-IP-CXC.

State of California, et al. v. United States Environmental Protection Agency, U.S. Court of Appeals, District of Columbia Circuit, Case No. 18-1114.

State of California, et al. v. United States Bureau of Land Management, et al., U.S. District Court, Northern District of California Circuit, Case No. 3:17-cv-07186-WHO.

State of New York, et al. v. United States Environmental Protection Agency, U.S. District Court, District of Columbia, Case No. 1:18-cv-00773.

State of North Dakota, et al. v. United States Environmental Protection Agency, U.S. Court of Appeals, District of Columbia Circuit, Case No. 16-1242.

State of North Dakota v. United States Environmental Protection Agency, U.S. Court of Appeals, District of Columbia Circuit, Case No. 15-1381.

State of West Virginia et al. v. United States Environmental Protection Agency, U.S. Court of Appeals, District of Columbia Circuit, Case No. 15-1363.

State of Wyoming, et al. v. United States Department of the Interior, et al., U.S. District Court, District of Wyoming, Case No. 16-CV-285-SWS.

The Two Hundred, et al. v. California Air Resources Board, et al., 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.

Jack Cody dba Cody Transport v. California Air Resources Board, et al., Sacramento Superior Court, Case No. 34-2015-80002116; plaintiff's appeal, Court of Appeal, Third District, Case No. C083083.

Dalton Trucking, Inc. v. United States Environmental Protection Agency, U.S. Court of Appeals, District of Columbia Circuit, Case No. 13-1283 (dismissed), U.S. Court of Appeals, Ninth Circuit, Case No. 13-74019.

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.

California Air Resources Board v. Adam Brothers Farming Inc., Santa Barbara County Superior Court, Case No. 16CV01758.

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.

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:

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(Note: not all agenda items are available for electronic submittals of written comments.)

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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.

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Back to Agenda

BOARD MEETING DATE: January 4, 2019 Agenda No. 23

PROPOSAL: Certify the Final Environmental Assessment and Adopt Proposed Rule 1118.1 – Control of Emissions from Non-Refinery Flares **(*Continued from December 7, 2018 Board Meeting*)**

SYNOPSIS: Proposed Rule 1118.1 applies to RECLAIM and non-RECLAIM facilities that operate non-refinery flares located at landfills, wastewater treatment plants, oil and gas production facilities, organic liquid loading stations, and tank farms. The proposed rule will implement, in part, the 2016 AQMP Control Measure CMB-03 - Emission Reductions from Non-Refinery Flares and facilitate the transition of the NOx RECLAIM program to a command-and-control regulatory structure. Proposed Rule 1118.1 establishes emission limits for NOx, VOC, and CO for new flares, and a capacity threshold for existing flares. In addition, some new flares at oil and gas production facilities will have additional limitations. Proposed Rule 1118.1 also establishes provisions for source testing, monitoring, reporting, recordkeeping, and provides exemptions for low-use and low-emitting flares.

COMMITTEE: Stationary Source, October 19 and December 19, 2018, Reviewed

RECOMMENDED ACTIONS:
Adopt the attached Resolution:
1. Certifying the Final Environmental Assessment for Proposed Rule 1118.1 - Control of Emissions from Non-Refinery Flares; and
2. Adopting Rule 1118.1 - Control of Emissions from Non-Refinery Flares

Wayne Nastri
Executive Officer

PF:SN:MK:HF:ST

Background
Proposed Rule 1118.1 - Control of Emissions from Non-Refinery Flares (PR 1118.1) applies to RECLAIM and non-RECLAIM facilities that operate non-refinery flares located at landfills, wastewater treatment plants, oil and gas production facilities, and facilities that handle organic liquids. San Joaquin Valley Air Pollution Control District and Santa Barbara County Air Pollution Control District have adopted rules for non-refinery flares; however the SCAQMD currently does not have a source-specific rule that regulates NOx emissions from existing non-refinery flares. As a region in extreme non-attainment for ozone, SCAQMD is required by U.S.EPA to adopt all Reasonably Available Control Measures or Reasonably Available Control Technologies, particularly when adopted by other air agencies. PR 1118.1 is also needed to reduce NOx emissions and establishes BARCT requirements for RECLAIM and non-RECLAIM facilities. PR 1118.1 establishes requirements to reduce NOx and VOC emissions from non-refinery flares and to encourage alternatives to flaring, such as energy generation, transportation fuels, or pipeline injection.

Proposed Rule
PR 1118.1 establishes emission limits for NOx and VOC, and CO for new, replaced, or relocated flares, and establishes an industry specific capacity threshold for existing flares. The capacity thresholds serve as a metric to identify routine flaring and applies to open flares and flares that combust digester gas, landfill gas, and gas produced from oil and gas production facilities. Flares that operate greater than the capacity threshold will be required to either reduce flaring below the capacity threshold (e.g., implement beneficial use of the gas that would otherwise be flared) or replace the flare with a unit complying with the proposed emissions limits. PR 1118.1 also requires source tests every five years, establishes monitoring, reporting, and recordkeeping provisions, and includes several exemptions for low-use or low-emitting flares and other types of flares.

During the rulemaking process, one stakeholder requested that the SCAQMD establish a cap for facilities that replace or install new flares to ensure that routine flaring is minimized. As a result, staff added a provision for oil and gas production sites with emissions over four tons per year that establishes an annual throughput limit of 110 percent of the average throughput over the past two calendar years for replacement flares and an annual throughput limit of 45 million standard cubic feet for new flares. The Resolution also includes a commitment to conduct a technology assessment for beneficial uses of gas for oil and gas production sites and to report back to the Stationary Source Committee in two years on the results of the technology assessment and potential rule changes, if appropriate.

In November, staff received comments from the Southern California Alliance of Publicly Owned Treatment Works and California Association of Sanitation Agencies regarding new research indicating facilities combusting digester gas from food waste or using thermophilic digestion may potentially increase ammonia emissions resulting in

higher NOx emissions from the flare. As a result, PR 1118.1 was revised to retain the NOx limit of 0.06 pounds per million Btu for flares operated at minor sources combusting digester gas. In addition, the Resolution includes a commitment for staff to work with the California Air Pollution Control Officers Association and industry to conduct a technology assessment on potential NOx increases and will reassess BACT and rule limits, if necessary.

Public Process

The development of PR 1118.1 was conducted through a public process. Staff held nine Working Group Meetings on August 25, 2017, October 24, 2017, January 10, 2018, March 8, 2018, April 4, 2018, June 12, 2018, July 25, 2018, September 11, 2018, and November 15, 2018. Staff also provided updates on PR 1118.1 to the RECLAIM Working Group. The Public Workshop was held on October 17, 2018 with an additional Public Consultation meeting on October 30, 2018. Separate stakeholder meetings and 20 site visits were conducted that focused on specific stakeholder issues.

Emissions Inventory and Reductions

PR1118.1 will implement a portion of the 2016 AQMP Control Measure CMB-03 - Emission Reductions from Non-Refinery Flares. The majority of flares are operated at landfills, combusting the most gas, and resulting in the highest NOx emissions. Staff estimates there will be 23 affected flares that will need to take action generating approximately 0.18 tons of NOx reduced per day and 0.014 tons of VOC reduced per day. These emission reductions are likely an underestimation, since they are based solely on flare replacement and do not include potential additional reductions from beneficial use or future installations of ultra-low NOx flares.

Key Issue

Throughout the rulemaking process, staff worked with stakeholders to build consensus and to resolve key issues. At the Stationary Source Committee meeting on December 19, 2018 the California Independent Petroleum Association (CIPA) questioned the authority of the SCAQMD to curtail the use of BACT equipment and commented that this could be a regulatory taking requiring compensation. Under PR 1118.1, an operator can meet the capacity threshold limits through either using gas beneficially or replacing an existing flare with a new flare that meets specific emission limits. An operator of a flare at an oil and gas production site that elects to replace or install a new a flare will have an annual throughput limit that reflects past throughput levels plus a 10 percent increase to allow for growth. Staff structured the proposed rule based on input from oil and gas representatives that had commented that use of their flares is generally constant and that using the gas beneficially, as opposed to flaring, is preferable. These limitations are not a violation of the "Takings Clause" because they allow for "reasonable use" of the property. Thus, establishing a limit through the rule is within the SCAQMD's authority and would not be a violation of the constitution.

California Environmental Quality Act
PR 1118.1 is considered a "project" as defined by the California Environmental Quality Act (CEQA) and the SCAQMD is the designated lead agency. Pursuant to SCAQMD's Certified Regulatory Program (CEQA Guidelines Section 15251(l); codified in SCAQMD Rule 110) and CEQA Guidelines Section 15070, the SCAQMD has prepared an Environmental Assessment (EA) for PR 1118.1, which is a substitute CEQA document, prepared in lieu of a Negative Declaration with no significant impacts. The EA is 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. The environmental analysis in the Draft EA concluded that PR 1118.1 would not generate any significant adverse environmental impacts. Because PR 1118.1 is not expected to have statewide, regional, or area-wide significance, a CEQA scoping meeting was not required pursuant to Public Resources Code Section 21083.9(a)(2). Further, since no significant adverse impacts were identified, an alternatives analysis and mitigation measures were not required pursuant to CEQA Guidelines Section 15252(a)(2)(B). The Draft EA was released for a 32-day public review and comment period from October 26, 2018 to November 27, 2018, and three comment letters were received during the public comment period on the analysis presented in the Draft EA. Responses to the letters have been prepared and are included in Appendix E to the Final EA.

The Final EA has been included as an attachment to the Board package (see Attachment H). Prior to making a decision on the adoption of PR 1118.1, the SCAQMD Board must review and certify the Final EA, including responses to comments, as providing adequate information on the potential adverse environmental impacts that may occur as a result of adopting PR 1118.1.

Socioeconomic Analysis
There are 153 facilities subject to PR 1118.1 which are classified mainly as landfills, oil and gas facilities, or wastewater-treatment facilities. Of these 153 facilities, 78 are located in Los Angeles County, 30 in Orange County, 25 in Riverside County, and 20 facilities in San Bernardino County. Twenty-one facilities subject to PR 1118.1 are currently in the NOx RECLAIM program.

Of the 153 facilities in the PR 1118.1 universe, only 82 are expected to be affected by adoption of PR 1118.1, with a total of 181 likely affected flares. Actions include replacing flare, installing fuel meters and conducting source tests. The estimated total average annual cost of PR 1118.1 is $4.2 - $4.7 million from 2019 - 2045 assuming a 1% and 4% real interest rate respectively. Landfills, oil and gas facilities, and wastewater-treatment facilities are expected to incur about 88%, 9%, and 3% of the total average annual cost of PR 1118.1 respectively. About 98% of the total average annual cost of PR 1118.1 is expected to occur from purchase, engineering, and installation of

new flares, with the remainder due to possible installation of fuel meters and additional source testing.

The cost to implement PR 1118.1 is expected to result in approximately 35 - 39 jobs on average forgone annually from 2019 – 2045 assuming a 1% and 4% real interest rate respectively. The projected job forgone impacts represent about 0.0003% of total employment in the four-county region for both the low- and high-cost scenarios.

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. The proposed rule will implement 2016 AQMP Control Measure CMB-03 - Emission Reductions from Non-Refinery Flares. The proposed rule will also partially implement CMB-05 – NOx Reduction from RECLAIM Assessment by establishing BARCT requirements for non-refinery flares at RECLAIM facilities to facilitate the transition of RECLAIM facilities to a command-and-control regulatory structure.

Implementation Plan and Resource Impact

Existing SCAQMD resources will be sufficient to implement this proposed rule with minimal impact on the budget.

Attachments

A. Summary of Proposed Rule
B. Key Issues and Responses
C. Rule Development Process
D. Key Contacts List
E. Resolution
F. Proposed Rule 1118.1
G. Final Staff Report
H. Final Socioeconomic Assessment
I. Final Environmental Assessment
J. Board Meeting Presentation

ATTACHMENT A

SUMMARY OF PROPOSAL

Proposed Rule 1118.1 – Control of Emissions from Non-Refinery Flares

Applicability

- Applies to owners and operators of flares that require a SCAQMD permit at facilities at oil and gas production facilities, wastewater treatment facilities, landfills, and organic liquid handling facilities
- Applies to RECLAIM and non-RECLAIM facilities

Requirements

- Establishes NOx, VOC and CO emission limits for new or replaced flares and establishes a capacity threshold for existing flares
    - If capacity threshold exceeded, must either replace the flare with a unit that meets the proposed emission limits or reduce the annual flare throughput
- New or replaced flares at oil and gas sites will have throughput limitations
- Facilities have 18 months for flare replacement and 36 months for flare throughput reduction

Time Extension

- Includes a one-time extension of 12 months for flare replacement and 24 months for flare throughput reduction

Monitoring, Reporting, and Recordkeeping and Source Test Requirements

- Source test requirements for flares subject to the emission limits or complying with the low-emitting (30 pound NOx emissions per month) exemption
- Monitoring, reporting, and recordkeeping requirements to measure percent capacity, fuel use, and other provisions

Exemptions

- Flares at refineries subject to Proposed Rule 1109.1 are exempt
- Flares routing only natural gas to the burner that are subject to Rule 1147 – NOx Reductions From Miscellaneous Sources;
- Flares routing only propane or butane or a combination of propane and butane directly into the burner;
- Flares at landfills that generate less than 2,000 MMscf/year and meet other conditions;
- Flares with a various locations permit or combusting regeneration gas;
- Low-emitting flares (less than 30 pounds of NOx per month);
- Low-use flares (less than 200 hours per calendar year, or the fuel use equivalent to 200 hours per calendar year)

ATTACHMENT B

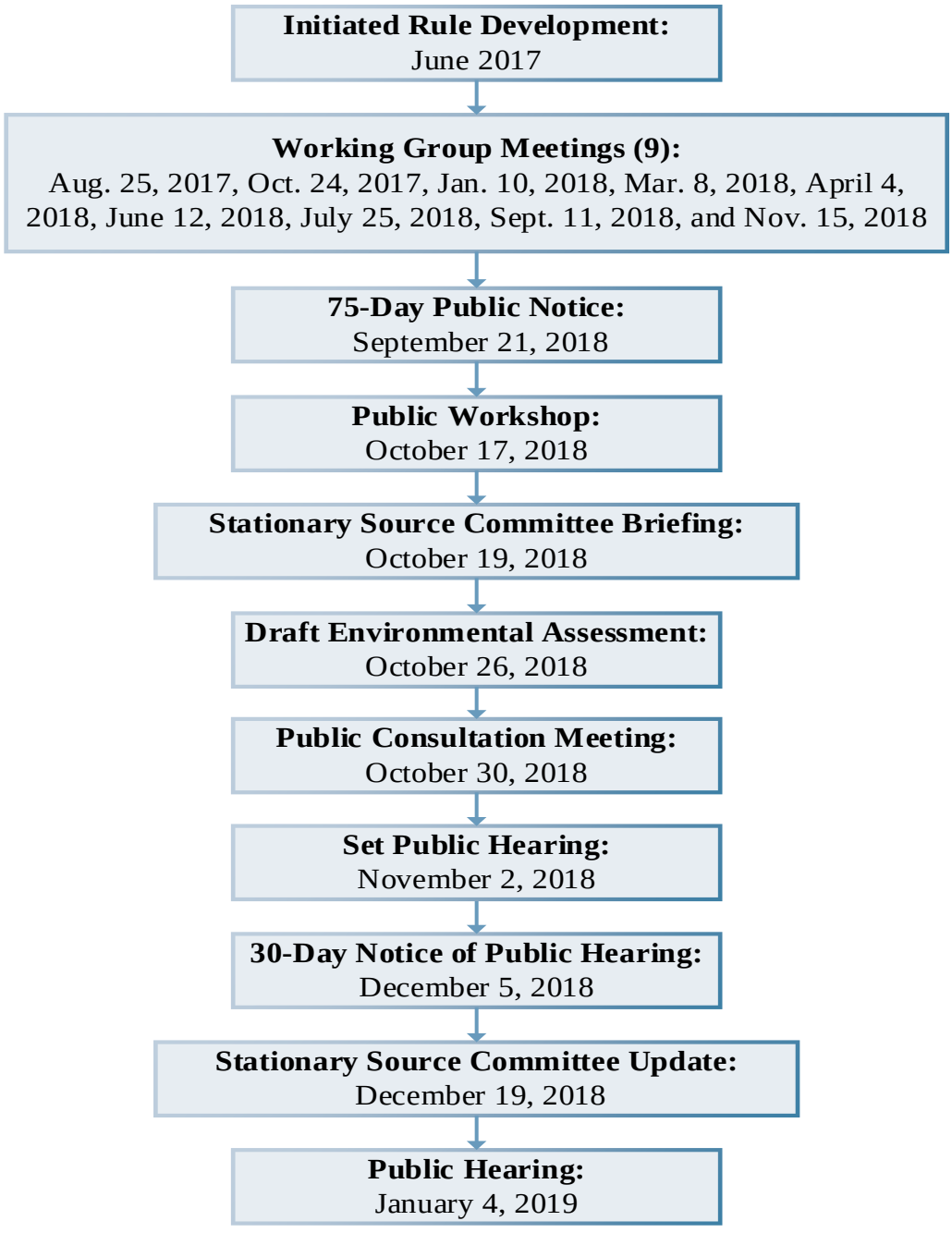
KEY ISSUES AND RESPONSES

Proposed Rule 1118.1 – Control of Emissions from Non-Refinery Flares
The California Independent Petroleum Association (CIPA) questioned the authority of the SCAQMD to curtail the use of Best Available Control Technology (BACT) equipment and is concerned about the District's authority to do this stating that this could be a regulatory taking requiring compensation. Under PR 1118.1, an operator can meet the capacity threshold limits through either using gas beneficially or replacing an existing flare with a new flare that meets specific emission limits. An operator of a flare at an oil and gas production site that elects to replace or install a new a flare will have an annual throughput limit that reflects past throughput levels plus a 10 percent increase to allow for growth. Staff structured the proposed rule based on input from oil and gas representatives that had commented that use of their flares is generally constant and that using the gas beneficially, as opposed to flaring, is preferable. These limitations are not a violation of the "Takings Clause" because they allow for "reasonable use" of the property. Thus, establishing a limit through the rule is within the SCAQMD's authority and would not be a violation of the constitution.

ATTACHMENT C

RULE DEVELOPMENT PROCESS

Proposed Rule 1118.1 – Control of Emissions from Non-Refinery Flares



Twenty (20) months for rule development.
One (1) Public Workshop.
One (1) Public Consultation Meeting
Two (2) Stationary Source Committee Meetings.
Nine (9) Working Group Meetings.

ATTACHMENT D

KEY CONTACTS LIST

Proposed Rule 1118.1 – Control of Emissions from Non-Refinery Flares Facilities

Ameresco Chiquita Energy LLC
Aereon
Anheuser-Busch LLC (LA Brewery)
Azusa Land Reclamation, Inc.
Beta Offshore
BKK Corp. (EIS use)
Bloom Energy
Bowerman Power LFG, LLC
Brea Parent 2007, LLC
California Association of Sanitation Agencies (CASA)
California Independent Petroleum Association (CIPA)
CNG Direct
California Resources Production Corp
Chiquita Canyon LLC
City of Riverside Tequesquite Landfill)
Clearsign
Coyote Canyon Energy LLC
CR & R Inc.
DCOR LLC
E & B Natural Resources
Eastern Municipal Water District
Envent
Freeport-McMoran Oil & Gas
GE Sensing
Hillcrest Beverly
Hoag Hospital
Inland Empire Utilities Agency
John Zink Hamworthy Combustion
Kinder-Morgan
LA City Public Works
LA City Sanitation Bureau (HTP)
Los Angeles County Sanitation District
Marathon Petroleum
Matrix Oil Corporation
MM Lopez Energy LLC
Mountain Gate Country Club
Orange County Waste & Recycling
Orange County Sanitation District
Perennial Energy
Plains All American
R.A. Nichols Engineering
Ralphs Grocery Co.
Ramboll
Republic Services
Riverside County Waste Resources Management District
San Bernardino County Solid Waste Management
San Bernardino City Municipal Water Department (WRP)
Sentinel Peak Resources LLC
Shaffer Environmental Consulting
Signal Hill Petroleum
Southern California Gas Company
South Orange Co Wastewater Authority
Southern California Alliance of Publicly Owned Treatment Works (SCAP)
Sunshine Canyon Landfill
Sunshine Gas Producers LLC
Tesoro Logistics Marine Terminal
Tether Law
Tetratech
Thums Long Beach
Tidelands Oil Production Company
UCLA
U S A Waste of Cal (El Sobrante Landfill)
US Biogas
Warren E & P, Inc.
Western States Petroleum Association
York Engineering
ZEECO

ATTACHMENT E

RESOLUTION NO. 19-____

A Resolution of the Governing Board of the South Coast Air Quality Management District (SCAQMD) certifying the Final Environmental Assessment (EA) for Proposed Rule 1118.1 – Control of Emissions from Non-Refinery Flares.

A Resolution of the SCAQMD Governing Board adopting Rule 1118.1 – Control of Emissions from Non-Refinery Flares.

WHEREAS, the SCAQMD Governing Board finds and determines with certainty that Proposed Rule 1118.1 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 Rule 1118.1 pursuant to such program (SCAQMD Rule 110); and

WHEREAS, the SCAQMD staff has prepared a Draft EA pursuant to its certified regulatory program and CEQA Guidelines Sections 15251, 15252, and 15070 setting forth the potential environmental consequences of Proposed Rule 1118.1; and determined that the proposed project would not have a potential to generate significant adverse environmental impacts; and

WHEREAS, the Draft EA was circulated for a 32-day public review and comment period, from October 26, 2018 to November 27, 2018, and three comment letters were received; and

WHEREAS, the Draft EA has been revised to include comments received on the Draft EA and the responses, so that it is now a Final EA; and

WHEREAS, it is necessary that the SCAQMD Governing Board review the Final EA prior to its certification to determine that it provides adequate information on the potential adverse environmental impacts that may occur as a result of adopting Proposed Rule 1118.1 – Control of Emissions from Non-Refinery Flares, including responses to comments received relative to the Draft EA; and

WHEREAS, pursuant to CEQA Guidelines Section 15252 (a)(2)(B), since no significant adverse impacts were identified, no alternatives or mitigation measures are required and thus, a Mitigation Monitoring and Reporting Plan pursuant to Public Resources Code Section 21081.6 and CEQA Guidelines Section 15097, has not been prepared; and

WHEREAS, Findings pursuant to Public Resources Code Section 21081.6 and CEQA Guidelines Section 15091 and a Statement of Overriding Considerations pursuant to CEQA Guidelines Section 15093 were not prepared because the analysis shows that Proposed Rule 1118.1 would not have a significant adverse effect on the environment, and thus, are not required; and

WHEREAS, the Final EA reflects the independent judgment of the SCAQMD; and

WHEREAS, the SCAQMD Governing Board finds and determines that all changes made in the Final EA after the public notice of availability of the Draft EA, were not substantial revisions and do not constitute significant new information within the meaning of CEQA Guidelines Section 15073.5 or 15088.5, because no new significant effects were identified, and no new project conditions or mitigation measures were added, and all changes merely clarify, amplify, or make insignificant modifications to the Draft EA, and recirculation is therefore not required; and

WHEREAS, the SCAQMD Governing Board finds and determines, taking into consideration the factors in Section (d)(4)(D) of the Governing Board Procedures (codified as Section 30.5(4)(D)(i) of the Administrative Code), that the modifications to Proposed Rule 1118.1 since notice of public hearing was published add clarity that meet the same air quality objective as the rule proposed with the 30-day notice and are not so substantial as to significantly affect the meaning of the proposed 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 intended to be regulated by the rules, (c) the changes are consistent with the information contained in the notice of public hearing, and (d) the consideration of the range of CEQA alternatives is not applicable because the effects of Proposed Rule 1118.1 do not cause significant impacts, therefore, alternatives are not required; and

WHEREAS, Proposed Rule 1118.1 will be submitted for inclusion into the State Implementation Plan; and

WHEREAS, the SCAQMD staff conducted a Public Workshop regarding Proposed Rule 1118.1 on October 17, 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 Rule 1118.1 is needed to establish a source specific rule for non-refinery flares as directed by Control Measure CMB-03 of the Final 2016 Air Quality Management Plan and to transition non-refinery flare facilities 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

WHEREAS, the SCAQMD Governing Board obtains its authority to adopt, amend or repeal rules and regulations from Sections 39002, 40000, 40001, 40440, 40441, 40702, 40725 through 40728, 41508, and 41511 of the Health and Safety Code; and

WHEREAS, the SCAQMD Governing Board has determined that Proposed Rule 1118.1 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 Rule 1118.1 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 Rule 1118.1 will not impose the same requirements as any existing state or federal regulations. The proposed rule is necessary and proper to execute the powers and duties granted to, and imposed upon, SCAQMD; and

WHEREAS, the SCAQMD Governing Board has determined that there is a problem that Proposed Rule 1118.1 will alleviate which is to adopt a rule to control an unregulated source of emissions and the proposed rule adoption will promote the attainment or maintenance of state or federal ambient air quality standards pursuant to Health and Safety Code Section 40001 (c); and

WHEREAS, the SCAQMD Governing Board, in adopting Rule 1118.1, references the following statutes which the SCAQMD hereby implements, interprets, or makes specific: Health and Safety Code Sections 39002, 40000, 40001, 40702, 40440(a), and 40725 through 40728.5; and

WHEREAS, the SCAQMD Governing Board has determined that the Socioeconomic Impact Assessment of Proposed Rule 1118.1 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 Health and Safety Code Sections 40440.8, 40728.5, and 40920.6; and

WHEREAS, the SCAQMD Governing Board has determined Proposed Rule 1118.1 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 has actively considered the Socioeconomic Impact Assessment and has made a good faith effort to minimize such impacts; and

WHEREAS, some facilities affected by Proposed Rule 1118.1 are RECLAIM facilities and SCAQMD Rule 2002 – Allocations for Oxides of Nitrogen (NOx) and Oxides of Sulfur (SOx) provides an option for these facilities to remain in RECLAIM if they receive a Final 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 Proposed Rule 1118.1 is the custodian of the documents or other materials which constitute the record of proceedings upon which the adoption of this proposed rule 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 EA for Proposed Rule 1118.1 together with all comments received during the public review period, and, on the basis of the whole record before it, the SCAQMD Governing Board finds that the Final EA was completed in compliance with CEQA and the SCAQMD's Certified Regulatory Program, and that it is 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 Rule 1118.1; and

BE IT FURTHER RESOLVED, that because no significant adverse environmental impacts were identified as a result of implementing Proposed Rule 1118.1, Findings pursuant to Public Resources Code Section 21081.6 and CEQA Guidelines Section 15091, a Statement of Overriding Considerations pursuant to CEQA Guidelines Section 15093, and a Mitigation Monitoring and Reporting Plan pursuant to Public Resources Code Section 21081.6 and CEQA Guidelines Section 15097 are not required; and

BE IT FURTHER RESOLVED, that the SCAQMD Governing Board directs staff to work with the California Air Pollution Control Officers Association, California Department of Resources Recycling and Recovery, California Association of Sanitation Agencies and Southern California Alliance of Publicly Owned Treatment Works in an effort to balance air quality requirements with the state-wide effort to divert organics from landfills as required under Senate Bill 1383, and shall report back to the Stationary Source Committee within 12 months of rule adoption to present findings and potential recommendations; and

BE IT FURTHER RESOLVED, that the SCAQMD Governing Board directs staff to work with stakeholders to conduct a BACT technical assessment for flares receiving biogas derived from advanced digestion and/or organic waste digestion or co-digestion that considers costs, review the current scientific literature, existing measurement methods, technology achieved in-practice, reliability issues, and if necessary, field testing. SCAQMD staff shall report back to the Stationary Source Committee within 12 months of rule adoption to present findings; potential recommendations; and amend the BACT Guidelines and Rule 1118.1, if necessary; and

BE IT FURTHER RESOLVED, that the SCAQMD Governing Board directs staff to conduct a technology assessment of various technologies, techniques, approaches, and associated costs to beneficially use gas to reduce flaring from oil and gas production sites and to report a summary of the technology assessment to the Stationary Source Committee within 24 months of rule adoption and amend the requirements for flaring produced gas if deemed appropriate; and

BE IT FURTHER RESOLVED, that the SCAQMD Governing Board does hereby adopt, pursuant to the authority granted by law, Proposed Rule 1118.1 as set forth in the attached, and incorporated herein by reference; and

BE IT FURTHER RESOLVED, that the SCAQMD Governing Board requests that Proposed Rule 1118.1 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 Rule 1118.1 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: _____ _____

CLERK OF THE BOARDS

ATTACHMENT F

(PR 1118.1 January 4, 2019)

PROPOSED RULE 1118.1. CONTROL OF EMISSIONS FROM NON-REFINERY FLARES

(a) Purpose

The purpose of this rule is to reduce NOx and VOC emissions from flaring produced gas, digester gas, landfill gas, and other combustible gases or vapors and to encourage alternatives to flaring.

(b) Applicability

This rule applies to owners and operators of flares that require a SCAQMD permit at non-refinery facilities, including, but not limited to, oil and gas production facilities, wastewater treatment facilities, landfills, and organic liquid handling facilities.

(c) Definitions

(1) ANNUAL THROUGHPUT means the volume of gas or vapor in million standard cubic feet (MMscf) that is combusted in a flare or flare station in one calendar year.

(2) BIOGAS includes digester gas or landfill gas produced by the breakdown of organic matter in the absence of oxygen.

(3) CAPACITY is the maximum volumetric flow rate of gas or vapor that the flare or flare station is rated to process in units of scf per minute or the maximum heat input rate the flare or flare station is rated to process in units of million British thermal units (MMBtu) per hour.

(4) CAPACITY THRESHOLD is the percentage of the capacity used to flare gas and is used to determine when an owner or operator of a flare or flare station must take action to reduce NOx emissions and/or reduce the throughput to the flare.

(5) DIGESTER GAS means a gas produced from either mesophilic or thermophilic digestion of biodegradable waste, consisting of methane, carbon dioxide, and traces of other contaminant gases.

(6) FACILITY is as defined by Rule 1302 – Definitions.

(7) FLARE means a combustion device that oxidizes combustible gases or vapors, where the combustible gases or vapors being destroyed are routed directly into the burner without energy recovery.

(8) FLARE REPLACEMENT means the substitution of a flare or flare burner(s).

(9) FLARE STATION means two or more flares situated on a single pad and equipped with one common fuel meter.

(10) HEAT INPUT means the higher heating value of the fuel to the flare measured as Btu per hour.

(11) LANDFILL GAS means any gas derived through a natural process from the decomposition of waste deposited in a landfill.

(12) MAJOR FACILITY is a Major Polluting Facility as defined by Rule 1302 – Definitions.

(13) MINOR FACILITY is as defined by Rule 1302 – Definitions.

(14) NOTIFICATION OF ANNUAL PERCENT CAPACITY GREATER THAN THRESHOLD means the written form submitted by a facility to indicate the annual percent capacity of a flare or flare station is greater than the applicable threshold listed in Table 2 – Annual Capacity Thresholds.

(15) NOTIFICATION OF FLARE INVENTORY AND CAPACITY means the written form submitted by a facility to indicate the number of flares and the capacity of those flares at a facility.

(16) NOTIFICATION OF FLARE THROUGHPUT REDUCTION means the written form submitted by a facility to indicate the compliance strategy to reduce flare throughput below the applicable threshold listed in Table 2 – Annual Capacity Thresholds.

(17) NOTIFICATION OF INCREMENTS OF PROGRESS means the written form submitted by a facility to indicate the actions that have been completed, the actions yet to be completed, and any changes to the original notifications.

(18) NOTIFICATION OF INTENT means the written form submitted by a facility to indicate the action that will be taken if the annual percent capacity of the flare or flare station is greater than the applicable threshold listed in Table 2 – Annual Capacity Thresholds for two consecutive calendar years.

(19) OPEN FLARE means an unshrouded flare.

(20) ORGANIC LIQUID means any liquid containing volatile organic compounds (VOC).

(21) ORGANIC LIQUID LOADING means the bulk loading of organic liquids, such as organic liquids in marine vessels, tank trucks, trailer, railroad tank car, or stationary storage tanks.

(22) ORGANIC LIQUID STORAGE means the storage of organic liquids, such as organic liquids stored in tank farms and pipeline breakout stations.

(23) OTHER FLARE GAS includes gases combusted other than landfill gas, digester gas, produced gas, or gases generated from organic liquid handling.

(24) OXIDES OF NITROGEN (NOx) means nitric oxide and nitrogen dioxide.

(25) PERCENT CAPACITY means either the total throughput to the flare or flare station divided by the maximum volumetric capacity of the flare or flare station; or the total heat input to the flare divided by the maximum heat input of the flare or flare station.

(26) PIPELINE BREAKOUT STATION means a facility along a pipeline containing storage vessels used to relieve surges or receive and store petroleum products from the pipeline for re-injection and continued transportation by pipeline or to other facilities.

(27) PRODUCED GAS is organic compounds that are both gaseous at standard temperature and pressure and are associated with the production, gathering, separation or processing of crude oil.

(28) PROTOCOL means a test protocol for determining compliance with emission limits for applicable equipment.

(29) PUBLICLY-OWNED FACILITY means a wastewater management facility, solid waste management facility, sewage treatment facility, or landfill facility, if owned and operated by a public agency.

(30) REGENERATIVE ADSORPTION SYSTEM means a system used to remove impurities from combustible gases or vapors consisting of several media trains that are regenerated by purging with gas, typically used with biogas or produced gas.

(31) REGENERATION GAS means the purge gas from a regenerative adsorption system.

(32) RELOCATE means to remove an existing source from one facility in the SCAQMD and to install that source on another non-contiguous facility. Relocate does not include flares with a Various Location permit.

(33) UTILITY PIPELINE CURTAILMENT means limits imposed by the utility that occur at the pipeline that prevents gas from being injected into the

utility pipeline, including monitoring equipment breakdown or gas pipeline upgrades and maintenance.

(34) VOLATILE ORGANIC COMPOUND (VOC) is as defined in Rule 102 – Definition of Terms.

(d) Requirements

(1) An owner or operator that submits an application to install, replace, or relocate a flare after [*date of adoption*] shall comply with:

(A) The applicable NOx, VOC, and carbon monoxide (CO) emission limits specified in Table 1 – Emission Limits;

(B) For flares combusting Produced Gas at a facility with estimated annual emissions of four or more tons of any one of the following: sulfur oxides, VOCs, NOx, specific organics, particulate matter (PM); or 100 tons per year or more of CO, the owner or operator shall also comply with the following annual limits:

(i) For a replaced flare or flare station, annual throughput shall be limited to no more than 110 percent of the average annual throughput to that flare or flare station for the two calendar years immediately preceding the submittal of the flare or flare station application based on the annual emission reported; or if not available, annual throughput shall be limited to no more than 45 MMscf/year;

(ii) For a new flare that is not replacing an existing flare, the annual throughput shall be limited to no more than 45 MMscf/year.

Table 1 – Emission Limits

	NOx	CO	VOC
Flare Gas	pounds/MMBtu		
Digester gas[1]:			
Major facility	0.025	0.06	0.038
Minor facility	0.06	N/A	N/A
Landfill gas	0.025	0.06	0.038
Produced gas	0.018	0.01	0.008
Other flare gas	0.06	N/A	N/A
Organic liquid handling:			

Organic liquid storage	0.25	0.37	N/A
	pounds/1,000 gallons loaded		
Organic liquid loading	0.034	0.05	N/A

1. Table 1 - Emission Limits shall continue to apply unless amended or otherwise superseded following a technology assessment, caused to be performed by the Executive Officer, to determine potential alternative limits appropriate for digester gas generated from food waste diverted from landfills.

(2) An owner or operator with a submitted application for a flare or flare station with a deemed complete date prior to [*date of adoption*] shall comply with paragraph (d)(3).

(3) An owner or operator of an existing flare or flare station combusting gases identified in Table 2 – Annual Capacity Thresholds shall comply with ~~sub~~paragraph (g)(2) for each flare or flare station to determine their annual percent capacity pursuant to paragraph (g)(2).

Table 2 – Annual Capacity Thresholds

Flare Gas	Threshold
Any gas combusted in an open flare	5%
Digester gas	70%
Landfill gas	20%
Produced gas	5%

(A) If the flare or flare station's annual percent capacity is greater than the applicable threshold listed in Table 2 – Annual Capacity Thresholds, the owner or operator shall submit a Notification of Annual Percent Capacity Greater than Threshold to the Executive Officer no later than 30 days from the end of that calendar year.

(B) If the flare or flare station's annual percent capacity is greater than the applicable threshold listed in Table 2 – Annual Capacity Thresholds for two consecutive calendar years, the owner or operator shall submit a Notification of Intent to the Executive Officer no later than 60 days from the end of the second consecutive calendar year, selecting one of the following compliance options:

(i) Flare or flare station throughput reduction pursuant to paragraph (d)(4), or

(ii) Flare or flare station replacement or modification pursuant to paragraph (d)(5).

(C) An owner or operator of an existing flare or flare station shall not be subject to the requirements of subparagraph (d)(3)(A) or (d)(3)(B) if the flare(s) comply with the applicable emission limits in Table 1 – Emission Limits as demonstrated by a SCAQMD approved source test. The source test shall be conducted pursuant to a SCAQMD approved source test protocol, and shall be conducted every five years thereafter, pursuant to paragraph (f)(4).

(4) Flare Throughput Reduction

An owner or operator that submitted a Statement of Intent to reduce flare or flare station throughput pursuant to clause (d)(3)(B)(i) shall complete the following requirements pursuant to the schedule in Table 3 – Flare Throughput Reduction:

(A) Submit a Notification of Flare Throughput Reduction to the Executive Officer that includes the following:

(i) Alternative method(s) to reduce flare or flare station throughput below the applicable threshold listed in Table 2 – Annual Capacity Threshold; and

(ii) Timetable to implement and operate the alternative method.

(B) Submit Notification of Increments of Progress to the Executive Officer which shall include:

(i) Actions to implement the throughput reduction completed;

(ii) Actions to implement the throughput reduction yet to be completed; and

(iii) Any changes to the original Notification of Intent or the Notification of Flare Throughput Reduction.

(C) Reduce the annual throughput to the flare or flare station to a level at or below the applicable threshold listed in Table 2 – Annual Capacity Thresholds.

Table 3 – Flare Throughput Reduction

Requirement	Schedule (with potential extension(s) pursuant to subdivision (e))
Submit Notification of Flare Throughput Reduction	Within 6 months, or within 12 months for a Publicly-Owned Facility, from the end of the second consecutive calendar year the annual percent capacity is greater than the applicable threshold listed in Table 2 – Annual Capacity Thresholds
Submit Notification of Increments of Progress	13 months from the end of the second consecutive calendar year the annual percent capacity is greater than the applicable threshold listed in Table 2 – Annual Capacity Thresholds, and annually thereafter, until the end of the first year the annual percent capacity is reduced to or below the applicable threshold listed in Table 2 – Annual Capacity Thresholds
Implement the flare reduction project	Within 36 months from the end of the second consecutive calendar year the annual percent capacity is greater than the applicable threshold listed in Table 2 – Annual Capacity Thresholds
Demonstrate flare reduction at a level at or below the applicable threshold listed in Table 2 – Annual Capacity Thresholds	30 days after the end of the next calendar year the flare reduction project was implemented

(5) Flare Replacement

An owner or operator that submitted a Statement of Intent to replace or modify the flare or flare station pursuant to clause (d)(3)(B)(ii) shall complete the following pursuant to the schedule in Table 4 – Flare Replacement:

(A) Submit a permit application to the Executive Officer for flare replacement;

(B) Replace or modify the flare or flare station to meet the applicable emission limits in Table 1 – Emission Limits; and

(C) Demonstrate compliance with the applicable emission limits in Table 1 – Emissions Limits and shall conduct a source test pursuant to subdivision (f).

Table 4 – Flare Replacement

Requirement	Schedule (with potential extension(s) pursuant to subdivision (e))
Submit permit application	Within 6 months, or within 12 months for a Publicly-Owned Facility, from the end of the second consecutive calendar year the annual percent capacity is greater than the applicable threshold listed in Table 2 – Annual Capacity Thresholds.
Complete flare installation	Within 18 months after SCAQMD permit to construct issued.

(6) Change of Notification of Intent

An owner or operator of a flare or flare station that is required to submit a Notification of Intent pursuant to (d)(3)(B) may rescind and submit a revision to the previously submitted Notification of Intent one-time provided the owner or operator:

(A) Notifies and implements the new compliance pathway no later than 36 months from the end of the second consecutive calendar year the annual capacity was greater than the applicable threshold listed in Table 2 – Annual Capacity Threshold; and

(B) The revision is to change the compliance option from either:

(i) Paragraph (d)(4) for flare throughput reduction to paragraph (d)(5) to flare replacement to meet applicable Table 1 – Emission Limits and is triggered with the submittal of a flare <u>permit</u> application; or

(ii) Paragraph (d)(5) for flare replacement to meet applicable Table 1 – Emission Limits to paragraph (d)(4) for flare throughput reduction and is triggered with the submittal of a Notification of Flare Throughput Reduction.

(7) An owner or operator of a flare or flare station combusting gases identified in Table 2 – Annual Capacity Thresholds shall submit a Notification of

Flare Inventory and Capacity within 30 days of [*date of adoption*] identifying the following information for each flare or flare station:

(A) Permit number;

(B) Date of flare installation;

(C) Type of gas combusted;

(D) Maximum rated capacity (MMscf/hour or MMBtu/hour);

(E) Description of fuel meter, if installed; and

(F) Date of last source test.

(8) An owner or operator of a flare or flare station subject to this rule shall perform maintenance in accordance with the manufacturer's schedule and specifications.

(9) An owner or operator of a flare or flare station shall display in an accessible location on the flare the model number and the rated heat input capacity of the flare on a permanent rating plate for any flare installed, relocated, or modified after [*date of adoption*].

(10) The Notifications submitted under subparagraphs (d)(3)(A), (d)(3)(B), (d)(4)(A), and (d)(4)(B); paragraph (d)(6); and clause (d)(6)(B)(ii) shall be subject to notification fees pursuant to Rule 301(x) – Permitting and Associated Fees.

(e) Time Extension

(1) An owner or operator of a flare or flare station subject to this rule may submit a request to the Executive Officer for one twenty-four-month extension from the schedule in paragraph (d)(4) or one twelve-month extension from the schedule in paragraph (d)(5). The request shall be made in writing at least 60 days prior to the schedule deadline for the requirement. An extension shall not be available for an owner or operator of a flare or flare station complying with paragraph (d)(6). The time extension request shall include:

(A) The permit number or application number of the flare or flare station seeking the extension;

(B) The reason(s) a time extension is requested;

(C) Increments of progress completed and increments of progress yet to be completed, and anticipated time needed to complete each increment; and

(D) The length of time requested.

(2) Approval of Time Extensions

The Executive Officer shall review the request for the time extension and shall provide written approval or reject the request within 60 days of receipt.~~,~~ The request shall be approved if the following criteria are met:

(A) The owner or operator provides sufficient details justifying the basis for the requested extension and its duration;

(B) The owner or operator demonstrates to the Executive Officer that there are specific circumstances that necessitate the additional time requested to comply with scheduled deadlines. Such a demonstration may include, but is not limited to, providing detailed schedules, engineering designs, construction plans, permit applications, purchase orders, economic burden, and technical infeasibility.

~~(3) Failure to satisfy the above criteria may result in a denial of the request, unless the operator submits information within the 60 days.~~

(f) Source Tests

(1) Within 12 months from *[date of adoption]* an owner or operator of a flare or flare station complying with subparagraph (d)(3)(C) or paragraph (h)(2) shall determine the applicable NOx, VOC, and CO emissions by conducting an initial source test, and source testing every five years thereafter, pursuant to paragraph (f)(4). An owner or operator of a flare subject to paragraph (d)(1) shall conduct the initial source test according to the conditions set forth in the permit to construct, and conduct source testing every five years thereafter, pursuant to paragraph (f)(4).

(A) At least 90 days prior to a scheduled source test, submit a source test protocol to the Executive Officer for approval;

(B) At least one week prior to the scheduled source test, notify the Executive Officer, in writing, of the intent to conduct source testing;

(C) Conduct a source test according to the approved protocol. If prior to rule adoption, a source test was conducted pursuant to an approved protocol and demonstrated compliance with the applicable emission limits in Table 1 – Emission Limits, the owner or operator may opt to conduct the next source test within five years from the anniversary date of that prior source test; and

(D) Operators of flares combusting landfill gas may fulfill the five-year source testing requirement through the Rule 1150.1 source testing requirements if the source test plans for that specific test period include the ~~constituents~~ pollutants specified in Table 1 – Emission Limits.

(2) Unless requested by the SCAQMD, after the approval of the initial source test protocol, the owner or operator of a flare or flare station subject to this rule is not required to resubmit a source test protocol for approval pursuant to subparagraph (f)(1)(A) if:

(A) The flare or flare station and its method of operation have not been altered in a manner that requires a permit application submittal; and

(B) Rule or permit emission limits have not become more stringent since the previous source test.

(3) All source tests shall be conducted:

(A) Using a SCAQMD approved source test protocol;

(B) Averaged over a maximum 60 minutes of flare operation;

(C) During operation other than start up or shut down; and

(D) In as-found operating condition.

(4) NOx, CO, and VOC emissions in pounds per MMBtu of heat input shall be determined using the pollutant concentrations measured according to paragraph (f)(5) and the gas composition of the total gas or vapor combusted in the burner measured according to paragraph (f)(6) and calculated using the procedures in 40 CFR Part 60, Appendix A, Method 19, Sections 2 and 3, or another SCAQMD approved test method.

(5) NOx, VOC, and CO concentrations shall be determined according to the following methods:

(A) NOx and CO concentration shall be determined pursuant to SCAQMD Method 100.1 – Instrumental Analyzer Procedures for Continuous Gaseous Emission Sampling; and

(B) VOC concentration shall be determined pursuant to SCAQMD Method 25.1 or 25.3 – Determination of VOC Emissions from Stationary Sources.

(6) Gas composition shall be calculated according to the following methods:

(A) ASTM Method D-3588 – Standard Practice for Calculating Heat Value, Compressibility Factor, and Relative Density of Gaseous Fuels; and

(B) ASTM Method D-1945 – Standard Test Method for Analysis of Natural Gas by Gas Chromatography; or

(C) ASTM Method D-7833 – Standard Test Method for Determination of Hydrocarbons and Non-Hydrocarbon Gases in Gaseous Mixtures by Gas Chromatography.

(7) All source tests shall be conducted by a contractor that is approved by the Executive Officer under the Laboratory Approval Program for the applicable test methods.

(8) Records of source tests shall be maintained for five years or until the next source test is performed, whichever occurs later, and shall be made available to SCAQMD personnel upon request. The source test report(s) shall identify whether the source test was conducted pursuant to a SCAQMD approved protocol and clearly identify the model, serial numbers, application number, permit number, and origins of all gas or vapor combusted of the specific flare(s) tested. In the absence of a flare model and serial number, a detailed description of the flare or flare station and its location shall be included.

(g) Monitoring, Recordkeeping, and Reporting Requirements

(1) The owner or operator of a flare or flare station required to comply with paragraph (d)(3); or is exempt pursuant to paragraph (h)(2), or paragraph (h)(3) monitoring pursuant to subparagraph (g)(4)(B) shall:

(A) Within 90 days, or within 180 days for a Publicly-Owned Facility, of [*date of adoption*], install and operate a fuel meter for each gas or vapor, excluding pilot gas, routed to every flare or flare station, unless metering system is currently installed and approved in writing by the Executive Officer.

(B) Within 90 days, or within 180 days for a Publicly-Owned Facility, of [*date of adoption*], each fuel meter required under subparagraph (g)(1)(A) that requires dependable electric power to operate shall be equipped with a permanent supply of electric power that cannot be unplugged, switched off, or reset except by the main power supply circuit for the building and associated equipment or the flare's safety shut-off switch.

(C) Ensure that the continuous electric power to a fuel meter required under subparagraph (g)(1)(A) and (g)(1)(B) may only be shut off for maintenance or safety.

(D) Within 90 days, or within 180 days for a Publicly-Owned Facility, of installation or [*date of adoption*], whichever is later, ensure that each fuel meter is calibrated, and again calibrate the fuel meter annually thereafter, based on the manufacturer's recommended procedures or an alternative calibration method approved in writing by the Executive Officer. If the fuel meter was calibrated within one year prior to [*date of adoption*], the next calibration shall be conducted within the one year of anniversary date of the prior calibration.

(2) Beginning [*date of adoption*], or when the fuel meter is installed pursuant to subparagraph (g)(1)(A), whichever is later, the owner or operator of a flare or flare station required to comply with paragraph (d)(3) shall determine the percent capacity of the flare or flare station and maintain records documenting the percent capacity determinations as follows:

(A) Total annual throughput in units of MMscf/year and/or total annual heat input in units of MMBtu/year shall be calculated by summing throughput and/or heat input of the gas at the end of each calendar year as follows:

(i) Monthly throughput shall be measured and recorded at least once per month by the fuel meter(s); and

(ii) If determining percent capacity in units of MMBtu/year, ~~H~~heat input of the flare gas shall be measured and recorded at least once per month pursuant to (f)(6) or may be calculated and recorded ~~for landfill~~ monthly by measuring the methane concentration of landfill or digester gas using a portable nondispersive infrared detector, or equivalent detector approved in writing by the Executive Officer, calibrated per manufacturer's specifications. Heat input measurements are not required for month(s) flare is not in use.

(B) Capacity shall be determined using:

(i) Manufacturer designation, if known, otherwise the capacity shall be determined using permit conditions limiting throughput or heat input;

(ii) For flare stations, the combined total capacity of all the flares in the flare station.

(C) Annual percent capacity shall be calculated at the end of each calendar year by one of the following metrics:

(i) By volume:

$$Percent\ Capacity_{MMscf} = \frac{Total\ Annual\ Throughput\ \left(\frac{MMscf}{year}\right)/_{x}}{\text{Capacity (MMscf/hour)}}\ x\ 100\%$$

(ii) By heat input:

$$Percent\ Capacity_{MMBtu} = \frac{Total\ Annual\ Heat\ Input\ \left(\frac{MMBtu}{year}\right)/_{x}}{\text{Capacity (MMBtu/hour)}}\ x\ 100\%$$

x = the time period in hours/year that records are required to be maintained and recorded.

(D) For an owner or operator of the flare or flare station that fails to measure or record the monthly throughput or heat input value in compliance with the provisions above, the percent capacity shall be presumed to be one-hundred percent (100%) for the months without records.

(3) The owner or operator of a flare or flare station that is exempt pursuant to paragraph (h)(2) shall monitor and maintain NOx emission records as follows:

(A) NOx emissions shall be determined based on the most recently approved source test conducted pursuant to a SCAQMD approved source test protocol;

(B) Monthly gas throughput shall be measured and recorded at least once per month by the fuel meter(s);

(C) Heat input of the flare gas shall be measured and recorded at least monthly:

(i) Pursuant to paragraph (f)(6); or

(ii) Calculated and recorded monthly by measuring the methane concentration of landfill or digester gas using a portable nondispersive infrared detector, or equivalent detector, calibrated per manufacturer's specifications; or

(iii) Estimated using the applicable Table 5 – Default Heating Value.

Table 5 – Default Heating Value

Flare Gas	Default Heating Value (Btu/scf)
Digester gas	600
Landfill gas	500
Produced gas	1,000

(D) NOx emissions shall be calculated as follows:

$$Monthly\ pounds\ of\ NOx\ Emitted = \frac{pounds\ \ NOx}{MMBtu} \times \frac{MMscf}{month} \times \frac{Btu}{scf}$$

(4) The owner or operator of a flare or flare station that is exempt pursuant to paragraph (h)(3) shall monitor and maintain hours of operation records of a flare or flare station as follows:

(A) For the 200 hours per year validation, using a calibrated non-resettable totalizing time meter or equivalent method approved in writing by the Executive Officer; or

(B) For the annual throughput limit equivalent to 200 hours per year validation, using a calibrated fuel meter or equivalent method approved in writing by the Executive Officer.

(5) The owner or operator of a flare or flare station subject to this rule shall:

(A) Maintain records of annual throughput attributed to source testing and utility pipeline curtailment for a flare or flare station complying pursuant to subparagraph (d)(1)(B).

(B) Maintain a copy of the manufacturer's, distributor's, installer's or maintenance company's written maintenance schedule and instructions.

(C) Provide the manufacturer's maintenance instructions, maintenance records, and the source test report(s) to the Executive Officer upon request.

(D) Retain all written or electronic records required by this rule for at least five years, which shall be made available no later than five business days from date requested.

(h) Exemptions

(1) The provisions of this rule shall not apply to owners or operators of a flare or flare station:

(A) At asphalt plants; biodiesel plants; hydrogen production plants fueled in part with refinery gas; petroleum refineries; sulfuric acid plants; and sulfur recovery plants;

(B) Routing only natural gas directly into the flare burner that are subject to SCAQMD Rule 1147 – NOx Reductions from Miscellaneous Sources NOx emission limits;

(C) Routing only propane or butane or a combination of propane and butane directly into the flare burner;

(D) At a landfill that collects less than 2,000 MMscf of landfill gas per calendar year and has either ceased accepting waste or is classified by the California Department of Resources Recycling and Recovery as an Inert Waste Disposal Site or an Asbestos Contaminated Waste Disposal Site;

(E) With Various Location Permit; or

(F) Combusting regeneration gas.

(2) An owner or operator of a flare or flare station subject to this rule that emits less than 30 pounds of NOx per month shall be exempt from the requirements in subdivision (d) provided:

(A) The flare or flare station has a permit that specifies conditions that limit the applicable NOx emissions; and

(B) The flare or flare station operates in compliance with the permit condition.

(3) An owner or operator of a flare or flare station subject to this rule that operates 200 hours or less per calendar year, or with an annual throughput limit equivalent to 200 hours per year, shall be exempt from the requirements in subdivision (d) provided:

(A) The flare or flare station has a permit that specifies conditions that limits the operating hours or annual throughput; and

(B) The flare or flare station operates in compliance with the permit condition.

(4) An owner or operator of a flare or flare station that is exempt pursuant paragraph~~s~~ (h)(2) or (h)(3), shall be subject to the requirements in subdivision (d) in the event the flare or flare station exceeds the applicable limitations in paragraphs (h)(2) or (h)(3).

(5) An owner or operator of an open flare shall not be required to conduct source testing pursuant to subdivision (f).

(6) Gas throughput combusted, NOx emissions, and time accrued during source testing or operating the pilot light pursuant to subdivision (f) may be omitted from the calculation of percent capacity pursuant to subparagraph (g)(2), emissions pursuant to paragraph (h)(2), or hours or annual throughput pursuant to paragraph (h)(3).

(7) Gas throughput combusted during source testing pursuant to subdivision (f), utility pipeline curtailment, or operating the pilot light may be omitted from the annual throughput limitation in ~~clauses~~ subparagraph (d)(1)(B).

ATTACHMENT G

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

Final Staff Report
Proposed Rule 1118.1 – Control of Emissions from Non-Refinery Flares

January 2019

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South Coast Air Quality Management District (SCAQMD) Proposed Rule 1118.1 (PR1118.1) applies to RECLAIM and non-RECLAIM facilities that operate non-refinery flares predominately located at landfills; wastewater treatment plants; oil and gas production facilities; and facilities that handle organic liquids. The proposed rule will implement, in part, the 2016 Air Quality Management Plan Control Measure CMB-03 – Emission Reductions from Non-Refinery Flares and facilitate the transition of the NOx RECLAIM program to a command-and-control regulatory structure to assist implementation of CMB-05 – NOx Reduction from RECLAIM Assessment.

The purpose of PR1118.1 is to reduce oxides of nitrogen (NOx) and volatile organic compounds (VOC) emissions from non-refinery flares and to encourage alternatives to flaring, such as energy generation, transportation fuels, or pipeline injection. The proposed rule will establish emission limits for NOx, VOC, and carbon monoxide (CO) for new, replaced, or relocated flares, and ~~a~~ establish a capacity threshold for existing flares. The capacity threshold will apply to all open flares and flares that combust digester gas, landfill gas, and gas produced from oil and gas production facilities (produced gas). The threshold varies for each source category based on a percent capacity (percent throughput or heat input per maximum rated capacity of the flare) that determines routine flaring. Open flares and flaring produced gas ~~has~~ have the lowest capacity threshold at 5 percent, flaring landfill gas is at ~~10~~20 percent, and flaring digester gas is at 70 percent. The different capacity thresholds seek maximum emission reductions that are cost effective. Flares that surpass the capacity threshold will be required to either reduce flaring below the capacity threshold (e.g., beneficial use of the gas that would otherwise be flared) or replace the flare with a unit complying with the proposed NOx emissions limits.

In addition, new and replaced flares at oil and gas production sites with emissions high enough to require them to monitor and report under the SCAQMD Annual Emission Reporting (AER) program will have additional limitations. The basis for using the AER emissions limits is to pursue the higher emitting facilities; further, the SCAQMD has historical throughput data from those facilities through their AER reports. Replaced flares at those facilities will have a throughput limit of 110 percent of the average annual throughput for the two calendar years immediately preceding the submittal of the flare application. The limit would allow existing sites to maintain operational levels with a slight growth opportunity. Since new flares that are not replacing an existing flare do not have historical throughput data, those flares will be limited to no more than 45 MMscf, which was derived based on the average throughput for all oil and gas production sites from 2015 ~~–~~to 2016, with a growth factor of approximately 10 percent.

Additionally, PR1118.1 establishes source test provisions for those flares subject to the emission limits or the low-emission exemption to ensure the limits are being met and the exemption is still applicable. Source tests will be required every five years. There are also monitoring, reporting, and recordkeeping provision for those flares subject to the capacity threshold limit and the low-use exemptions. Lastly, PR1118.1 provides several exemptions including flares that: are low-use or low-emitting; combust regeneration gas; combust only natural gas, propane, butane or a combination of propane or butane; have a various locations permit; are located at low throughput closed landfills; or are subject to another rule.

This ~~Draft S~~staff ~~R~~report is organized into five chapters and two appendices. Chapter 1 provides background information regarding PR1118.1, non-refinery flares, the various industries using non-refinery flares and discusses the availability of beneficial use technology to reduce throughput to flares. Chapter 2 provides an assessment of BARCT and NOx requirements in other jurisdictions. This assessment also covers Reasonably Available Control Technology and Reasonably Available Control Measures. Chapter 3 provides a summary of the proposed rule, which includes flare capacity thresholds and emission limits for new flares. Chapter 4 includes the socioeconomic impact assessment, draft findings, and the comparative analysis. There are two appendices: Appendix A includes the responses to comments and Appendix B includes the draft Rule 1118.1 forms. Lastly, the staff report ~~Chapter 5~~ contains ~~the~~a list of references.

Chapter 1

INTRODUCTION

In March 2017, the South Coast Air Quality Management District (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. Proposed Rule 1118.1– Control of Emissions from Refinery Flares (PR1118.1) will implement, in part, the 2016 AQMP Control Measure CMB-03 – Emission Reductions from Non-Refinery Flares and CMB-05 – Further NOx Reductions from RECLAIM Assessment. The proposed rule seeks to reduce oxides of nitrogen (NOx) and volatile organic compounds (VOC) emissions from flaring produced (e.g., process) gas, digester gas, landfill gas, and other combustible gases and vapors and to encourage alternatives to flaring. The proposed rule also contains a ~~carbon monoxide (~~CO~~)~~ limit, which is included to ensure proper combustion. PR1118.1 does not apply to flares at petroleum refineries, sulfur recovery plants, and hydrogen production plants subject to SCAQMD Rule 1118 – Control of Emissions from Refinery Flares (R1118). The non-refinery flares used at asphalt plants; biodiesel plants; hydrogen production plants fueled in part with refinery gas; petroleum refineries; and sulfur recovery plants that were previously subject to the Regional Clean Air Incentives Market (RECLAIM) program will be subject to Proposed Rule 1109.1 – Refinery Equipment (PR1109.1) upon adoption of that proposed rule.

In addition to CMB-03, the adoption resolution of the Final 2016 AQMP directed staff to transition RECLAIM program to a command-and-control regulatory structure requiring Best Available Retrofit Control Technology (BARCT) as soon as practicable. California State Assembly Bill 617, approved by the Governor on July 26, 2017, requires air districts to develop, by January 1, 2019, an expedited schedule for the implementation of BARCT no later than December 31, 2023, for facilities that are subject to a market-based compliance program. PR1118.1 applies to RECLAIM and non-RECLAIM facilities that operate non-refinery flares.

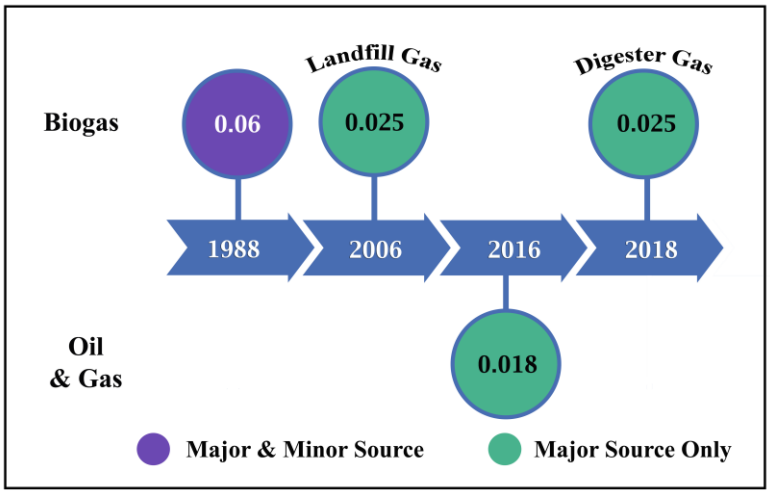
The objective of the proposed rule is to maximize emission reductions and to encourage beneficial use by providing a reasonable timeframe for affected facilities to make feasible, long-range decisions. The proposed rule includes NOx, VOC and CO emission limits that reflect BARCT standards and a capacity threshold that seeks to identify routine flaring. Flares that surpass the capacity threshold will be required to find alternative means (e.g.,~~,~~ beneficial use) for excess flaring or reduce flare throughput, or to replace the equipment with a flare with lower emissions. The capacity threshold varies depending on the type of gas being flared (landfill, digester, produced) and the type of flare equipment (open flare versus shrouded flare). PR1118.1 provides exemptions for low-use and low-emitting flares, as well as certain other exemptions, such as flares that: combust regeneration gas; combust only natural gas, propane, butane or a combination of propane or butane; have a various locations permit; are located closed landfills that collect less than 2,000 MMscf per year; or are subject to another rule. Additionally, PR1118.1 establishes provisions for source testing, monitoring, reporting, and recordkeeping. PR1118.1 is expected to reduce 0.18 tons of NOx per day and 0.014 tons of VOC per day by July 1, 2024 from flares located at landfills, wastewater treatment plants, oil and gas production facilities, organic liquid loading, and organic liquid storage, based on flare replacement. Potential reductions could be greater based on facilities' pursuit of beneficial use instead of flaring. In addition, potential reductions could be

achieved sooner as there is typically a shorter compliance schedule for modifying or replacing flares.

BACKGROUND

A survey of SCAQMD permits for non-refinery flares indicate NOx emission rates from many facilities range between 0.018 to 0.15 pounds per million British Thermal Units (BTU). New and modified non-refinery flare emissions are currently regulated through the Best Available Control Technology (BACT) limits as determined in SCAQMD Rules 1303 and 1701, but there are currently no source-specific rules regulating NOx emissions from existing non-refinery flares. The first SCAQMD BACT NOx standard for flares was established in 1988 at 0.06 pounds per million British thermal unit (MMBtu). In 2016, advancements in flare technology allowed the NOx standard to be reduced to 0.018 pounds/MMBtu for oil and gas production. Similar flare technology advances for biogas combustion at landfill and wastewater treatment plants lead to the 2018 update to 0.025 pounds/MMBtu. For major polluting facilities, these new BACT determinations serve as requirement pursuant to the United States Environmental Protection Agency (USEPA) Lowest Achievable Emission Rate (LAER) Policy. A facility is defined as a "major polluting facility" if it emits, or has the potential to emit, a criteria air pollutant at a level that equals or exceeds the emission thresholds specified in the federal Clean Air Act. BACT/LAER determinations are based on a permit-by-permit analysis of what is achieved in practice. For non-major polluting facilities, state law requires a more detailed analysis, including cost-effectiveness. The non-major source BACT standard for biogas went into effect in 2000 and is 0.06 pounds/MMBtu. There is no non-major source standard for the oil and gas industry. Figure 1 outlines these standards in pounds/MMBtu on a timeline graph.

Figure 1: Flares BACT Requirements (pounds of NOx per MMBtu)



As a region in extreme non-attainment for ozone, SCAQMD is required by USEPA to adopt all ~~r~~Reasonably ~~a~~Available ~~c~~Control ~~m~~Measures (RACM) or ~~r~~Reasonably ~~a~~Available ~~c~~Control ~~t~~Technologies (RACT), particularly when adopted by other air agencies. In this case, two California air districts, San Joaquin Valley Air Pollution Control District (SJVAPCD) and Santa Barbara County Air Pollution Control District (SBCAPCD) have adopted rules for non-refinery flares. PR1118.1 also addresses the USEPA requirements for RACM/Best Available Control Measure (BACM) as (SJVAPCD) Rule 4311 – Flares includes emission limits for non-refinery

flares, and SBCAPCD Rule 359 – Flares and Thermal Oxidizers regulates the use of flares and thermal oxidizers for petroleum and transportation facilities. In addition, PR1118.1 is being developed to facilitate the transition of the NOx RECLAIM program to a command-and-control regulatory structure.

Rule Development

Staff initiated the rule development process in June 2017. Since 2017, staff conducted twenty site visits to better understand the need for flaring and the strides the affected industries have already made to reduce flaring. The initial rule language was distributed in March 2018 and the initial concept was to require flare replacement of older flares (20 years and older) unless they comply with the proposed beneficial use compliance targets (e.g., percent gas handling with beneficial use by a certain date). The beneficial use compliance option was modeled after the Bureau of Land Management (BLM) "Methane and Waste Prevention Rule,"[1] which requires between 85 ~~–~~ and 98 percent of gas that would have been directed to a flare to be used beneficially. Stakeholders argued that they could not commit to the beneficial use targets, expressed a desire to keep existing flares needed for backup, and replacing back-up flare is not cost-effective to replace, so suggested the rule target routine flaring.

In response to the comments received from stakeholders, staff presented a different rule concept that would establish a capacity threshold, and if a flare surpasses the capacity threshold, action would be required. The proposed capacity threshold concept is established for each source category that would ultimately be applied to the type of gas being flared. The thresholds were determined by evaluating different percent capacities (e.g., usage compared to rated capacity), in each source category, and at what capacity the cost to replace the flare was feasible. Cost-effectiveness is based on the capital costs, maintenance costs, and useful life and emission reduction achieved. The thresholds varied considerably due to:

- Cost of the flares
    - Flare costs were significantly higher for landfills and wastewater treatment plant than oil and gas production, and
- NOx emission reductions
    - The majority of PR1118.1 NOx emissions are from landfills.

Thus, the threshold to determine routine flaring and at what point a replacement is cost effective are different for each affected industry. The oil and gas threshold was calculated to be quite low (~~5%~~five percent) due to lower replacement costs and the typical practice using of flares with a high rated capacity. Landfills also were determined to be able to replace flares with a relatively low threshold (20~~%~~ percent) due to the larger amounts of potential emission reductions to be achieved. Wastewater flares have a high threshold (70~~%~~ percent) due to both the high flare costs and the low potential for emission reductions. The stakeholders maintained concern with the timeline for the requirements, particularly when many of the facilities require approval from municipal bodies to take any proposed actions. However, it was mutually agreed that the gas should be handled to benefit the operations and business. Staff worked to include longer timelines and more flexibility

[1] https://www.regulations.gov/document?D=BLM-2016-0001-9126

in the preliminary draft rule. Further details on the proposed rule language can be found in Chapter 3.

Challenges and Opportunities for Industries Subject To PR1118.1

The main source categories subject to PR1118.1 are landfills, wastewater treatment plants, oil and gas production, and organic liquid loading facilities. Table ~~1~~1 shows the number of flares at the different source categories, based on the flare gas combusted.

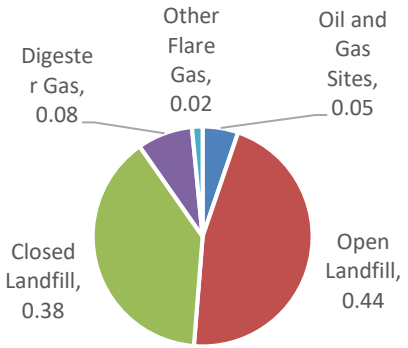
Table 1: Flares Subject to PR1118.1

Flare Gas	Number of Flares
Digester gas	65
Landfill gas	
Closed landfills	103
Open landfills	52
Produced gas	49
Other flare gas	17
Organic liquid handling	~~10~~9
TOTAL	~~296~~295

Landfills

Landfills generate the largest throughput of flared gas and highest NOx emission of the PR1118.1 universe. Landfills also generate landfill gas for many decades, even when closed and inactive. The breakdown of waste in landfills produces gases which vary depending on the type of waste deposited at the facility and contaminants including methane, carbon dioxide (CO2), sulfides, siloxane, and VOCs. These gases are produced by natural decomposition ~~and~~ that predominantly produces methane, in addition to other contaminants. Federal, state, and local regulations require the capture of landfill gas, which can generate several million cubic feet of landfill gas per landfill per day, which is primarily composed of methane and carbon dioxide, two potent greenhouse gases. These gases are pulled from beneath a landfill and are collected and combusted through a flare or used beneficially, such as power generation. The quality of landfill gas varies at each landfill, and can decompose at different rates, depending on pressure and temperature. Closed landfills experience decreasing quantity and quality (Btu per standard cubic foot (Btu/scf)) content over time and eventually, flaring is not feasible. In these situations, activated carbon may be used to replace flares. Potential beneficial uses of landfill gas includes the generation of electricity through micro-turbines, steam turbines, internal combustion engines (ICE), fuel cells, transportation fuel, or pipeline injection. The challenges associated with landfill gas includes the low Btu content and the expense to remove siloxane contamination, which can damage equipment or poison the catalyst used to control NOx emissions.

Figure 2 - NOx Emissions (tpd) - Three-Year Average 2015 - 2017



Some landfills also have private or municipal electricity generating facilities that beneficially utilizes the landfill gas. These facilities may also have small flares used during the cleaning of regenerative catalysts. The catalysts are used to clean the landfill gas, and they typically have two catalysts that cycle between cleaning the landfill gas and regenerating the catalyst. The flares are used to combust the regeneration gas needed to purge the catalyst. Figure 2 provides a breakdown of NOx emissions (over 3 ~~yr.~~year period) for each affected source category highlighting the highest emissions

from landfills compared to the other non-refinery industries flaring.

Wastewater ~~t~~Treatment ~~p~~Plants and ~~d~~Digester ~~g~~Gas

Wastewater treatment plants and gas produced through anaerobic decomposition in a digester generate the second highest volume of gas flared and the volume could increase due to organic waste diversion, as the State strives to meet the ~~seventy-five (~~75~~)~~ percent recycling, composting, or source reduction of waste goal by 2020 under Assembly Bill 341 (AB 341, Chesbro, Chapter 476, Statutes of 2011). These waste diversion efforts may eventually decrease landfill gas, but will lead to additional biogas at wastewater treatment plants and other digesters receiving the organic waste. An example is California Senate Bill 1383 (SB 1383) (Chapter 395, Statutes of 2016) Short-lived climate pollutants: methane emissions: dairy and livestock: organic waste: landfills~~,~~ for organic waste methane emission reductions. These reductions would divert food wastes, currently disposed of at landfill, to anaerobic digesters or composting facilities. In November, staff received comments from the Southern California Alliance of Publicly Owned Treatment Works (SCAP) and California Association of Sanitation Agencies (CASA) regarding new research indicating facilities combusting digester gas from food waste or using thermophilic digestion may potentially increase ammonia emissions resulting in higher NOx emissions from the flare. As a result, PR 1118.1 was revised to retain the NOx limit of 0.06 pounds per million Btu for flares operated at minor sources combusting digester gas

Figure 3: Flare Throughput (MMscf/year) - Three-Year Average 2015 - 2017

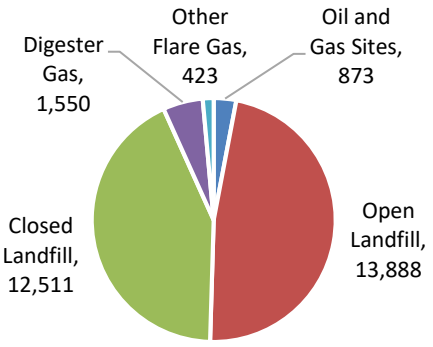
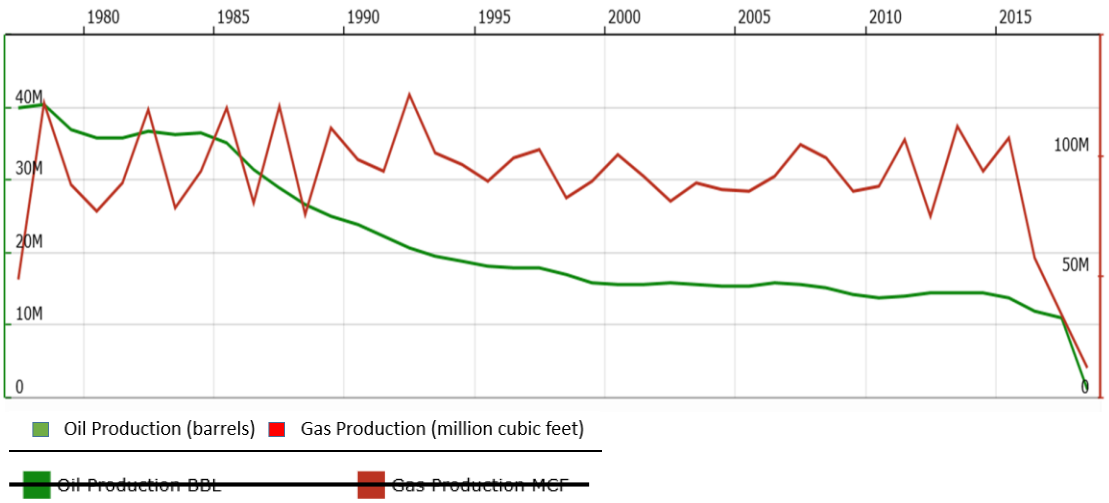


Figure 3 breaks down the affected industry per annual throughput demonstrating the same trend as NOx emissions. Anaerobic decomposition produces a flammable gas composed of methane, hydrogen sulfide, CO2, and siloxane. As with landfill gas, the siloxane contaminant is the most challenging and costly to remove. Digester gas is relatively low Btu, ranging from 500 to 600 Btu/scf. Wastewater treatment facilities have a high energy demand; therefore, many facilities utilize the digester gas for power generation using turbines, ICE, or boilers to make steam for heating digesters.

Oil and ~~g~~Gas e~~E~~xtraction

The third largest volume of gas is generated from oil and gas extraction. This source category has seen significant declines since 2015, reflecting the decrease in the cost of a barrel of oil (see Figure 4). The oil industry is cyclical and world oil prices are currently increasing. An increase in demand will lead to an increase in drilling and produced gas, ultimately leading to increased flaring and NOx emissions.

Figure 4: Los Angeles County Oil and Gas Production by Year[2]



Oil extraction produces oil, produced gas, water, and other contaminants. The produced gas is naturally occurring and of relatively high Btu, around 900 Btu/scf. The produced gas requires gas treatment to remove sulfides, water, CO2 and other contaminants. Some facilities beneficially use the produced gas to generate energy or inject the gas into a pipeline. Pipeline injection is cost effective for companies that have connections nearby, or can inter-connect to another company's pipeline or through a municipal connection. There can be interruptions to pipeline injection due to pipeline curtailment~~;~~ this occurs when the utility has to perform maintenance or upgrades on their end of the connection and cannot accept the gas. During the rulemaking process, one stakeholder requested that the SCAQMD establish a cap for facilities that replace or install new flares to ensure that routine flaring is minimized. As a result, staff added a provision for oil and gas production sites with emissions over four tons per year that establishes an annual throughput limit of 110 percent of the average throughput over the past two calendar years for replacement flares and an annual throughput limit of 45 million standard cubic feet for new flares. Produced gas in not considered Renewable Natural Gas (RNG) so incentives are not available to assist in conversion or capture; however, the Southern California Gas Company has a tariff program to assist companies generating produced gas to install skid-mounted units for gas clean-up and develop connection to existing natural gas pipelines. Similar to landfills, there are opportunities to use the gas to generate energy through fuel cells and micro-turbines as well as to fuel transportation. There are some companies that operate portable equipment designed to clean up the gas on-site and sell to third party customers.

Organic Liquid Handling and Other Flaring

The remaining categories of flares ~~are~~ have the lowest throughput. Organic liquid handling, which includes two subcategories: organic liquid storage and organic liquid loading. Organic liquid storage includes, but is not limited to, tank farms and pipeline breakout stations. Organic liquid loading includes, but is not limited to, bulk terminal, marine, railcar, and truck loading. The remaining flares fall under the default category referred to as "Other Flaring." Other flaring includes any flaring from sources other than landfill gas, digester gas, gas produced from oil and

[2] http://www.drillingedge.com/california/los-angeles-county

gas production, or gases generated from organic liquid handling. The volume of gas flared and the NOx emissions are low for these source categories. Some of these facilities will be subject to ~~p~~Proposed Rule 1109.1 upon adoption of that rule, if the flare is located at a refinery or refinery related facility. Those flares will be exempt from ~~to refinery activity and not~~ PR1118.1. The majority of flares in this source category are air pollution control devices required to destroy the fugitive emissions from tanks, railcars, and bulk terminals for loading organic liquids. Some of the vapors sent to the flare have a low heating value, ~~;~~ therefore, may require the use of ~~assist~~ additional gas to facilitate combustion. Challenges with this source category includes less opportunities for beneficial use and a lack of market incentives.

Market Based Incentives

Market based incentives are available to encourage the beneficial use of biogas, which includes digester gas from wastewater treatment plants and landfill gas. Wastewater treatment plants and landfills have a constant supply of gas, but produce low-quality gas, often about half the heating value of pipeline quality natural gas, and with significant contamination. The most problematic contaminants are siloxanes, which are used in a variety of personal care products, such as deodorants, shampoos, skin creams, and hair styling products. Siloxanes get washed down the drain to end up at wastewater treatment plants and are usually found in product containers that get sent to landfills. Siloxanes are costly to remove from the gas stream and are harmful to combustion equipment and post combustion control equipment used to control NOx emissions, such as catalyst. Federal and State market based programs provide revenue sources from selling biogas as a transportation fuel. These programs include the Low Carbon Fuel Standard (LCFS) in California and the federal Renewable Fuel Standard (RFS) Program. Under these programs, credits are generated for the sale of renewable transportation fuels and, depending on market prices, have provided funding for equipment and lower fuel costs. In addition, future legislation may change the minimum higher heating value and/or maximum siloxane requirements making it easier for pipeline injection and for facilities to use biogas for transportation fuels.

Beneficial Use Opportunities

PR1118.1 seeks to encourage alternatives to flaring, while at the same time, allowing an existing flare to be maintained if the flare throughput is reduced below capacity thresholds established in the rule. Flare throughput reduction can be achieved by harnessing and conditioning the waste gas for a variety of uses. Alternatives to flaring include utilizing fuel cells to create electricity and hydrogen; using micro-turbines and boilers to create power for the facility; using boilers for heat in anaerobic digesters; selling the gas to be used in transportation; converting the gas to liquids for transportation; and/ -or natural gas pipeline injection. Sites such as oil and gas facilities that do not produce enough gas or are not located near appropriate pipelines for injection could route the gas towards power generation, such as micro-turbines, and/or capture for use in transportation. The flare gas has value and most facilities strive to maximize the use of the gas; the following sections highlight some of the beneficial use options.

Fuel Cells

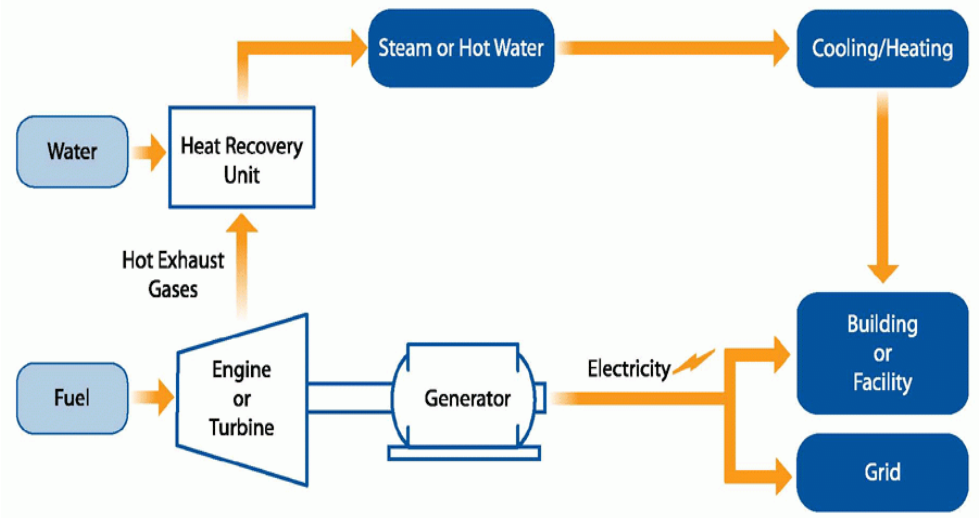
Fuel cells use a chemical reaction, rather than combustion, to generate electricity. They are very efficient and the fuel cells do not produce NOx emissions, though a small amount of NOx can be produced from associated fuel burners. Fuel cells can utilize biogas or produced gas as the fuel, but the contaminants, especially the siloxanes in biogas, must be removed as they will poison the

catalyst. Fuel cells represent a great opportunity for beneficial use and NOx emission reductions but the technology, and the associated gas clean-up, is costly.

Combined Heat and Power

Combined heat and power (CHP) is an efficient technology that generates electricity and captures the heat that would otherwise be wasted to provide useful thermal energy, such as steam or hot water (see Figure 5). Nearly two-thirds of the energy used by conventional electricity generation is wasted in the form of heat discharged to the environment.

Figure 5: Combined Heat and Power[3]



Boilers

New power producing technologies, such as the organic Rankine cycle (ORC), has shown the ability to consume the gas that would otherwise be flared and provide a co-benefit by producing power. This technology utilizes heat recovery from gas combustion to operate the ORC loop to make power. For an oil and gas facility, for example, this is accomplished by installing a skid-mounted boiler on site to combust the gas and provide hot water for the ORC. The amount of power generated is not a high enough quantity to sell to the grid, but will be able to meet some of the facility's power needs and/or heat needs. These boilers emit either 9 ppm (at 3 percent oxygen) or 5 ppm (at 3 percent oxygen with selective catalytic reduction), depending on the size, which will result in 40 to 67 percent less NOx emissions than an ultra-low-NOx flare. For a wastewater treatment facility that currently utilizes boilers for providing heat to the anaerobic digesters, the same boiler can be utilized to process any excess gas that would otherwise be flared. In addition, a landfill can potentially utilize this technology to generate electricity from landfill gas that would otherwise be flared.

[3] "Combined Heat and Power (CHP) Partnership", United States Environmental Protection Agency, available at https://www.epa.gov/chp/what-chp

Micro-turbines and Turbines

Micro-turbines and turbines can be powered by gas that would otherwise be flared to generate power. Most systems require gas cleanup but there are facilities with regenerative thermal oxidation that can be used to produce power without the necessity of biogas cleanup. These technologies can be used at each of the source categories and are especially useful at landfills with low methane content.

Calabasas Landfill Micro Turbines

Gas Recovery, Compression, and Transportation

Another alternative to flaring is to compress the gas that would otherwise be flared and either use it on-site or transport the gas for sale or use at another location. The gas can be cleaned up prior to compression and used to create a transportation fueling station or the compressed gas can be transported and injected into the pipeline. This type of system is useful when a natural gas pipeline is not readily accessible.

Gas-to-Bioplastic

The largest component of flare gas is usually methane and that methane can be converted into a bioplastic. Carbon is captured from methane using a bio-catalyst and results in the combination of carbon with hydrogen and oxygen to produce a biopolymer.

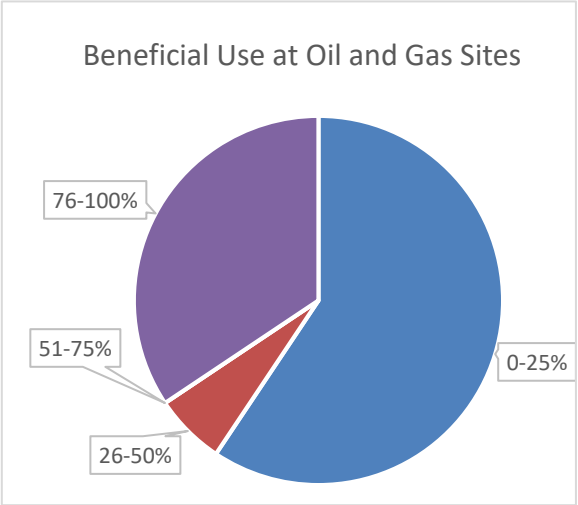
Gas-to-liquids

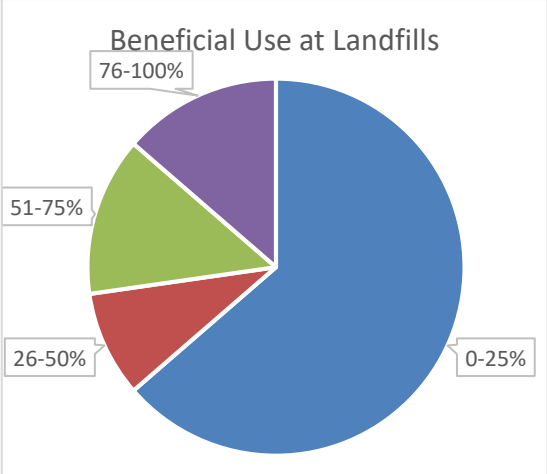
Flare gas can also be converted to liquid fuels and sold as transportation fuel or energy generation. This is a way to reduce or eliminate flaring while making a profit from the gas that would otherwise be flared.

Beneficial Use in the SCAQMD

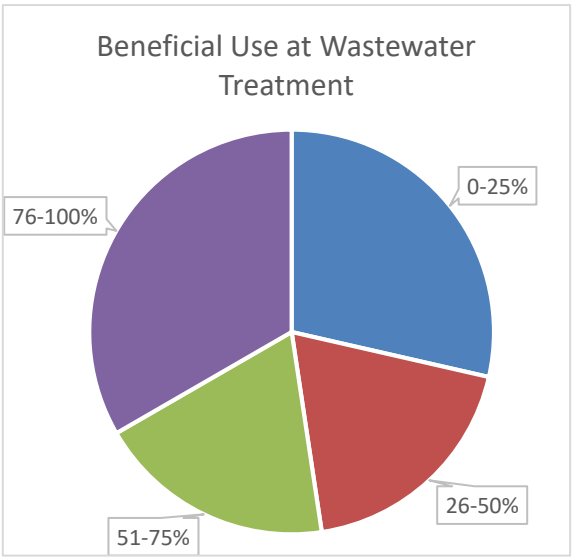
During the rule development process, staff conducted numerous site visits of the potentially affected facilities. During this time, staff learned of the many different types of beneficial use projects within each of the source categories. The pie charts below show the percent of gas that is used beneficially at each of the major source categories subject to PR 1118.1. For example, the 76 – 100 percent segment in purple represents the number of facilities that are beneficially using between 76 to 100 percent of the total gas generated at the facility.

Most oil and gas sites that produce significant quantities of gas have incorporated beneficial use alternatives to reduce the amount of gas flared. Due to the high quality of produced gas, there are considerable opportunities for beneficial use, including pipeline injection or energy production (e.g., turbines, fuel cells, etc.). While some sites are remote without a large energy demand, some sites are more energy intensive which makes it more cost effective to implement beneficial use projects that provide energy to the site or surrounding sources.





Landfills are not energy intensive and there is significant cost to clean up the landfill gas to remove contaminants, specifically siloxanes. However, due to the large quantity of landfill gas consistently produced, there are many landfills that beneficially use the gas to generate energy that powers surrounding residences.



Wastewater treatment plants are also energy intensive and the gas also requires significant treatment to remove contaminants, such as siloxanes. On-site power generation is a common beneficial use of digester gas. Power can be generated from fuel cells, turbines, micro-turbines, internal combustion engines, and boilers. With the diversion of food wastes to existing digesters at wastewater treatment plants in the near future, it is anticipated more digester gas will be generated which should result in more beneficial use projects. Flaring for organic liquid storage and organic liquid loading was also evaluated for beneficial use. The opportunities were not as evident largely due to the low volume of gas generated and diversity of the gas stream. The main application for these source categories is emission controls of vapors created from the transfer or storage of organic liquids. Potentially, vapors could be liquefied and recovered for re-use; however, at this time, such a requirement might not be cost effective due to the low-volume and low-emissions.

PUBLIC PROCESS

The development of PR1118.1 – Control of Emissions from Non-Refinery Flares was conducted through a public process. SCAQMD held nine Working Group Meetings at the Headquarters in Diamond Bar on August 25, 2017, October 24, 2017, January 10, 2018, March 8, 2018, April 4, 2018, June 12, 2018, July 25, 2018, ~~and~~ September 11, 2018 and November 15, 2018. The Public Workshop was held on October 17, 2018 with an additional Public Consultation ~~m~~Meeting on October 30, 2018. Staff presented PR1118.1 at the October 19, 2018 and December 19, 2018 Stationary Source Committee ~~m~~Meetings.

The Working Group is composed of representatives from potentially affected businesses, environmental groups, public agencies, consultants, and the general public. The purpose of the working group meetings is to discuss proposed concepts and work through the details of staff's proposal and address key issues. Separate stakeholder meetings and 20 site visits were conducted that focused on specific stakeholder issues.

Chapter 2

BARCT ASSESSMENT

Staff conducted an assessment of BARCT for non-refinery flares. 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 ~~s~~State law, BARCT emission limits take into consideration environmental impacts, energy impacts, and economic impacts. In addition to NOx reductions sought in the proposed 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-effectiveness contained in this report and at the macro level as part of the ~~S~~socio-economic assessment contained in a separate report.

The RECLAIM Working Group raised a concern as to the scope of "best available retrofit control technology" that the SCAQMD must impose for all existing stationary sources after RECLAIM has ended pursuant to Health & Safety Code §40440(b)(1). Stakeholders have argued that use of the word "retrofit" precludes the SCAQMD from requiring an emissions limit that can only be cost-effectively met by replacing the basic equipment with new equipment. Staff disagrees with this position, the use of the term "retrofit" does not preclude replacement technology. Public policy, case law, the statutory framework, and a review of dictionary definitions all support this view.

The on-line Merriam-Webster Dictionary defines "retrofit" in a manner that does not preclude replacing equipment. That dictionary establishes the following definition for retrofit: "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."[1]. This definition does not preclude the use of replacement parts as a retrofit.

The on-line Dictionary.com is more explicit in allowing replacement parts. It includes the following definitions for retrofit as a verb: "1) ~~T~~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) ~~T~~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) ~~T~~to replace existing parts, equipment, etc., with updated parts or systems."[2]. This definition clearly includes replacement of existing equipment within the concept of "retrofit." Accordingly, the use of the term "retrofit" can include the concept of replacing existing equipment.

Moreover, the statutory definition of "best available retrofit control technology" does not preclude replacing existing equipment with new cleaner equipment. Section 40406 provides: "As used in

[1] https://www.merriam-webster.com/dictionary/retrofit
[2] http://www.dictionary.com/browse/retrofit

this chapter, 'best available retrofit control technology' means an emission limitation that is based on the maximum degree of emission reduction achievable, taking into account environmental, energy, and economic impacts by each class or category of source." Thus, it is clear that BARCT is an emissions *limitation*, and is not limited to a particular technology, whether add-on or replacement. Thus, retrofit technology does not preclude replacement technologies.

Public policy also supports staff's position. The argument suggesting replacement equipment is precluded would have an effect contrary to the purposes of BARCT. For example, staff has proposed a BARCT that may be more cost-effectively ~~be~~ met for diesel fueled engines by replacing the engine with a new Tier IV diesel engine, rather than installing additional add-on controls on the current engine, which may be many decades old. If the SCAQMD were precluded from setting BARCT for these sources, the oldest and dirtiest equipment could continue operating for possibly many more years, even though it would be cost-effective and otherwise reasonable to replace those engines. There is no policy reason for insisting that replacement equipment cannot be an element of BARCT as long as it meets the requirements of the statute including cost-effectiveness.

The case law supports an expansive reading of BARCT. In explaining the meaning of BARCT, the California Supreme Court held that BARCT is a "technology-forcing standard designed to compel the development of new technologies to meet public health goals." *American Coatings Association v. South Coast Air Quality Mgt. Dist.,* 54 Cal. 4th 446, 465 (2012). In fact, the BARCT requirement was placed in state law for the SCAQMD in order to "encourage more aggressive improvements in air quality" and was designed to augment rather than restrain the SCAQMD's regulatory power. *American Coatings, supra,* 54 Cal. 4th 446, 466. Accordingly, BARCT may actually be more stringent than BACT, because BACT must be implemented today by a source receiving a permit today, whereas BARCT may, if so specified by the SCAQMD, be implemented a number of years in the future after technology has been further developed. *American Coatings, supra,* 54 Cal. 4th 446, 467.

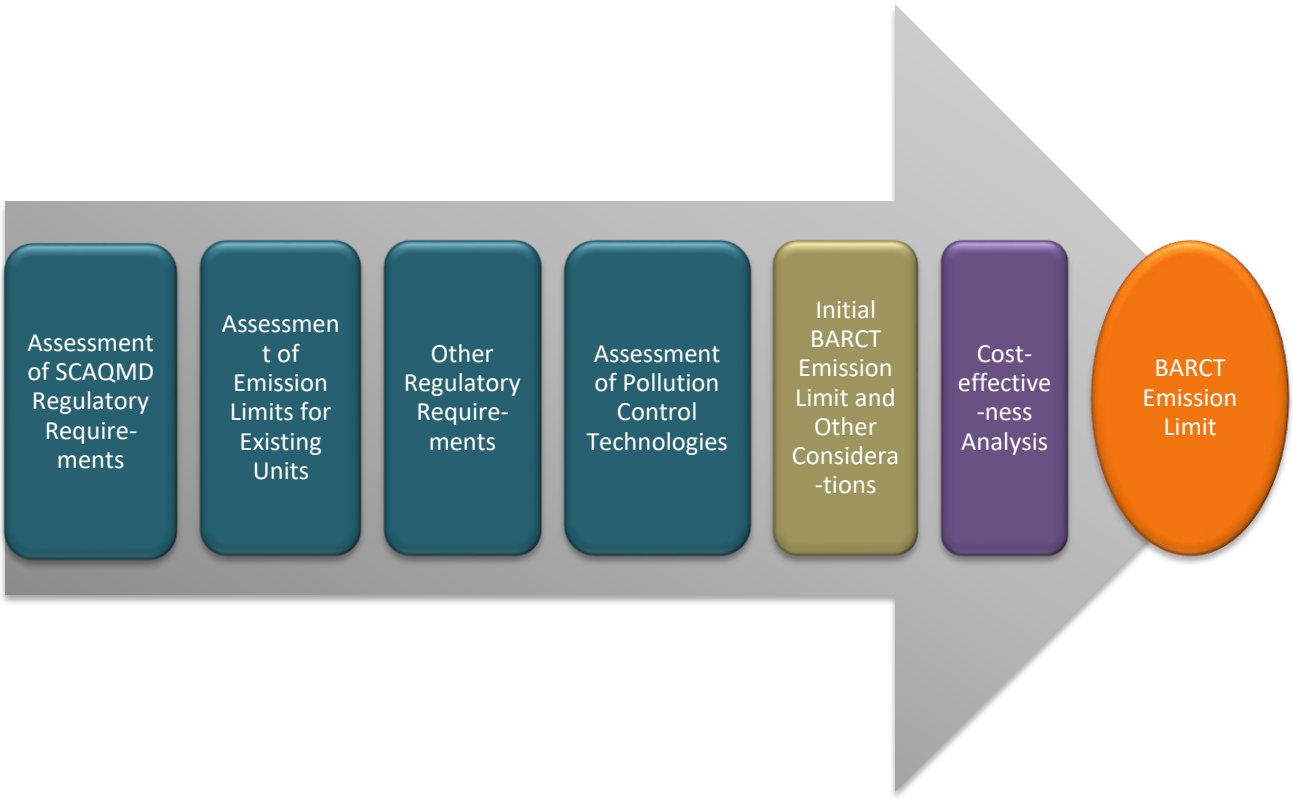
The Supreme Court further held that when challenging the SCAQMD's determination of the scope of a "class or category of source" to which a BARCT standard applies, the challenger must show that the SCAQMD's determination is "arbitrary, capricious, or irrational." *American Coatings, supra,* 54 Cal. 4th 446, 474. Therefore, the SCAQMD may consider a variety of factors in determining which sources must meet any particular BARCT emissions level. If, for example, some sources could not cost-effectively reduce their emissions further because their emissions are already low, these sources can be excluded from the category of sources that must meet a particular BACT. Therefore, the SCAQMD may establish a BARCT emissions level that can cost-effectively be met by replacing existing equipment rather than installing add-on controls, and the SCAQMD's definition of the category of sources which must meet a particular BARCT is within the SCAQMD's discretion as long as it is not arbitrary, capricious, or irrational.

Lastly, public policy supports SCAQMD's position that BARCT can include equipment replacement, and even if it was concluded 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.

The steps for a BARCT analysis (see Figure 6) consist of:

- Assessment of SCAQMD Regulatory Requirements
- Assessment of Emission Limits for Existing Units
- Other Regulatory Requirements
- Assessment of Pollution Control Technologies
- Initial BARCT Emission Limit and Other Considerations
- Cost-effectiveness Analysis
- Final BARCT Emission Limit

Figure 6: BARCT Assessment



Assessment of SCAQMD Regulatory Requirements

As part of the BARCT assessment, staff reviewed existing SCAQMD regulatory requirements that affect NOx emissions at non-refinery flare facilities. SCAQMD Rule 1147 – NOx Reductions from Miscellaneous Sources (Rule 1147) applies to gaseous and liquid fuel fired combustion equipment and includes incinerators, afterburners, thermal oxidizers, and other combustion equipment, including flares. The NOx emission limits in Rule 1147 are the following:

Table 2: Rule 1147 NOx Emission Limits

Equipment Category	NOx Emission Limit ppm @ 3% O2 dry, or Pound/MMBtu		
	Process Temperature		
	≤ 800°F	> 800°F and >1200°F	≥1200°F
Other Unit	30 ppm or 0.036 lb/MMBtu	30 ppm or 0.036 lb/MMBtu	60 ppm or 0.008 lb/MMBtu

Rule 1147 indicates the emission limits only apply to burners in units fueled by 100 percent natural gas. The flares subject to PR1118.1 are typically not 100 percent natural gas, but rather biogas or produced gas, although the facilities may use natural gas as assist gas (additional gas needed to allow for combustion). Affected facilities primarily use their flares to destroy combustible vapors or gases in the waste stream; therefore, the Rule 1147 emission limits do not apply.

Other Regulatory Requirements

As part of the BARCT assessment, staff examined NOx limits (see Table 3) for non-refinery flares promulgated by other regulatory agencies. Staff reviewed Santa Barbara County Air Pollution Control District (SBCAPCD) Rule 359 – Flares and Thermal Oxidizers and San Joaquin Valley Air Pollution Control District (SJVAPCD) Rule 4311 – Flares. The SJVAPCD rule is applicable to both refinery and non-refinery flares. SBCAPCD is applicable to oil and gas production, non-emergency refining, and transportation industries. It excludes emergency flares and includes thermal oxidizers.

In contrast, PR1118.1 is only applicable to *non-refinery* flares. SCAQMD Rule 1118 applies to flares at refineries, hydrogen plants, and sulfur recovery units flares used for emergencies and uncontrolled release of gases and vapors from process upsets or planned turn-around and start-ups.

Table 3: Other Jurisdiction Flare Emission Limits

Heat Release Rate (MMBtu/hr)	SBCAPCD Effective June 1994		SJVAPCD Effective June 2009	
	NOx (lb/MMBtu)	VOC (lb/MMBtu)	NOx (lb/MMBtu)	VOC (lb/MMBtu)
<10	0.0952	0.0051	0.0952	0.0051
10-100	0.1330	0.0027	0.1330	0.0027
>100	0.5240	0.0013	0.5240	0.0013

Assessment of Pollution Control Technologies

As part of the BARCT assessment staff conducted a technology assessment to evaluate NOx pollution control technologies for non-refinery flares. Staff reviewed scientific literature, vendor information, and strategies utilized in practice. The technologies are presented below along with the applicability for use with various types of flare gas from industries generating combustible gases or vapors.

Flare Technology

Open Flares

A flare is a control device that is utilized to control a VOC stream by piping it to a burner that combusts the VOC containing gases. Early flares were designed as elevated, candlestick-type flares that have an open flame with a specially designed burner tip, and auxiliary fuel to achieve nearly 98 percent VOC destruction. The destruction efficiency is driven by flame temperature, residence time in the combustion zone, and turbulent mixing of the components. Complete combustion results in the conversion of all the VOCs to carbon dioxide and water but also results in the emission of NOx, sulfur oxides (SOx), and ~~carbon monoxide~~CO. Open flares have a high rated capacity and long service life. They are low-cost, simple to use, and reliable but they are also noisy, emit smoke, heat radiation, and light. There are few open flares remaining in the SCAQMD. Table 4 shows the number of open flares understood to still be operating in the SCAQMD jurisdiction and the total estimated emissions. Open flares cannot be source tested due to the open flame and absence of a stack. Unless there was a specified NOx permit limit, a default emission factor was used to estimate the emissions. Both the USEPA's AP-42[3] Compilation of Air Pollutant Emission Factors and Rule 1118 use 0.068 pounds/MMBtu as the default emission factor for an open flare.

Open Flare

Table 4: Non-Refinery Open Flares in the SCAQMD

Number of Open Flares	Estimated NOx Emissions (tpd)	Annual Throughput (MMscf)
11	0.02	418

Enclosed Flares

To mitigate the noise and the visible pollution of the open flame, most non-refinery flares in operation today are enclosed ground flares. In an enclosed flare, the burners are shrouded in a stack that is internally insulated. This stack provides wind protection and reduces noise, luminosity, and heat radiation. Enclosed flares generally have less capacity than open flares, but they are reliable and straightforward to operate. The majority of non-refinery flares subject to PR1118.1 are enclosed ground flares. NOx emissions for ~~E~~enclosed ~~F~~flares may be higher than open flares, but most meet the 1988 BACT NOx limit of 0.06 pounds/MMBtu.

Enclosed Ground Flare

[3] USEPA AP-42 - Compilation of Air Pollutant Emission Factors, available at https://www.epa.gov/air-emissions-factors-and-quantification/ap-42-compilation-air-emissions-factors

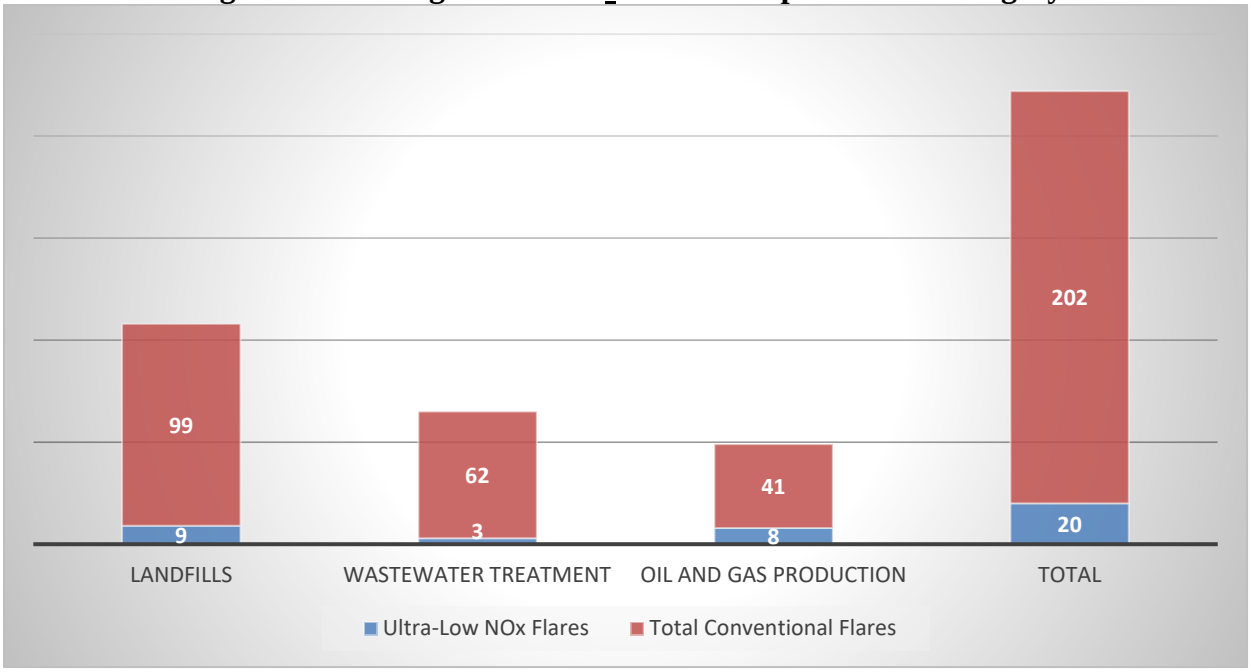
Ultra-Low-NOx Flares

The new generation of ultra-low-NOx flare utilizes a pre-mixed gas stream with air-assist combustion and is designed with ultra-low-NOx burners resulting in decreased NOx and VOC emissions. These ultra-low-NOx flares can achieve NOx emissions of less than 0.025 pounds per Million Btu (see Table 5). The technology has been available for almost a decade. There are two major manufactures of these ultra-low-NOx flares. John Zink Hamworthy Combustion (John Zink) produces Zink Ultra Low Emissions (ZULE®) flare, which electronically control air-to-fuel ratio within the enclosed flare to provide more efficient destruction and less NOx emissions without an increase of ~~carbon monoxide~~CO emissions. The other ultra-low-NOx flare is the Certified Ultra-Low Emissions Burner (CEB®) produced by the Aereon Corporation. It incorporates the premixing of gases and patented wire mesh burner technology that allows for more surface area, resulting in more efficient combustion and retention of heat, with a decrease of NOx emissions. Due to the added complexity in the design of the ultra-low-NOx flares, some stakeholders have experienced reliability issues. This is especially true of the early generation flares installed that do not combust a constant gas flow. More recently, Perennial Energy has introduced an ultra-low-NOx ~~F~~flare, with guarantees of 0.025 pounds of NOx per MMBtu and 0.06 pounds of CO per MMBtu. These flares have a smaller footprint, 100~~%~~ percent stainless steel burners, and use technology that involves automatic air fuel ratio controls with proprietary burner technology.

Ultra-Low-NOx Flare

The following chart shows ~~U~~ultra-~~L~~low-NOx flares and conventional flares that are currently installed at landfills, wastewater treatment plants, and oil and ~~their~~ gas sites. This demonstrates the technology is commercially available, achieved in practice, and thus is feasible.

Figure 7: Existing Ultra-Low-NOx Flares per Source Category



Other Flares

For the Other flaring category, John Zink produces a NOxSTAR Vapor Combustion System capable of reducing emissions for marine terminal loading ~~and unloading~~ by meeting a stringent 99.99 percent destruction efficiency and a 0.02 pounds/MMBtu NOx emission. CEB® flares have also been permitted and installed for use for organic liquid handling.

Table 5: NOx Emissions for Currently Available Control Technology

Manufacturer	Flare	Manufacturer Guaranteed NOx Emissions (lb/MMBtu)
Aereon	CEB®	0.018
John Zink	ZULE®	<0.02
John Zink	NOxSTAR	<0.02
Perennial	Ultra-Low-NOx	<0.02

Cost-Effectiveness Analysis

Cost-effectiveness was examined for flares in each source category. 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 feasible cost-effectiveness, then the control method is considered to be cost effective. The 2016 AQMP established a cost-effectiveness threshold of $50,000 per ton of NOx reduced.

The discounted cash flow method (DCF) was used 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.

To estimate the cost of an ultra-low-NOx flare, staff consulted a variety of vendors and input from stakeholders. Flare installation costs are site specific and staff received a wide variety of estimates, which varied significantly by source category. To account for the variety of data and establish a consistent threshold per source category, staff averaged the capital cost (equipment plus installation) and operation and maintenance cost per industry, to estimate the cost of flare replacement, as seen in Table 6.

Table 6: Cost Estimates for Ultra-Low-NOx Flares

Flare Gas	Size (MMBtu/hr)	Flare Type	Capital Cost	Annual Cost
Digester Gas	27 x 3 Flares*	CEB® 800	$654,767	$100,000
	42.6 x 3 Flares*	ZULE®	$603,933	$100,000
	39.33	ZULE®	$1,520,000	$100,000
	12	CEB® 350	$298,800	$28,290
	40	CEB® 1200	$448,200	$42,435
Average:			**$769,375**	**$74,145**
Landfill Gas	75.6	ZULE®	$1,758,339	$121,867
	167	ZULE®	$1,386,400	$219,850
	120	ZULE®	$2,573,208	$305,515
	12	CEB® 350	$622,910	$35,362
Average:			**$1,585,214**	**$170,649**
Produced Gas	40	CEB® 1200	$410,000	$30,000
	17	CEB® 500	$420,000	$19,000
	3.4	CEB® 100	$235,000	
	40	CNTOX8	$1,190,000	$42,000
	27	CEB® 800-CA	$350,000	$30,000
Average:			**$521,000**	**$30,250**

* Costs listed represent the cost per flares.

Averaging these costs provide a fair and balanced value to account for the wide range of data provided and various types of operational needs. PR1118.1 seeks to reduce routine flaring and staff used the percent of the total flare capacity utilized by each flare as a surrogate to determine what would be considered routine use. For this analysis, staff evaluated the cost-effectiveness at different thresholds to determine the most appropriate threshold. When determining the number of flares that would be impacted, staff did not include flares that already meet proposed limits or are eligible for the proposed rule exemptions. The emission reductions were calculated using a

three-year annual average throughput (2015 – 2017) and the difference between the flare's current NOx permit concentration limit and the proposed emission limit.

Table 7 reports the findings of the analysis for each source category, at different thresholds of the percent capacity of a flare utilized, with the corresponding emission reductions and the estimated cost per ton of NOx reduced. To achieve the rule objectives, and ensure any action taken (e.g., replace the flare) would be cost effective and thus, economically feasible, staff chose the threshold based on maximum reduced emissions at a feasible cost-effectiveness. For landfills, the initial evaluation of cost-effectiveness showed ten percent to be above the $50,000 per ton of NOx removed. The changes to the flares affected, which resulted from updated data and changes to the applicable exemptions, now show ten percent is below the $50,000 threshold; however, staff is not proposing to lower the threshold because there would not be additional NOx emission reductions at the lower threshold. PR1118.1 does not contain a Capacity Threshold for other flaring or organic liquid handling, such as bulk loading at marine terminals, railcars, or truck racks, tank degassing, etc. This is because, in part, there are not as many feasible opportunities for beneficial use, the gas streams are diverse, and emissions and throughput are low and intermittent. The emission limits in PR1118.1 for other flaring is 0.06 pounds/MMBtu. This is the BACT limit for biogas that was established in 1988 and represents NOx limits for conventional flares, and should therefore be achievable for conventional flare installation. For organic liquid handling, the limit referenced is the current BACT standard with which new flares currently have to comply.

Table 7: Capacity Threshold Ranges with Cost-Effectiveness

	Capacity Threshold	# flares exceeding threshold	Emission Reductions (tpd)	Estimated Cost Effectiveness
Oil and Gas	3%	9	0.016	$57,985
	5%	**5**	**0.012**	**$43,979**
	10%	4	0.009	$47,225
	20%	3	0.008	$41,348
Landfills	10%	17	0.16	$49,259
	20%	**17**	**0.16**	**$49,259**
	30%	14	0.13	$48,948
	40%	10	0.10	$48,412
Wastewater and Digester Gas	30%	9	0.02	$95,063
	40 or 50%	3	0.009	$70,417
	60%	2	0.008	$52,813
	70%	**1**	**0.007**	**$30,178.85**

Table 8 lists the BARCT emission limit recommendations, which reflect current BACT limits that have been proven to be technologically and economically feasible, and thus qualify for BARCT

BARCT Emission Limit Recommendation

Table 8: Recommended BARCT Emission Limits

Flare Gas	pounds/MMBtu		
	NOx	CO	VOC
Digester gas:			
Major facility	0.025	0.06	0.038
Minor facility	0.06	N/A	N/A
Landfill gas	0.025	0.06	0.038
Produced gas	0.018	0.01	0.008
Other flare gas	0.06	N/A	N/A
Organic liquid Handling:			
Organic liquid storage	0.25	0.37	N/A
	pounds/1,000 gallons loaded		
Organic liquid loading	0.034	0.05	N/A

Organic liquid handling is separated into organic liquid storage and organic liquid loading. The limits are based on BACT standards adopted by the Sacramento ~~Air pollution Control District~~ Metropolitan Air Quality Management District. The limits are equivalent, but, reported with different units for more- accurate applicability and ease of recordkeeping and enforcement. The pounds/MMBtu was calculated based on pounds/1,000 gallons loaded. Emissions are typically calculated based on 1,000 gallons loaded for bulk terminals, marine vessels, trucks, and rail cars as the liquid product is being transferred and can be quantified. For tank farms and pipeline transfer stations, where organic liquids are not being loaded, the pounds per MMBtu is more meaningful. There are many facilities with both tank vapors and truck racks routed to the same flare; however, since the two limits are equivalent, the rule allows a facility to demonstrate compliance with either limit.

Chapter 3

PROPOSED RULE 1118.1

Purpose (Subdivision (a))

The purpose (subdivision (a)) of this rule is to reduce NOx and VOC emissions from flaring produced gas, digester gas, landfill gas, and other combustible gases or vapors and encourage alternatives to flaring.

Applicability (Subdivision (b))

PR1118.1 applies to owners and operators of flares that require a SCAQMD permit at facilities, including, but not limited to, oil and gas production, wastewater treatment facilities, landfills, organic liquid handling.

Definitions (Subdivision (c))

PR1118.1 adds the following definitions to clarify and explain key concepts. Please refer to PR1118.1 for each definition.

Proposed Definitions:

- Annual Throughput
- Biogas
- Capacity
- Capacity Threshold
- Digester Gas
- Facility
- Flare
- Flare Replacement
- Flare Station
- Heat Input
- Landfill Gas
- Major Facility
- Minor Facility
- Notification of Annual Percent Capacity Greater Than Threshold
- Notification of Flare Inventory and Capacity
- Notification of Flare Throughput Reduction
- Notification of Increments of Progress
- Notification of Intent
- Open Flare
- Organic Liquid
- Organic Liquid Loading
- Organic Liquid Storage
- Other Flare Gas
- Oxides of Nitrogen (NOx)
- Percent Capacity
- Pipeline Breakout Station
- Produced Gas

Protocol
Publicly-Owned Facility
Regenerative Adsorption System
Regeneration Gas
Relocate
Utility Pipeline Curtailment
Volatile Organic Compounds (VOC)

Flare Definition (~~p~~Paragraph (c)(10))

PR1118.1 defines the term flare as a combustion device that oxidizes combustible gases or vapors, where the combustible gases or vapors being destroyed are routed directly into the burner without energy recovery. Prior to the development of the flare definition in PR1118.1, there was no established definition of a flare. During the rule process, it became clear that there was no consensus between the following control devices: afterburner, flare, incinerator, or thermal oxidizer. The primary challenge was flares (under this proposed rule definition) might have been permitted as an afterburner or thermal oxidizer in the past because equipment descriptions on permits varied depending on use and the application submitted by the facility. The proposed definition also includes a clarification that flares do not recover energy. This is to distinguish a flare from a burner installed in a device that generates electricity or uses heat to generate steam, etc. A notice was sent to all potentially affected permit holders to make them aware of the rule making so they can participate in the process if the facility believe their equipment qualifies as a flare in accordance with the proposed rule definition. In addition, permitting staff has committed to address the permitting discrepancies with the facilities. For clarification purposes, the following is a brief summary of typical attributes of the different control devices:

Flares

- Primary application: to burn gases capable of sustaining combustion (>300 Btu/scf)
- Waste stream routed directly to the burner
- Open or enclosed
- Enclosed flares feature vertical stack open to the atmosphere
- Ultra-~~L~~low-~~-~~NOx flares include:
    - Fuel pre-mixing
    - Combustion blowers
    - Temperature controls provided by actuated dampers

Thermal Oxidizers

- Primary application: to burn gases that cannot sustain combustion (<300 Btu/scf)
- Typical thermal oxidizer configurations include:
    - Horizontal combustion chamber followed by vertical stack
    - Combustion chamber not open to the atmosphere, need to maintain temperature
    - Combustion blowers
    - Temperature controls
    - Heat recovery

Afterburners

- Primary application: to burn gases that cannot sustain combustion (<300 Btu/scf)
- Fuel gas routed to burner, waste stream fed into chamber above the flame
- Typical afterburners include:
    - Enclosed vertical stack open to the atmosphere
    - Ground level

Incinerators

- Primary application: to combust organic substances contained in waste materials
- Waste material converted into ash, flue gas, and heat

Requirements (Subdivision (d))

PR1118.1 requires owners or operators that install a new flare or replaces or relocates an existing flare to meet the emission limits listed in Table 1 – Emission Limits of the proposed rule (see Table 9). The emission limits are based on staff's BARCT assessment, which reflects h the current BACT limits.

New flares installed at oil and gas production sites that have estimated annual emission of any of the following: four or more tons of ~~sulfur oxides~~SOx, VOCs, NOx, specific organics, particulate matter (PM); or 100 tons per year or more of CO will have further limitations. The throughput to flares that are replaced will be limited to 110 percent of the average throughput for the prior two calendar years immediately preceding the submittal of the permit for the flare being replaced. This proposed limitation is in response to concerns raised; ~~,~~ staff considered various approaches to limit net increases in gases flared. Following flare replacement, flares would no longer be subject to the Table 2 – Annual Capacity Thresholds limiting routine flaring. The 110 percent limit; therefore, seeks to preclude a facility from installing a new flare and increasing the amount of gas flared from replaced flares at oil and gas production facilities. For new flares there is no prior flare throughput activity to establish a limit; therefore, staff is proposing a fixed throughput limit based on the average throughput from oil and gas production subject to PR1118.1 in 2015 and 2016. That average, 40 MMscf/year, would be given a one-time growth factor of approximately 10 percent to set a fixed limit of 45 MMscf/year for new flares that is not replacing an existing flare. Throughput associated with source tests or utility pipeline curtailment will not be included when calculating the throughput limitations above, provided the facility is able to provide documentation that substantiates the throughput sought to be excluded.

Table 9: PR1118.1's Table 1 – Emission Limits

Flare Gas	pounds/MMBtu		
	NOx	CO	VOC
Digester gas[1]:			
Major facility	0.025	0.06	0.038
Minor facility	0.06	N/A	N/A
Landfill gas	0.025	0.06	0.038
Produced gas	0.018	0.01	0.008
Other flare gas	0.06	N/A	N/A
Organic liquid handling:			
Organic liquid storage	0.25	0.37	N/A
	pounds/1,000 gallons loaded		
Organic liquid loading	0.034	0.05	N/A

1. Table 1 – Emission Limits shall continue to apply unless amended or otherwise superseded following a technology assessment, caused to be performed by the Executive Officer, to determine potential alternative limits appropriate for digester gas generated from food waste diverted from landfills.

In October, 2018, the Southern California Alliance of Publicly Owned Treatment Works (SCAP) informed SCAQMD of the potential increase of ammonia from thermophilic anaerobic digestion and the digestion of food wastes. Digester gas burned from these types of digesters may result in higher NOx emissions.[1] The data originated from northern California and shared through California Association of Sanitation Agencies (CASA).~~—~~ Both organizations urged SCAQMD to consider an updated emission limit once a determination is made whether ammonia concentrations will increase from digestion of food wastes or thermophilice digestion. Footnote 1 of Table 1 – Emission Limits, reflects this request and staff's response. Staff will include language in the Board Resolution committing to conduct a technology assessment and report back to the Stationary Source Committee within 12 months of rule adoption. Digestion of food waste is of particular concern, due to ~~Senate Bill~~SB 1383[2] which mandates food waste diversion from landfills to either composting or anaerobic digestion with the goal of beneficially using the biogas. It is anticipated that about 75 percent capacity of that waste diverted as part of ~~Senate Bill~~ SB 1383 will be diverted to existing wastewater treatment plants.

The new data presented by SCAP and CASA requires further studies and affects wastewater facilities throughout California, as the provisions of SB 1383 require the diversion of food wastes to either anaerobic digesters or composting. The SCAQMD will work with the waste water industry, California Air Pollution Control Officers Association (CAPCOA), and applicable state

[1] "Ammonia in Biogas/Digester Gas: Fuel-born NOx Emissions at Flares SCAQMD PR1118.1," Black & Veatch Presentation at SCAQMD (October 2018)

[2] https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201520160SB1383

agencies to assess this potential issue. Facilities with existing flares may demonstrate compliance with the emission limits contained in Table 1 – Emission Limits by performing a source test or by submitting a prior source test that meets specified criteria. Demonstrating compliance with Table 1 – Emission Limits pursuant to a source test must be repeated every five years.

PR1118.1 establishes capacity thresholds (see Table 10) to identify routine flaring that will apply to existing flares that cannot demonstrate compliance with Table 1 – Emission Limits. Facilities will be required to monitor flare throughput on a monthly basis. The requirements to monitor monthly capacity and annual percent capacity only apply to open flares or flares combusting digester gas, landfill gas, or produced gas. At the end of each calendar year, the facility must determine if the percent capacity is greater than the PR1118.1 Table 2 – Annual Capacity Thresholds. If a flare has an annual percent capacity that is greater than the applicable capacity threshold for two consecutive years, the facility must decide to reduce its throughput to below the capacity thresholds, e.g., through a beneficial use project, or replace the equipment with a flare that meets PR1118.1 Table 1 – Emission Limits. The Table 2 - Capacity Thresholds only apply to open flares or flares combusting digester gas, landfill gas, or produced gas. Flares combusting "other flare gas" or "organic liquid handling" do not have to meet the Table 2 - Capacity Thresholds or monitor gas throughput.

Table 10: PR1118.1's Table 2 – Annual Capacity Thresholds

Flare Gas	Threshold
Any gas combusted in an open flare	5%
Digester gas	70%
Landfill gas	20%
Produced gas	5%

Subdivision (d) also contains the compliance schedule for flares that have an annual percent capacity that is greater than the capacity threshold for two consecutive years. The schedule allows additional time for flare throughput reduction, as one objective of the rule is to encourage alternatives to flaring.

To comply with the tiered schedule and alert SCAQMD staff as to the facility's activity, status, compliance option, increment of progress, etc., the following new forms have been developed and draft versions provided in the Appendix to this Staff Report:

- Notification of Flare Inventory and Capacity
- Notification of Annual Percent Capacity Greater Than Threshold
- Notification of Intent
- Notification of Flare Throughput Reduction
- Notification of Increments of Progress

All ~~but~~ the notifications other than the Notification of Flare Inventory and Capacity would be subject to the administrative fee pursuant to Rule 301(x) – Permitting and Associated Fees and the forms will be available on the SCAQMD website. Staff will amend Rule 301 to include a reference to Rule 1118.1. The next amendment to Rule 301(x) will occur prior to July 2019, other than the

Notification of Flare Inventory and Capacity, all other notification in PR1118.1 will occur after January 30, 2020. Therefore, all but one notification fee can be included in Rule 301(x) before any notification would be required by the Rule1118.1. There will be no fee for the one-time Notification of Flare Inventory and Capacity.

PR1118.1 includes an initial Notification of Flare Inventory and Capacity which must be submitted within 30 days of rule adoption *(See draft notification form in Appendix page B-1).* As stated above, there will be no fee associated with this form as Rule 301 will not be amended to include Rule 1118.1 prior to the due date of the form. This notification will be a one-page form for the facility to fill out and submit. It will contain a list of flares at the facility, the permit number, the date of installation, type of gas combusted, maximum rated capacity of each flare, the description of flow meter, information from the manufacturer's nameplate, and the date of the last source test. This information is critical for rule implementation and enforcement. The affected facilities will be required to submit a signed, hardcopy of the Notification of Flare Inventory and Capacity to the SCAQMD because there is not adequate time to develop an approvable electronic system for the notification submittal. Staff will work to provide an option for facilities to electronically submit the subsequent notifications.

Each year any facility that has an annual percent capacity greater than the applicable capacity threshold has to submit a Notification of Annual Percent Capacity Greater Than Capacity Threshold to the SCAQMD within 30 days from the end of the second consecutive calendar year the annual percent capacity is greater than the applicable capacity threshold *(See draft notification form in Appendix page B-12).* The notification will alert staff in Planning, Engineering, and Enforcement. It will be a violation if the facility's flare percent capacity is greater than the capacity threshold and the facility does not submit the notification. If a flare has an annual percent capacity greater than the applicable capacity threshold for two consecutive years, the facility has 60 days to submit a Notification of Intent to inform the SCAQMD if the facility will pursue flare throughput reduction or flare replacement *(See draft notification form in Appendix page B-3).* All notifications other than the notification of flare inventory and capacity will be subject to notification fees pursuant to Rule 301(x) – Permitting and Associated Fees and Notification Forms will be available on the SCAQMD website.

If pursuing flare replacement, the ~~a~~ facility must submit a flare permit application within six months, Publicly-Owned Facilities have one year, from the end of the second consecutive calendar year the annual percent capacity ~~–~~is greater than the applicable capacity threshold~~ for two consecutive years,~~. The permit submission must follow~~ing~~ standard SCAQMD permit application ~~submittal~~ requirements (e.g.~~,~~ fees). The facility has 18 months to install the flare after the SCAQMD permit was issued, with a potential 12 month extension upon Executive Officer approval. Approval of a time extension will be based on the submission containing sufficient details justifying the basis for the request, and demonstrating that the specific circumstances necessitate the additional time, such as providing detailed schedules, engineering designs, construction plans, permit applications, purchase orders, economic burden, and technical infeasibility.

If pursuing flare throughput reduction, the facility must submit a Notification of Flare Throughput Reduction within six months~~;~~. Publicly-Owned Facilities have one year, from the end of the second consecutive calendar year the annual percent capacity~~ that~~ is greater than the applicable capacity

threshold (*see draft notification form in Appendix page B-4).* The notification will include the following information:

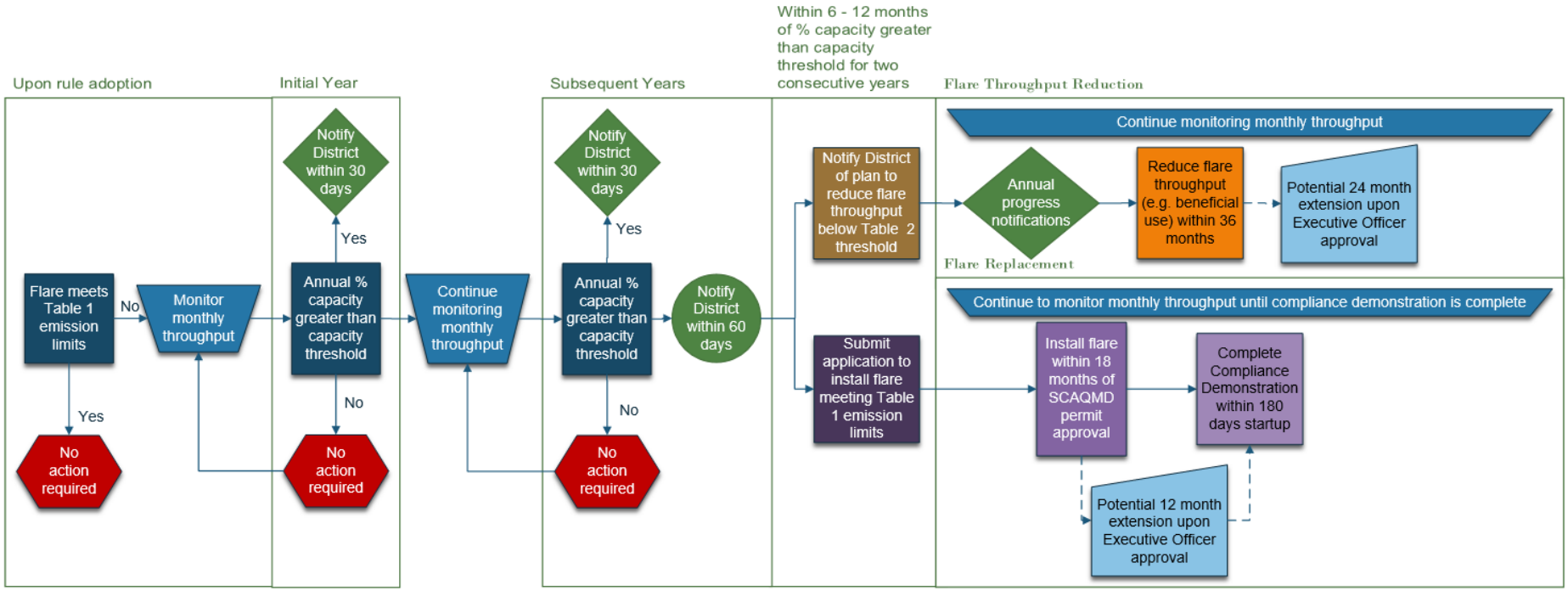
- Alternative method(s) to reduce flaring below threshold and timetable to implement. This should include a detailed description of the beneficial use project including flare gas recovery, such as energy production, transportation fuels or production of Renewable Natural Gas.
- Annually the facility shall report to the SCAQMD on the progress achieving the flare reduction.

The facility has 36 months from the second consecutive year the flare surpassed the capacity threshold to reduce flare throughput below the threshold, with a potential 12 month extension upon Executive Officer approval. Notifications of Increments of Progress, documenting actions taken to reduce flare throughput or incorporate flare gas reduction, will have to be submitted every 12 months from the end of the second consecutive year the annual percent capacity is greater than the applicable capacity threshold *(See draft notification form in Appendix page B-5).* PR1118.1 includes an extension provision that allows for one 24-month extension upon Executive Officer approval. Approval of a time extension will be based on the submission containing sufficient details justifying the basis for the request, and demonstrating that the specific circumstances necessitate the additional time, such as providing detailed schedules, engineering designs, construction plans, permit applications, purchase orders, economic burden, and technical infeasibility. If a facility cannot achieve that deadline, they have the option to seek a variance from the SCAQMD Hearing Board, an independent administrative law panel, for any further extensions.

PR1118.1 also includes a change of compliance pathway provision. This provision will provide flexibility if a facility chooses either flare replacement or throughput reduction but during the execution of the project decides to pursue the other compliance pathway. This will only be allowed one time and the deadline for project completion will be within 36 month from the end of the second consecutive calendar year the annual percent capacity is greater than the applicable capacity threshold. The extension provision will not apply if a facility changes the compliance pathway; however, a facility could seek relief from the Hearing Board.

The following flowcharts demonstrate the rule requirements:

Figure 8: PR1118.1 Requirements



Extension Provision (Subdivision (e))

An owner or operator may submit a request to the Executive Officer at least 60 days prior to the scheduled deadline to complete either the flare throughput reduction or flare replacement. The Executive Office will review the requests and approve or reject based on information included in the request. The owner or operator can request one 12-month extension if pursuing flare replacement and one 24-month extension if pursuing flare throughput reduction. This provision is not available to a facility that elects to change pathways pursuant to paragraph (d)(6).

Source Tests (Subdivision (f))

PR1118.1 contains source test requirements to ensure flares meet emission or exemption limits and must be conducted using SCAQMD test protocols and standardized methodology. Source tests are only required in PR1118.1 for flares complying with the emission limits in Table 1 – Emission Limits or are demonstrating they meet the 30 pound NOx emissions per month exemption in subparagraph (h)(2)(A). Source tests are required to be conducted within 12-months of rule adoption for existing flares and according to the conditions in the permit to construct a new flare, and then at least once every five years thereafter. Source testing protocols must be approved by the SCAQMD at least 90 days prior to the source test. Approved source test protocols do not have to be resubmitted once approved. Source tests conducted prior to rule adoption may be allowed to satisfy the source test requirements upon SCAQMD approval.

The following test methods must be used to determine the NOx, VOC, and CO concentrations:

- SCAQMD Method 100.1 – Instrumental Analyzer Procedures for Continuous Gaseous Emission Sampling for NOx and CO concentrations, and
- SCAQMD Method 25.1 or 25.3 – Determination of VOC Emissions from Stationary Sources for VOC concentration.

The gas composition shall be determined according to the following methods:

- ASTM Method D-3588 – Standard Practice for Calculating Heat Value, Compressibility Factor, and Relative Density of Gaseous Fuels;
- ASTM D1945 – Standard Test Method for Analysis of Natural Gas by Gas Chromatography; or
- ASTM D7833 – Standard Test Method for Determination of Hydrocarbons and Non-Hydrocarbon Gases in Gaseous Mixtures by Gas Chromatography.

Monitoring, Recordkeeping, and Reporting Requirements (Subdivision (g))

The Monitoring, Recordkeeping, and Reporting Requirements (MRR) of subdivision (g) are divided into two sections, the first section addresses how facilities must comply with the capacity threshold provision and the second section contains general MRR requirements. For the percent capacity determination, facilities must install fuel meters and monitor the throughput to the flare or flare stations monthly. Monthly throughput records must be maintained and can be recorded in either units of volume (MMscf/hour) *(See Appendix page B-6)* or heat input (MMBtu/hour) *(See Appendix page B-7)*. Either metric, not both, can be used for monthly throughput determinations, but the same metric must be used throughout the calendar year. The following shows the percent capacity calculations by both volume and heat input:

Figure 9: Percent Capacity Calculations

By volume:

$$Percent\ Capacity_{MMscf} = \frac{Total\ Annual\ Throughput\ \left(\frac{MMscf}{year}\right) \Big/ x\ \frac{hour}{year}}{\text{Capacity (MMscf/hour)}}\ x\ 100\%$$

By heat input:

$$Percent\ Capacity_{MMBtu} = \frac{Total\ Annual\ Heat\ Input\ \left(\frac{MMBtu}{year}\right) \Big/ x\ \frac{hour}{year}}{\text{Capacity (MMBtu/hour)}}\ x\ 100\%$$

x = the time period in hours/year that records are required to be maintained and recorded.

Exemptions (Subdivision (h))

PR1118.1 exempts flares subject to other SCAQMD rules including:

- Flares subject to Rule 1118 - Control of Emissions from Refinery Flares and flares that are anticipated to be subject to Proposed Rule 1109.1. This includes all flares located at asphalt plants; biodiesel plants; hydrogen production plants fueled in part with refinery gas; petroleum refineries, and sulfur recovery plants, and hydrogen production plants, and
- Rule 1147 where only natural gas is routed directly to the burner.

PR1118.1 also has low-use exemptions, including flares:

- At landfills that ~~that~~ generate less than 2,000 MMscf/year and have either ceased accepting waste or is classified by California Department of Resources Recycling and Recovery as an Inert Waste Disposal Site or an Asbestos Contaminated Waste Disposal Site. These landfills have declining gas quality and quantity, so installing a new flare is not reasonable.
- That emit less than 30 pounds of NOx each calendar month. In the event the flares exceed this limit, it will be subject to the provisions of subdivision (d), or
- That are used 200 hours or less per calendar year, or the fuel use equivalent to 200 hours per calendar year. In the event the flares exceed this limit, it will be subject to the provisions of subdivision (d)

PR1118.1 also includes the following exemptions:

- Flares with a various locations permit as these flares can serve as a temporary solution to new operations not producing the quantity or quality to meet the proposed emission limits.
- Flares combusting regeneration gas. Regeneration gas is produced when impurities are being removed from landfill or digester gas. The gas clean up system usually employs two catalyst beds to clean the gas, one catalyst bed is actively cleaning the biogas while

the other catalyst bed is being regenerated. The gas used to clean/regenerate the catalyst cannot be used beneficially and is directed to a small flare. These flares only exist at facilities engaging in a beneficial use projects such as power generation. In the spirit of encouraging beneficial use, these flares will be exempt. However, these flares are only exempt when combusting regeneration gas. Most regeneration flares are fueled with biogas to maintain the flame and the regeneration gas is routed in above the flare. If there is no regeneration gas being combusted and the flare is solely combusting biogas, the flare will be subject to the rule requirements.

- Flares where only butane or propane, or a combination of butane and propane, is routed directly into the burner.
- Open flares are exempt from the source test requirements since they cannot be source tested.
- The throughput, heat input, NOx emission, and time accrued during source testing does not have to be included in the percent capacity, the 30 pounds/month, or 200 hour calculations.

POTENTIALLY IMPACTED FACILITIES

There are ~~154~~153 facilities and ~~296~~295 flares that are potentially applicable to Proposed Rule 1118.1. These facilities were identified in SCAQMD permitting and AER systems as operating a flare; however, the list may not include those facilities permitted as an afterburner or thermal oxidizer yet meet the PR1118.1 definition of a flare. Thus, this list may not be all inclusive. Of the ~~154~~153 facilities, ~~21~~20 facilities are currently in the NOx RECLAIM program. Staff identified 16 facilities and ~~25~~23 flares that potentially will be required to take action as their current flare activity surpasses the applicable capacity threshold. Of those 16 facilities, one is currently in the NOx RECLAIM program. The following is the list of potentially impacted flares:

Table 11: Existing Flares that Surpass the Proposed Capacity Threshold Based on 2015 – 2017 Throughput

	Facility ID	Facility Name	Gas Flared	Number of Flares Impacted
1	150400	BREITBURN OPERATING L.P.	Produced gas	1
2	150209	BREITBURN OPERATING L.P.	Produced gas	1
3	150201	BREITBURN OPERATING L.P.	Produced gas	1
4	172872	BREITBURN OPERATING L.P.	Produced gas	1
5	119219	CHIQUITA CANYON LLC	Landfill Gas	1
6	139865	CITY OF BURBANK WATER AND POWER	Landfill Gas	1
7	13662	CITY OF WHITTIER LANDFILL	Landfill Gas	1
8	9163	INLAND EMPIRE UTILITIES AGENCY	Digester Gas	1
9	45262	LA COUNTY SANITATION DISTRICT - SCHOLL CANYON	Landfill Gas	4

	Facility ID	Facility Name	Gas Flared	Number of Flares Impacted
10	69646	ORANGE COUNTY WASTE & RECYCLING - FRANK R. BOWERMAN	Landfill Gas	3
11	52753	ORANGE COUNTY WASTE & RECYCLING - PRIMA DESHECHA	Landfill Gas	1
12	74413	REDLANDS CITY - CALIFORNIA STREET LANDFILL	Landfill Gas	1
13	156312	ROSECRANS ENERGY	Produced gas	1
14	7068	SAN BERNARDINO COUNTY SOLID WASTE MANAGEMENT	Landfill Gas	2
15	50299	SAN BERNARDINO COUNTY SOLID WASTE MANAGEMENT - MID VALLEY	Landfill Gas	2
16	49111	SUNSHINE CANYON LANDFILL	Landfill Gas	1
			Total Flares	~~25~~23

The following is the list of facilities identified as having non-refinery flares in the SCAQMD.

Table 12: Facilities with Non-Refinery Flares in the SCAQMD

	Facility ID	Facility Name	# of Flares	Gas Flared
1	16642	ANHEUSER-BUSCH LLC., (LA BREWERY)	1	Digester Gas
2	89186	COCA-COLA	1	Digester Gas
3	13596	COLTON CITY WASTEWATER	1	Digester Gas
4	2537	CORONA CITY, DEPT OF WATER & POWER	1	Digester Gas
5	109608	CR & R INC	1	Digester Gas
6	7417	EASTERN MUNICIPAL WATER DIST	1	Digester Gas
7	19159	EASTERN MUNICIPAL WATER DIST	1	Digester Gas
8	10983	EASTERN MUNICIPAL WATER DIST.	1	Digester Gas
9	1703	EASTERN MUNICIPAL WATER DISTRICT	1	Digester Gas
10	13088	EASTERN MUNICIPAL WATER DISTRICT	2	Digester Gas
11	147371	INLAND EMPIRE UTILITIES AGENCY	1	Digester Gas
12	9163	INLAND EMPIRE UTL AGEN, A MUN WATER DIS	1	Digester Gas
13	1179	INLAND EMPIRE UTL AGEN, A MUN WATER DIS	1	Digester Gas
14	22674	L.A. COUNTY SANITATION DIST VALENCIA PLT	3	Digester Gas

	Facility ID	Facility Name	# of Flares	Gas Flared
15	800214	LA CITY, SANITATION BUREAU (HTP)	6	Digester Gas
16	10245	LA CITY, TERMINAL ISLAND TREATMENT PLANT	2	Digester Gas
17	800236	LA CO. SANITATION DIST	12	Digester Gas
18	94009	LAS VIRGENES WATER DIST.	3	Digester Gas
19	155877	MILLERCOORS, LLC	1	Digester Gas
20	17301	ORANGE COUNTY SANITATION DISTRICT	3	Digester Gas
21	29110	ORANGE COUNTY SANITATION DISTRICT	3	Digester Gas
22	14898	PALM SPRINGS WASTEWATER	1	Digester Gas
23	20604	RALPHS GROCERY CO	1	Digester Gas
24	12923	RIALTO CITY	1	Digester Gas
25	9961	RIVERSIDE CITY, WATER QUALITY CONTROL	3	Digester Gas
26	11301	SAN BERNARDINO CITY MUN WATER DEPT (WRP)	1	Digester Gas
27	20237	SAN CLEMENTE CITY, WASTEWATER DIV	1	Digester Gas
28	51304	SANTA MARGARITA WATER DIST	1	Digester Gas
29	181040	SANTA MARGARITA WATER DIST	1	Digester Gas
30	13433	SO ORANGE CO WASTEWATER AUTHORITY-RTP	2	Digester Gas
31	3866	SO ORANGE CO. WASTEWATER AUTHORITY	1	Digester Gas
32	10198	VALLEY SANITARY DIST	1	Digester Gas
33	150667	VENTURA FOODS	1	Digester Gas
34	20561	WATSON LAND COMPANY	1	Digester Gas
35	118526	WESTERN MUNICIPAL WATER DIST.	1	Digester Gas
36	50402	YUCAIPA VALLEY WATER DISTRICT	1	Digester Gas
37	140373	AMERESCO CHIQUITA ENERGY LLC	1	Landfill Gas
38	173846	AZUSA LAND RECLAMATION,INC	1	Landfill Gas
39	113518	BREA PARENT 2007,LLC	1	Landfill Gas
40	119219	CHIQUITA CANYON LLC	2	Landfill Gas
41	139865	CITY OF BURBANK/WATER AND POWER	1	Landfill Gas
42	42086	CITY OF UPLAND LANDFILL	1	Landfill Gas
43	13662	CITY OF WHITTIER LANDFILL	1	Landfill Gas
44	45262	LA COUNTY SANITATION DIST SCHOLL CANYON	12	Landfill Gas
45	42514	LA COUNTY SANITATION DIST (CALABASAS)	9	Landfill Gas

	Facility ID	Facility Name	# of Flares	Gas Flared
46	50418	O C WASTE & RECYCLING, OLINDA ALPHA	2	Landfill Gas
47	69646	OC WASTE & RECYCLING, FRB	5	Landfill Gas
48	52753	OC WASTE & RECYCLING, PRIMA DESHECHA	1	Landfill Gas
49	74413	REDLANDS CITY (CALIFORNIA ST LANDFILL)	1	Landfill Gas
50	15793	RIV CO, WASTE RESOURCES MGMT DIST, LAMB	1	Landfill Gas
51	6979	RIV CO., WASTE MGMT, BADLANDS LANDFILL	2	Landfill Gas
52	7068	SAN BER CNTY SOLID WASTE MGMT	2	Landfill Gas
53	50299	SAN BER CNTY SOLID WASTE MGMT MID VALLEY	3	Landfill Gas
54	49111	SUNSHINE CANYON LANDFILL	4	Landfill Gas
55	139938	SUNSHINE GAS PRODUCERS LLC	1	Landfill Gas
56	113674	U S A WASTE OF CAL(EL SOBRANTE LANDFILL)	1	Landfill Gas
57	800209	BKK CORP (EIS USE)	10	Landfill Gas (closed)
58	3530	CALMAT PROPERTIES CO (HEWITT PIT LANDFIL	1	Landfill Gas (closed)
59	183607	CARSON RECLAM -TETRATECH	2	Landfill Gas (closed)
60	181904	CHANDLER'S RECYCLING	1	Landfill Gas (closed)
61	57769	CITY OF RIVERSIDE (TEQUESQUITE LANDFILL)	2	Landfill Gas (closed)
62	135369	CORONA DWP LANDFILL	1	Landfill Gas (closed)
63	176967	COYOTE CANYON ENERGY LLC	2	Landfill Gas (closed)
64	145144	ENI OIL & GAS	1	Landfill Gas (closed)
65	79324	HIGHGROVE LANDFILL	1	Landfill Gas (closed)
66	77033	INDUSTRY CITY,CIVIC RECREATIONAL IND AUT	1	Landfill Gas (closed)
67	49805	LA CITY, BUREAU OF SANIT(LOPEZ CANYON)	7	Landfill Gas (closed)
68	42949	LA CITY, PUB WKS DEPT, SANITATION BUREAU	2	Landfill Gas (closed)
69	95566	LA CITY, TOYON CANYON LANDFILL	1	Landfill Gas (closed)
70	24520	LA CNTY SANITATION DISTRICT-PALOS VERDES	8	Landfill Gas (closed)
71	25070	LA CNTY SANITATION DISTRICT-PUENTE HILLS	26	Landfill Gas (closed)
72	42633	LA COUNTY SANITATION DISTRICTS (SPADRA)	6	Landfill Gas (closed)
73	21189	LACO SAN DISTRICT - MISSION CYN	2	Landfill Gas (closed)
74	60384	LOS ANGELES BY-PRODUCTS	2	Landfill Gas (closed)

	Facility ID	Facility Name	# of Flares	Gas Flared
75	104086	MM LOPEZ ENERGY LLC	1	Landfill Gas (closed)
76	84157	MONTEBELLO CITY	1	Landfill Gas (closed)
77	35102	MOUNTAIN GATE COUNTRY CLUB	1	Landfill Gas (closed)
78	106164	OC WASTE - VILLA PARK	1	Landfill Gas (closed)
79	181426	OC WASTE & RECYCLING, COYOTE	3	Landfill Gas (closed)
80	52743	OC WASTE & RECYCLING, SANTIAGO	3	Landfill Gas (closed)
81	53860	PICK YOUR PART AUTO WRECKING	1	Landfill Gas (closed)
82	68609	PICK YOUR PART AUTO WRECKING	1	Landfill Gas (closed)
83	60302	RIV CO WASTE MGMT (EDOM HILL)	1	Landfill Gas (closed)
84	11434	RIV. CO. WASTE RES. MGR. DBL BUT.	1	Landfill Gas (closed)
85	60315	RIVERSIDE CO - COACHELLA	1	Landfill Gas (closed)
86	5112	RIVERSIDE CO. - MEAD VALLEY	1	Landfill Gas (closed)
87	73884	RIVERSIDE CO. WASTE - ELSINORE	1	Landfill Gas (closed)
88	135173	RIVERSIDE CO. WASTE MGT.	1	Landfill Gas (closed)
89	50297	RIVERSIDE COUNTY WASTE MANAGEMENT	1	Landfill Gas (closed)
90	165241	RIVERSIDE COUNTY, CORONA	1	Landfill Gas (closed)
91	58044	SAN BER CNTY SOLID WASTE MGMT - COLTON	2	Landfill Gas (closed)
92	7371	SAN BER CNTY SOLID WASTE MGMT-MILLIKEN	2	Landfill Gas (closed)
93	7699	SYUFY ENT.	1	Landfill Gas (closed)
94	50310	WASTE MGMT DISP &RECY SERVS INC (BRADLEY	2	Landfill Gas (closed)
95	14914	CAL CARBON	1	Other Flaring
96	11245	HOAG HOSPITAL	1	Other Flaring
97	42630	PRAXAIR	1	Other Flaring
98	108742	REMO INC	1	Other Flaring
99	176823	RIALTO BIOENERGY FACILITY, LLC	1	Other Flaring
100	5973	SO CAL GAS CO	1	Other Flaring
101	8582	SO CAL GAS CO	1	Other Flaring
102	800127	SO CAL GAS CO	2	Other Flaring
103	800128	SO CAL GAS CO	2	Other Flaring
104	169754	SO CAL HOLDING, LLC	1	Other Flaring
105	158910	RANCHO LPG HOLDINGS, LLC	1	Other Flaring - Butane
106	44454	STRUCTURAL COMPOSITES IND	1	Other Flaring - Butane
107	12332	GATX CORPORATION	2	Other Flaring - Propane
108	11998	GOODRICH CORPORATION	1	Other Flaring - Propane
109	88359	ALAMITOS COMPANY	1	Produced Gas

	Facility ID	Facility Name	# of Flares	Gas Flared
101	54349	ANGUS PETROLEUM	1	Produced Gas
111	166073	BETA OFFSHORE	2	Produced Gas
112	107551	BOLSA LEASE	1	Produced Gas
113	120098	BREITBURN ENERGY CO.	1	Produced Gas
114	150209	BREITBURN OPERATING L.P.	1	Produced Gas
115	150400	BREITBURN OPERATING L.P.	1	Produced Gas
116	150201	BREITBURN OPERATING LP	3	Produced Gas
117	151539	BREITBURN OPERATING LP	1	Produced Gas
118	172872	BREITBURN OPERATING LP	1	Produced Gas
119	174544	BREITBURN OPERATING LP	2	Produced Gas
120	185578	BRIDGE ENERGY, LLC	1	Produced Gas
121	103480	BRIDGEMARK CORPORATION	1	Produced Gas
122	148894	CALIFORNIA RESOURCES PRODUCTION CORP	1	Produced gas
123	151899	CALIFORNIA RESOURCES PRODUCTION CORP	1	Produced gas
124	109719	COOK ENERGY, INC. KERN LEASE	1	Produced gas
125	143741	DCOR LLC	1	Produced gas
126	175154	FREEPORT-MCMORAN OIL & GAS	1	Produced gas
127	175191	FREEPORT-MCMORAN OIL & GAS	2	Produced gas
128	124723	GREKA OIL & GAS	1	Produced gas
129	13627	HILLCREST BEVERLY	1	Produced gas
130	151532	LINN OPERATING, INC	4	Produced gas
131	131425	MATRIX OIL CORPORATION - RIDEOUT HEIGHTS	2	Produced gas
132	165900	PROS INCORPORATED	2	Produced gas
133	156312	ROSECRANS ENERGY	1	Produced gas
134	184301	SENTINEL PEAK RESOURCES LLC	2	Produced gas
135	45086	SIGNAL HILL PETROLEUM INC	1	Produced gas
136	166595	SO CAL HOLDING, LLC	1	Produced gas
137	83509	THE TERMO CO	1	Produced gas
138	800330	THUMS LONG BEACH	1	Produced gas
139	800325	TIDELANDS OIL PRODUCTION CO	1	Produced gas
140	68112	TIDELANDS OIL PRODUCTION COMPANY, ETAL	1	Produced gas
141	106844	VINTAGE PRODUCTION CALIFORNIA	1	Produced gas
142	144681	WARREN E & P, INC.	2	Produced gas
143	149027	WARREN E & P, INC.	2	Produced gas
144	86463	WEAVER & MOLA DEVELOPMENT (BRINDLE AND THOMAS	1	Produced gas

	Facility ID	Facility Name	# of Flares	Gas Flared
145	800022	CALNEV PIPE LINE, LLC, COLTON STATION	1	Organic Liquid Handling
146	800372	EQUILON	1	Organic Liquid Handling
~~**147**~~	~~124808~~	~~INEOS POLYPROPYLENE~~		~~Organic Liquid Handling~~
~~**148**~~**147**	800057	KINDER MORGAN LIQUIDS TERMINALS, LLC CARSON TERMINAL	1	Organic Liquid Handling
~~**149**~~**148**	800056	KINDER MORGAN LIQUIDS TERMINALS, LLC LA HARBOR TERMINAL	1	Organic Liquid Handling
~~**150**~~**149**	800129	SFPP, L.P. Colton Terminal	1	Organic Liquid Handling
~~**151**~~**150**	800279	SFPP, L.P. Orange Terminal	1	Organic Liquid Handling
~~**152**~~**151**	800278	SFPP, L.P. Watson Station	1	Organic Liquid Handling
~~**153**~~**152**	176377	TESORO LOGISTICS MARINE TERMINAL 2	1	Organic Liquid Handling
~~**154**~~**153**	137722	VOPAK TERMINAL LONG BEACH INC,A DELAWARE	1	Organic Liquid Handling
		Total	~~296~~295	

EMISSION INVENTORY AND EMISSION REDUCTIONS

Staff estimates the current NOx emission inventory for non-refinery flares to be approximately one ton per day. The emission inventory was estimated using a three-year average flare throughput and the NOx permit limit. The three-year average throughput was to address year-to-year variations and staff used 2015 – 2017 as it is the most recent and complete verifiable dataset available. The throughput was obtained through data reported by the facilities in their Annual Emission Reports (AER). If AER data was not available, staff relied on Rule 1150.1 Annual Reports which contained throughput data for landfills. Staff also conducted outreach to the flare owners to obtain missing data points. For some flares, throughput information was not available so staff did not include any emissions from those facilities in the inventory; thus, the inventory is likely under estimated. In addition, as discussed earlier, the emissions from oil and gas production have been much higher in the past due to production levels and price of barrel. Further, some old permits did not include NOx limits for flares. In those cases, staff defaulted shrouded flares to 0.06 pounds/MMBtu, the BACT limit from 1988, and open flares to 0.068 pounds/MMBtu, based on the default limit in Rule 1118. To convert the throughput, reported in Million Standard Cubic Feet (MMscf), to MMBtu, staff used the following default heating values:

Table 13: Default Heating Values

Flare Gas	Heating Value (Btu/scf)
Digester Gas	600
Produced Gas	1,000
Landfill Gas	
Open Landfill	500
Closed Landfill	400
Other Flaring	900

Staff determined the VOC inventory based on the emissions reported in AER, using a two year average from 2015 and 2016 (2017 data was not available). The estimated inventory is 0.45 ~~tpd~~ tons per day and the emission reductions are approximately 0.014 ~~tpd~~tons per day.

To determine the potential emission reductions, staff determined which flares surpass the PR1118.1 Table 2 – Annual Capacity Thresholds in. For each flare, staff determined:

- Maximum rated capacity based on permit descriptions (scf/minute or MMBtu/hr),
- Throughput or heat capacity based on the three-year throughput data and default Btu values, and
- Percent capacity.

For flares that surpass the proposed capacity thresholds, staff calculated the emission reduction if the flare was replaced with an ultra-low-~~-~~NOx flare meeting the PR118.1. Table 1 – Emission Limits. Staff excluded flares that already meet the emission limits and flares eligible for the exemptions (e.g., flares at closed landfills generating less than 2,000 MMscf/year, low-use flares or low-emitting flares). Staff estimates there will be ~~28~~23 affected flares that will need to take action generating approximately 0.18 tons of NOx reduced per day. These reductions are an underestimation, since it assumes the continuance of flaring, however, more reductions are achieved if all the gas is handled beneficially and without NOx emissions. The following table estimates the emissions reductions per source category:

Table 14: Emission Reductions by Source Category

Gas Flared	Number of Affected Flares	NOx Reductions (tpd)	VOC Reductions (tpd)
Produced Gas	5	0.012	0.0015
Landfill Gas	19	0.16	0.012
Digester Gas	1	0.007	0.0004
TOTAL	**23**	**0.18**	**0.014**

INCREMENTAL COST-EFFECTIVENESS

Health and Safety Code Section 40920.6 requires an incremental cost-effectiveness analysis for BARCT rules or emission reduction strategies when there is more than one control option which would achieve the emission reduction objective of the proposed amendments, relative to ozone, CO, ~~sulfur oxides~~SOx, ~~oxides of nitrogen~~NOx, 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 options as compared to the next less expensive control option.

Incremental cost-effectiveness is calculated as follows:

$$\text{Incremental cost-effectiveness} = (C_{alt} - C_{proposed}) / (E_{alt} - E_{proposed})$$

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

PR1118.1 only requires flares that surpass the Table 2 Annual Capacity Threshold to be replaced or for flare throughput be reduced. The progressively more stringent control option is to require all flares emitting higher than the Table 1 – Emission Limits to be replaced if they do not meet any of the proposed exemptions.

Produced Gas

The proposed control option will impact five flares at oil production sites, ~~will~~ cost a total of $4,967,840, and achieve 113 tons of NOx emission reduction over the estimated 25 year life of the flares. The progressively more stringent control option would impact approximately 28 ~~landfill~~ flares at oil production sites, would cost a total of $27,819,902, and achieve 272 tons of NOx emission reduction over the 25 year life of the flares. The incremental cost-effectiveness for replacing all higher emitting flares is $143,927 per ton of NOx reduced as calculated below.

Incremental cost-effectiveness = ($27,819,902 – $4,967,840) / (272 – 113) = $143,927 per ton of NOx reduced. Thus, the progressively more stringent control option was not chosen.

Landfills

The proposed control option will impact 19 landfill flares, ~~will~~ cost a total of $80,770,898, and achieve 1,627 tons of NOx emission reduction over the 25 year life of the flares. The progressively more stringent control option would impact approximately 34 landfill flares, would cost a total of $144,537,397, and achieve 1,916 tons of NOx emission reduction over the 25 year life of the flares. The incremental cost-effectiveness for replacing all higher emitting flares is $220,445 per ton of NOx reduced as calculated below.

Incremental cost-effectiveness = ($144,537,397 – $80,770,898) / (1,916 – 1,627) = $220,445 per ton of NOx reduced. Thus, the progressively more stringent control option was not chosen.

Wastewater Treatment Plants and Digesters

The proposed control option will impact ~~1~~ one flare combusting digester gas, ~~will~~ cost a total of $1,927,674, and achieve 64 tons of NOx emission reduction over the 25 year life of the flares. The progressively more stringent control option would impact approximately 45 ~~landfill~~ flares that combust digester gas, ~~would~~ cost a total of $86,745,335, and achieve 401 tons of NOx emission reduction over the 25 year life of the flares. The incremental cost-effectiveness for replacing all higher emitting flares is $251,218 per ton of NOx reduced as calculated below.

Incremental cost-effectiveness = ($86,745,335 – $1,927,674) / (401 – 64) = $251,218 per ton of NOx reduced. Thus, the progressively more stringent control option was not chosen.

Chapter 4

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 Rule 1118.1 implements Control Measure CMB-03 and CMB-05. The 2016 AQMP ranked Control Measure CMB-03 ninth and CMB-05 sixth in cost-effectiveness. Further, proposed PR1118.1 has been designed to consider the cost-effectiveness triggering action on behalf of the affected facility.

SOCIOECONOMIC ASSESSMENT

A Draft Socioeconomic Impact Assessment is prepared and it is scheduled to be released on December 5th, 2018 prior to the SCAQMD Governing Board Hearing on PR1118.1, which is anticipated to be heard on January 4th, 2019.

CALIFORNIA ENVIRONMENTAL QUALITY ACT

PR1118.1 is considered a "project" as defined by the California Environmental Quality Act (CEQA) and the SCAQMD is the designated lead agency. Pursuant to SCAQMD's Certified Regulatory Program (CEQA Guidelines Section 15251(l); codified in SCAQMD Rule 110) and CEQA Guidelines Section 15070, the SCAQMD has prepared an Environmental Assessment (EA) for PR1118.1, which is a substitute CEQA document, prepared in lieu of a Negative Declaration with no significant impacts. The EA is 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.

The environmental analysis in the Draft EA concluded that PR1118.1 would not generate any significant adverse environmental impacts. Because PR1118.1 is not expected to have statewide, regional, or area-wide significance, a CEQA scoping meeting was not required pursuant to Public Resources Code Section 21083.9(a)(2). Further, since no significant adverse impacts were identified, an alternatives analysis and mitigation measures were not required pursuant to CEQA Guidelines Section 15252(a)(2)(B). The Draft EA was released for a 32-day public review and comment period from October 26, 2018 to November 27, 2018, and three~~two~~ comment letters were received during the public comment period on the analysis presented in the Draft EA. Responses to the letters have been prepared and are included in Appendix E to the Final EA.

The Final EA has been included as an attachment to the Governing Board package. Prior to making a decision on the adoption of PR1118.1, the SCAQMD Governing Board must review and certify the Final EA, including responses to comments, as providing adequate information on the potential adverse environmental impacts that may occur as a result of adopting PR1118.1.

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 Rule 11118.1 is needed to comply with USEPA RACM/BACM requirements and to establish BARCT requirements for non-refinery flares, including 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 Rule 1118.1 pursuant to the California Health and Safety Code Sections 39002, 40000, 40001, 40440, 40702, 40725 through 40728, and 41508.

Clarity

Proposed Rule 1118.1 is written or displayed so that its meaning can be easily understood by the persons directly affected by it.

Consistency

Proposed Rule 1118.1 is in harmony with and not in conflict with or contradictory to, existing statutes, court decisions, or state or federal regulations.

Non-Duplication

Proposed Rule 1118.1 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 proposing Rule 1118.1, the following statutes which the SCAQMD hereby implements, interprets, or makes specific are referenced: Health and Safety Code sections 39002, 40000, 40001, 40702, 40440(a), and 40725 through 40728.5.

COMPARATIVE ANALYSIS

The following comparative analysis has been prepared pursuant to Health and Safety Code Section 40727.2, which requires a comparative analysis of a proposed rule with any Federal or District rules and regulations applicable to the same source.

Table 15: PR1118.1 Comparative Analysis

Rule Element	PR1118.1	Rule 1147	SJVAPCD Rule 4311	SBCAPCD Rule 359	40 CFR Part 60 Subpart WWW	43 CFR Parts 3100, 3160 and 3170
Applicability	This rule applies to owners and operators of flares that require a SCAQMD permit at facilities, including, but not limited to, oil and gas production, wastewater treatment facilities, landfills, organic liquid loading stations, and tank farms.	This rule applies to manufacturers, distributors, retailers, installers, owners, and operators of ovens, dryers, dehydrators, heaters, kilns, calciners, furnaces, crematories, incinerators, heated pots, cookers, roasters, fryers, closed and open heated tanks and evaporators, distillation units, afterburners, degassing units, vapor incinerators, catalytic or thermal oxidizers, soil and water remediation units and other combustion equipment with nitrogen oxide emissions from natural gas that require a District permit and are not specifically required to comply with a nitrogen oxide emission limit by other District Regulation XI rules.	This rule is applicable to operations involving the use of flares	Applies to the use of flares and thermal oxidizers at oil and gas production sources, petroleum refinery and related sources, natural gas services and transportation sources, and wholesale trade in petroleum/petroleum products.	Applies to each municipal solid waste landfill that commenced construction, reconstruction, or modification after July 17, 2014.	This final regulation aims to reduce the waste of natural gas from mineral leases administered by the Bureau of Land Management
Requirement	Emission limits: Digester gas (minor) – NOx limit 0.06 lbs/MMBtu Digester gas (major) – NOx limit: 0.025 lbs./MMBtu; CO limit: 0.06 lbs./MMBtu; VOC limit: 0.038 lbs./MMBtu Landfill gas – NOx limit: 0.025 lbs./MMBtu; CO limit: 0.06 lbs./MMBtu; VOC limit: 0.038 lbs./MMBtu Produced gas – NOx limit:0.018 lbs./MMBtu;	NOx Emission Limits: Afterburner, Degassing Unit, Remediation Unit, Thermal Oxidizer, Catalytic Oxidizer or Vapor Incinerator: $\leq$800^{o} F: 60 ppm or 0.073 lb/mmBtu; > 800^{o} F and <1200^{o} F: 60 ppm or 0.073 lb/mmBtu	Flame shall be present at all times combustible gases are present; equipped with automatic ignition or pilot flame; capable of detecting flame presence; emission limits; flare minimization plan.	Planned flaring shall not include sulfur compounds exceeding 239 ppmv; flares shall be smokeless; continuous flame monitoring for pilot; flare minimization plan; emission mitigation plan; emission and operational limits.		This rule requires operators to take various actions to reduce waste of gas, establishes clear criteria for when flared gas will qualify as waste.

Rule Element	PR1118.1	Rule 1147	SJVAPCD Rule 4311	SBCAPCD Rule 359	40 CFR Part 60 Subpart WWW	43 CFR Parts 3100, 3160 and 3170
	CO limit: 0.01 lbs./MMBtu; VOC limit: 0.008 Other flare gas – NOx limit: 0.06 lb./MMBtu; CO limit: N/A; VOC limit: N/A; Other organic liquid storage – NOx limit: 0.25 lb./MMBtu; CO limit:0.37 lb./MMBtu; VOC: N/A; Organic liquid loading – NOx 0.034 lbs./1,000 gallons loaded; CO limit: 0.05 lbs./1,000 gallons loaded; VOC: N/A					
Reporting	Notification of annual percent capacity > applicable flare gas; Notification of change to flare throughput reduction; Notification of flare inventory and capacity; Notification of flare throughput reduction; Notification of increments of progress annually; Notification of intent required if percent capacity is greater than threshold listed in Table 2 for 2 consecutive years.. One time extension requests must be in writing	Source test shall have been conducted no more than ninety (90) days prior to the date of submittal to the Executive Officer.	Unplanned flare reporting within 24 hours; flaring events reported annually; annual monitoring report.	Source test results for NOx and VOC; sulfur content; monthly volumes of gas flared; annual summary of gas released and exceedances of monthly volume allowances.	Daily written reports or quarterly electronic reports	Provisions specifying when operators must measure the volume of gas vented or flared, and requiring operators to report volume of gas vented or flared. Submit waste minimization plan.
Monitoring	Fuel meter are required, and source tests must be conducted 5-year. Landfill gas may use portable nondispersive infrared detector or equivalent as approved by Executive Officer and calibrated per	Owners or operators of units with installed calibrated non-resettable totalizing time or fuel meters may elect to comply with the requirements of (c)(6) by demonstrating each calendar month that	NOx and VOC emissions monitored, including, hydrogen sulfide through annual monitoring report and flare minimization plan. Continuous analyzers gathers data and colorimetric tubes for hydrogen sulfide.	Monitor of gases flared during planned and unplanned flaring events; monitoring of volume of gas flared during an emergency.	Collection and control design system design plan; install oxygen meter; monthly gauge pressure at gas collection header and well; monitor surface concentrations	Requires use of an instrument-based approach to leak detection. The final rule allows operators to use optical gas imaging equipment, portable analyzers.

Rule Element	PR1118.1	Rule 1147	SJVAPCD Rule 4311	SBCAPCD Rule 359	40 CFR Part 60 Subpart WWW	43 CFR Parts 3100, 3160 and 3170
	manufacturer's specifications. Heat input In lieu of recorded field data, heat input may be estimated using the following default heat input values: Flare (Btu/scf) Digester gas 600 Landfill gas 500 Produced gas 1,000	monthly NOx emissions are less than 22 pounds or less. Monthly emissions with a time meter shall be calculated using the unit's maximum hourly emission rate in pounds multiplied by the hours of operation each calendar month.	Video monitoring is also conducted at refineries.			
Recordkeeping	Maintain records for 5 years; conduct monthly capacity threshold analysis and maintain for 5 years	Monthly recordkeeping of unit use documenting average emissions of less than one pound per day calculated based on a unit-specific non-resettable time meter or a non-resettable unit fuel meter with fuel use corrected to standard temperature and pressure.	Recordkeeping is required for five years, and includes compliance determination, source testing results, emergency flaring data, annual throughput, copy of flare management plan, and copy of annual reports and monitoring data.	A record of monitored volumes shall be kept by the owner or operator of the flare or thermal oxidizer.	Annual emission rate; recordings exceeding 500 ppm; flare temperature ,	Annual record of volume of gas flared or vented.
Fuel Restrictions	Exempts natural gas, propane and butane; regeneration gas; refinery gas	Yes (exempts landfill, digester or other combustible gas or vapor)	Landfill Gas	Sulfur compounds are exempted	None	Produced gas only

APPENDIX A – COMMENTS AND RESPONSES

Public Workshop Comments

Staff held a Public Workshop on October 17, 2018 to provide a summary of PR1118.1. The following is a summary of the comments received and staff's response.

Public Workshop Commenter #1: David Rothbart – Southern California Alliance of Publicly Owned Treatment Works (SCAP)

The commenter expressed the following:

1. Asked whether there were NOx limits for biogas in other air district jurisdictions' non-refinery flare rules.

2. Requested minor source wastewater treatment plants be subject to the 0.06 lb/MMBtu NOx emission limit similar to current BACT limits for minor sources.

3. Asked that a CEQA analysis be conducted for food waste digestion and thermophilic digestion.

Response to Public Workshop Comment 1-1

Biogas is a mixture of different gases produced by the breakdown of organic matter typically generated from sewage and waste (e.g., municipal, green, food). There are other air districts in California that regulate biogas. Both Santa Barbara County Air Pollution Control District (SBCAPCD) – Rule 359 and San Joaquin Valley Air Pollution Control District (SJVAPCD) – Rule 4311 define "Gaseous Fuel," as including landfill, sewage digester, or waste gas. However, Rule 4311 exempts landfills already regulated by Rule 4642 – Solid Waste Disposal Sites. SBCAPCD has no exemptions for landfills and also regulates thermal oxidizers.

Response to Public Workshop Comment 1-2

Due to the recent issues raised regarding potential NOx impacts from upcoming food waste diversion from landfills to digesters, staff has changed the rule proposal to allow a higher NOx limit for minor source wastewater treatment plants and will conduct a technology assessment within 12 months of rule adoption to investigate this potential issue and determine if any further action, such as establishing a new limit, needs to be taken.

Response to Public Workshop Comment 1-3

As stated above, staff will investigate potential NOx impacts that result in food waste diversion pursuant to SB 1383 that seeks to divert food waste from landfills to digesters for beneficial use. The implementation of this state law, its impacts, and other existing requirements will occur regardless of this rule. Since PR1118.1 is not proposing or requiring food waste diversion it is not part of the project description under CEQA. Issues pertaining to food waste diversion would have been part of CEQA analysis for the approval of any implementing regulations for SB 1383.

Public Workshop Commenter #2 – Steve Jepsen – Executive Director, SCAP

The commenter echoed David Rothbart's concerns expressed the following:

1. Concerns over regulating wastewater industry considering the low NOx emissions.

2. Concerns over NOx impacts from food waste diversion and thermophilic digestion

3. Concern over the time line for flare replacement and flare throughput reduction

Response to Public Workshop Comment 2-1

The SCAQMD has been designated an extreme non-attainment for ozone that is comprised of both VOC and NOx emissions and, therefore, SCAQMD rules must achieve all possible emission reductions. Further, this rule will serve as a backstop to limit NOx emission increases in the future. The intent of SB 1383 is for environmentally beneficial uses of biomethane, so increased flaring from food diversion would be contradictory to the state law goals. Without capacity threshold limits on existing flares, there is no assurance the increased gas generation will not lead to increased flare throughput. Under PR1118.1, if the flaring is determined to be routine, there are requirements in place to either reduce the flare throughput or replace the flare with a cleaner flare. Since the public workshop, staff has decided to grant minor sources flaring digester gas the same limit as current minor source BACT.

Response to Public Workshop Comment 2-2

As mentioned in Response 1-2 staff has committed to a technology assessment for food diversion and thermophilic digestion.

Response to Public Workshop Comment 2-3

PR1118.1 includes many opportunities for stakeholders to plan and prepare for flare replacement or flare reduction. Initially, the rule allows two years to measure and determine if the flare exceeds the Table 2 – Annual Capacity Thresholds that would deem the flaring activity as routine, which was a rule objective. Many facilities might already be aware they are currently flaring routinely so can begin the process to replace or reduce the flare throughput prior to reaching that two year threshold. After a flare's annual percent capacity is greater than the applicable Table 2 – Annual Capacity Threshold for two consecutive years, the facility has 6 months to submit the Notification of Intent which identifies the compliance option to be taken. Flare replacement is to be completed within 18 months of issuance of an SCAQMD permit and flare reduction is to be completed within 36 months of surpassing the Table 2 – Annual Capacity Threshold for two consecutive calendar years. The rule also includes an extension provision to allow for one 12 month extension for flare replacement and one 24-month extension for flare throughput reduction. In addition, staff is proposing to extend the timeline for permit submittal or flare throughput reduction notification to 12 months for publicly-owned facilities which tend to be subject to longer decision-making processes. Staff strove to provide sufficient timelines and flexibility to accommodate the stakeholder requests.

Public Workshop Commenter #3 – Chuck Helget – Director, Republic Services

The commenter expressed the following:

1. Cost-effectiveness calculated at 25 year equipment life; his industry uses 15 years.

2. Beneficial use was not clear in rule; commenter wanted to know if existing equipment would qualify.

Response to Public Workshop Comment 3-1

Based on currently available data, flares at affected facilities have a very long service life, in many cases much longer than 25 years. The ultra-low-NOx flares meeting the lower emission limits are more complex, but in comparison to other combustion equipment, are still relatively basic combustion units. The cost-effectiveness calculation considers the 25 years as the service life of the initial equipment as well as the cost for maintenance and upgrades during that same period.

Response to Public Workshop Comment 3-2

Currently, and with rule implementation, any facility has the option to handle their gas beneficially. The flare reduction provision in the proposed rule does not require the installation of an additional beneficial use project, but is an option for the owner/operator to handle gas beneficially and lower use of flare to meet the capacity thresholds. Routing additional gas to existing equipment to reduce flaring throughput would also satisfy the flare reduction requirement.

Public Workshop Comment #4 – Kathy Obergfell – R.A. Nichols Engineering

The commenter expressed the following:

1. For the "other flare" category, there are a wide range of differences between applications and the limits expressed by the marine terminal BACT used in the proposed rule language. The BACT standard should be used for new flare installation in the other flare category.

Response to Public Workshop Comment 4-1

The "other flaring" category was created to regulate flaring not at landfills, wastewater treatment, or oil/gas production sites. During rule development, stakeholders highlighted the variety of diverse sources that be characterized as "other flaring" such as loading and unloading of organic liquids, degassing of storage tanks, tank farms, marine terminals, etc. Staff recognizes the challenges with organic liquid handling particularly when the products can vary. There are promising new technologies that could achieve lower NOx emission but at this time there is limited data to validate the effectiveness of the new technology in all applicable applications. Staff is proposing to separate out "other flaring" from organic liquid loading and organic liquid storage. The NOx limits will reflect current BACT standards. No VOC limits will be included as those operations already have VOC limits in other SCAQMD rules.

- Rule 1149: "In lieu of meeting the requirements of paragraph (c)(2), drain-dry breakout tanks shall be maintained in a vapor tight condition outside the tank shell while the roof is resting upon its support legs and shall be monitored monthly. Records shall be maintained pursuant to paragraph (c)(11)."

- Rule 462: "Each vapor recovery and/or disposal system shall reduce the emissions of VOCs to 0.08 pound or less per thousand gallons (10 grams per 1,000 liters) of organic liquid transferred."

Public Workshop Comment #5 – Susan Stark – Marathon Petroleum

Commented that she agrees with Ms. Obergfell to use BACT for new flare limits.

Response to Public Workshop Comment #5

Please see Response to Public Workshop Comment 4-1.

Public Workshop Comment #6 – Bridget McCann, Western States Petroleum Association

Commented that she submitted written comments and is willing to discuss further.

Response to Public Workshop Comment #6

Please see response to written comment letter #3.

Written Comments

Comment Letter #1

Comment Letter 1

CALIFORNIA RESOURCES CORPORATION

September 13, 2018

Wayne Nastri, Executive Officer
South Coast Air Quality Management District
21865 Copley Drive
Diamond Bar, CA 91765

RE: PROPOSED RULE 1118.1. CONTROL OF EMISSIONS FROM NON-REFINERY FLARES

Dear Mr. Nastri:

California Resources Corporation (CRC) respectfully submits the following comments on Proposed Rule 1118.1 under development by the South Coast Air Quality Management District (SCAQMD). 1-1

(d)(2) Table 2 – Capacity Thresholds by Gas Flared: CRC recommends amending the Process Gas capacity threshold to 20% instead of 5%. As discussed in the working group meetings, the Percent Capacity is based on the Cost Effectiveness threshold of $50,000 per ton of NOx reduced. We believe that the flare cost data used in the evaluation is not representative of the total capital costs. Attachment B shows that the cost of the flare alone is $490,000. A conservative estimate of the capital costs of a flare is $1,190,000 which includes the cost of the flare, engineering, construction and miscellaneous piping, fittings and meters. Annual operating costs are approximately $50,000 for maintenance, testing and parts. With the revised Total Costs, the rule exceeds the $50,000 threshold for cost effectiveness.

CRC respectfully recommends amending the Process Gas Capacity threshold to 20%.

Table 2 - Capacity Thresholds by Gas Flared

Flare Gas	Threshold
Any gas combusted in an open flare	5%
Digester gas	70%
Landfill gas	20%
Process gas	~~5%~~ 20%

Present Worth Value (PWV)		Cost Effectiveness					
PWV = Capital Investment + (Annual O&M x PVF)		Total Costs (PWV x # of affected flares)	CE at 5% Lifetime Reduction	Total Costs (PWV x # of affected flares)	CE at 20% Lifetime Reduction	Total Costs (PWV x # of affected flares)	CE at 30% Lifetime Reduction
$ 1,048,745	AQMD Costs	$ 5,243,725	$ 47,887.90	$ 3,146,235	$ 43,099.11	$ 1,048,745	$ 229,861.92
$ 1,971,000	CRC Actual Costs	$ 9,855,000	$ 90,000.00	$ 5,913,000	$ 81,000.00	$ 1,971,000	$ 432,000.00

Sincerely,

Kristy Monji
Environmental Specialist
Kristy.Monji@crc.com

Attachment B:

ATTACHMENT B – Pricing & Terms

COYOTE NORTH QUOTATION NUMBER: 20131031-169, REV. 3
QUOTATION DATE: January 31, 2014

COYOTE NORTH LTD. CNTOX8 INCINERATOR SYSTEM
(Based on the Quotation Description and Attachment A – Product Specifications)

AVAILABILITY: 10-12 weeks after receipt of order.

1. **Sub-Total / Coyote North Ltd., CNTOX8 Incinerator System:** **$USD 460,000 each**
   (Ex-works: Enid, OK. All applicable shipping, taxes, duties, and fees are cost +10%.)

2. **Sub-Total / Startup Costs:** **$USD 9,000**
   Onsite field installation and start-up technicians @ $USD 750 each per day per person,
   Budget of 6 days 2 Techs on site

3. **Travel Technician:** **$USD 1,300**
   Travel Days of technicians @ $USD 325 each per day per person,
   Budget of days 2 Techs Travel

4. **Travel:** **$USD 4,200**
   Air Travel for 2 Technicians to and from Bakersfield, CA.

5. **Vehicle Costs:** **$USD 1,200**
   Average Rental cost of $150 per day @ 8 days

6. **Subsistence:** **$USD 2,560**
   Average Room cost of $160 per day per Technician @ 8 days

7. **Commissioning and operations spare parts** **$USD 2,560**
   Operating spare parts

8. **Shipping of Incinerator from factory to site** **$USD 12,000 each**
   Permitted loads, over height and over width. One load per Incinerator.

TERMS:
- 15% Upon Submittal of Drawings
- 35% Upon Contractors Ordering of Major Components
- 25% Upon Company's Approval of Fabrication
- 15% Upon Delivery to Site Location
- 10% Upon Commissioning and Start up

PRICE VALIDITY:
The pricing in this quotation is valid for 60 days from the quotation date.

Response to Comment Letter 1

Response to Comment 1-1:

Staff communicated with a former employee of Coyote North, the manufacturer of the flare cited in the comment letter, to verify and better understand the information provided but was informed the company is no longer in existence. It should be noted the cost quotes were based on a project located outside the SCAQMD region which may or may not be applicable for this region. The cost-effectiveness data and analysis for PR1118.1 were based on local installation reflecting local needs. Notwithstanding the above, staff included that data point in the calculation with a slight change to the projected cost for source testing, as the proposed rule requires only one source test every five years and the quote included annual source testing. Even with this value included, the original ~~5%~~ five percent threshold still is under the $50,000 per ton of NOx reduced which is the cost-effectiveness threshold approved under the 2016 AQMP. Thus, staff is not proposing to change the capacity threshold for produced gas.

Comment Letter #2

Comment Letter 2

Yorke ENGINEERING, LLC
www.YorkeEngr.com

October 17, 2018

Mr. Steve Tsumura
Air Quality Specialist
South Coast Air Quality Management District (SCAQMD)
21865 Copley Drive
Diamond Bar, CA 91765
Work: (909) 396-2549
E-mail: STsumura@aqmd.gov

Subject: Proposed Rule 1118.1 – Control of Emissions from Non-Refinery Flares Preliminary Analysis for Hoag Hospital (Facility ID 11245) Based on September 21, 2018 Draft Rule Language

Dear Mr. Tsumura:

On behalf of Hoag Hospital (Facility ID 11245), Yorke Engineering, LLC is submitting this follow-up letter to the one previously submitted on September 19, 2018 illustrating the unique case of the flare at Hoag Hospital in Newport Beach and the impacts of PR1118.1. This analysis is based on draft rule language dated September 21, 2018 and our conversations on October 2 and 3, 2018.

UPDATED HISTORY

The City of Newport Beach has had a combustible and noxious gas problem dating back to the 1920's.[1] Much of the area was afflicted with noxious odors due to hydrogen sulfide, and the threat of fire from methane accumulation. According to historical documentation, the source of the methane was not known as the geological nature of the rocks leads to the potential for natural leakage of methane. A flare was installed around 1977 to mitigate this nuisance.

Hoag is a non-profit hospital operating on land which contains a few abandoned oil and gas wells that originate from as early as the 1920's. Methane and hydrogen sulfide have plagued the area since and the odors were a distinctive feature of the nearby sections of Pacific Coast Highway.

According to SCAQMD Permit Application Number 08514A, the flare began operation in 1977, per City of Newport Beach Utilities Director Joseph Devlin. In 1980, the City of Newport Beach attained a Permit to Operate from SCAQMD. In 1985, a change of ownership application was submitted, transferring the flare to Hoag as Hoag purchased the land from the City of Newport Beach for their Cogeneration Plant. The property already had gas wells operating with the flare to combust the gas.

On September 2, 1980, Frank Maccioli of SCAQMD made the following historical observation of the flare operated by the City of Newport Beach (Attachment 1):

[1] Wright, Merrill E. "Gas Leaks in Newport Beach." *Division of Environmental Geosciences, American Association of Petroleum Geologists, Pacific Section*, vol. 74, 18 May 1996. http://www.searchanddiscovery.com/pdfz/documents/2007/07014priority/fields%20of%20la%20basin/01.pdf.html

LOS ANGELES/ORANGE COUNTY/RIVERSIDE/VENTURA/SAN DIEGO/FRESNO/BERKELEY/BAKERSFIELD
31726 Rancho Viejo Road, Suite 218 ▼ San Juan Capistrano, CA 92675 ▼ Tel: (949) 248-8490 ▼ Fax: (949) 248-8499

> *The enforcement file shows a history of several odor complaints in the area prior to the installation of the subject equipment. Investigations into the source of this odor by the City of Newport Beach determined that it was due to 'seepage' through the ground from a buried source of natural gas with a relatively high H_2S fraction.*

As such, Hoag recognized the necessity to continue operating the flare. Given the high hydrogen sulfide content of the gas, Hoag installed Sulfatreat scrubbers in1998 to remove hydrogen sulfide from the gas prior to combustion. At that time, the flare was also moved from its original location from where the Hoag Conference Center is to its current location. To appease local residences, Hoag also had the flare equipped with a shroud to hide visible flames. A letter dated September 17, 1997 from Joseph M. Tramma of SCAQMD was sent to a local townhome association stating the flare at Hoag was in compliance with all SCAQMD Rules and Regulations. The letter is provided as Attachment 2.

From August 2004 through December 2011, Hoag was able to use the gas beneficially in their boilers located at the Upper Plant. However, naturally occurring subterranean pressures have decreased over time, preventing the gas from reaching the Upper Plant, even with augmentation from dual blowers. Boiler technicians attempted to tune the boiler using the naturally occurring methane but were unable to get the boilers to fire. As such, Hoag now combusts gas in the flare at the Cogeneration Plant. Hoag is not able to pump the gas to the Upper Plant boilers without expensive upgrades to the blowers and the entire piping infrastructure. Hoag estimates the piping length to be approximately 3,000 feet with an elevation gain of about 50 feet from the wells to the Upper Plant boilers.

Hoag upgraded the boilers in 2013 as required by SCAQMD Rule 1146 with new low-NOx burners. The burners are designed to produce low NOx emissions from natural gas combustion. It is not clear whether the new burners would be able to efficiently combust the low-grade naturally occurring methane. The gas has continued to be flared at the Cogeneration Plant since 2012.

Hoag operates a boiler and three cogeneration engines at the Cogeneration Plant. However, the flare gas is not viable for use in the engines because they require high quality natural gas. The Cogeneration Plant boiler has a low-NOx burner designed for natural gas combustion and not for low-grade fuels such as the natural occurring methane. Moreover, the cogen boiler is a back-up used to produce steam during engine downtime and is not online frequently enough to be a consistent source for combusting the flare gas.

UPDATED RULE IMPACT ANALYSIS

Based on an October 2, 2018 phone conversation between Corey Luth of Yorke Engineering, LLC and Mike Krause, Heather Farr, and Steve Tsumura of SCAQMD, the SCAQMD is now considering the gas to be considered "Other Flare Gas" for rule applicability purposes. Mr. Krause acknowledges that the situation at Hoag is an "interesting story." However, we maintain the naturally occurring methane flared at Hoag should be uniquely classified in Table 2 of the proposed rule language dated September 21, 2018. The purpose of the flare at Hoag is to control potential odors and mitigate health risks and fire hazards. Imposing overly-restrictive emission limits may needlessly force the facility to incur excessive costs in the future to upgrade the equipment. In addition, it may cause compliance issues in the future as the composition of the gas is highly variable. A subset of gas analysis results is provided in Attachment 3. Emission guarantees from flare manufacturers may be impossible to achieve and demonstrate via source testing. We request

2-1

that an additional category be added to Table 2 named "Naturally occurring methane" with a capacity threshold of 100%, or a by-name exemption in subdivision (h). 2-2

In the October 2, 2018 phone call, Best Available Control Technology (BACT) emission limits were discussed. SCAQMD stated that the flare should have been subject to the 0.06 lb/MMBTU NOx limit in the past. However, in the Rule Evaluation for A/N 329157, it is acknowledged by the SCAQMD that there is no specific BACT listed for this type of waste gas flare. There were no rules enforcing an emission limit on the flare. As such, the source test conducted in 1998 should only be viewed for baseline informational purposes. 2-3

Per a phone conversation between Corina Chang and Corey Luth of Yorke Engineering, LLC and Mr. Tsumura of SCAQMD on October 3, 2018, Mr. Tsumura is placing phone calls to Varec Biogas and its parent company Westech Industrial to discuss whether the flare is open or enclosed. Prior to receiving calls back from the two companies, Mr. Tsumura stated that, based on the pictures provided by the facility, it appears to be an enclosed flare.

Preliminary cost-effectiveness studies show that it is not economically feasible to replace the flare or pump the flare gas to the Upper Plant for combustion in the boilers; see September 19, 2018 letter. Cost effectiveness estimates are well above the $50,000 per ton NOx reduced, which is the cost threshold documented in the 2016 Air Quality Management Plan (AQMP). Even if the flare is modified at a later date the costs to replace the burner are still not cost effective. 2-4

CONCLUSION

We request that PR1118.1 include a separate gas category in Table 2 for "naturally occurring methane" with a capacity threshold of 100%, or a by-name exemption in subdivision (h). Hoag operates a flare as a service to the citizens of Newport Beach to mitigate odors, health risk, and fire hazards. Preliminary cost studies indicate that replacing the flare and beneficial use of the gas are not cost effective. In addition, the quality and variability of the gas composition make meeting emission guarantees practically impossible.

In Attachment 4, we have a marked-up version of PR1118.1 with our proposed edits to Table 2 and subdivision (h).

Mr. Steve Tsumura
October 17, 2018
Page 4 of 9

Should you have any questions or comments, please contact me at (949) 556-7074.

Sincerely,

Corey Luth
Engineer
Yorke Engineering, LLC
CLuth@YorkeEngr.com

cc: Erik Lidecis, Hoag
Duane Suby, Hoag
Peter Moore, Yorke Engineering
Corina Chang, Yorke Engineering
Dixie Richards, Yorke Engineering

Attachments:

1. Frank Maccioli SCAQMD Field Report
2. Letter from Mr. Joseph Tramma (September 4, 1997)
3. Gas Analysis Results
4. Marked-up PR1118.1
5. Gas Leaks in Newport Beach, Merrill E. Wright

ATTACHMENT 1 - FRANK MACCIOLI SCAQMD FIELD REPORT

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

ENGINEERING DIVISION···FIELD REPORT

NAME OF APPLICANT: CITY OF NEWPORT BEACH
DATE OF INSPECTION: 9-2-80
MAILING ADDRESS: 3300 NEWPORT BLVD., NEWPORT BEACH, CA. 92663
PERMIT APPL. NO.: 05514A
EQUIPMENT LOCATION (ADDRESS): 4006 W. COAST HWY., NEWPORT BEACH CA. 92663
A.P.C.D. ZONE NO.:
REASON PERMIT IS REQUIRED: NEW CONSTRUCTION (✓) CHANGE OF OWNERSHIP ( ) CHANGE OF LESSEE ( ) CHANGE OF LOCATION ( ) EQUIPMENT ALTERATION ( )
DATE CONSTRUCTION AUTHORIZED: —— BY —— TIME SPENT MAKING INSPECTION: FROM 9:30 AM TO 10:30 AM
USUAL OPERATING SCHEDULE FOR THIS EQUIPMENT: 24 HR/DAY, 7 DAY/WK, 50 WK/YR
WEATHER: CLOUDY WIND: SW 0-5 ESTIMATED COST: BASIC EQUIPMENT: $ 20000 A.P.C. EQUIPMENT: $ 5,000
NAMES & TITLES OF PERSONS CONTACTED BY ENGINEER: JOSEPH DEVLIN, UTILITIES DIRECTOR; J. BECKWITH, G. ZEBAL
FOR DUST & FUME PROBLEMS ONLY: PROCESS* WEIGHT (S) N/A LBS./HR. ALLOWED LOSSES: N/A LBS./HR. ESTIMATED LOSSES: N/A LBS./HR.

OFFICIAL EQUIPMENT DESCRIPTION. *CALCULATION OF PROCESS WEIGHT(S). PROCESS DESCRIPTION AND FINDINGS:

EQUIPMENT DESCRIPTION

FLARE, NATURAL GAS, WITH ONE BURNER, VAREC, 4" DIAMETER, AND VENTING ONE 15 H.P. COMPRESSOR AND THREE GAS WELLS.

See description on instruction to Permit Section (new)

BACKGROUND

This equipment is owned and operated by the City of Newport Beach. An N/A was issued on 7-17-80 by Inspector Novak. The contact persons for this inspection were Mr. Joseph Devlin and Mr. J. Beckwith of the City of Newport Beach, and Mr. George Zebal, an engineering consultant for the city responsible for most of the design and maintenance of the equipment. The applicant name was confirmed, and it was stated by Mr. Devlin that this system has been in operation since 1977. The facility is located at the base of a hillside below a hospital and across a highway near a residential area. The enforcement file shows

RECOMMENDED DISPOSITION: (✓) APPROVE FOR PERMIT ( ) APPROVE FOR PERMIT SUBJECT TO CONDITIONS LISTED BELOW. ( ) HOLD. SEE EXPLANATION BELOW. ( ) DENY PERMIT.

REVIEWING ENGINEER: (✓) I CONCUR WITH RECOMMENDATIONS ( ) I DO NOT CONCUR WITH RECOMMENDATIONS ( ) SEE COMMENTS ON ATTACHED PAGE
Date 10/2/80
SIGNATURE Frank J. Maccioli

PAGE 1 OF 7 PAGES 16-50D106 R2-55-80

South Coast Air Quality Management District
Engineering Division....Field Report

NAME OF APPLICANT	APPL. NO.	INSPECTION DATE
CITY OF NEWPORT BEACH	085144	9-2-80

a history of several odor complaints in the area prior to installation of the subject equipment. Investigations into the source of this odor by the City of Newport Beach determined that it was due to "seepage" through the ground from a buried source of natural gas with a relatively high H_2S fraction.

PROCESS DESCRIPTION

The subject equipment essentially pumps gas from the ground and burns the gas. The facility has three "wells" consisting of three 2" diameter, perforated PVC pipes manifolded into the air intake of a compressor system which consists of a M/D Pneumatics compressor, Serial No. 2596 479, equipped with a 15 H.P. Kewman motor, Serial No. J1236428. The compressor system is preceded by a Roy E. Hanson water dropout chamber, Serial No. 170829. Water condensation is removed by manually activating a small drain valve at the bottom of the tank.

The outlet of the compressor is connected to a Burgess-Manning Silencer, Model No. BE0-3. Gas flow then continues through a gas flow measuring device, consisting of an ITT Barton Differential Pressure Unit, Serial No. 202A-138103, 0-1000 psi range.

Gas flow then goes through a Varec Flame Arrestor, 4" diameter, and into a Varec Burner which is located approximately 25 feet above ground. Also present next to the

SIGNATURE Frank J. Macciola

PAGE 2 OF 7 PAGES 50D107

South Coast Air Quality Management District
Engineering Division....Field Report

NAME OF APPLICANT	APPL. NO.	INSPECTION DATE
CITY OF NEWPORT BEACH	08514A	9-2-80

flame arrestor is a 1" diameter Varec Flame check. According to Mr. Zebal, however, this device serves no real purpose any more since it was originally installed in conjunction with an automatic flame lighting unit which no longer is present. There is no water or steam injection system to the burner.

The system uses no supplemental natural gas or combustion air. Two safety devices are present which can turn off the flame. If the water level in the dropout chamber exceeds a certain level, gas flow is shut off and the flame goes out. Similarly, a temperature sensing device in the compressor system shuts off the pump when the gas temperature exceeds 175 °F.

Re-lighting the flame is done by lighting a "wick" at the end of a very long pole and holding this at the tip of the burner until the flame is lit.

A drip tank that appears on the blueprints submitted with the application is no longer in use.

The subject equipment was in operation at the time of the inspection and no visible emissions were observed. The flame was invisible, however its warmth could be felt at the base of the burner, and objects viewed through the flame were distorted due to the effect of heat on the atmosphere.

According to Mr. Zebal, the facility originally had five wells, however, two of them went dry. Each of the

SIGNATURE Frank J. Mecurio

PAGE 3 OF 7 PAGES 50D107

ATTACHMENT 2 - LETTER FROM MR. JOSEPH TRAMMA (SEPTEMBER 4, 1997)

South Coast
Air Quality Management District
21865 E. Copley Drive, Diamond Bar, CA 91765-4182
(909) 396-2000 · http://www.aqmd.gov

September 17, 1997

Mr. Bowie Houghton, President
Newport Beach Townhouse Owners' Association
C/O Gill Management Company
2872 West DeVoy Drive
Anaheim, CA. 92804

Dear Mr. Houghton:

I am responding to your letter, dated September 4, 1997, regarding Hoag Memorial Hospital Presbyterian's (Hoag) proposal to locate a waste gas flare adjacent to their parking lot in the vicinity of 4400 West Coast Highway, Newport Beach, California. Hoag filed Application No. 329157 with the South Coast Air Quality Management District (AQMD) requesting a permit to construct and operate a waste gas flare on June 18, 1997. The proposed flare will replace existing equipment located at the opposite end of the parking lot. The proposed flare will be enclosed so that visible flame will not extend from the flare exhaust and will meet the Best Available Control Technology standard for nitrogen oxide emissions that has been established for landfill and digester gas flares. Hoag's proposal also includes a scrubbing system that will remove more than 99% of the sulfur compounds contained in the waste gas prior to incineration in the flare. Implementation of the sulfur removal system, along with an efficient high temperature flare operation will significantly reduce methane gas emissions and hydrogen sulfide odors noted from the existing flare. Our engineers evaluated the proposal, and determined that the expected air contaminant emissions, including toxic compounds, discharged from the flare would comply with the Rules and Regulations of the South Coast Air Quality Management District (AQMD). The AQMD is required to grant a permit to construct and operate for equipment and processes that are determined to comply with all applicable rules and regulations.

Your questions concerning truck access, traffic and artificial lighting at night for the proposed project do not fall under the purview of the AQMD, and would be best directed to the local city or county planning agency. In response to your request, this letter serves to notify you that a Permit to Construct will be issued to Hoag Memorial Hospital Presbyterian for the installation of a waste gas collection, treatment and flaring system as described in AQMD Application No. 329157.

Thank you for your information pertaining to this project, and if you have further questions, please contact me at (909) 396-2652 or Mr. Gaurang Rawal at (909) 396-2543.

Very truly yours,

Joseph M.Tramma
Air Quality Analysis and Compliance Supervisor
Public Facilities Team

JMT:GCR

CC: D. Russell, AQMD
Certified Mail with Return Receipt.

1947 • 1997 50 YEARS OF PROGRESS TOWARD CLEAN AIR
CLEAN AIR IS EVERY BODY'S BUSINESS

ATTACHMENT 3 – GAS ANALYSIS RESULTS

OILWELL RESEARCH, INC.

[illegible] W. SIXTEENTH STREET
[illegible], CALIFORNIA 908[illegible]
AREA CODE 213 - 436 4254

August 25, 1975

City of Newport Beach
3300 Newport Blvd.
Newport Beach, CA 92660

RECEIVED
SEP 4 1980
SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
ANAHEIM OFFICE

Attention: Mr. Kenneth L. Perry

Gentlemen:

Shown below are the results of analysis on a gas sample taken August 19, 1975 in the Balboa Cove housing area.

	Mol. %
Oxygen	.088
Nitrogen	7.640
Carbon Dioxide	10.381
Hydrogen Sulfide	.004
Methane	81.756
Ethane	.060
Propane	.003
Iso-Butane	.001
N-Butane	.003
Iso-Pentane	.005
N-Pentane	.005
Hexane	.007
Heptane	.028
Octane	.018
Nonane +	.001
Specific Gravity (air = 1)	.688
B.T.U./cu. ft.	832.

Respectfully submitted,

A. O. Byrd

A. O. Byrd

lc

At Virgil Howell's house. #45 Balboa Coves KLP.

[illegible]

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT	PAGES 7	PAGE 4
STATIONARY SOURCE COMPLIANCE DIVISION	APPL NO 329157	DATE 8/29/97
PERMIT APPLICATION EVALUATION AND CALCULATIONS	PROCESSED BY GCR	CHECKED BY

Recently, concerns were raised regarding the applicability of Rule 431.1 for the sulfur content of the waste gas being burned in existing flare that may have approx. 4000 ppm of H_2S. District Prosecutors Office was contacted for the interpretation and applicability of Rule 431.1, and it was determined that the operations will be subject to Rule 431.1. A waste gas sample analysis run by the AQMD Source Testing branch confirmed H_2S level in excess of 3500 ppm (Source Test Report No. 97-0026).

On May 14, 1997, a meeting between Hoag Memorial Hospital representatives (and Counsel) and Distrct staff and Counsel was conducted at the District headquarter. As a result it was agreed to have HOAG expedite the proposed construction project to bring the source in Rule 431.1 compliance, minimize potential violations of Rule 402 and Health and Safety Code Section 41700. In the meantime, District to prepare and file for the order for abatement (stipulated O/A). District had filed a petition for an Order for Abatement under O/A # 4444-1 (scheduled hearing date of July 15, 1997). For further details please refer to the Order for Abatement Case No. 4444-1.

Upon approval and issuance of this new Permit to Construct (A/N 329157), previously issued P/C under A/N 320316 will be cancelled.1

PROCESS DESCRIPTION:

Proposed new construction consists of waste gas collection from the existing well #5, #3, #7A and Balboa Cove well. Two identical gas blower packages, No. 1 and No. 2 (one being a stand by unit) will be installed for gas transport through the sulfur treatment scrubber unit and finally to the new flare. Maximum waste gas flows, over a twenty year period and including future tie-ins from support services buildings , is estimated at 20,100 SCFH (335 scfm), average being 8,500 SCFH (140 scfm). Typical waste gas sample analysis (composite sample), September 3, 1996, used for the project design is (given by applicant);

COMPONENT	MOL. %
METHANE	61.9
CARBON DIOXIDE	14.2
OXYGEN	0.5
NITROGEN	23.0
HYDROGEN SULFIDE	0.4 (4000 ppm)
	TOTAL = 100%

Note: Aromatic and chlorinated hydrocarbons' analysis indicates some of the toxic compounds at level below detection level (< 1.0 PPB), and Benzene = 30.8 PPB. (Please refer to letter from GeoScience Analytical Inc., dated September 5, 1996, Table-3).

Mol. Wt. = 22.9
Specific Gravity = 0.79
BTU/SCF (HHV) = 627.5

Max. waste gas rate (Flare design) = 20,100 SCFH = 335 scfm.

GeoScience Analytical, Inc. "established March 1981"

608 HAILEY COURT SIMI VALLEY, CA 93065 (805) 526-6532 FAX 583-8081 EMAIL GEOSCI10@AOL.COM

September 1, 2015

Hoag Memorial Hospital Presbyterian
One Hoag Drive
Newport Beach, CA 92658-6100

Attn.: Tim Caldwell
Supervisor Plant Operations

RE: Gas Flare Chemical Composition

Dear Mr. Caldwell:

On August 20, 2015 GSA personnel collected flare gas for chemical speciation in a Certified Laboratory under Chain-of-Custody. Samples were collected and analyzed in accordance with EPA and ASTM methodology specifically described in the attached Case Narrative.

Flare gas was analyzed for Fixed Gases, hydrogen sulfide and C1-C6+ hydrocarbons. A complete laboratory report is attached hereto. The following table summarizes the gas composition identified by the subject report:

Compound	Concentration (ppmV)
Methane	698,000.0
Ethane	1,400.0
Propane	36.0
n-Butane	12.0
n-Pentane	ND
n-Hexane	ND
n-Hexane plus	24.0
Hydrogen	ND
Oxygen	156,000.0
Argon	11,300.0
Nitrogen	135,000.0
Carbon Monoxide	ND
Carbon Dioxide	15.6
Hydrogen Sulfide	0.0077

Methods, laboratory analytical data, QA/QC and Chain-of-Custody are attached hereto.

Sincerely yours,

Louis J. Pandolfi
President

Mr. Steve Tsumura
October 17, 2018
Page 8 of 9

ATTACHMENT 4 – MARKED-UP PR1118.1

(Adopted TBD)
(09/21/2018)

PROPOSED RULE 1118.1. CONTROL OF EMISSIONS FROM NON-REFINERY FLARES

(a) Purpose

The purpose of this rule is to reduce NOx and VOC emissions from flaring produced gas, digester gas, landfill gas, and other combustible gases or vapors and to encourage alternatives to flaring.

(b) Applicability

This rule applies to owners and operators of flares that require a SCAQMD permit at facilities, including, but not limited to, oil and gas production, wastewater treatment facilities, landfills, organic liquid loading stations, and tank farms.

(c) Definitions

(1) ANNUAL THROUGHPUT means the volume of gas or vapor in million standard cubic feet (MMscf) that is combusted in a flare or flare station in one calendar year, excluding gas used solely to maintain the pilot light.

(2) ASSIST GAS means a higher heating value gas required for complete combustion of the gas or vapor stream being routed to the flare burner.

(3) BIOGAS includes digester gas or landfill gas produced by the breakdown of organic matter in the absence of oxygen.

(4) CAPACITY is the maximum volumetric flow rate of gas or vapor that the flare or flare station is rated to process in units of scf per minute or the maximum heat input rate the flare or flare station is rated to process in units of million British thermal units (MMBtu) per hour.

(5) CAPACITY THRESHOLD is the percentage of the capacity used to flare gas and is the metric used to define when an owner or operator of a flare or flare station must take action to reduce NOx emissions and/or reduce the throughput to the flare.

(6) DIGESTER GAS means a gas produced from either mesophilic or thermophilic digestion of biodegradable waste, consisting of methane, carbon dioxide and traces of other contaminant gases.

(7) FACILITY is as defined by Rule 1302 – Definitions.

Rule 1118.1 (Cont.) **(TBD)**

(B) Flare replacement or modification pursuant to paragraph (d)(4).

Table 2 - Capacity Thresholds by Gas Flared

Flare Gas	Threshold
Any gas combusted in an open flare	5%
Digester gas	70%
Landfill gas	20%
Produced gas	5%
Naturally Occurring Methane	100%

(3) An owner or operator that submitted a Statement of Intent to reduce the flare throughput shall complete the following pursuant to the schedule set forth in Table 3, with potential extension(s) pursuant to subdivision (e):

(A) Submit a notification to the Executive Officer that includes the following:

(i) Alternative method(s) to reduce flare throughput below Capacity Threshold; and

(ii) Timetable to implement and operate the alternative method.

(B) Submit increments of progress reports which shall include:

(i) Actions completed;

(ii) Actions yet to be completed; and

(iii) Any changes to the original notification.

(C) Reduce the percent capacity of the flare or flare station below the Table 2 thresholds.

(D) The notification submitted under subparagraph (d)(3)(A)shall be considered a plan within the meaning of Rule 306 – Plan Fees.

Table 3

Requirement	Schedule
Submit notification pursuant to paragraph (d)(3)(A)	6 months from surpassing the annual Capacity Threshold for two consecutive years
Submit increments of progress reports pursuant to (d)(3)(B)	12 months from surpassing the annual Capacity Threshold for two consecutive years, and annually thereafter, until flaring is reduced below Table 2 threshold
Reduce flaring below Table 2 thresholds	36 months from surpassing the annual Capacity Threshold for two consecutive years

1118.1 - 4

Rule 1118.1 (Cont.) **(TBD)**

(2) An owner or operator of a flare subject to this rule that emits less than 30 pounds per calendar year shall not be required to meet the emission limits in Table 1 provided:

(A) The flare has a permit that specifies conditions that limits the applicable NOx emissions; and

(B) The flare operates in compliance with the permit condition;

(C) This exemption shall no longer apply in the event the flare surpasses the 30 pound per month NOx emission limit.

(3) An owner or operator of a flare subject to this rule that operates less than 200 hours per calendar year shall not be required to meet the emission limits in Table 1 provided:

(A) The flare has a permit that specifies conditions that limits the operating hours; and

(B) The flare operates in compliance with the permit condition;

(C) This exemption shall no longer apply in the event the flare surpasses the 200 hours per calendar year.

(4) An owner or operator of an open flare shall not be required to conduct source testing pursuant to subdivision (f).

(5) Throughput, heat input, NOx emissions and time accrued during source testing pursuant to subdivision (f) maybe omitted from the calculation of percent capacity pursuant to subparagraph (g)(1)(D), emissions pursuant to paragraph (h)(2), or hours pursuant to paragraph (h)(3).

(6) **The facility operator of Hoag Hospital in Newport Beach.**

1118.1 - 11

ATTACHMENT 5 – GAS LEAKS IN NEWPORT BEACH, MERRILL E. WRIGHT

GAS LEAKS IN NEWPORT BEACH

Merrill E. Wright
Consultant
Huntington Beach, California

INTRODUCTION

The City of Newport Beach has had combustible and noxious gas problems for years. The origin probably lies in the 1920's. Various areas in the city have been affected either by the odor of hydrogen sulphide or from the threat of fire from methane accumulation. Usually the problem has been odor, but some buildings have burned.

Almost all of the affected areas have had hydrocarbon mining or oil well drilling near them. In some instances the wells are leaking. In others there is a question as to the source, but the geological nature of the rocks leads to natural leakage potential.

Limited production took place in and around the city (Fig 1). One oil field is still active on the western edge of the city, where a fire flood was instituted many years ago (Fig. 2). One oil field belongs to the City of Newport Beach and has 15 producing wells (DOGGR, 1995).

None of the productive areas addressed here were very commercial. Most wells were shallow and produced low-gravity oil. Water had a tendency to break through early in the production and drown out the well. Down hole heaters were tried in a number of wells but were found to be a marginal solution at best. The gas leakage areas generally have the poorest, or the oldest abandoned wells. The oldest abandoned wells (1929) have plugs that fit those less demanding times and requirements (Parker, 1943). With the exception of the still-active oil fields, the earlier wells were drilled between 1925 and 1926, with the last wells drilled in 1948. The productive interval was from 650 feet to 1,600 feet. Most of the wells were completed with a surface casing and a water string cemented at the top of the best cored oil show. A slotted liner of varying lengths was set across the productive interval. Sand problems, from the lack of gravel packing and large perforations were common.

The main productive interval is the Miocene "C" sands (Ingram, 1968). This sand interval occurs below a thick shaley interval termed the "C" shale, which is probably the cap for the accumulation. Gas production was not mentioned frequently in the well production histories, but most of the wells flowed for a short time during the initial production phase. The drive mechanism at this shallow depth, must have been solution gas.

All of the oil fields in Newport Beach are on or near the Newport-Inglewood fault zone. Fault branches run near all of the gas leakage areas. Most of the smaller production pools appear to be either fault-trap accumulations or permeability change traps. The Mesa pool to the north is composed of both, a permeability barrier on the south with a fault to the east. The dip is to the north-west with an oil/water contact. The surficial deposits are composed of a thin subareal Holocene sand and shale cover over Pleistocene terrace deposits. Where they are exposed, Miocene outcroppings are grey, silty, poorly-bedded shale that is soft and unctuous (greasy feeling) when found moist. Diatomaceous layers are interspersed among more dense lithologies. The upper sands are typical near beach or river deposits, composed of fine to coarse-grained, granitic source arkosic sands with pebble layers and shell beds.

At Broad Street and Holmwood Drive the source of gas may be either a distant well leak feeding this up dip location, or a natural leak in the out-cropping of the Mesa sand (Zebal, 1975).

At 35th Street and Marcus Avenue a well is almost certainly the cause of the gas leak. A 1926 well produced briefly just 40 feet from the vent.

At the base of the cliff below Hoag Memorial Hospital, there are five old wells that may cause all of or

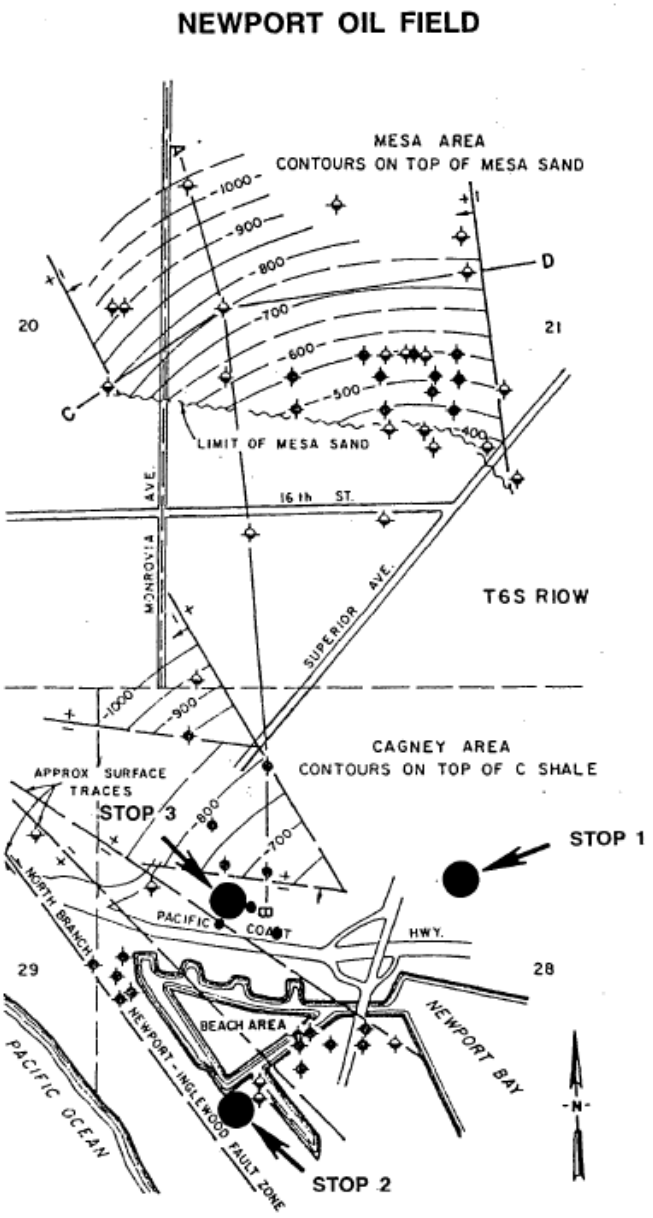


Figure 1. Map of the Newport Oil Field. Three gas leaks are indicated as stops 1, 2, and 3. Contours are on the top of the Mesa Sand and the "C" Shale. This map is modified from Division of Oil and Gas, 1984.

2

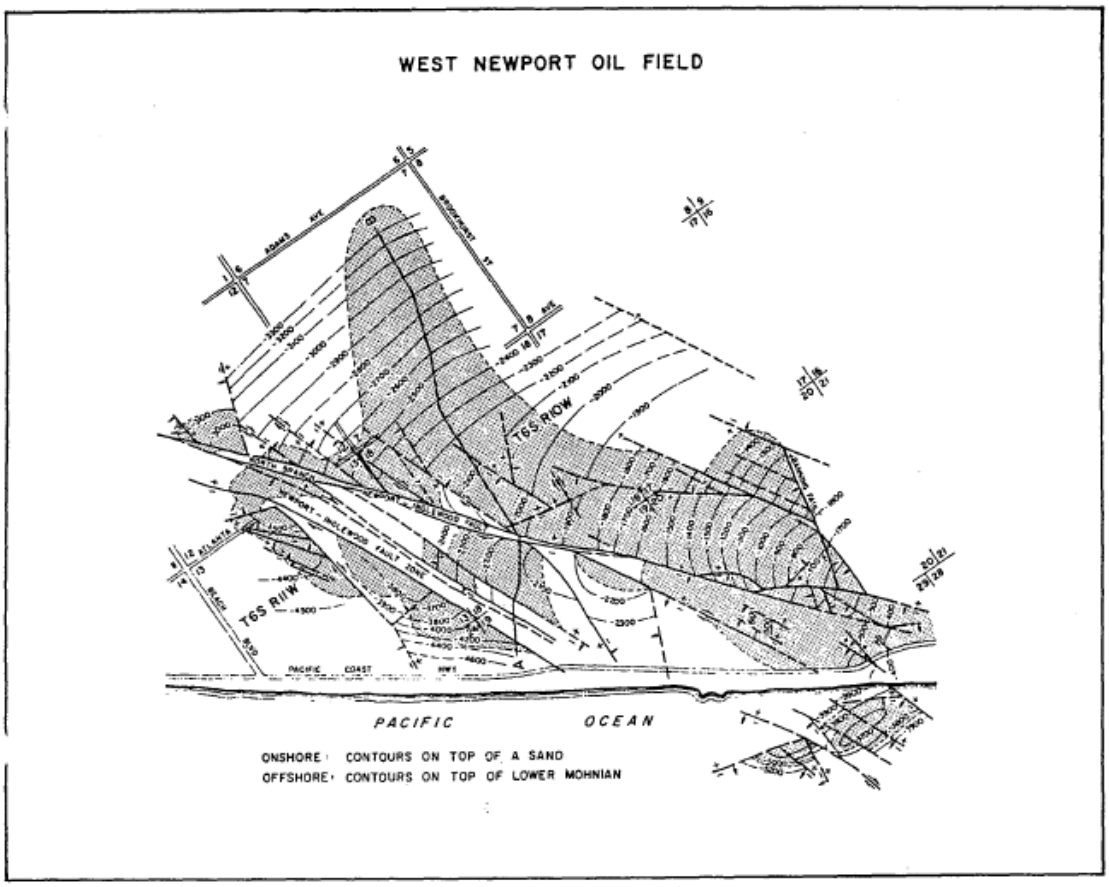


Figure 2. Map of the West Newport Oil Field. The contours are on the top of the "A" Sand and the top of the Lower Mohnian. The map is from Division of Oil and Gas, 1984.

part of the gas leak. One well was abandoned in 1933. The gas leakage problem, however, probably predates the well. This dry hole did have gas and oil shows. The hydrocarbon intervals were not very carefully sealed off in the abandonment.

FIRST STOP-BROAD STREET AND HOLMWOOD DRIVE

The pipe with a box on it next to the olive tree is a low-volume and low pressure continuing emanation that has burned for at least 25 years (Fig. 3). The burning controls the noxious odor of the hydrogen sulphide that is produced with the methane. The nearest well was a dry hole located 700 feet to the west. The nearest productive well was Sunset Pacific Co. "Strobridge B" #1 which is located 2,700 feet to the northwest. The productive Mesa pool was in this area, and generally fans out to the north-west from this well (Fig. 1). The field was a small shallow pool that encompassed only 25 acres. When it was fully developed it contained 13 productive wells and approximately the same number of surrounding dry holes. The productive interval was the upper Miocene Mesa sand at a depth of 600 feet to 450 feet. The

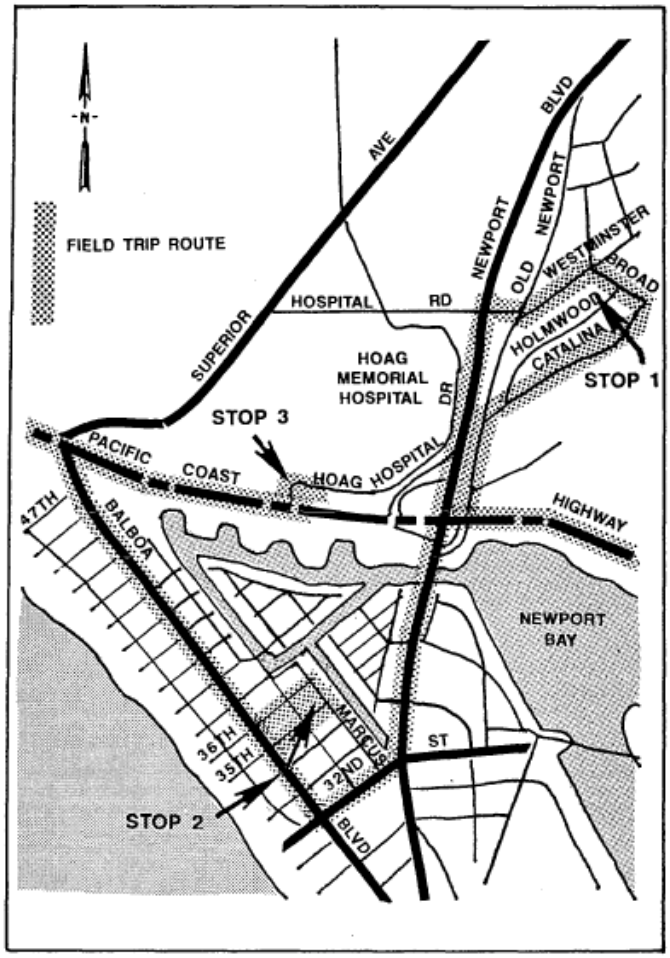


Figure 3. Map of the Newport Bay area showing the location of the methane gas leaks. Stop 1 is a low-volume and low-pressure burn stack. Stop 2 is a gas vent in a high density residential area. Stop 3 is the 90 mcf flare at Hoag Hospital.

the structure is homocline. The limit to the north-west is an oil water contact. The cumulative production is 33,697 barrels of oil, and production peaked at 14,000 barrels of oil per day in 1926.

The environmental solution to this leakage is to continue the burning and maintain the vault. Sealing off this vent will result in break-out at another possibly more dangerous location.

STOP 2 - 35TH ST. AND MARCUS AVE.

This vent is the southern-most gas problem within Newport Beach (Fig. 3). The area had six productive wells and two dry holes within an 800 foot radius. The main leak of both combustible gas and hydrogen sulphide is associated with the locale near the Louis F. Dekay & Son #1 well. The 1925 well history gives its location as approximately the edge of the

second house from the corner of 35th Street and Marcus Avenue. Nothing has caught fire here, but the odor of hydrogen sulphide is very strong and annoying at times. Gas levels as high as 65% by volume were measured in the pipeline trenching dug in the alley.

The well was completed as a Miocene"C" sand producer. It produced for two months at a rate of 3 to 5 barrels per day of 8° API gravity oil. It was deemed uneconomic to continue production. In 1929 the well was abandoned. A wooden plug was placed at 80 feet and cement placed on top. The top of the cement was found at 125 feet. Oil field rubble was thrown in the hole and a surface plug was placed from 46 feet up to the cut-off depth at 20 feet. The leak is mainly in the alley between 35th and 36th Street. A passive collection system was laid under the alley in the form of perforated PVC pipe. This is connected to a passive flare that vents at the top of a metal light standard. The system is helpful but it does not get all of the gas out from under the alley and the adjacent houses. Gas enters the garages and houses from cracks in the slab floors and around plumbing pipes. In 1995 one house was found unsafe for occupancy because of high methane levels.

The best solution for solving this gas problem is to reenter the well, clean it out, and plug off the lower section. This is not possible because of the residences and the power line configuration. One house would have to be removed and the other would have to have a hole torn in it. The well location has not been accurately determined. Soil penetrating devices such as radar and cesium vapor detectors have all failed because of the depth and interference. This leak needs an extraction compressor system to bring it under control.

STOP 3 - GAS FLARE ON THE HOAG MEMORIAL HOSPITAL PROPERTY

This is the largest gas leakage problem and the most extensive recovery and disposal system in Newport Beach (Fig. 3). Methane and hydrogen sulphide have plagued the area since the 1930's, possibly since the 1920's. The odor has been a distinctive feature of Pacific Coast Highway from the arches bridge to Balboa Boulevard. The property on the north side of Pacific Coast Highway was heavily excavated during the 1950's for freeway fill dirt when it belonged to Cal Trans.

In the 1980's Hoag Memorial Hospital purchased the land and the wells which were operated by the City of Newport Beach. They are now operated by the hospital. The sandy Pleistocene upper formation was excavated down to Miocene silty shale.

In 1976, after years of exposure to hydrogen sulphide and combustible gas, five exploratory wells were drilled to determine the extent of the gas accumulation and to be completed as extraction points if gas was found. The recovered production was flared in a burning stack. A precedent for flaring the gas was set in the 1960's when two flares were active on the south side of Pacific Coast Highway, just behind the car rental agency. The wells were connected to a buried perforated PVC collection system under the street and within the residential area. Four ornamental lamps at separate properties were also installed and burned within the housing tract. Three of the five wells were completed. Each encountered a significant gas flow composed of both hydrogen sulphide and combustible gas. Well #1, with the largest vertical section of gas, penetrated the sand at 15 feet and was completed and cased to 42 feet. Deeper penetration to the base of the gas sand was prevented by hole caving.

The gas sand is a slightly moist, grey to bluish grey, very soft and friable, fine to coarse grained sand with some shells and rounded pebbles. Some portions have a yellow sulfur tinge. Number 1 was abandoned in 1989 so that Pacific Coast Highway could be widened. It was replaced by well #6 which penetrated the same gas sand and was completed to 56 feet. Caving prevented deeper penetration. No water table was encountered.

Well #3 was drilled to a depth of 99 feet entirely in the Miocene shale except for four feet of gas sand from 83 to 87 feet. A slightly gas bearing water sand was encountered at 96 feet. In 1989 this well was redrilled for the widening. It was relocated approximately 30 feet to the north and completed in the same sand as wells #1 and #6. Number 5 is still producing. It was drilled to 100 feet and completed in 30 feet of the same sand. It is the only remaining steel liner well.

Nearby there are five other abandoned oil wells. Four wells produced in the forties and fifties. The fifth is a 1933 dry hole that is poorly abandoned and may be a contributor to the leakage. The production interval is not sealed off and even though it was abandoned as a dry hole it did penetrate hydrocarbon bearing zones. The other wells were properly abandoned in 1972.

The three Hoag wells produce 90 MCF of gas per day, all of which is flared from the stack near well

#5. The wells have produced at the same approximate rate since 1976. Until recently, the hydrogen sulphide content of the gas has precluded commercial use. Table 1 gives the gas content at this location. There is a project underway to treat the gas and remove the sulfur. The scrubbers are the tan colored vessels near the flare. When the gas is clean it will be shipped to the hospital boiler room and be used to make heat. The addition of a few more wells could further mitigate this area's gas problem. Carlson (1996) reviews DOGGR's current policy for venting soils in residential areas.

GAS CONTENT IN ppm/v/v C1-C5

WELL	METHANE	ETHANE	PROPANE	BUTANE	PENTANE	CO2	O2	N	H2S
5	702K	499	26	7.3	3.4	156K	7.5K	130K	>100
6	681K	461	24	5.4	2.2	164K	4.0K	128K	>100
7	30K	29	1.4	0.9	0.3	13K	190K	723K	56

Table 1. Gas composition at the Hoag Hospital site on Pacific Coast Highway.

REFERENCES

Carlson, K. M., 1996, Oil Fields in Transition - A Look at California's Oil Well Plugging and Abandonment and Construction Site Plan Review Programs, *in* Clarke, D. D., Otott, G. E., and Phillips, C. C., Old Oil Fields and New Life: A Visit to the Giants of the Los Angeles Basin, Guidebook, Division of Environmental Geology, Pacific Section, American Association of Petroleum Geologists, and the Society of Petroleum Engineers, in press.

Division of Oil and Gas, 1984, California Oil and Gas Fields; Volume II, publication n. TR12. Division of Oil , Gas, and Geothermal Resources of the California Department of Conservation (DOGGR), 1995, 1994 Annual Report of the State Oil and Gas Supervisor; The Eightieth Annual Report: 181 p.

Ingram, W. L., 1968, Newport Oil Field: California Division of Oil and Gas, Summary of Operations --- California Oil Fields, v. 54, no. 2, part 2.

Parker, F. S., 1943, Newport Oil Field: *in* California Division of Mines and Geology Bulletin 118 Chapter VIII, p. 332-334.

Zebal, G.P., and Associates, 1975, Industrial Utilization of Geology: Unpublished report for the City of Newport Beach.

Response to Comment Letter 2

Response to Comment 2-1:

As noted by the commentator, abandoned oil and gas wells on the Hoag Hospital have created a conduit for "seepage" of methane and hydrogen sulfide, thus generating odor complaints (as highlighted in the SCAQMD Engineering Report). Flaring is an effective method to mitigate the odor issue, but, as is the concern and basis for PR1118.1, flaring generates NOx emissions that the SCAQMD is seeking to control pursuant to the directive in the 2016 AQMP. However, since the submittal of this comment letter, SCAQMD staff amended the definition of "Produced Gas" to be consistent with Rule 1148.1 and the BACT determinations of produced gas. This modification defines produced gas generated from the production, gathering, separation, or processing of crude oil. Since Hoag Hospital, who is responsible for these flares, is not extracting or producing crude oil, flaring would no longer be characterized as "produced gas." Hoag Hospital flaring would now be more appropriate to classify as "other flare gas," which has no Table 2 – Annual Capacity Threshold. Thus, the existing flaring at Hoag Hospital would not be subject to recordkeeping or source testing until it is decided to replace with new flare. In other words, Hoag Hospital may continue to operate under the existing permit conditions; however, a new or relocated flare will need to comply with Table 1 – Emission Limits. According to their existing permit, their existing flare has been retrofitted with an ultra-low-NOx flare that already meets the proposed limit in Table 1 – Emission Limits of PR1118.1 of 0.06 pound/MMBtu so no further action would be required at this time.

Comment Letter #3

Comment Letter 3

WSPA

Bridget McCann
Manager, Southern California Region

October 16, 2018

Michael Krause
Manager, Planning and Rules
South Coast Air Quality Management District
21865 Copley Drive
Diamond Bar, CA 91765

Via e-mail at: mkrause@aqmd.gov

Re: WSPA Comments on Proposed Rule 1118.1
Control of Emissions from Non-Refinery Flares

Dear Mr. Krause,

Western States Petroleum Association (WSPA) appreciates this opportunity to provide feedback on South Coast Air Quality Management District (SCAQMD or District) Proposed Rule 1118.1, Control of Emissions from Non-Refinery Flares. The District has stated that this proposed rulemaking is part of the District's larger project to transition facilities in the Regional Clean Air Incentives Market (RECLAIM) program to a command-and-control structure (i.e., the "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 some of them will be impacted by PR1118.1. We have several comments concerning the proposed rulemaking.

On September 21, 2018, the District released preliminary draft rule language and a preliminary Draft Staff Report for PR1118.1, Control of Emission from Non-Refinery Flares. While this rule does not apply to refinery flares, it does apply to flares operating at non-refinery oil and gas production sites. The District has estimated that 288 flares will be subject to this rule, 49 of which burn process gas.[1]

Rule 1118.1(d)(2) would require that existing flares at oil and gas production sites installed prior to the date of adoption of the rule will need to either demonstrate compliance with the emission limits in Table 1 of the rule, or limit use of the flare to less than or equal to 5% of the flare capacity. The proposed emission limits for produced gas are listed in Table 1 below:

Table 1: Proposed Rule 1118.1 Emission Limits for Produced Gas

[1] SCAQMD Preliminary Draft Staff Report, Proposed Rule 1118.1, September 2018, Table 1: http://www.aqmd.gov/docs/default-source/rule-book/Proposed-Rules/1118.1/pr1118-1-pdsr.pdf?sfvrsn=6

Western States Petroleum Association 1415 L Street, Suite 900, Sacramento, CA 95814 805.701.9142 wspa.org

	Emission Limit (lb/MMBtu)		
	NOx	CO	VOC
Produced Gas	0.018	0.06	0.008

SCAQMD anticipates that six (6) process gas flares at oil and gas production sites are used above the 5% capacity threshold.[2]

We have the following comments on the preliminary proposed rule language:

1. **Annual heat input should be defined.** WSPA believes this term needs to be defined in rule, as it is used to determine percent capacity by heat input in section (g). 3-1
2. **The process for extensions needs to be clarified.** SCAQMD has included an extension provision in the rule language, but has not included information on what the process will be if an extension is not granted. This should be clarified in the proposed rule language. 3-2
3. **The District Proposal is not cost effective for oil and gas flares.** SCAQMD's analysis uses an average capital cost of $545,000 along with expected NOx emission reductions at variable capacity thresholds to determine the cost effectiveness of flare replacement.[3] As the result of a confidential, de-identified and aggregated member projected cost survey, WSPA projects that the actual capital cost of a typical flare replacement at a (non-refinery) oil and gas facility is likely to be in the range of $1,200,000 to $1,900,000. Using the District's Discounted Cash Flow method, a real interest rate of four percent, and a 25-year equipment life, along with the average annual cost ($32,350), and the emission reductions expected at a 5% capacity threshold presented in the AQMD Staff Report,[3] the cost effectiveness for flare replacement at (non-refinery) oil and gas facilities would be between $80,000 and $113,000 per ton of NOx reduced. The 2016 AQMP established a cost-effectiveness threshold of $50,000 per ton of NOx reduced. Therefore, replacement of flares at (non-refinery) oil and gas facilities would not be cost effective at the 5% capacity threshold. Using the emission reductions expected for the flares operating at or above 20% capacity,[3] we estimate that cost effectiveness would be reduced to between $70,000 and $99,000; still exceeding the District's cost effectiveness threshold. As such, the District's proposal should be revised to exclude (non-refinery) oil and gas flares. 3-3
4. **The requirement for existing flares combusting other flare gas needs to be clarified.** WSPA suggests that the regulatory wording be changed as follows (in bold, underlined italics) so that the requirement for existing other flares is clear:

[2] SCAQMD Preliminary Draft Staff Report, Proposed Rule 1118.1, September 2018, Table 11: http://www.aqmd.gov/docs/default-source/rule-book/Proposed-Rules/1118.1/pr1118-1-pdsr.pdf?sfvrsn=6

[3] SCAQMD Preliminary Draft Staff Report, Proposed Rule 1118.1, September 2018, Table 7: http://www.aqmd.gov/docs/default-source/rule-book/Proposed-Rules/1118.1/pr1118-1-pdsr.pdf?sfvrsn=6

(d)(2) An owner or operator of a flare or flare station ***in the categories listed in Table 2 and*** installed prior to [date of adoption] shall: (the rest of the language in (d)(2) can remain the same since Table 2 does not include other flare gas). 3-4

5. **NOx and CO Limits for New and Replaced Flares in the Other Category.** WSPA requests that source materials that substantiate emission limits and cost effectiveness be shared with stakeholders. District Staff agreed to share source materials with stakeholders for the Proposed Rule 1109.1 working group process, and source materials should be available to stakeholders in all RECLAIM landing rule working groups. 3-5

For WSPA's concerns regarding replacement as a requirement for BARCT, please refer to the attached comments that were previously submitted to SCAQMD on behalf of WSPA by Latham & Watkins on August 15, 2018. 3-6

For WSPA's concerns regarding permitting timelines and monitoring, reporting, and recordkeeping, please refer to WSPA's previous comments on the RECLAIM Transition, including the attached comments that were submitted to SCAQMD on behalf of WSPA by Latham & Watkins on September 7, 2018.

WSPA appreciates the opportunity to provide comments related to PR 1118.1. We look forward to continued discussion of this important rulemaking. If you have any questions, please contact me at (310) 808-2146 or via e-mail at bridget@wspa.org.

Sincerely,

Cc:

Dr. Philip Fine, SCAQMD
Steven Tsumura, SCAQMD
Tom Umenhofer, WSPA
Christine Zimmerman, WSPA

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LATHAM & WATKINS LLP

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. 3-7

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 excluded from the definitions of "retrofits," as opposed to whether or not they are included 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 exclude "orange," an orange may be an apple notwithstanding the fact that the definition of apple clearly does not include 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.

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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.

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.

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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."

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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 add-on 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
of LATHAM & WATKINS LLP

cc: Cathy Reheis-Boyd, WSPA
Patty Senecal, WSPA
Bridgit McCann, WSPA
Wayne Nastri, SCAQMD
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LATHAM & WATKINS LLP

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

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:

3-8 Cont

- 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.

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(11) An owner ~~of~~ **or** operator of a RECLAIM facility that receives an initial determination notification may elect **that** ~~for~~ the facility ~~to~~ remain in RECLAIM **by submitting** ~~if~~ a request to the Executive Officer to remain in RECLAIM ~~is submitted~~, **together with** ~~including~~ any equipment information required pursuant to paragraph (f)(6).

(A) Upon **receiving a request to remain in RECLAIM and any equipment information 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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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.

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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.

> 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:

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> 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

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:

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> 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 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 source-specific 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.

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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:

> 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.

3-8 Cont

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.

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].

3-8
Cont

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.

LATHAM & WATKINS LLP

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.

3-8 Cont

Sincerely,

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 Letter 3

Response to Comment 3-1:

Staff appreciates the suggestion and since this comment letter, the definition of heat input has been added to PR1118.1, and the commentator is correct that the total annual heat input is a calculated field in determining percent capacity. Staff has provided a discussion of how that is calculated in the staff report and created a recordkeeping form the facilities can use to calculate their total annual heat input.

Response to Comment 3-2:

The commentator raises an important clarity and potential enforcement issue. Since this comment letter, definitive timelines as to the extensions provided by the SCAQMD have been added to the proposed rule. Just for clarification purposes, staff envisions any denial of time extension would be based on the absence of sufficient details identifying the reason(s) a time extension is needed and the reasons for denying an extension would identify missing data required to approve an extension. Ultimately, after the extension time offered by staff, the owner/operator always has the option to seek a variance from the Hearing Board for more time.

Response to Comment 3-3:

A capital cost estimate identifies the cost of flare, engineering, and installation. Cost estimates received from local oil and gas facilities for ultra-low-~~-~~NOx flare installation was not in the $1,200,000 to $1,900,000 range. However, staff did use one value in that range based on a comment letter provided by California Resources Corporation (comment letter 1) and the average still proved the ~~5%~~five percent threshold to be cost effective. Regarding exempting oil and gas production, staff believes there are opportunities that are technically and economically feasible to reduce NOx emissions; it is a goal set forth in the 2016 AQMP; and the U.S. Environmental Protection Agency is seeking a rule to comply with Reasonably Available Control Measures (RACM)/Reasonably Available Control Technology (RACT) requirements.

Response to Comment 3-4:

Staff agrees with the suggestion and has changed the proposed rule language to address the comment. The intent was not to require *existing* "other flares" to meet the Table 1 NOx emissions limits or track their percent capacity.

Response to Comment 3-5:

Since this comment letter, the proposed NOx emission limits for "other flares" has been changed to meet current BACT limits.

Response to Comment 3-6:

Please see ~~r~~Response to ~~c~~Comment 3-7 and 3-8.

Response to Comment 3-7:

This August 2018 comment letter on the RECLAIM program has been previously responded to by SCAQMD staff. Please see SCAQMD response http://www.aqmd.gov/docs/default-source/rule-book/Proposed-Rules/regxx/18_response-100318_michael-carroll-letter-(barct-vs-bact).pdf?sfvrsn=4.

Response to Comment 3-8:

This September 2018 comment letter on the RECLAIM program was previously responded to by SCAQMD staff. Please see 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 – Allocation for Oxides of Nitrogen (NOx) and Oxides of Sulfur (SOx), Appendix C, page 216 of the PDF, page C-13 of the document (http://www.aqmd.gov/docs/default-source/Agendas/Governing-Board/2018/2018-oct5-032.pdf?sfvrsn=7).

Comment Letter #4

Comment Letter 4

Michael Krause
Manager, Planning and Rules
South Coast Air Quality Management District
21865 Copley Drive
Diamond Bar, CA 91765

Via e-mail at: mkrause@aqmd.gov

Re: Proposed Rule 1118.1 -
Control of Emissions from Non-Refinery Flares

Dear Mr. Krause,

Marathon Petroleum appreciates this opportunity to comment on South Coast Air Quality Management District (SCAQMD) Proposed Rule 1118.1, Control of Emissions from Non-Refinery Flares. We understand that non-refinery flares located at refineries will be regulated under the upcoming rule 1109.1, while non-refinery flares under the Other Flare Gas category would be covered under PR 1118.1. Following are our comments concerning the proposed rulemaking.

Existing flares in the Other Flare Gas category

The most recent version of the draft rule language in (d)(2) seemed to inadvertently change the expectations for existing flares in the Other Flare Gas category, and differed from the discussion during the September Working Group meeting. To clarify the proposed rule language, we suggest that the regulatory wording be changed as follows in red:

(d)(2) An owner or operator of a flare or flare station in the categories listed in Table 2 and installed prior to [date of adoption] shall:

4-1

New / replaced flares in the Other Flare Gas category

- Emission Limits: According to the draft staff report, the NOx and CO limits for new / replaced flares in the Other Flare Gas category are based on emission limits included in recently permitted marine loading facilities. However, to our knowledge, these levels have yet to be demonstrated at these facilities. Additionally, these emission limits have not been demonstrated to be feasible when applied to other types of operations included in the Other Flare Gas category, such as truck loading or tank degassing.

4-2

- Cost-effectiveness: SCAQMD is basing the cost-effectiveness for these limits on produced gas flares, which are designated as being the most similar to Other Flares. We understand that WSPA is commenting that the costs in the draft staff report are significantly under-estimated for produced gas flares.

4-2 Cont

Due to these questions, Marathon requests that SCAQMD make available the reference materials staff used to demonstrate feasibility and to calculate cost-effectiveness of the emission limits for new Other Gas Flares in the various types of operations covered by this category.

A recommended alternative to setting specific emission limits for Other Flares that are new or being replaced is to require that this category of flares meet Best Available Control Technology standards in effect at the time of permitting.

RECLAIM

PR 1118.1 is included among the RECLAIM transition rules, and the draft staff report discusses RECLAIM issues such as whether Best Achievable Retrofit Control Technology includes replacement of equipment. Marathon refers to letters submitted previously by WSPA on a variety of RECLAIM topics and requests that those topics be considered in rule development on all RECLAIM transition rules, including PR 1118.1. We are glad to provide copies of those letters if needed.

4-3

We would like to thank staff for their willingness to meet and discuss issues, and we look forward to continuing to work with SCAQMD as this rule continues development. We would be happy to answer any questions regarding our comments.

Sincerely,

Susan Stark

Susan Stark
Manager, Policy and Regulatory Affairs

Cc: Dr. Philip Fine, SCAQMD
Steven Tsumura, SCAQMD
Robert Nguyen, Marathon
Donna DiRocco, Marathon
Ruthanne Walker, Marathon

Response to Comment Letter 4

Response to Comment 4-1:

Staff agrees with the suggestion and since this comment letter, the proposed rule has been modified accordingly. Please see Response to Comment 3-5.

Response to Comment 4-2:

The lower emission limits proposed in the preliminary rule were based on an existing permitted unit; however, that unit has not completed the source test to demonstrate compliance. As such, SCAQMD staff has decided to propose limits that reflect current BACT determination. BACT may consider the unit permitted at 30 ppm in the future.

Regarding the cost of the flares, staff relied on local installation and annual maintenance costs for the oil and gas analysis as provided by existing permitted units in the oil and gas industry, then averaged to generate a value to apply to the cost--effectiveness calculation. The costs provided by WSPA were based on an installation located outside of the SCAQMD and were considerably higher than the feedback staff received from local oil and gas sites. In addition, the manufacturer of the higher cost flare is not known to be in business to corroborate the costs. Nonetheless, staff included the capital cost in the collection of data points used to derive the average cost. Please see Response to Comment 3-3.

Response to Comment 4-3:

SCAQMD has received the previous comment letters on the RECLAIM program referenced by the commentator and responses have been prepared. Please see SCAQMD response http://www.aqmd.gov/docs/default-source/rule-book/Proposed-Rules/regxx/18_response-100318_michael-carroll-letter-(barct-vs-bact).pdf?sfvrsn=4.

Comment Letter #5

Comment Letter 5

CALIFORNIA ASSOCIATION of SANITATION AGENCIES

1225 8th Street, Suite 595- Sacramento, CA 95814 • TEL: (916) 446-0388 • www.CASAweb.org

October 19, 2018

Mr. Steve Tsumura, Air Quality Specialist
Planning, Rule Development and Area Sources
South Coast Air Quality Management District
21865 Copley Drive
Diamond Bar, California 91765

Dear Mr. Tsumura:

The California Association of Sanitation Agencies (CASA) appreciates the opportunity to provide comments on proposed South Coast AQMD Rule 1118.1 covering non-refinery flares. CASA is an association of local agencies, engaged in advancing the recycling of wastewater into usable water, as well as the generation and reuse of renewable energy, biosolids, and other valuable resources. Through these efforts, we help create a clean and sustainable environment for Californians.

CASA recommends the approach advanced by the Southern California Alliance of POTWs (SCAP) in which the District would adopt a limit of 0.06 lb NOx/MMBtu and temporarily exempt any facility co-digesting food waste or digesting at thermophilic temperatures. The rationale is based on the following:

1. CASA has been working proactively with CalRecycle, the California Air Resources Board, and others in order to maximize the use of the existing anaerobic digestion infrastructure at wastewater treatment plants for the receipt of food waste for co-digestion and thereby diverting it from landfills. CASA has conservatively estimated that more than 75% of the food waste currently landfilled could be accepted using this infrastructure, but only if assurance exists that the biogas and biosolids produced can be effectively utilized and recycled. Flares are a last resort for biogas produced at wastewater treatment plants but are mandatory emergency outlets.
2. Black & Veatch (BV) recently identified the potential for higher ammonia concentrations in digester gas as the result of food waste digestion or thermophilic digestion, which could make the proposed Rule 1118.1 limit unachievable for such facilities. I am including a link to a presentation which Joerg Blischke (BV) recently provided to the SCAQMD 1118.1 team outlining those issues. https://casaweb.org/wp-content/uploads/2018/10/10-19-18-NH3-in-BG_Fuel-born-NOx-Emissions-at-Flares_SCAP-Meeting-w_SCAQMD-12Oct18_BV_FINAL2.pdf
3. Air Districts throughout California have expressed interest in adopting the limits set in SCAQMD Rule 1118.1. Whatever is done in the South Coast could have far reaching and unintended consequences statewide.

5-1

4. As mentioned above, wastewater treatment plants already attempt to maximize beneficial use of produced biogas, but flares will always be needed for standby/emergency purposes. These flares must be 100% reliable. Our members have reported that the proposed 0.025 lb NOx/MMBtu flares have not been reliable, so as essential public service providers we have concerns about this technology.

5-1 Con't

For all of the reasons stated above, we respectfully request the SCAQMD establish an achievable NOx limit for flares until we can fully assess the potential impact of food waste co-digestion and thermophilic digestion. Specifically, we request the rule establish a 0.06 lb NOx/MMBtu limit and temporarily exempt any facility co-digesting food waste or those digestion systems operating in the thermophilic temperature range.

Thank you again for the opportunity to provide these comments and we stand ready to work proactively with the District in developing needed information on the impacts of receiving food waste for co-digestion or for operating at thermophilic temperatures. Please feel free to contact me at gkester@casaweb.org or at 916-844-5262 to discuss these issues or to answer any questions.

Sincerely,

Greg Kester

Greg Kester
Director of Renewable Resource Programs

cc: Michael Krause – SCAQMD
Heather Farr – SCAQMD
Philip Fine – SCAQMD
Susan Nakamura – SCAQMD
Steve Jepsen – SCAP
David Rothbart – LACSD
Bobbi Larson – CASA
Sarah Deslauriers - CASA

Response to Comment Letter 5

Response to Comment 5-1:

Staff acknowledges there is a concern that food waste digestion may cause an increase in ammonia generation, but there is not sufficient information at this time to draw a firm conclusion on the impacts of food digestion. Staff agrees more research is necessary. To ensure PR1118.1 is not a road block to the efforts to maximize the use of existing anaerobic digestion for food diversion, emission limits will reflect current BACT limits for major polluting facilities and minor facilities.

Thermophilic digestion is a newer digestion process that requires higher temperature, produces more biogas, and recent research suggests generates increased ammonia concentrations. Thermophilic digestion is a separate issue from the state goals of food waste diversion as there are other means and processes for digestion. Research is needed specifically on thermophilic digestion to determine conclusively if this process results in combustion equipment exceeding permit limits or whether there is a need to establish new BACT determinations.

Due to the uncertainty, staff is proposing to include a Resolution to work with the CAPCOA, applicable state agencies, and the waste management industry to conduct a technological and cost assessment within 12 months of rule adoption. Staff will also resolve to amend the rule if a determination is made that the BACT NOx limits need to be modified or a new category created.

Comment Letter #6

Comment Letter 6

October 26, 2018

Attention: Mr. Steve Tsumura
Planning, Rule Development and Area Sources
South Coast Air Quality Management District
21865 Copley Drive, Diamond Bar, CA 91765-0944

Subject: Comments on the PR 1118.1

Dear Sir:

Per our discussion on September 26, 2018, comments are provided by Envent Corporation for the definition of flare and other issues related to the Proposed Rule 1118.1 (PR1118.1) as follows:

Comment 1: *The flare definition in PR1118.1 is too broad (or too loose), covering some unintentional sectors including thermal oxidizers and similar air pollution control devices.* The flare definition in PR1118.1 is different from the flare definitions in the rules of USEPA and other Air Districts. The flare definition in PR1118.1 is even different from the one in SCAQMD Rule 1118. Similar rules from other Air Districts define flares as "a direct combustion device in which air and all combustible gases react at the burner with the objective of complete and instantaneous oxidation of the combustible gases. Flares are used either continuously or intermittently and are not equipped with devices for fuel-air mix control or for temperature control". Some of the definitions of flares from other Air Districts describe the combustion air as uncontrolled ambient air or uncontrolled volume of air. In fact, some of the other Air Districts' rules do provide an entirely separate definition of thermal oxidizer. Thermal Oxidizers and other similar air pollution control devices operate with very high VOC destruction efficiency and are different from flares in design and operation. Attached is a sample CARB test result on thermal oxidizer for your reference. The purpose of PR1118.1 is to regulate the emissions generated from actual flares, but not air pollution control devices which are regulated by other rules. We respectfully disagree that the existing flare definition of PR1118.1 does include thermal oxidizers in the grouping as flare and urge SCAQMD to remain consistent with the rule language from SCAQMD, surrounding Air Districts, and USEPA by adopting the same definition. 6-1

Please find the attached documents for your review:

- 40 CFR Part 60 Subpart Ja (60.101a)
- 40 CFR Part 63 Subpart CC (63. 641)
- BAAQMD Regulation 12-11
- BAAQMD Regulation 12-12
- SCAQMD Rule 1118
- SJVAPCD Rule 4311

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- SBCAPCD Rule 359
- Sample CARB Test Result

Comment 2: *The Capacity Threshold requirement is not practical for a mobile rental device operated per a fixed location permit.* If a "flare" (read: Thermal Oxidizer) is permitted by a various locations permit, then under (h)(1)(E) of PR1118.1, it is exempt. However, if the same "flare" (read: Thermal Oxidizer) has a fixed location permit, it is subject to PR1118.1. The operation of a rental device, even if by a fixed location permit, is non-routine just the same as the one operated by a various locations permit. The emissions from the source(s) have no beneficial use for either case because their occurrence is sporadic, they vary in composition, they vary by heating value, and are generally considered a waste product. Moreover, the capital expenditure to route vapors to a receiving facility is not practical for such inconsistent use. 6-2

Comment 3: *The applicability of PR1118.1 to organic bulk terminal loading and tank farms should be modified due to the fact that the potential impact is very minimal.* In general, air pollution control devices are used to destruct fugitive emissions from the source. Based on the analysis conducted by the Air District and shown in Preliminary Draft Staff Report, "The volume of gas flared and the NOx emissions are low for this source category. … Some of the vapors sent to the flare have a low heating value, therefore, may require the use of assist gas to facilitate combustion. Challenges with this source category includes the less opportunities for beneficial use and no market incentives." 6-3

Comment 4: *To comply with PR1118.1 is too costly for a short term project.* A cost effectiveness analysis was conducted to justify the investment in low-NOx flare for a short term (2-year) project. The same method (Discounted Cash Flow Method) applied in PR 1118.1 Preliminary Draft Staff Report ("Report") was utilized in the analysis below. In addition, all the information, like capital cost and annual cost related to low-NOx flares were obtained from the Report. The result shows the cost per ton of emissions reduced is at the range of $126,000 - $423,000 which is larger than the maximum feasible cost effectiveness. The 2016 AQMP establishes a cost-effectiveness threshold of $50,000 per ton of NOx reduced. For a long term (25-year) project, it is feasible to install a low-NOx flare. However, this is not the case for a short term project. The details of the analysis are provided in Table 1 for reference. 6-4

Table 1. Cost Effectiveness Analysis

Unit	Low NOx Unit Capital Cost	Low NOx Unit Annual Cost (PV)	Project Duration (yrs est.)	Capital Cost + Present Value	Permitted NOx (tons/yr)	Low NOx Unit (tons/yr)	Emission Reduction (tons/project)	Estimated Cost Effectiveness ($/ton)
EMECS 70	$758,339.00	$229,852.70	2	$988,191.70	7.3	6.132	2.336	$423,027.27
EMECS 42	$410,000.00	$56,582.84	2	$466,582.84	2.75	0.91152	3.677	$126,893.64

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In addition to the modification of the flare definition used in PR1118.1, we are seeking the exemption of fixed-location permitted air pollution control devices operated in organic liquid terminal loading or tank farms. Should you have any questions regarding our comments, you may contact me by any of the following means: 6-5

Phone: (562) 997-9465, Extension 156.
Email: Jerry.Ren@Envent.net

Sincerely,

Jerry Ren

Jerry Ren
Senior Compliance Engineer
Envent Corporation

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CFR › Title 40 › Chapter I › Subchapter C › Part 60 › Subpart Ja › Section 60.101a

40 CFR 60.101a - Definitions.

§ 60.101a Definitions.

Terms used in this subpart are defined in the Clean Air Act (CAA), in § 60.2 and in this section.

Air preheat means a device used to heat the air supplied to a process heater generally by use of a heat exchanger to recover the sensible heat of exhaust gas from the process heater.

Ancillary equipment means equipment used in conjunction with or that serve a refinery process unit. *Ancillary equipment* includes, but is not limited to, storage tanks, product loading operations, wastewater treatment systems, steam- or electricity-producing units (including coke gasification units), pressure relief valves, pumps, sampling vents and continuous analyzer vents.

Cascaded flare system means a series of flares connected to one flare gas header system arranged with increasing pressure set points so that discharges will be initially directed to the first flare in the series (*i.e.,* the primary flare). If the discharge pressure exceeds a set point at which the flow to the primary flare would exceed the primary flare's capacity, flow will be diverted to the second flare in the series. Similarly, flow would be diverted to a third (or fourth) flare if the pressure in the flare gas header system exceeds a threshold where the flow to the first two (or three) flares would exceed their capacities.

Co-fired process heater means a process heater that employs burners that are designed to be supplied by both gaseous and liquid fuels on a routine basis. Process heaters that have gas burners with emergency oil back-up burners are not considered co-fired process heaters.

Coke burn-off means the coke removed from the surface of the FCCU catalyst by combustion in the catalyst regenerator. The rate of coke burn-off is calculated by the formula specified in § 60.104a.

Contact material means any substance formulated to remove metals, sulfur, nitrogen, or any other contaminant from petroleum derivatives.

Corrective action means the design, operation and maintenance changes that one takes consistent with good engineering practice to reduce or eliminate the likelihood of the recurrence of the primary cause and any other contributing cause(s) of an event identified by a root cause analysis as having resulted in a discharge of gases from an affected facility in excess of specified thresholds.

Corrective action analysis means a description of all reasonable interim and long-term measures, if any, that are available, and an explanation of why the selected corrective action (s) is/are the best alternative(s), including, but not limited to, considerations of cost effectiveness, technical feasibility, safety and secondary impacts.

Delayed coking unit means a refinery process unit in which high molecular weight petroleum derivatives are thermally cracked and petroleum coke is produced in a series of closed, batch system reactors. A *delayed coking unit* includes, but is not limited to, all of the coke drums associated with a single fractionator; the fractionator, including the bottoms receiver and the overhead condenser; the coke drum cutting water and quench system, including the jet pump and coker quench water tank; and the coke drum blowdown recovery compressor system.

Emergency flare means a flare that combusts gas exclusively released as a result of malfunctions (and not startup, shutdown, routine operations or any other cause) on four or fewer occasions in a rolling 365-day period. For purposes of this rule, a flare cannot be categorized as an *emergency flare* unless it maintains a water seal.

Flare means a combustion device that uses an uncontrolled volume of air to burn gases. The *flare* includes the foundation, flare tip, structural support, burner, igniter, flare controls, including air injection or steam injection systems, flame arrestors and the flare gas header system. In the case of an interconnected flare gas header system, the *flare* includes each individual flare serviced by the interconnected flare gas header system and the interconnected flare gas header system.

Flare gas header system means all piping and knockout pots, including those in a subheader system, used to collect and transport gas to a flare either from a process unit or a pressure relief valve from the fuel gas system, regardless of whether or not a flare gas recovery system draws gas from the *flare gas header system*. The *flare gas header system* includes piping inside the battery limit of a process unit if the purpose of the piping is to transport gas to a flare or knockout pot that is part of the flare.

Flare gas recovery system means a system of one or more compressors, piping and the associated water seal, rupture disk or similar device used to divert gas from the flare and direct the gas to the fuel gas system or to a fuel gas combustion device.

Flexicoking unit means a refinery process unit in which high molecular weight petroleum derivatives are thermally cracked and petroleum coke is continuously produced and then gasified to produce a synthetic fuel gas.

Fluid catalytic cracking unit means a refinery process unit in which petroleum derivatives are continuously charged and hydrocarbon molecules in the presence of a catalyst suspended in a fluidized bed are fractured into smaller molecules, or react with a contact material suspended in a fluidized bed to improve feedstock quality for additional processing and the catalyst or contact material is continuously regenerated by burning off coke and other deposits. The unit includes the riser, reactor, regenerator, air blowers, spent catalyst or contact material stripper, catalyst or contact material recovery equipment, and regenerator equipment for controlling air pollutant emissions and for heat recovery. When *fluid catalyst*

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CFR › Title 40 › Chapter I › Subchapter C › Part 63 › Subpart CC › Section 63.641

40 CFR 63.641 - Definitions.

§ 63.641 Definitions.

All terms used in this subpart shall have the meaning given them in the Clean Air Act, subpart A of this part, and in this section. If the same term is defined in subpart A and in this section, it shall have the meaning given in this section for purposes of this subpart.

Affected source means the collection of emission points to which this subpart applies as determined by the criteria in § 63.640.

Aliphatic means open-chained structure consisting of paraffin, olefin and acetylene hydrocarbons and derivatives.

Annual average true vapor pressure means the equilibrium partial pressure exerted by the stored liquid at the temperature equal to the annual average of the liquid storage temperature for liquids stored above or below the ambient temperature or at the local annual average temperature reported by the National Weather Service for liquids stored at the ambient temperature, as determined:

(1) In accordance with methods specified in § 63.111 of subpart G of this part;

(2) From standard reference texts; or

(3) By any other method approved by the Administrator.

Assist air means all air that intentionally is introduced prior to or at a flare tip through nozzles or other hardware conveyance for the purposes including, but not limited to, protecting the design of the flare tip, promoting turbulence for mixing or inducing air into the flame. *Assist air* includes premix assist air and perimeter assist air. *Assist air* does not include the surrounding ambient air.

Assist steam means all steam that intentionally is introduced prior to or at a flare tip through nozzles or other hardware conveyance for the purposes including, but not limited to, protecting the design of the flare tip, promoting turbulence for mixing or inducing air into the flame. *Assist steam* includes, but is not necessarily limited to, center steam, lower steam and upper steam.

Boiler means any enclosed combustion device that extracts useful energy in the form of steam and is not an incinerator.

By compound means by individual stream components, not by carbon equivalents.

Car-seal means a seal that is placed on a device that is used to change the position of a valve (e.g., from opened to closed) in such a way that the position of the valve cannot be changed without breaking the seal.

Center steam means the portion of assist steam introduced into the stack of a flare to reduce burnback.

Closed blowdown system means a system used for depressuring process vessels that is not open to the atmosphere and is configured of piping, ductwork, connections, accumulators/knockout drums, and, if necessary, flow inducing devices that transport gas or vapor from a process vessel to a control device or back into the process.

Closed vent system means a system that is not open to the atmosphere and is configured of piping, ductwork, connections, and, if necessary, flow inducing devices that transport gas or vapor from an emission point to a control device or back into the process. If gas or vapor from regulated equipment is routed to a process (e.g., to a petroleum refinery fuel gas system), the process shall not be considered a closed vent system and is not subject to closed vent system standards.

Combustion device means an individual unit of equipment such as a flare, incinerator, process heater, or boiler used for the combustion of organic hazardous air pollutant vapors.

Combustion zone means the area of the flare flame where the combustion zone gas combines for combustion.

Combustion zone gas means all gases and vapors found just after a flare tip. This gas includes all flare vent gas, total steam, and premix air.

Connector means flanged, screwed, or other joined fittings used to connect two pipe lines or a pipe line and a piece of equipment. A common connector is a flange. Joined fittings welded completely around the circumference of the interface are not considered connectors for the purpose of this regulation. For the purpose of reporting and recordkeeping, connector means joined fittings that are accessible.

Continuous record means documentation, either in hard copy or computer readable form, of data values measured at least once every hour and recorded at the frequency specified in § 63.655(i).

Continuous recorder means a data recording device recording an instantaneous data value or an average data value at least once every hour.

Control device means any equipment used for recovering, removing, or oxidizing organic hazardous air pollutants. Such equipment includes, but is not limited to, absorbers, carbon adsorbers, condensers, incinerators, flares, boilers, and process heaters. For miscellaneous process vents (as defined in this section), recovery devices (as defined in this section) are not considered control devices.

Cooling tower means a heat removal device used to remove the heat absorbed in circulating cooling water systems by transferring the heat to the atmosphere using natural or mechanical draft.

Cooling tower return line means the main water trunk lines at the inlet to the cooling tower

before exposure to the atmosphere.

Decoking operations means the sequence of steps conducted at the end of the delayed coking unit's cooling cycle to open the coke drum to the atmosphere in order to remove coke from the coke drum. *Decoking operations* begin at the end of the cooling cycle when steam released from the coke drum is no longer discharged via the unit's blowdown system but instead is vented directly to the atmosphere. *Decoking operations* include atmospheric depressuring (venting), deheading, draining, and decoking (coke cutting).

Delayed coking unit means a refinery process unit in which high molecular weight petroleum derivatives are thermally cracked and petroleum coke is produced in a series of closed, batch system reactors. A *delayed coking unit* includes, but is not limited to, all of the coke drums associated with a single fractionator; the fractionator, including the bottoms receiver and the overhead condenser; the coke drum cutting water and quench system, including the jet pump and coker quench water tank; and the coke drum blowdown recovery compressor system.

Delayed coker vent means a miscellaneous process vent that contains uncondensed vapors from the delayed coking unit's blowdown system. Venting from the *delayed coker vent* is typically intermittent in nature, and occurs primarily during the cooling cycle of a delayed coking unit coke drum when vapor from the coke drums cannot be sent to the fractionator column for product recovery. The emissions from the decoking operations, which include direct atmospheric venting, deheading, draining, or decoking (coke cutting), are not considered to be *delayed coker vents*.

Distillate receiver means overhead receivers, overhead accumulators, reflux drums, and condenser(s) including ejector-condenser(s) associated with a distillation unit.

Distillation unit means a device or vessel in which one or more feed streams are separated into two or more exit streams, each exit stream having component concentrations different from those in the feed stream(s). The separation is achieved by the redistribution of the components between the liquid and the vapor phases by vaporization and condensation as they approach equilibrium within the distillation unit. Distillation unit includes the distillate receiver, reboiler, and any associated vacuum pump or steam jet.

Emission point means an individual miscellaneous process vent, storage vessel, wastewater stream, equipment leak, decoking operation or heat exchange system associated with a petroleum refining process unit; an individual storage vessel or equipment leak associated with a bulk gasoline terminal or pipeline breakout station classified under Standard Industrial Classification code 2911; a gasoline loading rack classified under Standard Industrial Classification code 2911; or a marine tank vessel loading operation located at a petroleum refinery.

Equipment leak means emissions of organic hazardous air pollutants from a pump, compressor, pressure relief device, sampling connection system, open-ended valve or line, valve, or instrumentation system "in organic hazardous air pollutant service" as defined in this section. Vents from wastewater collection and conveyance systems (including, but not limited to wastewater drains, sewer vents, and sump drains), tank mixers, and sample valves on storage tanks are not equipment leaks.

Flame zone means the portion of a combustion chamber of a boiler or process heater occupied by the flame envelope created by the primary fuel.

Flare means a combustion device lacking an enclosed combustion chamber that uses an uncontrolled volume of ambient air to burn gases. For the purposes of this rule, the definition of *flare* includes, but is not necessarily limited to, air-assisted flares, steam-assisted flares and non-assisted flares.

Flare purge gas means gas introduced between a flare header's water seal and the flare tip to prevent oxygen infiltration (backflow) into the flare tip. For a flare with no water seal, the function of *flare purge gas* is performed by flare sweep gas and, therefore, by definition, such a flare has no *flare purge gas*.

Flare supplemental gas means all gas introduced to the flare in order to improve the combustible characteristics of combustion zone gas.

Flare sweep gas means, for a flare with a flare gas recovery system, the gas intentionally introduced into the flare header system to maintain a constant flow of gas through the flare header in order to prevent oxygen buildup in the flare header; *flare sweep gas* in these flares is introduced prior to and recovered by the flare gas recovery system. For a flare without a flare gas recovery system, *flare sweep gas* means the gas intentionally introduced into the flare header system to maintain a constant flow of gas through the flare header and out the flare tip in order to prevent oxygen buildup in the flare header and to prevent oxygen infiltration (backflow) into the flare tip.

Flare vent gas means all gas found just prior to the flare tip. This gas includes all flare waste gas (*i.e.*, gas from facility operations that is directed to a flare for the purpose of disposing of the gas), that portion of flare sweep gas that is not recovered, flare purge gas and flare supplemental gas, but does not include pilot gas, total steam or assist air.

Flexible enclosure device means a seal made of an elastomeric fabric (or other material) which completely encloses a slotted guidepole or ladder and eliminates the vapor emission pathway from inside the storage vessel through the guidepole slots or ladder slots to the outside air.

Flexible operation unit means a process unit that manufactures different products periodically by alternating raw materials or operating conditions. These units are also referred to as campaign plants or blocked operations.

Flow indicator means a device that indicates whether gas is flowing, or whether the valve position would allow gas to flow, in a line.

Force majeure event means a release of HAP, either directly to the atmosphere from a pressure relief device or discharged via a flare, that is demonstrated to the satisfaction of the Administrator to result from an event beyond the refinery owner or operator's control, such as natural disasters; acts of war or terrorism; loss of a utility external to the refinery (*e.g.*, external power curtailment), excluding power curtailment due to an interruptible service agreement; and fire or explosion originating at a near or adjoining facility outside of the refinery that impacts the refinery's ability to operate.

REGULATION 12
MISCELLANEOUS STANDARDS OF PERFORMANCE
RULE 11
FLARE MONITORING AT PETROLEUM REFINERIES

(Adopted June 4, 2003)

12-11-100 GENERAL

12-11-101 Description: The purpose of this rule is to require monitoring and recording of emission data for flares at petroleum refineries.

12-11-110 Exemption, Organic Liquid Storage and Distribution: The provisions of this rule shall not apply to flares or thermal oxidizers used to control emissions exclusively from organic liquid storage vessels subject to Regulation 8, Rule 5 or exclusively from loading racks subject to Regulation 8 Rules 6, 33, or 39.

12-11-111 Exemption, Marine Vessel Loading Terminals: The provisions of this rule shall not apply to flares or thermal oxidizers used to control emissions exclusively from marine vessel loading terminals subject to Regulation 8, Rule 44.

12-11-112 Exemption, Wastewater Treatment Systems: The provisions of this rule shall not apply to thermal oxidizers used to control emissions exclusively from wastewater treatment systems subject to Regulation 8, Rule 8.

12-11-113 Exemption, Pumps: The provisions of this rule shall not apply to thermal oxidizers used to control emissions exclusively from pump seals subject to Regulation 8, Rule 18. This exemption does not apply when emissions from a pump are routed to a flare header.

12-11-114 Limited Exemption, Total Hydrocarbon and Methane Composition Monitoring and Reporting: The provisions of Sections 12-11-401.2, 401.3, 401.5, 502.2 and 502.3 that require monitoring and reporting of total hydrocarbon and methane composition shall not apply to a flare that exclusively burns flexicoker gas with or without supplemental natural gas, provided that the owner or operator demonstrates by weekly sampling and analysis, verified by the APCO, that the methane content and the non-methane content of the vent gas flared are less than 2 percent and 1 percent by volume, respectively.

12-11-200 DEFINITIONS

12-11-201 Flare: A combustion device that uses an open flame to burn combustible gases with combustion air provided by uncontrolled ambient air around the flame. Flares may be either continuous or intermittent and are not equipped with devices for fuel-air mix control or for temperature control. This term includes both ground and elevated flares.

12-11-202 Flare Monitoring System: All sample systems, transducers, transmitters, data acquisition equipment, data recording equipment, video monitoring equipment, and video recording equipment involved in flare monitoring.

12-11-203 Flaring: A high-temperature combustion process used to burn vent gases.

12-11-204 Gas: The state of matter that has neither independent shape nor volume, but tends to expand indefinitely. For the purposes of this rule, "gas" includes aerosols and the terms "gas" and "gases" are interchangeable.

12-11-205 Petroleum Refinery: A facility that processes petroleum, as defined in the North American Industrial Classification Standard No. 32411, and including any associated sulfur recovery plant.

12-11-206 Pilot Gas: The gas used to maintain the presence of a flame for ignition of vent gases.

12-11-207 Purge Gas: The gas used to prevent air backflow in the flare system when there is no vent gas.

REGULATION 12
MISCELLANEOUS STANDARDS OF PERFORMANCE
RULE 12
FLARES AT PETROLEUM REFINERIES

(Adopted July 20, 2005)

12-12-100 GENERAL

12-12-101 Description: The purpose of this rule is to reduce emissions from flares at petroleum refineries by minimizing the frequency and magnitude of flaring. Nothing in this rule should be construed to compromise refinery operations and practices with regard to safety.

12-12-110 Exemption, Organic Liquid Storage and Distribution: The provisions of this rule shall not apply to flares or thermal oxidizers used to control emissions exclusively from organic liquid storage vessels subject to Regulation 8, Rule 5 or exclusively from loading racks subject to Regulation 8 Rules 6, 33, or 39.

12-12-111 Exemption, Marine Vessel Loading Terminals: The provisions of this rule shall not apply to flares or thermal oxidizers used to control emissions exclusively from marine vessel loading terminals subject to Regulation 8, Rule 44.

12-12-112 Exemption, Wastewater Treatment Systems: The provisions of this rule shall not apply to thermal oxidizers used to control emissions exclusively from wastewater treatment systems subject to Regulation 8, Rule 8.

12-12-113 Exemption, Pumps: The provisions of this rule shall not apply to thermal oxidizers used to control emissions exclusively from pump seals subject to Regulation 8, Rule 18. This exemption does not apply when emissions from a pump are routed to a flare header.

12-12-200 DEFINITIONS: For the purposes of this rule, the following definitions apply:

12-12-201 Emergency: A condition at a petroleum refinery beyond the reasonable control of the owner or operator requiring immediate corrective action to restore normal and safe operation that is caused by a sudden, infrequent and not reasonably preventable equipment failure, natural disaster, act of war or terrorism or external power curtailment, excluding power curtailment due to an interruptible power service agreement from a utility.

12-12-202 Feasible: Capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social and technological factors.

12-12-203 Flare: A combustion device that uses an open flame to burn combustible gases with combustion air provided by uncontrolled ambient air around the flame. This term includes both ground-level and elevated flares. When used as a verb, the term "flare" means the combustion of vent gas in a flare.

12-12-204 Flare Minimization Plan (FMP): A document intended to meet the requirements of Section 12-12-401.

12-12-205 Gas: The state of matter that has neither independent shape nor volume, but tends to expand indefinitely. Gas includes aerosols and the terms "gas" and "gases" are interchangeable.

12-12-206 Petroleum Refinery: A facility that processes petroleum, as defined in the North American Industrial Classification Standard No. 32411 and including any associated sulfur recovery plant.

12-12-207 Prevention Measure: A component, system, procedure or program that will minimize or eliminate flaring.

12-12-208 Reportable Flaring Event: Any flaring where more than 500,000 standard cubic feet per calendar day of vent gas is flared or where sulfur dioxide (SO_2) emissions are greater than 500 pounds per day. For flares that are operated as a backup,

(Adopted February 13, 1998)(Amended November 4, 2005)

RULE 1118. CONTROL OF EMISSIONS FROM REFINERY FLARES

(a) Purpose and Applicability

The purpose of Rule 1118 is to monitor and record data on refinery and related flaring operations, and to control and minimize flaring and flare related emissions. The provisions of this rule are not intended to preempt any petroleum refinery, sulfur recovery plant and hydrogen production plant operations and practices with regard to safety. This rule applies to all flares used at petroleum refineries, sulfur recovery plants and hydrogen production plants.

(b) Definitions

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

(1) CLEAN SERVICE FLARE is a flare that is designed and configured by installation to combust only natural gas, hydrogen gas and/or liquefied petroleum gas, or any other gas(es) with a fixed composition vented from specific equipment which has been determined to be equivalent and approved in writing by the Executive Officer.

(2) EMERGENCY is a condition beyond the reasonable control of the owner or operator of a flare requiring immediate corrective action to restore normal and safe operation, which is caused by a sudden, infrequent and not reasonably preventable equipment failure, natural disaster, act of war or terrorism or external power curtailment, excluding power curtailment due to an interruptible power service agreement from a utility. For the purpose of this rule, a repetitive event from the same equipment caused by poor maintenance, or a condition caused by operator error that results in a flare event shall not be deemed an emergency.

(3) EMERGENCY SERVICE FLARE is a flare other than clean service flare that is designed and configured by installation to combust only vent gases as a result of any situation arising from sudden and unforeseeable events beyond the reasonable control of the owner or operator of the gas flare which require immediate corrective action to restore normal and safe operation including emergency process upset condition, equipment malfunction or breakdown, electrical power failure, steam failure, cooling

air or water failure, instrument air failure, reflux failure, heat exchanger tube failure, loss of heat, excess heat, fire and explosion.

(4) ESSENTIAL OPERATIONAL NEED is an activity determined by the Executive Officer to meet one of the following:

(A) Temporary fuel gas system imbalance due to:

(i) Inability to accept gas compliant with Rule 431.1 by an electric generation unit at the facility that produces electricity to be used in a state grid system, or

(ii) Inability to accept gas compliant with Rule 431.1 by a third party that has a contractual gas purchase agreement with the facility, or

(iii) The sudden shutdown of a refinery fuel gas combustion device for reasons other than poor maintenance or operator error;

(B) Relief valve leakage due to malfunction;

(C) Venting of streams that cannot be recovered due to incompatibility with recovery system equipment or with refinery fuel gas systems, including supplemental natural gas or other gas compliant with Rule 431.1 that is used for the purpose of maintaining the higher heating value of the vent gas above 300 British Thermal Units per standard cubic foot. Such streams include inert gases, oxygen, gases with low or high molecular weights outside the design operating range of the recovery system equipment and gases with low or high higher heating values that could render refinery fuel gas systems and/or combustion devices unsafe;

(D) Venting of clean service streams to a clean service flare or a general service flare;

(E) Intermittent minor venting from:

(i) Sight glasses;

(ii) Compressor bottles;

(iii) Sampling systems; or

(iv) Pump or compressor vents; or

(F) An emergency situation in the process operation resulting from the vessel operating pressure rising above pressure relief devices' set points, or maximum vessel operating temperature set point.

Rule 1118 (Cont.) **(Amended November 4, 2005)**

(5) FLARE is a combustion device that uses an open flame to burn combustible gases with combustion air provided by uncontrolled ambient air around the flame. This consists of both ground and elevated flares. When used as a verb means the combustion of vent gases in a flare device.

(6) FLARE EVENT is any intentional or unintentional combustion of vent gas in a flare. The flare event ends when the flow velocity drops below 0.12 feet per second or when the owner or operator can demonstrate that no more vent gas was combusted based upon the monitoring records of the flare water seal level and/or other parameters as approved by the Executive Officer in the Flare Monitoring and Recording Plan. For a flare event that continues for more than 24 hours, each day of venting of gases shall constitute a flare event.

(7) FLARE GAS RECOVERY SYSTEM is a system comprised of compressors, pumps, heat exchangers, knock-out pots and water seals, installed to prevent or minimize the combustion of vent gas in a flare.

(8) FLARE MINIMIZATION PLAN is a document intended to meet the requirements of subdivision (e).

(9) FLARE MONITORING SYSTEM is the monitoring and recording equipment used for the determination of flare operating parameters, including higher heating value, total sulfur concentration, standard volumetric flow rate, and/or on/off flow indication.

(10) GENERAL SERVICE FLARE is a flare that is not defined in paragraphs (b)(1) or (b)(3) that is designed and configured by installation to combust vent gases as a result of any situation including, but not limited to, relief of excess operating pressures, tank vapor displacement, start-ups, shutdowns, process unit turnarounds and blowdowns, and scheduled and unscheduled maintenance and clean up.

(11) HYDROGEN PRODUCTION PLANT is a facility that produces hydrogen by steam hydrocarbon reforming, partial oxidation of hydrocarbons, or other processes, using refinery fuel gas, process gas or natural gas, and which supplies hydrogen for petroleum refinery operations.

(12) 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.

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RULE 4311 FLARES (Adopted June 20, 2002; Amended June 15, 2006; Amended June 18, 2009)

1.0 Purpose

To limit the emissions of volatile organic compounds (VOC), oxides of nitrogen (NOx), and sulfur oxides (SOx) from the operation of flares.

2.0 Applicability

This rule is applicable to operations involving the use of flares.

3.0 Definitions

3.1 Air-Assisted Flare: a combustion device where forced air is injected to promote turbulence for mixing and to provide combustion air.

3.2 Air Pollution Control Officer (APCO): as defined in Rule 1020 (Definitions).

3.3 Air Resources Board (ARB): as defined in Rule 1020 (Definitions).

3.4 British Thermal Unit (Btu): the amount of heat required to raise the temperature of one pound of water from 59°F to 60°F at one atmosphere.

3.5 Calendar Day: any day starting at twelve o'clock AM and ending at 11:59 PM.

3.6 Coanda Effect Flare: A flare in which the high pressure flare gas flows along a curved surface inspirating air into the gas to promote combustion.

3.7 Emergency: any situation or a condition arising from a sudden and reasonably unforeseeable and unpreventable event beyond the control of the operator. Examples include, but are not limited to, not preventable equipment failure, natural disaster, act of war or terrorism, or external power curtailment, excluding a power curtailment due to an interruptible power service agreement from a utility. A flaring event due to improperly designed equipment, lack of preventative maintenance, careless or improper operation, operator error or willful misconduct does not quality as an emergency. An emergency situation requires immediate corrective action to restore safe operation. A planned flaring event shall not be considered as an emergency.

3.8 Enclosed Flare: a flare composed of multiple gas burners that are grouped in an enclosure, and are staged to operate at a wide range of flow rates.

3.9 EPA: United States Environmental Protection Agency.

3.10 Feasible: Capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors.

3.11 Flare: a direct combustion device in which air and all combustible gases react at the burner with the objective of complete and instantaneous oxidation of the combustible gases. Flares are used either continuously or intermittently and are not equipped with devices for fuel-air mix control or for temperature control.

3.12 Flare Event: any intentional or unintentional combustion of vent gas in a flare. The flare event ends when the flow velocity drops below 0.12 feet per second or when the operator can demonstrate that no more vent gas was combusted based upon the monitoring records of the flare water seal level and/or other parameters as approved by the APCO in the Flare Monitoring and Recording Plan. For a flare event that continues for more than one calendar day, each calendar day or venting of gases shall constitute a separate flare event.

3.13 Flare Gas: gas burned in a flare.

3.14 Flare Minimization Plan (FMP): a document intended to meet the requirements of Section 6.5 of this Rule.

3.15 Flare Monitoring System: all flare monitoring and recording equipment used for the determination of flare operating parameters. Flare monitoring and recording equipment includes, but is not limited to, sample systems, transducers, transmitters, data acquisition equipment, data recording equipment, and video monitoring equipment and video recording equipment.

3.16 Flexigas: a low BTU fuel gas produced by gasifying coke produced in a fluid-bed Coker. Due to the air used in the gasifying process, Flexigas is approximately 50% nitrogen.

3.17 Gaseous Fuel: any gases used as combustion fuel which include, but are not limited to, any natural, process, synthetic, landfill, sewage digester, or waste gases. Gaseous fuels include produced gas, pilot gas and, when burned, purge gas.

3.18 MMBtu: million British thermal units.

3.19 Non-Assisted Flare: a combustion device without any auxiliary provision for enhancing the mixing of air into its flame. This definition does not include those flares that by design provide excess air at the flare tip.

RULE 359. FLARES AND THERMAL OXIDIZERS. (Adopted 6/28/1994)

A. Applicability

The provisions of this Rule shall apply to the use of flares and thermal oxidizers at oil and gas production sources (SIC code 13), petroleum refinery and related sources (SIC code 29), natural gas services and transportation sources (SIC code 49) and wholesale trade in petroleum/petroleum products (SIC code 51). This Rule shall, on the date of its adoption, supersede the fuel combustion provisions of Rule 311 only insofar as these fuel combustion provisions apply to flares and thermal oxidizers.

B. Exemptions

1. The provisions of this Rule shall not apply to the burning of sulfur, hydrogen sulfide, acid sludge or other sulfur compounds in the manufacturing of sulfur or sulfur compounds. For oil and gas sources (SIC Code 13) that recover sulfur as a by-product of gas treating/sweetening processes, the exemption for manufacturing shall apply only to those specific processes, e.g., sulfur recovery plant.

2. The provisions of this Rule, with the exception of Section D.2 (Technology Standards), shall not apply to the burning of any gas with a net heating value of less than 300 British Thermal Unit (Btu) per standard cubic foot (scf) provided the fuel used to incinerate such gas does not contain sulfur compounds in excess of the following:

   a. 15 grains/100 cu.ft. (calculated as H_2S at standard conditions) in the Southern Zone, and

   b. 50 grains/100 cu.ft. (calculated as H_2S at standard conditions) in the Northern Zone of Santa Barbara County.

3. The provisions of this Rule, with the exception of Sections D.1 (Sulfur Content in Gaseous Fuels), D.2 (Technology Standards), G (Monitoring and Recordkeeping) and H (Reporting) shall not apply to flare or thermal oxidizer units rated, per their operating permits, at 1.7 MMBtu/hour or less. However, if the total cumulative rating of all such rated units at a source exceeds 5 MMBtu/hr, then the exemption shall not apply.

4. The following are exempt only from Section D.3 (Flare Minimization Plan) of this Rule:

   a. Flare and thermal oxidizer units rated, per their operating permits, at less than 15 MMBtu/hour. However, if the total cumulative rating of all such rated units at a source exceeds 50 MMBtu/hr, then this exemption shall not apply.

   b. Flares and thermal oxidizers whose flaring operations solely consist of planned, continuous flaring due to the non-availability of a produced gas pipeline outlet.

C. Definitions

For purposes of this Rule, the following definitions shall apply. See Rule 102 (Definitions) for definitions that are not restricted to interpretation of this Rule only.

"**Burn**" means combustion of any fuel including a gaseous fuel, whether for useful heat or by incineration without heat recovery.

"**Day**" or "**days**" means calendar day(s) unless otherwise stated.

"**Emergency**" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the permittee, including acts of God. An emergency situation requires immediate corrective action to restore normal, safe operation. It also causes an exceedance of an emission standard or a limit stipulated in this Rule, due to unavoidable increases in emissions attributable to the emergency situation only. Events which have been deemed as planned events (for definition, see later in this section) by a federal regulatory agency shall be precluded from being considered as emergency events.
"Emergency Flare Event" means the combustion (flaring) of gaseous fuels caused by an emergency event.

"Flare" means a direct combustion device in which air and all combustible gases react at the burner with the objective of complete and instantaneous oxidation of the combustible gases. Flares are used either continuously or intermittently and are not equipped with devices for fuel-air mix control or for temperature control.

"**Flare Gas**" means produced gas or natural gas burned in a flare or thermal oxidizer.

"**Gaseous fuel**" means gases used as combustion fuel which include, but are not limited to, any natural, process, synthetic, landfill, sewage digester, or waste gases. Gaseous fuel includes produced gas, pilot gas and, when burned, purge gas.

"**Month**" or "**monthly**" means calendar month or refers to calendar month.

"**Net heating value**" means the heating value of the flare gas being combusted, as specified under 40 CFR 60.18(f)(3) [1992 Edition].

"**Northern Zone of the Santa Barbara County**" means that portion of Santa Barbara County described in Section 60103(b) of Title 17 of the California Administrative Code as written on December 21, 1968 (Register 68, No.48). The Northern Zone also includes (a) State waters and, (b) those areas of the OCS waters for which the District has been designated the corresponding onshore area by the USEPA -- which are located offshore of that portion of Santa Barbara County lying north of the latitude of the mouth of Jalama Creek.

"**Pilot Gas**" means gas that is used to ignite or continually ignite flare gas. Pilot gas may be PUC-quality gas, liquefied petroleum gas (LPG) or produced gas.

"**Planned Flaring**" means a flaring operation that constitutes a designed and planned process at a source, and which would have been reasonably foreseen ahead of its actual occurrence, or is scheduled to occur. Planned flaring includes, but is not limited to, the following activities:

1. Flaring during well tests, well-related work, tests ordered by applicable regulatory agencies;

2. Flaring due to equipment depressurization for preventive maintenance that includes: (a) routine engine overhauls (b) turbine start-ups (c) compressor start-ups (d) engine exchange/ removal (e) platform modification/construction (f) hot-jobs (welding, etc.), (g) new platform/well start-up, (h) well work-over, (i) maintenance at onshore source supporting offshore production, (j) Installation of Sulferox etc., system, (k) planned plant shut-downs, (l) unloading from new well, (m) rupture disc maintenance, (n) acid job, (o) source testing, and (p) any pipeline depressurization not due to breakdown conditions (e.g., pigging);

3. Flaring of produced gas at production sources for which no gas handling, gas injection, or gas transmission facilities currently exist;

California Environmental Protection Agency

Air Resources Board

MONITORING AND LABORATORY DIVISION
Vapor Recovery and Fuel Transfer Branch
Vapor Recovery In-Use Section

SOURCE TEST REPORT
TEST NUMBER 16-02

Chevron Products Company
San Diego Terminal
2351 Harbor Drive
San Diego, California 92113

UNIT TESTED: Envent Corporation Mobile Emission Control System (EMECS) Model 42-4 Portable Thermal Oxidizer Unit

Envent Corporation Model VBS-1 Portable Bladder Unit

TEST DATES: March 16, 2016

REPORT DATE: March 25, 2016

Approved:

B. Iqbal

Basharat Iqbal, P.E.
Project Engineer

Merrin J. Wright

Merrin J. Wright, Manager
Vapor Recovery In-Use Section
Monitoring and Laboratory Division

This test report has been reviewed and approved by the Air Resources Board (ARB) staff. Approval does not necessarily signify the contents reflect the views and policies of ARB, nor does the mention of trade names or commercial products constitute endorsement or recommendation for use.

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INTRODUCTION

On March 16, 2016, the Air Resources Board (ARB) staff conducted a 6-hour vapor recovery certification test of the Envent Corporation Mobile Emission Control System (EMECS) Model 42-4 portable vapor recovery thermal oxidizer unit and Envent Corporation Model VBS-1 portable bladder unit at the Chevron Products Company's San Diego Terminal facility. The unit was tested in normal (bladder) mode with a portable vapor thermal oxidizer and portable bladder replacing the facility's normal carbon bed vapor recovery system. The rating of the Envent 42-4 thermal oxidizer is 42 MMBTU/Hr. The capacity of the Envent VBS-1 bladder is 3,500 cubic feet.

The purpose of the test was to determine whether or not the portable vapor recovery unit (portable thermal oxidizer and portable bladder) complies with the emission factor listed in CP-203, Certification Procedure for Vapor Recovery Systems of Terminals. The project engineer for this test was Basharat Iqbal who was assisted by Ray Hernandez.

PROCESS DESCRIPTION

Chevron operates a petroleum products distribution terminal in San Diego, California. At the terminal's truck (cargo tanks or gasoline delivery vehicles) loading rack, displaced gasoline vapors (from the loading of gasoline into the truck) are collected. During normal operation, the collected vapors are routed directly to the dual carbon bed vapor recovery unit. There is no bladder or holding tank at the facility.

Chevron requested certification of their vapor recovery system using a configuration that replaces the facility's normal dual carbon bed system with a portable thermal oxidizer and portable bladder system. Upcoming repairs and maintenance to the Chevron carbon beds necessitated the certification of the portable thermal oxidizer and portable bladder system so the facility could stay in operation during the repairs and maintenance.

APPLICABLE RULES AND REGULATIONS

Section 4 of CP-203 requires that the vapor recovery system shall comply with a maximum emission factor of 0.29 pounds of non-methane hydrocarbon per 1,000 gallons of gasoline liquid dispensed (0.29 lbs/1000 gallons) to obtain certification. The emission factor of 0.29 lbs/1000 gallons corresponds to 96.5% control efficiency by weight. The San Diego County Air Pollution Control District (District) requires this terminal to comply with an emission factor of 0.08 lbs/1000 gallons. The test was conducted per TP-203.1, Determination of Emission Factor of Vapor Recovery Systems of Terminals, to verify compliance with both emission factors.

At Chevron's request, ARB staff also determined the exhaust nitrogen oxides (NOx) emission factor from the thermal oxidizer by employing ARB Method 100, Procedures for Continuous Gaseous Emission Stack Sampling.

TEST RESULTS AND DISCUSSION

Test results are summarized at the end of this report. The results for the exhaust hydrocarbon and NOx concentrations were determined directly from the data recorded from gas analyzers. Mass of hydrocarbon is determined from the outlet hydrocarbon concentration and outlet volume. Outlet volume is determined with a carbon balance using the inlet hydrocarbon concentration, inlet volume, outlet hydrocarbon concentration, outlet carbon monoxide (CO) concentration, and outlet carbon dioxide (CO_2) concentration. The amount of product loaded in terms of gallons during the test was provided by Chevron.

During the unit's certification test, the following information was recorded:

1. inlet propane and methane concentrations
2. inlet temperature and pressure
3. outlet propane, NOx, CO, and CO_2 concentrations
4. inlet volume and barometric pressure

The inlet propane, methane, temperature, and pressure data were recorded on a continuous basis by strip chart, while the volume and barometric pressure were recorded throughout the test. A Quad type turbine volume meter, which only reads in the forward direction, was used to measure the inlet volume and insured against erroneous volume readings (backflow).

National Instruments data acquisition hardware and Labview software were used to acquire, record, and reduce data from the analyzers, temperatures and pressure monitors, and Quad type meter. Labview corrected the volume to standard conditions (14.7 pounds per square inch absolute (psia) and 68° F); and calculated and summed total non-methane hydrocarbon mass out of the stack. Labview repeated this process every second.

The certification test started at 0943 hours on March 16, 2016 and concluded at 1548 hours on March 16, 2016 (6 hours and 5 minutes total test duration). The test started and ended with no fueling activity at the loading racks and with the pretest bladder tank levels and the posttest bladder levels at the same point. During this time span, a total of 217,450 gallons of gasoline were loaded at the truck racks and 2.70 pounds on non-methane hydrocarbon were emitted from the vapor recovery system. These values result in an emission factor of 0.012 lbs/1000 gallons and a throughput of 857,885 gallons (extrapolated to 24 hours).

Due to distribution fluctuations in gasoline marketing, ARB has traditionally granted an increase in throughput of 10 percent when the vapor recovery unit performs well below the certification emission limit. Increasing the 24 hour throughput of 857,885 gallons by 10 percent yields a 24-hour throughput of 943,673 gallons.

During the test period, 2.95 pounds of NOx were emitted from the vapor recovery system. These values result in a NOx emission rate of 0.48 lbs/hour.

The test results show that the portable vapor recovery thermal oxidizer with portable vapor bladder was in compliance with the District's hydrocarbon emission standard for these units of 0.08 lbs/1000 gallons (gasoline products).

Also, the facility did not exceed 18 inches of water column backpressure performance standard at the loading rack during the certification test. The following table gives information about the loading rack at the facility:

Normal Mode:

Number of Loading Lanes	3
Number of Vapor Recovery Arms/Lane	2 to 3
Maximum Pressure Observed at Loading Rack	2 inches water column

The maximum pressure observed was demonstrated with 2 loading lanes in operation and 3 vapor recovery arms in use, and was measured at the furthest arm from the processor.

CONCLUSION

ARB staff verified through testing that the hydrocarbon emission factor of the Chevron Products Company's San Diego Terminal was 0.012 lbs/1000 gallons when operating with the Envent Corporation Mobile Emission Control System (EMECS) Model 42-4 portable thermal oxidizer unit and Envent Corporation Model VBS-1 portable bladder unit. This complies with the emission factor of 0.29 lbs/1000 gallons referenced in Section 4 of CP-203 and San Diego County Air Pollution Control District emission standard of 0.08 lbs/1000 gallons.

To ensure compliance with the emission factor of 0.29 lbs/1000, the following conditions are included as part of ARB's certification:

1. The vapor recovery unit at the Chevron San Diego Terminal includes the portable thermal oxidizer and portable bladder units operating together.
2. When operating with the portable thermal oxidizer and portable bladder units, the maximum daily truck loading throughput (gasoline products only) shall be limited to 943,673 gallons.
3. The maximum back pressure of any truck loading lane shall not exceed 18 inches of water column. The facility shall be equipped with alarms that shall be activated when the unit exceeds 18 inches of water column.

Page 3

4. The vapor recovery thermal oxidizer unit shall be equipped with alarms that shall be activated when the unit is not able to comply with emission factor performance standards.
5. The District may establish more stringent conditions in accordance with their rules.

STATE OF CALIFORNIA
AIR RESOURCES BOARD
MONITORING AND LABORATORY DIVISION
ST-16-02
SUMMARY OF SOURCE TEST RESULTS
(with portable thermal oxidizer and portable vapor bladder)

Source Name and Address:	**Source Representative:**
Chevron Products Company San Diego Terminal 2351 Harbor Drive San Diego, California 92113	Justin Lewis Terminal Environmental Safety & Health Chevron San Diego Terminal 2351 Harbor Drive San Diego, California 92113 Tel 714-843-0866
Device Tested: Envent Corporation Mobile Emission Control System (EMECS) Model 42-4 Portable Thermal Oxidizer Unit Envent Corporation Model VBS-1 Portable Bladder Unit	**ARB Representatives:** Basharat Iqbal Ray Hernandez **Test Dates:** March 16, 2016

Test Results:			**Overall**	**Applicable Limits**
Test Times				
0943 to 1548 for a Test Duration of 6 hours and 5 minutes				
Emissions				
Total Outlet HC Mass	(lb NMHC)	(as Propane)	**2.70**	
HC Emission Factor	(lb NMHC/Kgal)	(as Propane)	**0.012**	**0.29 and 0.08**
HC Emission Rate	(lb NMHC/hr)	(as Propane)	**0.44**	
Total Outlet NOx Mass	(lb NOx)	(as NO_2)	**2.95**	
NOx Emission Rate	(lb NOx/hr)	(as NO_2)	**0.48**	
Backpressure				
Maximum System Backpressure		(in H_2O)	**2**	**18**
Throughput				
Total Gasoline Products Loaded (Test)		(Gallons)	**217,450**	
Gasoline Products 24-hour Throughput		(Gallons)	**857,885**	
Maximum Gasoline Products 24-hour Throughput		(Gallons)	**943,673**	

Merrin J. Wright Date: 3/28/16
Merrin J. Wright, Manager
Vapor Recovery In-Use Section

B. Iqbal Date: 3-25-16
Basharat Iqbal, P.E.
Project Engineer

Response to Comment Letter #6

Response to Comment 6-1:

Staff agrees with the challenge in determining the distinction of a flare compared to an afterburner, thermal oxidizer, and incinerator. These are different types of equipment and their operational purposes are different. To clarify, staff prepared a robust discussion and highlighted the differences in Chapter 3 of this staff report. It was critical to ensure a specific definition is provided so there would be no confusion as to rule applicability. In addition, it is not the intent for PR1118.1 requirements to overlap with existing Rule 1147 (*NOx emissions from miscellaneous sources*) or the upcoming PR 1109.1 (*NOx emissions from refinery equipment*). During the rule development, staff reviewed all existing definitions of flares and had numerous meetings with permit engineers, compliance staff, stakeholders from all affected industries, flare manufacturers and other regulatory agencies. The definition was amended several times due to stakeholder feedback. Staff even sent out a notice of rulemaking highlighting the proposed flare definition in case a facility operated equipment that matches the flare definition but was under the impression it was considered something else such as an afterburner or thermal oxidizer. Staff acknowledges that advanced flares have similar characteristics to traditional thermal oxidizers, and again, this is further described in Chapter 3 of this staff report. Further, staff found that certain applications, such as bulk terminal loading, use the exact same combustion device (e.g., a flare) as a landfill, wastewater treatment plant or oil and gas production site but views those devices as thermal oxidizers. Staff wanted to ensure what characterizes a flare, particularly in context to rule applicability, and the manner in which the gases enter the burner.

Response to Comment 6-2:

Flares that are permitted as "various location" are exempt from this rule. However, it should be noted that any mobile device that remains at a fixed location longer than one year to be considered a stationary source of pollution. For those instances, the capacity would have to be monitored and if the percent capacity is greater than the applicable capacity threshold, would have to be replaced. If the percent capacity is not exceeded, the rental would revert to the exemption provisions under Subparagraph (h)(1)(E) once it moved.

Response to Comment 6-3:

Organic bulk terminal loading and tank farms are considered "other flaring" under PR1118.1. The existing units will not have percent capacity threshold requirements under the proposed rule. New flares at bulk terminals and tank farms will be subject to Table 1 – Emission Limits in PR1118.1, which is consistent with current BACT limits. No additional requirements would be imposed because of this rule.

Response to Comment 6-4:

A short-term project that does not exceed two years would never trigger action in PR1118.1. The percent capacity would have to be measured and records maintained but it takes two consecutive years of surpassing the percent capacity threshold to require action to be taken. In the event the project, and the percent capacity, is greater than the capacity threshold for two consecutive

calendar years, the flare would need to be replaced with a cleaner one, or meet the Table 1 – Emission Limits, or the percent capacity would have to be reduced below the Table 2 – Annual Capacity Threshold. Knowing these considerations and options, it will ultimately be a business decision on how best to proceed with a short-term project to be profitable.

Response to Comment 6-5:

Staff disagrees with the exemption of fixed location permitted air pollution control devices because there are currently flares available and able to meet BACT standards for air pollution control devices. However, because new sites may require additional time to evaluate available control options, fFlares with a Various Location permit will be exempt.

Comment Letter #7

Comment Letter 7

Bloomenergy

September 11, 2018

Chairman William A. Burke
South Coast Air Quality Management District
21865 Copley Dr.
Diamond Bar, CA 91765

Re: Proposed Rule 1118.1

Dear Chair Burke,

Bloom Energy (Bloom) appreciates the opportunity to provide these comments on Proposed Rule (PR) 1118.1. We strongly support the South Coast Air Quality Management District's (SCAQMD or District) efforts to protect public health, improve air quality, and reduce emissions from non-refinery flares as specified under the 2016 Air Quality Management Plan. Our comments specifically focus on the benefits fuel cells can provide in assisting SCAQMD in reaching these goals.

Fuel cells provide substantial air quality benefits while providing reliable, always-on power. For example, Bloom is a provider of a breakthrough all-electric solid oxide fuel cell technology that produces reliable power using a highly resilient and environmentally superior non-combustion process. By virtue of their non-combustion process, Bloom Energy Servers virtually eliminate emissions of criteria air pollutants including NOx, SOx, CO, VOCs, and particulate matter that are associated with traditional combustion and diesel back up power configurations while providing onsite power 24x7x365.

Bloom's fuel cells are fuel flexible and can operate on either natural gas, as well as biogas or biomethane, including from a variety of sources that are under consideration with this proposed rule such as landfills, wastewater treatment facilities, and organic waste digestion. The result is a significantly lower air emissions profile as compared to the maximum emission levels under consideration in this rule—reducing localized impacts in disadvantaged and vulnerable communities.

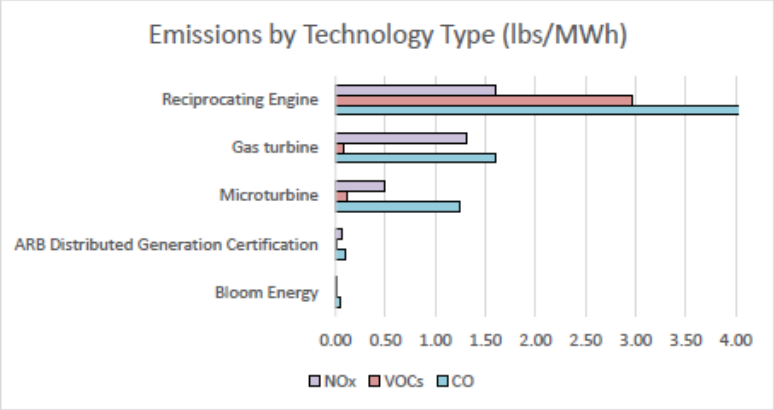
Additionally, fuel cells are a superior air quality solution compared to potential electricity generating technologies that could be deployed on-site to take advantage of the biogas that is currently being flared. See Figure 1 for a comparison. Given their extremely low emissions, Bloom is a valuable alternative compliance mechanism that aligns perfectly with SCAQMD's mission to "clean the air and protect the health of all residents in the South Coast Air District through practical and innovative strategies."[1]

[1] "Goals and Priority Objectives," South Coast Air Quality Management District, http://yourstory.aqmd.gov/nav/about/goals-priority-objectives

1299 Orleans Drive, Sunnyvale CA 94089 T 408 543 1500 F 408 543 1501 www.bloomenergy.com

Be

Figure 1[2]



The emissions from microturbines, gas turbines, and reciprocating engines are displayed before treatment of the exhaust after combustion. Adding these cleaning systems to improve the emissions profiles is possible but adds substantial cost: For example, selective catalytic reduction (SCR) systems can add $300/KW to combined-heat-and-power (CHP) electricity generation.[3]

Finally, fuel cells provide several additional benefits that are consistent with the Districts goals: Bloom's all-electric solution can be deployed at sites where it is not necessary to match an on-site thermal load, thereby expanding the opportunities available to address energy needs with clean, reliable distributed generation; it inherently allows for higher efficiency while simultaneously producing a low heat rate; our modularity (50kW module size) allows us to remain online and manage replacements at scale without affecting the facility electricity load requirements.

With more than 200 MW installed across over 475 sites in California, Bloom has a proven technology with a strong track record of providing cost-competitive, clean,

[2] "Amendments to the Distributed Generation Certification Regulation," California Air Resources Board, pg 5, https://www.arb.ca.gov/energy/dg/2006regulation.pdf; "Bloom Energy Server ES5-300kW," Bloom Energy, https://bloomenergy.com/datasheets/energy-server-es5-300kw; "Catalog of CHP Technologies," Environmental Protection Agency, page 1-6, https://www.epa.gov/sites/production/files/2015-07/documents/catalog_of_chp_technologies_section_1_introduction.pdf; "Combined Heat and Power Catalog: CHP Program," New York State Energy Research and Development Authority, https://portal.nyserda.ny.gov/servlet/servlet.FileDownload?file=00Pt0000005wxi5EAA, page 451; "Reciprocating Engines," U.S. Department of Energy, page 4, https://www.energy.gov/sites/prod/files/2016/09/f33/CHP-Recip%20Engines.pdf; "Gas Turbines," U.S. Department of Energy, page 4, https://www.energy.gov/sites/prod/files/2016/09/f33/CHP-Gas%20Turbine.pdf; "Microturbines," U.S. Department of Energy, page 4, https://www.energy.gov/sites/prod/files/2016/09/f33/CHP-Microturbines_0.pdf.

[3] Boicea, Valentin A., Essentials of Natural Gas Microturbines, 2014, page 193.

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reliable energy solutions. We encourage the SCAQMD to explore incorporating the most efficient, non-combustion fuel cell solutions as part of PR 1118.1 to protect public health and improve air quality.

Respectfully,

Erin Grizard
Senior Director, Policy

Sam Schabacker
Policy Manager

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Response to Comment Letter #7

Response to Comment 7-1:

Staff appreciates the data provided through the comment letter and recognizes the importance of alternative technologies to reduce NOx and other criteria air pollutant emissions and gaining co-benefits from gas handling such as energy production and cost savings.

Comment Letter #8

Comment Letter 8

RIVERSIDE COUNTY DEPARTMENT OF WASTE RESOURCES

Hans W. Kernkamp, General Manager-Chief Engineer

October 29, 2018

Mr. Steve Tsumura,
Air Quality Specialist
South Coast Air Quality Management District
21865 Copley Drive
Diamond Bar, CA 91765-4178

RE: Comments Regarding SCAQMD Proposed Rule 1118.1 and Staff Report Dated September 21, 2018

Dear Mr. Tsumura:

The Riverside County Department of Waste Resources (RCDWR) appreciates this opportunity to comment on the proposed Rule 1118.1. The RCDWR has eleven (11) landfill gas flares at active and inactive landfill sites that would have potential implications under the requirements of proposed Rule 1118.1. During this rule making process, the RCDWR has participated in the eight working group meetings and worked with SCAQMD staff in providing specific landfill gas data and source testing reports.

The RCDWR has the following comments on the proposed rule and draft staff report dated September 21, 2018:

Preliminary Draft Staff Report for PR 1118.1

Upon review of the preliminary draft staff report for rule 1118.1 provided by the SCAQMD on September 21, 2018, the RCDWR contacted SCAQMD staff and clarified that our Badlands Landfill (SCAQMD Facility ID 6979) flaring activity was in compliance with the proposed rule during the 2015-2017 period as otherwise indicated by Table 11 on pages 3-16 of the staff report. The primary flare at the Badlands Landfill is already an ultra-low emission flare that has demonstrated achieving the emission standards proposed in this rule. The RCDWR requests that the Badlands facility be removed from this list in the next version of the staff report. 8-1

PR 1118.1 (g) Monitoring, Recordkeeping, and Reporting Requirements:

The RCDWR requests language to be added to the rule to clarify the flow meter requirements. In section (g)(1)(E)(i)(A) of the proposed rule, reference is made to a "flare-specific non-resettable fuel meter"; however, this does not appear to be further defined anywhere within the rule. Specifically, the RCDWR requests a statement be included that states "Any fuel meter complying with the requirements of SCAQMD Rule 1150.1 section (e)(7)(A)(ii) are approved for compliance with Rule 1118.1". The RCDWR believes that the fuel meters used to comply with Rule 1150.1 are a form of "non-resettable fuel meter" in that the flow is recorded every 15 minutes and the data log can easily be used to find a total throughput over a specified time period. 8-2

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www.rcwaste.org

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The RCDWR appreciates the time taken by SCAQMD to collaborate with stakeholders and formulate a rule that takes into consideration the industry's various needs and requirements allowing for reasonable compromises to be identified and agreed upon.

If you would like to discuss this matter further, please call Noah Rau of my staff at (951) 486-3200.

Sincerely,

Hans W. Kernkamp
General Manager-Chief Engineer

HWK:acc:nmr

cc: Joe McCann/Angela Dufresne/Noah Rau/Alexander Carry

PD#223239v2

Response to Comment Letter #8

Response to Comment 8-1:

Staff reviewed the data and noted the throughput to the ultra-low-NOx flare was mistakenly being attributed to the conventional flare. Badlands Landfill was removed from the list of potentially affected flares.

Response to Comment 8-2:

In response to the stakeholder's concern in comply with installation of a "flare specific non-resettable fuel meter," staff has modified the requirement. Some fuel meters account for a number of flares (i.e., flare station) so "flare specific" requirement would be challenging to comply. Most existing fuel meters are not equipped to be "non-resettable" so new equipment would need to be purchased delaying the recordkeeping and adding an extra fiscal burden. Since there has not been many known enforcement issues with the current existing fuel meters, the "non-resettable" requirement has also been removed. As such, the new requirement provides flexibility for the facilities to use their currently installed fuel meters.

Comment Letter #9

Comment Letter 9

California Independent Petroleum Association
1001 K Street, Sixth Floor
Sacramento, CA 95814
Phone: (916) 447-1177
Fax: (916) 447-1144

CIPA

October 31, 2018

By Email:

Michael Krause, Planning & Rules Manager
(Email: mkrause@aqmd.gov)
Heather Farr, Program Supervisor
(Email: hfarr@aqmd.gov)
Steve Tsumura, Air Quality Specialist
(Email: stsumura@aqmd.gov)
South Coast Air Quality Management District
21865 Copley Drive
Diamond Bar, CA 91765

Dear Michael, Heather and Steve:

CIPA and its member companies have been actively working with SCAQMD Rule Development Staff since April 2018 and have attended all of the Rule 1118.1 Working Group Meetings and have provided written comment letters. We are very disappointed to learn, at the very last minute, that a new provision limiting New Oil & Gas Flares to 800 hours /year was added to the rule language without **any** consultation or review with the affected industry sources. CIPA member companies were not made aware of the proposed change until the SCAQMD Presentation made on October 30, 2018. The Revised Preliminary Draft Rule language was just released earlier today, which does not give us adequate time make a meaningful review of the new draft and provide comments to the District before the comment period deadline and before the Rule Language is finalized. Today's comments have been provided under a very tight time frame, and we expressly reserve our right to provide additional comments as we further analyze the brand new proposed draft.

1) SCAQMD already has a **very** effective process in place to limit the development of new Oil & Gas facilities, including new flare equipment. The SCAQMD CEQA Gas (GHG) threshold of 10,000 MT CO2 EQ (equivalent to produced gas volume of approximately 146,000 MCFY or 400 MCFD) requires stationary sources permitting new flare equipment to go through the CEQA process. This rigorous public process includes an evaluation of alternatives to flaring such as use microturbines or fuel cells and requires mitigation of environmental impacts to extent feasible. Because of this, there is no need for SCAQMD to place a rule limit on new oil & gas production flare operating hours. This is already being done via the CEQA process. A blanket

9-1

800 hours/year limit does not take into account the many varying factors / limitations, including the safety of personnel and the community, that exist at individual oil & gas facilities. 9-1 Cont

2) Because SoCal Gas is working on upgrading their aging gas pipeline system equipment, oil & gas Facility gas sales connections are frequently shut-in. In order to keep a company oil sales income stream it is necessary to flare the co-produced gas during these time frames. The SoCal Gas connection are often down for time-frames > 800 hours/ year. It is not cost effective to install alternative beneficial use projects for these limited, but possibly lasting longer than 800 hours/year, types of shut-ins. We strongly recommend that the District exclude SoCal Gas connection outages from the 800 hour/year limit. 9-2

3) Many oil & gas facilities remaining in operation in the SCAQMD area are near the end of their operating lives. It is not cost effective to install beneficial use projects for the small amount of gas that is being produced. There should be a Rule Exemption for facilities with routine flaring less than 400 MCFD or 146,000 MCFY (the CEQA Project GHG threshold) with no SoCal Gas Sales connection point. The end result of this proposed new Rule Language will be closure of small oil & gas facilities and a loss of jobs. (A similar argument has been made by public utilities for closed landfill flaring operations.) 9-3

4) What is significant about 800 hours? Is there a public health risk? Permit applications already require Health Risk Assessment Screening for new devices that take into account nearby Sensitive Receptors. If the routine flaring is conducted with BACT devices that are also shielded from view, what is different about this from any other air pollution source in the basin that is controlled? SCAQMD can control air emission sources but cannot just prohibit them entirely unless they pose a public health threat. Oil & gas companies that permit new Flare equipment provide the necessary ERCs to offset emissions as required by SCAQMD. It is not a fair practice to impose this flaring limitation requirement only on oil & gas facilities and not impose this on all business processes across the board in the SCAQMD basin. Oil and gas facilities must already adhere to the most stringent emission limits and capacity thresholds for any other industry. 9-4

5) An hourly limit cannot be quantified into a specific emission reduction. Isn't that the goal of the AQMP -- to achieve a specific quantifiable emission reduction? You would only be able to quantify the emissions if you give either a specific emission limit or a volume limit due to the varying gas flowrates across the various facilities affected and even within one facility depending on the reason for flaring. An hourly limit cannot guarantee a facility will stay under any sort of emission limit – this would vary by facility. 9-5

6) In some cases, oil & gas Facility daily gas production will result in **too much** electricity generation via microturbines or fuel cells than the facility operations can consume. 9-6

In cases where there is no connecting electrical infra-structure available to sell the excess power back to the grid flaring of excess gas is the only option. 9-6 Cont

7) Current beneficial use technologies such as microturbines and fuel cells are currently not very reliable and a back-up flaring option is required to keep oil & gas facilities operational. The proposed 800 hours /year limit for new flares is not enough to cover beneficial use equipment maintenance and upsets. 9-7

8) The proposed rule requirement for new flares disincentives companies from upgrading their existing higher emitting flare equipment to BACT equipment in order to preserve their existing permitted flaring volumes. 9-8

9) There is other non-routine flaring that takes place at oil & gas facilities for start-up, shut-down, emergency upsets, maintenance and testing purposes and that should not be included in the proposed 800 hour/year limit. 9-9

10) As local oil & gas production is increasingly limited by more restrictive regulatory requirements, it results in more and more oil & gas being imported into the basin via oil tankers (North Slope and International) and interstate gas pipelines to supply our local energy demands. The ever-growing GHG footprint of this "importing" activity should be taken into account by a SCAQMD CEQA Analysis on their collective Rule Development Activity impacting local oil & gas operations. 9-10

11) Removal of "Assist Gas" from the Definitions in former section (c)(2) of the Draft Rule will create a problem for operators using CEBs that are intermittently operated. Subsection H of the Rule should clarify that Assist Gas is exempted from the 5% capacity throughput threshold for flare use. 9-11

12) Under Section (d)(1) of the Draft Rule, moving an existing flare, permitted under pre-Rule requirements, should not make that flare subject to the Rule's NOx, CO or VOC emission limits. That could require replacement of relatively new and expensive pre-Rule flares long before the end of their useful lives. 9-12

We trust you will take seriously these concerns, as they are provided by the operators who have substantial experience with flare operation and who will be required to comply with the ultimate Rule text. Please don't hesitate to contact me with any questions. Thank you.

Best regards,

Willie Rivera
Director of Regulatory Affairs

Response to Comment Letter #9

Response to Comment 9-1:

Since this comment letter, SCAQMD staff is not proposing an 800 hour per year limit for new flares of "produced gas." Staff does recognize the technical difficulties of setting a limit based on a time threshold including potential enforceability issues. So, in lieu of an 800 hour per year limit, staff is proposing a limit for replacement flares of 10 percent higher than the average throughput of the prior two years. This will allow businesses to maintain the same level of flaring but with a flare that is 70 percent cleaner than the existing flare. For a new flare, since there is no baseline of previous activity levels to derive a limit, staff is proposing to use the average throughput from all applicable oil and gas production sites in 2015 and 2016, which is 40 MMscf/year plus an approximate 10 percent growth factor for a proposed limit of 45 MMscf/year. ~~With regard to the suggestion of using the SCAQMD CEQA GHG threshold of 10,000 metric tons of CO2eq per year for all new permits, the equivalent annual hour cap would be over 4,000 hours of flaring per year, which is much higher than the proposed 800 hour annual limit, and would not be an effective path in encouraging beneficial use opportunities in the future.~~

Response to Comment 9-2:

Staff acknowledges the important beneficial use of pipeline injection and agrees flaring due to utility pipeline curtailment should be excluded from the throughput limit on flaring. Utility pipeline curtailment is beyond the control of the facility conducting the flaring as long as that curtailment can be verified and documented to substantiate the need for flaring.

Response to Comment 9-3:

Staff disagrees with this comment as oil and gas sites have more discretion with the closure of a well or site and control of the gas than landfills. The gas generation at a closed landfill that no longer accepts organic waste will decline according to a predictable curve. As been previously discussed in working group meetings, the oil and gas market is cyclical and an increase in the price of a barrel of oil could lead to further exploration and an increase in production.

Response to Comment 9-4:

Staff proposed the 800 hour per year limit on new flares of "produced gas" based on direction received from the October Stationary Source Committee meeting. Staff did not propose a percent capacity limit similar to the threshold for existing flares because a facility could just oversize their flare to circumvent the limit; therefore, an hour limit was proposed. It was designed to allow for flaring equivalent to approximately 10 percent of the capacity, or double the capacity threshold limit on existing flares of "produced gas." As mentioned above, staff has changed this proposed limit due to stakeholder feedback.

Response to Comment 9-5:

Staff is no longer proposing an hour limitation as mentioned above.

Response to Comment 9-6:

Staff recognizes that existing beneficial uses may be at capacity for certain sites. The proposal is intended to encourage a facility to install additional beneficial use equipment instead of replacing flares. There are other options beyond energy generation, such as cleaning, compressing, and selling the gas for use as a transportation fuel, or provide to a local municipal gas company.

Response to Comment 9-7:

As discussed above, staff is no longer proposing the 800 hour limit.

Response to Comment 9-8:

The current proposal will allow facilities to maintain the level of flaring of the average prior two years plus 10 percent to allow for future business growth. This will provide a limit to the amount of flaring allowed and ensure emission reductions will be achieved.- The 10 percent allowance for future growth is consistent with the 2016 Air Quality Management Plan.

Response to Comment 9-9:

Staff is proposing to exclude the throughput attributed to source testing and utility pipeline curtailment as those two activities are beyond the control or interest of the company, and should not be a burden to substantiate the activity occurred. All other flaring events will be included in the throughput limit.

Response to Comment 9-10:

There are many other options than flaring produced gas. Even if the 800 hour limitation was maintained, staff does not believe that would lead to significant reductions in the amount of oil and gas extracted in the SCAQMD. That said, the current proposal will allow flaring to be maintained at the current level with the allowance of a 10 percent increase to allow for growth.
Response to Comment 9-11:

Staff discussed the use of assist gas for the ultra-low--NOx flares with the flare manufacturers and was informed assist gas in not required for intermittent flaring. Further, staff was never informed of the use of assist gas during the numerous site visits conducted during rule development. To exempt assist gas from potentially being regulated would allow for unnecessary flaring and corresponding increase in NOx emissions contrary to the rule objective.

Response to Comment 9-12:

A facility can relocate an existing flare within their facility without triggering Table 1 – Emission Limits. If that flare is moved to another non-contiguous facility, Table 1 – Emission Limits would apply. This is noted in the definition of relocated flare in PR1118.1.

Comment Letter #10

Comment Letter 10

SIGNAL HILL PETROLEUM

American Energy.
American Jobs.

October 31, 2018

Michael Krause, Planning & Rules Manager
Heather Farr, Program Supervisor
Steve Tsumura, Air Quality Specialist
South Coast Air Quality Management District
21865 Copley Drive
Diamond Bar, CA 91765

RE: PAR 1118.1 Comments

Dear Michael, Heather and Steve:

Signal Hill Petroleum, Inc. has been following the development of Proposed Rule 1118.1. We have drafted comments on the recently changed draft rule language. Please see our comments below:

1) SCAQMD staff and industry worked in cooperation to achieve emission limits and capacity thresholds that promote efficient operation and overall decreased emissions. An additional usage capacity of 800 hours per year on new flares does not take into consideration Industry's value of natural gas and its beneficial use to its operation. Industry holds produced gas as a valuable resource for revenue and/or for beneficial uses. For example, produced gas into a gas turbine to create electricity in a safe and effective way to mitigate emissions. Flaring is a last resort method for industry. Planned maintenance and testing for SCAQMD and other agencies requires our turbine to be turned off. During this time a flare would be necessary to safely control vapors and gas streams. Additional unplanned interruptions to the turbine creates a significant safety hazard if there is 800 hours per year limit. SHP strongly urges to removal of the additional 800 hours per year condition to new flares. 10-1

2) Within Industry flaring is used as a last resort. The CEB (clean enclosed burner) has history of not operating effectively without consistent gas flow. Many flaring events using a CEB will require "Assist gas" to allow the equipment to operate continually and effectively. As a secondary piece of equipment, the CEB is not a reliable source to

2633 Cherry Ave. Signal Hill, CA 90755 | T: 562. 595.6440 | F: 562. 426.4587 | W: shpi.net

mitigate emissions in uncertain operation period without Assist gas. The continual use of Assist gas may create unforeseen emissions. SHP would like to have "Assist gas" back in the definitions of PAR 1118.1 and remove the amount of Assist gas when determining total capacity thresholds. 10-2

Please let me know if you would like to discuss our comments further. You can contact me at bcruz@shpi.net or (562) 326-5257 or my colleague Shannon Smith ssmith@shpi.net or (562) 326-5246

Sincerely,

Brian Cruz
Regulatory Compliance Technician
Signal Hill Petroleum, Inc.

Response to Comment Letter #10

Response to Comment 10-1:

Staff acknowledges produced gas is a valuable resource for revenue, and has witnessed and documented many beneficial use projects at oil and gas production sites. Staff is proposing to modify the limitation for replaced flares (see Response to Comment 9-1) and exclude source testing (see Response to Comment 9-9).

Response to Comment 10-2:

See Response to Comment 9-11 regarding assist gas.

Comment Letter #11

Comment Letter 11

From: Mike Shaffer [mailto:shafferenv@pacbell.net]
Sent: Thursday, November 1, 2018 9:31 PM
To: stsumura@aqmd.gov
Cc: Ivan Tether <ivan@tetherlaw.com>
Subject: PAR 1118.1 Additional Comments

Steve,

I'm a consultant and California Independent Petroleum Association (CIPA) member who has permitted numerous oil & gas flares in SCAQMD over the last 25 years (DCOR, Matrix, Bridge Energy/Linn/Blacksand, Sentinel Peak/ Freeport-McMoRan/PXP, Bridgemark, Aereon/Flare Industries, and several others). Since I was out of the office yesterday and didn't get a chance to add my comments to the CIPA letter submitted yesterday, I'm providing the following two (2) comments to support/supplement the CIPA comment letter dated October 31, 2018.

1. I'm in complete agreement with CIPA's comments regarding the District's last-minute proposal to add an 800 hour limit for new and relocated oil & gas flares. A few follow up questions...Why is the 800 hour proposal ONLY applicable to produced gas flares? Why not apply to other gas streams? Has a review been included in a revised staff report? Has a socioeconomic analysis been prepared for this proposal? Has the District contacted applicable stakeholders and discussed with them? 11-1

Since the oil & gas flaring universe is one of the smallest categories addressed by PAR 1118.1 (0.05 tons NOx/day) and the proposed amendments (prior to 800 hour limit) yield nearly 30% reduction in NOx, and greater reductions for VOC and CO, **I urge the District to hold off on the 800 hour proposal and address it during a future revision when it can be fully reviewed/assessed by the District and stakeholders.**

2. I am not aware of many oil & gas flares that are equipped with a "calibrated non-resettable totalizing time meter". Most (if not all) are equipped with fuel flow meters in order to monitor flaring event throughputs and report emissions pursuant to the AER Program and, if applicable, RECLAIM. In addition, every flare I have permitted has a throughput limit, and most "emergency/standby" flares have 200 hour equivalent throughput limits pursuant to the Rule 1304(a)(4) language "or equivalent method." Existing emergency flares with these 200 hour equivalent throughput limits should not be required to modify their permits and add calibrated non-resettable totalizing time meters. I believe this would be a poor use of SCAQMD resources processing these applications for zero emission reductions...plus a few thousand dollars in equipment & fees for the permit holders. Therefore, **please add wording to the (h)(3) exemption language to allow "emergency flares with existing permitted throughput limits."** 11-2

Thank you for your time and consideration.

Mike Shaffer
Shaffer Environmental Consulting
80 N. Crocker Avenue
Ventura, CA 93004-3845
(805) 659-1744 office
(805) 207-1945 cell
(805) 435-1634 fax
shafferenv@pacbell.net

Response to Comment Letter #11

Response to Comment 11-1:

Since this comment letter, staff has removed the annual 800 hour limitation for new flare installations at oil and gas production sites from the proposed rule, so the suggestion has been satisfied. Please see Response to Comment 9-1.

Response to Comment 11-2:

Staff removed the reference to non-resettable totalizing fuel meters and included the following language for the 200 hour exemption: "An owner or operator of a flare or flare station subject to this rule that operates less than 200 hours per calendar year, or the fuel gas usage limit equivalent to 200 hours per year, shall not be required to meet the applicable emission limits in Table 1 – Emission Limits". Staff believes that satisfies the commentator's recommendation and request.

Comment Letter #12

Comment Letter 12

From: Nygaard, Renee K [mailto:RENEE.NYGAARD@pbfenergy.com]
Sent: Tuesday, October 30, 2018 4:00 PM
To: Steve Tsumura <stsumura@aqmd.gov>
Cc: Jung, Melissa <Melissa.Jung@pbfenergy.com>; Flaniken, Nelson A <NELSON.FLANIKEN@pbfenergy.com>
Subject: PR 1118.1 Comments

Steve,
We would like to submit the following comments to the Proposed Rule 1118.1 (PR).

1. We second Cathy Obergfell comments during the October 17, 2018 PR 1118.1 public workshop. 12-1
2. We support WSPA's comment in letter addressed 10 16, 2018 to Mr. Krause of SCAQMD, that PR 1118.1(d)(2) be revisedto include: An owner or operator of a flare or flare station in the categories listed in Table 2 and installed prior to….". 12-2
3. Finally, we would like further clarification from the District regarding the flare definition. WSPA has previously proposed definitions that specifically exclude thermal oxidizers. In the October 17, 2018 presentation, slide #12, the District outlines that considerable effort has been made "to develop flare definition that distinguishes flares from afterburners, thermal oxidizers, and incinerators. Would you please clarify and provide detail on how the District believes the current proposed definition removes thermal oxidizers from this definition? We want to ensure our understanding is consistent. 12-3

I appreciate your time and effort during this rulemaking process.

Regards,
Renee Nygaard
Environmental Manager
Torrance Logistics Company LLC
12851 E. 166th Street
Cerritos, CA 90703

Phone 310-212-4190
Cell 310-709-9484
Fax 310-212-1788

Response to Comment Letter #12

Response to Comment 12-1:

See Response to Public Workshop Comment 4-1.

Response to Comment 12-2:

Staff agrees with the comments and have changed the rule language such that only flares combusting gas listed in Table 2 – Annual Capacity Thresholds have to monitor their percent capacity and thus, those not listed in Table 2 (e.g., "other flares") do not need to monitor and record percent capacity.

Response to Comment 12-3:

See Response to Comment 6-1 and the discussion of the description and characterization of flares, thermal oxidizers, afterburners, and incinerators in Chapter 3 of this staff report.

Comment Letter #13

Comment Letter 13

Yorke ENGINEERING, LLC
www.YorkeEngr.com

November 13, 2018

Mr. Steve Tsumura
Air Quality Specialist
South Coast Air Quality Management District (SCAQMD)
21865 Copley Drive
Diamond Bar, CA 91765
Work: (909) 396-2549
E-mail: STsumura@aqmd.gov

Subject: Proposed Rule 1118.1 – Control of Emissions from Non-Refinery Flares Preliminary Analysis for Hoag Hospital (Facility ID 11245) Based on October 31, 2018 Draft Rule Language

Dear Mr. Tsumura:

On behalf of Hoag Hospital (Facility ID 11245), Yorke Engineering, LLC is submitting this follow-up letter to the two previously submitted on September 19 and October 17, 2018 illustrating the unique case of the flare at Hoag Hospital in Newport Beach and the impacts of PR1118.1. This analysis is based on draft rule language dated October 31, 2018, our email to SCAQMD on October 30, 2018, and our conversations on November 2 and 7, 2018.

HISTORY

For a historical summary of the flare at Hoag, please refer to the previous comment letter submitted on October 17, 2018.

UPDATED RULE IMPACT ANALYSIS

Based on an October 2, 2018 phone conversation between Corey Luth of Yorke Engineering, LLC and Mike Krause, Heather Farr, and Steve Tsumura of SCAQMD, the SCAQMD is now considering the flare gas at Hoag to be "Other Flare Gas" for rule applicability purposes. Mr. Krause acknowledges that the situation at Hoag is an "interesting story." We maintain the naturally occurring methane flared at Hoag should be uniquely classified in Table 1 of the proposed rule language dated October 31, 2018. The purpose of the flare at Hoag is to control potential odors and mitigate health risks and fire hazards. Imposing overly-restrictive emission limits may needlessly force the facility to incur excessive costs in the future to upgrade the equipment. In addition, it may cause compliance issues in the future as the composition of the gas is highly variable. A subset of gas analysis results is provided in Attachment 1. Emissions data provided by flare manufacturers may not be achievable and demonstrated via source testing. We request that an additional category be added to Table 1 named "Naturally Occurring Methane" with a requirement to maintain a low NOx burner, rather than a numerical emission limit, or a by-name exemption in subdivision (h).

In the October 2, 2018 phone call, Best Available Control Technology (BACT) emission limits were discussed. SCAQMD asserted that the flare should have been subject to the 0.06 lb/MMBTU NOx limit in the past. This is incorrect as in the Rule Evaluation for A/N 329157 the SCAQMD acknowledged that there is no specific BACT listed for this type of waste gas flare. Nor were there

LOS ANGELES/ORANGE COUNTY/RIVERSIDE/VENTURA/SAN DIEGO/FRESNO/BERKELEY/BAKERSFIELD
31726 Rancho Viejo Road, Suite 218 ▼ San Juan Capistrano, CA 92675 ▼ Tel: (949) 248-8490 ▼ Fax: (949) 248-8499

source specific rules establishing an emission limit on the flare. As such, the source test conducted in 1998 should be viewed only for baseline informational purposes.

In addition, SCAQMD acknowledges there is no data to support the 0.06 lb/MMBTU BARCT limit for Other Flare Gas. During a phone call with Mr. Steve Tsumura on November 2, 2018, he acknowledged the SCAQMD is unable to locate a similar flare in different districts to determine if other districts have set a precedent for this type of flare. 13-1

A Public Records Request was submitted by Yorke to the SCAQMD on October 19, 2018 requesting source tests and any other information used for the establishment of the PR1118.1 Table 1 emission limits for Other Flare Gas be released. On October 25, 2018, Public Records returned a completion letter stating, "No requested records were found." A copy of the letter is provided as Attachment 2.

In a follow-up call on November 7, 2018, Mr. Tsumura indicated the emphasis of Working Group Meeting #9 scheduled for November 15, 2018 would be Oil & Gas and Wastewater. Mr. Tsumura also informed us that a consultant named Kathy Obergfell with R.A. Nichols has been relaying information to the SCAQMD to better define the Organic Liquid emission limits in Table 1, formerly part of the Other Flare Gas category. We are concerned that the flare at Hoag may be grouped with flares at other dissimilar industries with little attention being given to Hoag's unique characteristics. 13-2

We understand the SCAQMD may be considering alternate rules for equipment subject to Rules 1110.2 and 1134 that combust biogas. Apparently, there is some acknowledgment that variabilities in gas compositions affect emissions performance. 13-3

Finally, we suggest that the rule include a definition of flare "replacement". Subdivision (d) specifies the Table 1 emission limits take effect when an operator of a flare "installs, replaces, or relocates an existing flare." The term "relocate" is defined, but it is not clear what constitutes the replacement of a flare. We propose that the definition would include "complete replacement of the flare" and not replacement of parts for maintenance. In Hoag's case the flare is a component of a larger waste gas collection and treatment system permit and we would like to verify that modification of the associated permit unit does not trigger Table 1 emission limits. 13-4

CONCLUSION

We request that PR1118.1 include a separate gas category in Table 1 for "Naturally Occurring Methane" with a requirement to maintain a low NOx burner, rather than a numerical emission limit, or a by-name exemption in subdivision (h). We also request that the rule include a definition of flare replacement. Hoag operates the flare as a benefit to the citizens of Newport Beach by mitigating odors, health risks, and fire hazards. The quality and variability of the gas composition make establishment of numeric emission limits unreasonable without supporting documentation, of which there is none at this time.

In Attachment 3, we have a marked-up version of PR1118.1 with our proposed edits to Table 1 and subdivision (h).

Should you have any questions or comments, please contact me at (949) 556-7074.

Sincerely,

Corey Luth
Engineer
Yorke Engineering, LLC
CLuth@YorkeEngr.com

cc: Erik Lidecis, Hoag
Duane Suby, Hoag
Peter Moore, Yorke Engineering
Corina Chang, Yorke Engineering
Dixie Richards, Yorke Engineering

Attachments:
1. Gas Analysis Results
2. Public Records Completion Letter (October 25, 2018)
3. Marked-up PR1118.1 (October 31, 2018)

ATTACHMENT 1 - GAS ANALYSIS RESULTS

GILWELL RESEARCH, INC.

1544 W. LAFAYETTE STREET
LONG BEACH, CALIFORNIA 90813
PHONE (213) 436-4254

August 25, 1975

City of Newport Beach
3300 Newport Blvd.
Newport Beach, CA 92660

RECEIVED
SEP 4 1980
SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT ANAHEIM OFFICE

Attention: Mr. Kenneth L. Perry

Gentlemen:

Shown below are the results of analysis on a gas sample taken August 19, 1975 in the Balboa Cove housing area.

	Mol. %
Oxygen	.088
Nitrogen	7.640
Carbon Dioxide	10.381
Hydrogen Sulfide	.004
Methane	81.756
Ethane	.060
Propane	.003
Iso-Butane	.001
N-Butane	.003
Iso-Pentane	.005
N-Pentane	.005
Hexane	.007
Heptane	.028
Octane	.018
Nonane +	.001
Specific Gravity (air = 1)	.688
B.T.U./cu. ft.	832.

Respectfully submitted,

A. O. Byrd

lc

At Virgil Howell's House. # 45 Balboa Coves KLP.

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT	PAGES 7	PAGE 4
STATIONARY SOURCE COMPLIANCE DIVISION	APPL NO 329157	DATE 8/29/97
PERMIT APPLICATION EVALUATION AND CALCULATIONS	PROCESSED BY GCR	CHECKED BY

Recently, concerns were raised regarding the applicability of Rule 431.1 for the sulfur content of the waste gas being burned in existing flare that may have approx. 4000 ppm of H_2S. District Prosecutors Office was contacted for the interpretation and applicability of Rule 431.1, and it was determined that the operations will be subject to Rule 431.1. A waste gas sample analysis run by the AQMD Source Testing branch confirmed H_2S level in excess of 3500 ppm (Source Test Report No. 97-0026).

On May 14, 1997, a meeting between Hoag Memorial Hospital representatives (and Counsel) and Distrct staff and Counsel was conducted at the District headquarter. As a result it was agreed to have HOAG expedite the proposed construction project to bring the source in Rule 431.1 compliance, minimize potential violations of Rule 402 and Health and Safety Code Section 41700. In the meantime, District to prepare and file for the order for abatement (stipulated O/A). District had filed a petition for an Order for Abatement under O/A # 4444-1 (scheduled hearing date of July 15, 1997). For further details please refer to the Order for Abatement Case No. 4444-1.

Upon approval and issuance of this new Permit to Construct (A/N 329157), previously issued P/C under A/N 320316 will be cancelled.1

PROCESS DESCRIPTION:

Proposed new construction consists of waste gas collection from the existing well #5, #3, #7A and Balboa Cove well. Two identical gas blower packages, No. 1 and No. 2 (one being a stand by unit) will be installed for gas transport through the sulfur treatment scrubber unit and finally to the new flare. Maximum waste gas flows, over a twenty year period and including future tie-ins from support services buildings , is estimated at 20,100 SCFH (335 scfm), average being 8,500 SCFH (140 scfm). Typical waste gas sample analysis (composite sample), September 3, 1996, used for the project design is (given by applicant);

COMPONENT	MOL. %
METHANE	61.9
CARBON DIOXIDE	14.2
OXYGEN	0.5
NITROGEN	23.0
HYDROGEN SULFIDE	0.4 (4000 ppm)
	TOTAL = 100%

Note: Aromatic and chlorinated hydrocarbons' analysis indicates some of the toxic compounds at level below detection level (< 1.0 PPB), and Benzene = 30.8 PPB. (Please refer to letter from GeoScience Analytical Inc., dated September 5, 1996, Table-3).

Mol. Wt. = 22.9
Specific Gravity = 0.79
BTU/SCF (HHV) = 627.5

Max. waste gas rate (Flare design) = 20,100 SCFH = 335 scfm.

GeoScience Analytical, Inc. "established March 1981"

608 HAILEY COURT SIMI VALLEY, CA 93065 (805) 526-6532 FAX 583-8081 EMAIL GEOSCI10@AOL.COM

September 1, 2015

Hoag Memorial Hospital Presbyterian
One Hoag Drive
Newport Beach, CA 92658-6100

Attn.: Tim Caldwell
Supervisor Plant Operations

RE: Gas Flare Chemical Composition

Dear Mr. Caldwell:

On August 20, 2015 GSA personnel collected flare gas for chemical speciation in a Certified Laboratory under Chain-of-Custody. Samples were collected and analyzed in accordance with EPA and ASTM methodology specifically described in the attached Case Narrative.

Flare gas was analyzed for Fixed Gases, hydrogen sulfide and C1-C6+ hydrocarbons. A complete laboratory report is attached hereto. The following table summarizes the gas composition identified by the subject report:

Compound	Concentration (ppmV)
Methane	698,000.0
Ethane	1,400.0
Propane	36.0
n-Butane	12.0
n-Pentane	ND
n-Hexane	ND
n-Hexane plus	24.0
Hydrogen	ND
Oxygen	156,000.0
Argon	11,300.0
Nitrogen	135,000.0
Carbon Monoxide	ND
Carbon Dioxide	15.6
Hydrogen Sulfide	0.0077

Methods, laboratory analytical data, QA/QC and Chain-of-Custody are attached hereto.

Sincerely yours,

Louis J. Pandolfi
President

Environmental Audits Hazardous Gas Mitigation Litigation Consulting Petroleum Geochemistry

ATTACHMENT 2 - PUBLIC RECORDS COMPLETION LETTER (OCTOBER 25, 2018)

Information Management
Public Records Unit

Direct Dial (909) 396-3700
Fax:(909) 396-3330

COMPLETION LETTER

October 25, 2018

COREY LUTH
YORKE ENGINEERING, LLC
31726 RANCHO VIEJO RD.# SUITE 218
SAN JUAN CAPISTRANO, CA 92675

Ref.: CONTROL NO. 97342
Received 10/19/2018

Re: PROPOSED RULE 1118.1 SOURCE TESTS FOR ESTABLISHING "OTHER FLARE GAS" EMISSIONS LIMITS.

After a thorough search of this agency's records:

NO REQUESTED RECORDS WERE FOUND FOR THE ABOVE-REFERENCED FACILITY OR FACILITY SITE.

If you have any questions, please do not hesitate to contact me, Tuesday through Friday, **8:00 a.m**. to **4:30 p.m.**

Sincerely,

LISA RAMOS x3211
For COLLEEN PAINE
Public Records Coordinator

:lr

ATTACHMENT 3 – MARKED-UP PR1118.1 (OCTOBER 31, 2018)

Rule 1118.1 (Cont.) **(TBD)**

Table 1 – Emission Limits

Flare Gas	NOx	CO	VOC
	pounds/MMBtu		
Digester gas[1]	~~0.025~~	~~0.06~~	~~0.038~~
Major polluting facility	0.025	0.06	0.038
Minor facility	0.06	N/A	N/A
Landfill gas[1]	0.025	0.06	0.038
Produced gas	0.018	~~0.06~~0.01	0.008
Other flare gas	0.06	N/A	N/A
Naturally Occurring Methane	Low NOx Burner	N/A	N/A
Other Organic liquid storage	0.25	0.37	0.15
~~Other flare gas~~Organic liquid loading and unloading	~~Parts per million @ 3% oxygen Destruction Efficiency~~pounds/1,000 gallons loaded		
	~~30~~0.034	~~100~~0.05	~~99%~~0.02

~~1. Compliance with emission limits shall be demonstrated when combusting 100% biogas (e.g. with no regeneration gas)~~

(2) An owner or operator that submits an application to install a flare or flare station after [date of adoption] to combust Produced Gas or replaces or relocates an existing flare or flare station to combust Produced Gas shall not operate the flare(s) more than 800 hours per year.

(~~2~~3) An owner or operator of a flare or flare station with a capacity threshold listed in Table 2 Capacity Threshold, and an application deemed complete ~~installed~~ prior to [*date of adoption*] shall:

(A) Demonstrate compliance with ~~the emission limits in~~ Table 1 Emission Limits, or

(B) Calculate the percent capacity pursuant to subparagraph (g)(1)(~~D~~E) for each flare or flare station. The owners or operator of a flare or flare station~~s~~ with an annual percent capacity that surpasses the Table 2 Capacity Thresholds ~~in Table 2~~ shall:

(i) Submit a ~~notification~~ Notification of Flare Surpassing Capacity Threshold to the Executive Officer (1118.1Notifications@aqmd.gov), no later than 30 days after the end of the calendar year.

(ii) Submit a Notification ~~Statement~~ of Intent to the Executive Officer (1118.1Notifications@aqmd.gov), no later than 60

Rule 1118.1 (Cont.) **(TBD)**

(~~E~~D) Provide the manufacturer's maintenance instructions, maintenance records, and the source test report(s) to the Executive Officer upon request.

(~~F~~E) ~~Maintain~~ Retain all written or electronic records required by this rule for at least five years, which shall be made available ~~upon request~~no later than two business days from date requested.

(h) Exemptions

(1) The provisions of this rule shall not apply to owners or operators of a flare~~s~~ or flare station:

(A) At asphalt plants; biodiesel plants; hydrogen production plants fueled in part with refinery gas; petroleum refineries~~,~~; and sulfur recovery plants~~, and hydrogen production plants subject to SCAQMD Rule 1118 – Control of Emissions from Refinery Flares~~;

(B) Routing only 100% natural gas directly into the flare burner ~~to oxidize combustible gases or vapors and~~ that are subject to SCAQMD Rule 1147 – NOx Reductions from Miscellaneous Sources NOx emission limits;

(C) ~~At facilities subject to Rule 1109.1 – Refinery Equipment~~ Routing only 100% propane or 100% butane directly into the flare burner;

(D) At a landfill that collects less than 2.000 MMscf of landfill gas per calendar year and has either ceased accepting waste or is classified by CalRecyle as an Inert Waste Disposal Site or an Asbestos Contaminated Waste Disposal Site~~and generates less than 2,000 MMscf of landfill gas per calendar year; or~~

(E) Permitted as a Various Location Flare~~s that are operated in compliance with SCAQMD Rules and Regulations~~; or~~.~~

(F) Combusting regeneration gas.

(2) An owner or operator of a flare or flare station subject to this rule that emits less than 30 pounds of NOx per month ~~calendar year~~ shall not be required to meet the ~~emission limits in~~ Table 1 Emission Limits provided:

(A) The flare or flare station has a permit that specifies conditions that limit~~s~~ the applicable NOx emissions; and

(B) The flare or flare station operates in compliance with the permit condition;

(C) This exemption shall no longer apply in the event the flare or flare station surpasses the 30 pound per month NOx emission limit.

Rule 1118.1 (Cont.) **(TBD)**

(3) An owner or operator of a flare or flare station subject to this rule that operates less than 200 hours per calendar year shall not be required to meet the ~~emission limits in~~ Table 1 Emission Limits provided:

(A) The flare has a permit that specifies conditions that limits the operating hours; and

(B) The flare operates in compliance with the permit condition;

(C) This exemption shall no longer apply in the event the flare surpasses the 200 hours per calendar year.

(4) An owner or operator of an open flare or flare combusting Naturally Occurring Methane shall not be required to conduct source testing pursuant to subdivision (f).

(5) Throughput, heat input, NOx emissions and time accrued during source testing pursuant to subdivision (f) maybe omitted ~~f~~rom the calculation of percent capacity pursuant to subparagraph (g)(1)(ED), emissions pursuant to paragraph (h)(2), or hours pursuant to paragraph (h)(3).

Response to Comment Letter #13

Response to Comment 13-1:

Since this comment letter, staff revised the proposed limit in Table 1 – Emission Limits for "other flare gas" from 30 ppm to 0.06 pounds/MMBtu consistent with current BACT limits. To clarify, the initial proposed 30 ppm limit was based on an existing permitted unit for organic liquid handling, however, it was later discovered, the source testing has yet to be completed to verify the unit has achieved the 30 ppm. The current rule proposal separates organic liquid handling from "other flare gas" category and the proposed NOx limit is consistent with the permit limit of the current flare in operation at Hoag Hospital, which has been the BACT limit since 1988.

Response to Comment 13-2:

To support the commenter's concern, organic liquids handling has been separated from the "other flare gas" category with limits consistent with current BACT limits.

Response to Comment 13-3:

Staff agrees that gas composition has an impact on flare emissions; however, gases as dissimilar as landfill gas, digester gas, and produced gas can meet similar emission limits particularly when the control equipment is similar. The gas produced at Hoag Hospital has been able to operate boilers at their site and they have produced no evidence that would indicate the 30 year old BACT standard cannot be achieved. In fact the current permit for the existing flares states it was retrofitted with ultra-low–-NOx burners meeting the 0.06 pound/MMBtu limit proposed in Rule 1118.1.

Response to Comment 13-4:

Staff agrees with the comment and has included a definition for "Flare Replacement" in the proposed rule.

Comment Letter #14

Comment Letter 14

SCAP
SOUTHERN CALIFORNIA ALLIANCE OF PUBLICLY OWNED TREATMENT WORKS

November 13, 2018

Mr. Steve Tsumura, Air Quality Specialist
Planning, Rule Development and Area Sources
South Coast Air Quality Management District
21865 Copley Drive
Diamond Bar, California 91765

Dear Mr. Tsumura:

Re: Comments on Proposed Rule 1118.1 – Non-Refinery Flares

The Southern California Alliance of Publicly Owned Treatment Works (SCAP) appreciates this opportunity to provide comments on Proposed Rule 1118.1. SCAP represents 83 public agencies that provide essential water supply and wastewater treatment to nearly 19 million people in Los Angeles, Orange, San Diego, Santa Barbara, Riverside, San Bernardino and Ventura counties. SCAP's wastewater members provide environmentally sound, cost-effective management of more than two billion gallons of wastewater each day and, in the process, convert wastes into resources such as recycled water and biogas.

Our members provide an essential public service by operating wastewater treatment plants for the sole purpose of safely and reliably managing society's sewage. Biogas is a by-product of the anaerobic sewage treatment process and must be managed continuously. This waste gas cannot be managed as a commodity, which is the objective of for-profit industries. Accordingly, our comments are focused on maintaining a safe and reliable method to manage biogas.

We would like to take this opportunity to recognize SCAQMD's efforts to address our concerns by restructuring proposed rule language. While we support the current concept of the rule and proposed limits, SCAP remains concerned that the October 31st version of the rule contains a number of outstanding issues that should be rectified. Our comments and recommended revisions are outlined in the attached redline/strikeout version of the rule. Some of these outstanding issues have the potential to materially alter rule requirements, so we respectfully request that an updated version of the rule be provided to stakeholders for a final review prior to the 30-day package deadline.

As illustrated in the attached comments, our members have relatively minor concerns pertaining to the major elements of the rule. Much of our angst has been alleviated by SCAQMD commitment to work with stakeholders and other regulatory agencies to holistically balance air quality requirements with the state-wide effort to divert organics from landfills as required under SB 1383. As we have discussed, our mission is to provide a public service by treating society's waste. With the recent

14-1

P.O. Box 231565
Encinitas, CA 92024-1565
Fax: 760-479-4881 Tel: 760-479-4880 Website: www.scap1.org Email: info@scap1.org

Mr. Tsumura November 13, 2018

revelation that food waste diversion and advanced digestion processes could generate greater concentrations of ammonia, we need to ensure that major and minor source BACT remains achievable for essential public services. SCAP believes that new BACT determinations will be required for specific digestion scenarios, which may require increasing limits contained in the current generic BACT determinations for digester gas flares. Due to the importance of the technology assessment that will be described in the Governing Board Resolution for Rule 1118.1, SCAP respectfully submits the attached draft resolution for your consideration.

Thank you again for the opportunity to comment on Proposed Rule 1118.1. Please do not hesitate to contact Mr. David Rothbart of the Los Angeles County Sanitation Districts, SCAP Air Quality Committee Chair, should you have any questions regarding this transmittal at (562) 908-4288, extension 2412.

Sincerely,

Steve Jepsen, Executive Director

cc: Dr. Philip Fine, SCAQMD
Ms. Susan Nakamura, SCAQMD
Mr. Michael Krause, SCAQMD
Ms. Heather Farr, SCAQMD
Mr. Greg Kester, California Association of Sanitation Agencies
Mr. Ray Arthur, Central Valley Clean Water Association
Mr. Randy Schmidt, Bay Area Clean Water Agencies

2

Rule 1118.1 (Cont.) **(TBD)**

(~~14~~21) OTHER FLARE GAS includes~~, but is not limited to,~~ gases combusted in flare or flare station from ~~facilities handling organic liquids, such as tank trucks, rail cars, and bulk terminal loading and offloading, or tank farm degassing~~processes or sources other than landfills, wastewater, oil and gas production, or organic liquid handling.

(~~15~~22) OXIDES OF NITROGEN (NOx) means nitric oxide and nitrogen dioxide.

(~~16~~23) PRODUCED GAS is organic compounds that are both gaseous at standard temperature and pressure and are associated with the production, gathering, separation or processing of crude oil.

(~~17~~24) PROTOCOL means a ~~SCAQMD approved~~ test protocol for determining compliance with emission limits for applicable equipment.

(~~18~~25) REGENERATIVE ADSORPTION SYSTEM means a system used to remove impurities from combustible gases or vapors consisting of several media trains that are regenerated by purging with gas, typically used with biogas or produced gas.

(~~19~~26) REGENERATION GAS means the purge gas from a regenerative adsorption system.

(~~20~~27) RELOCATE means to remove an existing source from one facility in the SCAQMD and to install that source on another non-contiguous facility. Relocate does not include ~~a~~flares permitted as a Various Location Flare.

~~(21) STATEMENT OF INTENT means a written document from an owner or operator of a flare subject to this rule indicating the action that will be taken once a flare surpasses the Table 2 Capacity Threshold for two consecutive years.~~

~~(22)~~ VARIOUS LOCATIONS FLARE means any portable flare permitted to operate at different locations in the SCAQMD. [RD1] 14-2

(~~23~~28) VOLATILE ORGANIC COMPOUND (VOC) is as defined in Rule 102 – Definition of Terms.

(d) Requirements

(1) An owner or operator that submits an application to install a flare after [date of adoption] or replaces or relocates an existing flare shall ~~meet~~ not exceed the applicable NOx, VOC, and carbon monoxide (CO) emission limits specified in Table 1 Emission Limits. . Emissions determined to exceed any applicable Table 1 Emission Limits established by this rule shall constitute a violation of this rule.

Rule 1118.1 (Cont.) **(TBD)**

Table 1 – Emission Limits

Flare Gas	NOx	CO	VOC
	pounds/MMBtu		
Digester gas~~[1]~~	~~0.025~~	~~0.06~~	~~0.038~~
Major polluting facility[1]	0.025	0.06	0.038
Minor facility[1]	0.06	N/A	N/A
Landfill gas~~[1]~~	0.025	0.06	0.038
Produced gas	0.018	~~0.06~~0.01	0.008
Other flare gas	0.06	N/A	N/A
Other Organic liquid storage	0.25	0.37	0.15
~~Other flare gas~~Organic liquid loading and unloading	~~Parts per million @ 3% oxygen Destruction Efficiency~~pounds/1,000 gallons loaded		
	~~10~~0.034	~~10~~0.05	~~90%~~0.02

~~1. Compliance with emission limits shall be demonstrated when combusting 100% biogas (e.g. with no regeneration gas)~~

1. Digester gas emission limits may be increased due to the impact of advanced digestion and food waste diversion from landfills. A technical feasibility study will be performed within one year of rule adoption to evaluate appropriate limits for these facilities[xxx].

14-3

(2) An owner or operator that submits an application to install a flare or flare station after [date of adoption] to combust Produced Gas or replaces or relocates an existing flare or flare station to combust Produced Gas shall not operate the flare(s) more than 800 hours per year. Flaring conducted during source testing; maintenance, upgrades, or breakdowns of equipment; or upsets that lead to safety concerns shall not be included as part of the 800 hours per year.

(~~2~~3) An owner or operator of a flare or flare station with a capacity threshold listed in Table 2 Capacity Threshold~~s~~ and [xxx] an application deemed complete ~~installed~~ prior to [*date of adoption*] shall:

14-4

(A) Demonstrate compliance with ~~the emission limits in~~ Table 1 Emission Limits, or

(B) Calculate the percent capacity pursuant to subparagraph (g)(1)(~~D~~E) for each flare or flare station. The owners or operator of a flare or flare station~~s~~ with an annual percent capacity that surpasses the Table 2 Capacity Thresholds ~~in Table 2~~ shall:

Rule 1118.1 (Cont.) **(TBD)**

(C) Demonstrate ~~Complete the~~ compliance with Table 1 Emissions Limits by completing a source tests pursuant to a SCAQMD approved source test protocol~~determination~~.

Table 4 – Flare Replacement

Requirement	Schedule
Submit permit application	~~6 months180 days~~1 year[RD4] from the end of the calendar year after ~~from~~ surpassing the ~~annual~~ Table 2 Capacity Threshold for two consecutive calendar years
Complete flare installation	18 months after SCAQMD permit issued
~~Complete~~ Demonstrate compliance by completing a ~~determination~~source test	180 days after ~~completion of flare or flare station installation and~~ initial startup[TA5]

14-5

14-6

(~~5~~6) An owner or operator of a flare or flare station subject to this rule shall perform maintenance in accordance with the manufacturer's schedule and specifications.~~;~~

(7) Display in an accessible location on the flare the model number and the rated heat input capacity of the flare on a permanent rating plate ~~issued by the manufacturer~~[RD6] for any flare installed, relocated, or modified after *[Date of Adoption]*. 14-7

(8) The Notifications submitted under clauses (d)(3)(B)(i) and (d)(3)(B)(ii) and subparagraphs (d)(4)(A) and (d)(4)(B) shall be subject to notification fees pursuant to Rule 301(x) – Permitting and Associated Fees.

(e) Extension provision

(1) An owner or operator of a flare or flare station subject to this rule may submit a request to the Executive Officer for an extension from the schedule in paragraphs (d)(~~3~~4) and (d)(~~4~~5), at least 60 days prior to the schedule deadline for the requirement. The time extension request shall include:

(A) The permit number or application number of the flare or flare station requiring the extension;

(B) The reason(s) a time extension is needed;

(C) Increments of progress completed and yet to be completed pursuant to the compliance schedule; and

1118.1 - 7

Rule 1118.1 (Cont.) **(TBD)**

(D) The length of time requested.

(2) Approval of Time Extensions

The Executive Officer or designee shall review the request for the time extension and shall provide written approval ~~or reject the request~~ within 60 days of receipt ~~upon~~, ~~based on~~ if the following criteria are met: 14-9

(A) The owner or operator provides sufficient details identifying the reason(s) a time extension is needed; ~~and~~

(B) The owner or operator demonstrates to the Executive Officer that there are specific circumstances ~~beyond the control of the owner or operator~~ that necessitate additional time to comply. Such a demonstration may include, but is not limited to, providing detailed schedules, engineering designs, construction plans, permit applications, purchase orders, economic burden, and technical infeasibility; and

(C) Failure to satisfy the above criteria ~~shall~~ may not result in a denial of the request. 14-9

(f) Source Tests

(1) Within 12 months from *[Date of Adoption]* an owner or operator of a flare or flare station ~~subject to paragraph (d)(1) or~~ complying with subparagraph (d)(~~3~~2)(A) or paragraph (h)(2) shall determine the applicable NOx, VOC, and CO emissions by conducting an initial source test, and source testing every five years thereafter, pursuant to paragraph (f)(4). An owner or operator of a flare subject to paragraph (d)(1) shall conduct the initial source test according to the schedule in Table 4 Flare Replacement, and source testing every five years thereafter, pursuant to paragraph (f)(4).

(A) At least 90 days prior to a scheduled source test, submit a source test protocol to the Executive Officer for approval; ~~and~~

(B) At least one week prior to the scheduled source test, notify the Executive Officer, in writing, of the intent to conduct source testing; and

(~~B~~C) Conduct a source test according to the approved protocol. If prior to rule adoption, a source test was conducted pursuant to an approved protocol and demonstrated compliance with Table 1 Emission Limits, the owner or operator may ~~instead~~ opt to

Rule 1118.1 (Cont.) **(TBD)**

(C) The continuous electric power to a fuel meter required under subparagraph (g)(1)(A) and (g)(1)(B) ~~shall not~~may only be shut off ~~unless the flare is not operating or is shut down~~ for maintenance or safety.

(D) Each fuel meter shall be calibrated based on the manufacturer recommended procedures within 90 days of installation or [*Date of Adoption*], whichever is ~~sooner~~later, and annually thereafter may be performed using an in-situ calibration method(s). If the fuel meter was calibrated prior to rule adoption, conduct next calibration within the one year of anniversary date of prior calibration. 14-10

(E) Beginning January 1, 20~~19~~20, or when fuel meter is installed pursuant to subparagraph (g)(1)(A), determine the percent capacity of the flare or flare station and maintain records documenting the percent capacity determinations as follows: 14-11

(i) Total annual throughput in units of MMscf/year and/or total annual heat input in units of MMBtu/year shall be calculated by summing throughput and/or heat input of the gas at the end of each calendar year as follows:

(A) Monthly ~~T~~throughput shall be measured and recorded at least once per month by the ~~flare-specific non-resettable~~ fuel meter(s); and

(B) Heat input of the flare gas shall be measured and recorded at least once per month pursuant to (f)(6) or calculated and recorded monthly by measuring the methane concentration ~~weekly~~ using a portable nondispersive infrared detector, or equivalent detector, calibrated per manufacturer's specifications.

(ii) Capacity shall be based on:

(A) Manufacturer designation and if not known or available, the permit limits will be deemed the capacity;

(B) The combined capacity of all flares in a flare station.

Rule 1118.1 (Cont.) **(TBD)**

(iii) Annual percent capacity shall be calculated at the end of each calendar year by one of the following metrics:

(A) By volume:

$$\text{Percent Capacity}_{MMscf} = \frac{\text{Total Annual Throughput } \left(\frac{MMscf}{year}\right) \Big/ 525{,}600 \frac{minutes}{year}}{\text{Capacity (MMscf/minute)}} \times 100\%$$

(B) By heat input:

$$\text{Percent Capacity}_{MMBtu} = \frac{\text{Total Annual Heat Input } \left(\frac{MMBtu}{year}\right) \Big/ 8760 \frac{hour}{year}}{\text{Capacity (MMBtu/hour)}} \times 100\%$$

(~~F~~iv) An owner or operator of the flare or flare station that fails to measure or record the monthly throughput or heat input value in compliance with the provisions above, the percent capacity ~~shall~~ may [TA1] be presumed to be one-hundred percent (100%). 14-12

(2) The owner or operator of a flare or flare station subject to this rule shall:

(A) Monitor and maintain NOx emission records ~~Demonstrate the NOx emissions~~ of ~~the~~a flare~~(s)~~ or flare station ~~are less than 30 pounds per month if validating compliance~~ complying pursuant to ~~sub~~paragraph (h)(2)~~, and shall maintain monthly records documenting maximum NOx emissions of less than 30 pounds per month~~ as follows:

(i) NOx emission shall be determined based on ~~by~~ the most recently ~~an~~ approved source test conducted pursuant to ~~paragraph (f)(4)~~a SCAQMD approved source test protocol;

(ii) Monthly ~~T~~throughput shall be measured and recorded at least once per month by the ~~flare specific non resettable~~ fuel meter(s);

(iii) Heat input of the flare gas shall be measured and recorded at least monthly pursuant to paragraph (f)(6) or calculated and recorded monthly by measuring the methane

Rule 1118.1 (Cont.) **(TBD)**

concentration using a portable nondispersive infrared detector, or equivalent detector, calibrated per manufacturer's specifications or estimated using the applicable Table 5 Default Heat Input; and

Table 5 – Default Heat Input

Flare Gas	Default Heat Input (Btu/scf)
Digester gas	600
Landfill gas	500
Produced gas	1,000

(iv) Calculated as follows:

$$Monthly\ pounds\ of\ NOx\ Emitted = \frac{pounds\ NOx}{MMBtu} \times \frac{MMscf}{month} \times \frac{Btu}{scf}$$

(B) ~~Demonstrate~~ Monitor and maintain hours of operation records ~~operating hours~~ of a flare or flare station complying pursuant ~~of the flare are less than 200 hours per year if validating compliance pursuant~~ to ~~sub~~paragraphs (h)(3) and (d)(2), ~~maintain monthly recordkeeping of flare use~~ using ~~an installed~~ calibrated non-resettable totalizing time meter.

(C) Maintain a copy of the manufacturer's, distributor's, installer's or maintenance company's written maintenance schedule and instructions ~~and retain a record of the maintenance activity for a period of not less than three years, which shall be made available upon request~~.

~~(D) Display in an accessible location on the flare the model number and the rated heat input capacity of the flare on a permanent rating plate for any flare installed, relocated, or modified after [Date of Adoption].~~

(~~E~~D) Provide the manufacturer's maintenance instructions, maintenance records, and the source test report(s) to the Executive Officer upon request.

(~~F~~E) ~~Maintain~~ Retain all written or electronic records required by this rule for at least five years, which shall be made available ~~upon request~~no later than ~~two~~five (5)(2) business days from date requested. 14-13

Rule 1118.1 (Cont.) **(TBD)**

(h) Exemptions

(1) The provisions of this rule shall not apply to owners or operators of a flare~~s~~ or flare station:

(A) At asphalt plants; biodiesel plants; hydrogen production plants fueled in part with refinery gas; petroleum refineries~~,~~; and sulfur recovery plants~~, and hydrogen production plants subject to SCAQMD Rule 1118 – Control of Emissions from Refinery Flares~~;

(B) Routing only 100% natural gas directly into the flare burner ~~to oxidize combustible gases or vapors and~~ that are subject to SCAQMD Rule 1147 – NOx Reductions from Miscellaneous Sources NOx emission limits;

(C) ~~At facilities subject to Rule 1100.1 – Refinery Equipment~~ Routing only 100% propane or 100% butane directly into the flare burner;

(D) At a landfill that collects less than 2,000 MMscf of landfill gas per calendar year and has either ceased accepting waste or is classified by CalRecyle as an Inert Waste Disposal Site or an Asbestos Contaminated Waste Disposal Site ~~and generates less than 2,000 MMscf of landfill gas per calendar year; or~~

(E) Permitted as a Various Location Flare~~s that are operated in compliance with SCAQMD Rules and Regulations~~; or~~

(F) Combusting regeneration gas; or

(G) When the methane content of landfill or digester gas falls below manufacturer's minimum specifications[RD13]~~.~~ 14-14

(H) Landfill gas fired flares may fulfill the five-year source requirement through the 1150.1 testing requirements if the source test plans for that specific test period include the constituents specified in Table 1[RD14]. 14-15

(2) An owner or operator of a flare or flare station subject to this rule that emits less than 30 pounds of NOx per month ~~calendar year~~ shall not be required to meet the ~~emission limits in~~ Table 1 Emission Limits provided:

(A) The flare or flare station has a permit that specifies conditions that limit~~s~~ the applicable NOx emissions; and

(B) The flare or flare station operates in compliance with the permit condition;

BE IT FURTHER RESOLVED, SCAQMD staff shall work with CAPCOA, CalRecycle, California Association of Sanitation Agencies and Southern California Alliance of Publicly Owned Treatment Works to holistically balance air quality requirements with the state-wide effort to divert organics from landfills as required under SB 1383 and report back to the Stationary Source Committee within 12 months of rule adoption to present findings and recommendations.

BE IT FURTHER RESOLVED, SCAQMD staff shall work with stakeholders to establish minor and major source BACT for flares receiving biogas derived from advanced digestion (such as thermal hydrolysis process, thermophilic process and other anaerobic digestion processes) and/or organic waste digestion or co-digestion especially as it relates to the state-wide effort to divert organics from landfills as required under SB 1383. The BACT technical assessment shall consider costs, including possible field testing, technology achieved in-practice and a description of potential reliability impacts to essential public services. SCAQMD staff shall report back to the Stationary Source Committee within 12 months of rule adoption to present findings and recommendations. 14-16

BE IT FURTHER RESOLVED that the BACT Guidelines and Rule 1118.1 shall be amended, if necessary, to reflect the BACT technical and cost assessment.

Response to Comment Letter #14

Since comments were embedded in the electronic version of this comment letter, they have been provided before the response.

Response to Comment 14-1:

Please see discussion in Chapter 3 and ~~r~~Response to Public Workshop Comment 1-2 and Response to Comment 5-1 regarding industry concerns with future impacts from food waste diversion.

Comment 14-2

The term Various Locations Flare is used elsewhere, so including a definition would be helpful.

Response to Comment 14-2:

Staff changed the reference from a "various location flare" to a flare with various location permit. This will also, in part, address a comment received during a working group meeting regarding other combustion units that meet the flare definition but may not be permitted as a flare. This wording change also eliminates the need for a definition.

Comment 14-3

The rule should provide clarity regarding the intent of the technology review that will be performed to assess the potential impact of advanced digestion and food waste diversion

(i.e., the resolution does not effectively notify stakeholders about this study or the potential ramifications). Without this transparency potential projects could be negatively impacted.

Response to Comment 14-3:

PR1118.1 will include the following footnote after Table 1 – Emission Limits to address this concern:
Table 1 - Emission Limits shall continue to apply unless amended or otherwise superseded following a technology assessment, caused to be performed by the Executive Officer, to determine potential alternative limits appropriate for digester gas generated from food waste diverted from landfills.

Comment 14-4

What happens to existing flares without an application that was deemed complete? Depending on the answer to this question, then the rule might need to be revised to ensure that existing minor sources are not required to source test as expressed by SCAQMD staff during rulemaking workshops.

Response to Comment 14-4:

The current rule concept is for a flare to either meet the Table 1 – Emission Limits or measure the percent capacity to demonstrate the flare is below the applicable Table 2 – Annual Capacity Threshold. Since the rule was changed to allow a higher NOx limit for minor source flares combusting digester gas, the owner or operator of those flares will have to either demonstrate compliance with Table 1 – Emission Limits through source testing or they will have to measure the percent capacity. For some applications, this would be a change from current practice but would be the only enforceable method to ensure the proper limits are being met. Enforceability is important not just locally but for approval by USEPA in achieving credit for reductions in the State Implementation Plan.

Comment 14-5

6-months is insufficient for a public agency to obtain detailed information needed for a complete permit application.

Response to Comment 14-5:

Staff recognizes the challenge to municipal agencies potentially subject to several layers of an approval process that could delay their ability to comply with tight enforceable deadlines. So the latest proposed rule will include an additional six months for publicly-owned facilities to submit the permit for a new flare and to submit the Notification of Flare Throughput Reduction.

Comment 14-6

If the installation of the flare is part of a larger expansion project, it's possible the flare installation could be complete but not ready for startup. Also, using the term "initial startup" is consistent with current permit conditions.

Response to Comment 14-6:

That line was removed from Table 4 – Flare Replacement and staff chan~~e~~ged the reference in subdivision (f) Source Test to state~~s~~ the initial source test shall be conducted according to the conditions set forth in the permit to construct.

Comment 14-7

If the manufacturer fails to provide the specified rating plate, the owner/operator should be allowed to install the required plate. Also, flexibility needs to be provided in the event a manufacturer goes out of business.

Response to Comment 14-7:

Staff agrees there may be instances especially with older equipment that might be difficult to comply as is currently written. In response, staff has removed the reference to "issued by the manufacturer."

Comment 14-8

To provide certainty to the owner/operator, there should be some deadline for a response. Please retain the 60-day deadline.

Response to Comment 14-8:

Staff agrees as facilities should be aware if an extension will be granted before the expiration of the legal deadline, so the proposed rule will retain the 60 day deadline for the Executive Officer to review and provide written approval or rejection of the time extension.

Comment 14-9

This provision should be less stringent because the above criteria is not specific. Changing "shall" to "may" mimics the above criteria and would provide the Executive Officer flexibility, if needed.

Response to Comment 14-9:

~~Staff agrees with the comment and prefers the consistency, so the proposed rule will include "failure to satisfy the above criteria may result in a denial of the request."~~The proposed rule

includes the criteria for approval of the time extension and additional flexibility is not necessary.

Comment 14-10

Many manufacturers recommend flow meters to be removed and sent to a remote facility for calibration, which would make the flare inoperable. SCAP members rely on flares to avoid venting to the atmosphere, so removal of the flow meter could cause venting to the atmosphere in violation of existing requirements. The initial calibration can be performed prior to commencing operation of the flare, but once installed owner/operators must be provided an in-situ calibration option regardless of manufacturer recommended procedures.

Response to Comment 14-10:

Staff addressed this concern by allowing an alternative calibration method to the manufacturers recommended procedures, provided that alternative method is approved in writing by the Executive Officer.

Comment 14-11

This is based on annual throughput, therefore the percent capacity cannot be calculated until the end of the first year (i.e., January 1, 2020).

Response to Comment 14-11:

Staff agrees that the annual percent capacity is not determined until after the first year of data collection so the rule language will need to be modified to be appropriate such as to calculate the monthly percent capacity. In addition, due to the delay in approval of the proposed rule, the January 1, 2019 date should be modified to "date of adoption."

Comment 14-12

Please replace "shall" with "may." In the event of missing data some flexibility should be provided. Landfills and treatment plants can estimate flows and methane concentrations fairly accurately. Penalizing an innocent omission should be a judgement call rather than an absolute.

Response to Comment 14-12:

Staff does not agree and will include "shall" as enforcement will have no method as to verify the intent and reasoning for missing data. Therefore, missing data will result in 100 percent capacity for each missing month.

Comment 14-13

In certain situations, it could take a few days to transmit the requested records (e.g., the responsible person is out-of-the-office, etc.).

Response to Comment 14-13:

Staff acknowledges the concern and has amended the proposed rule language from two to five days from date requested.

Comment 14-14

At a certain point landfill flares will have such low methane levels that the flare will not be able to perform as designed. Due to Rule 1150.1, gas collection rates may still exceed 2,000 MMscf per year.

Response to Comment 14-14:

Staff is aware of those concerns which is why an exemption for those facilities operating less than 2,000 MMscf per year was established. However, newly closed landfills in the future might exceed that exemption threshold which would be a concern to the SCAQMD from the perspective that NOx emissions would be high from constant flaring, and yet there are opportunities to still control emissions effectively and economically. The landfill industry provided data at the working group meeting showing how a majority of the closed landfills are currently under the proposed limit so staff plans to maintain the 2,000 MMscf threshold as it will not cause undue burden on existing sites.

Comment 14-15

An exemption should be provided to avoid redundant source testing requirements already required by Rule 1150.1.

Response to Comment 14-15:

Staff concurs with this request and made changes in the proposed rule to allow compliance with the source testing requirement if the data is generated through Rule 1150.1 and if the required pollutants are tested.

Comment 14-15

Commenter requested a Resolution to address ammonia production.

Response to Comment 14-16:

Staff appreciates the feedback and will consider the suggested language for the Resolution.

Comment Letter #15

Comment Letter 15

From: Steve Tsumura
Sent: Tuesday, November 27, 2018 9:58 AM
To: Angela Kim
Subject: FW: comments on Rule 1118.1 staff presentation for Nov 15 Working Group

Michael Salman

From: Michael Salman [mailto:salman@history.ucla.edu]
Sent: Tuesday, November 13, 2018 9:47 AM
To: Philip Fine <pfine@aqmd.gov>; Michael Krause <MKrause@aqmd.gov>; Heather Farr <HFarr@aqmd.gov>; Steve Tsumura <stsumura@aqmd.gov>
Subject: comments on Rule 1118.1 staff presentation for Nov 15 Working Group

Dear Phil, Michael, Heather, and Steve

I just reviewed the staff presentation to be shown at the Thursday, November 15 meeting of the Rule 1118.1 working group.

I am concerned about the changes being made for flares at oil well sites, which the presentation describes in two significantly different ways on pages 8 and 17.

1) Concerns about the revisions described on page 8 of the presentation:

In the summary discussion of staff changes, on page 8, the presentation states that following changes will be made to the proposed rule:

- New flares at an oil and gas site would be limited to 800 hours;
- Operator would be required to notify the Executive Officer if annual operating hours exceeds 800 hours;
- Operator can provide information to substantiate that the exceedance of the 800 hours was due to:
  - Source testing;
  - Utility pipeline curtailments;
- Information to substantiate activities occurred during the year of the exceedance includes but is not limited to:
  - Invoice from source testing company;
  - Information from utility regarding curtailment

15-1

I have no objection to exempting source testing from the count of allowed hours of operation per year.

But I do have concerns about allowing an exemption for "utility pipeline curtailments." Without any definitions or limitations, such curtailments could potentially include changes to SoCal Gas's Rule 30 on gas composition requirements or any other policy decision by SoCal Gas that could result in reduced or terminated allowance of gas sales through the SoCal Gas pipeline. This could result in the permitting of unlimited routine flaring at oil well sites in the District, contrary to the stated goal of the 2016 AQMP.

Any exemption for SoCal Gas service interruptions needs to be carefully defined and limited.

I know of only one instance of prolonged service disruption cause by SoCal Gas equipment failure (Rancho Park, November 2017) which was a four month disruption. That was a rare and possibly unique event. It was handled by shutting down oil pumps, and that is what should be done again if any similar case.

Shorter disruptions ought to be handled within the hours per year limitation. If the hours per year limit was not designed to allow flares to be used as back-up for other systems when they go down, then what is the purpose of allowing 800 hours per year of flaring?

A blanket exemption due to undefined "pipeline curtailment" opens the door too wide, without limits or definitions.

It also assumes that SoCal Gas pipeline sales are the only form of beneficial use, and it also assumes that flaring is the only possible response (other back-up technologies are available, including other beneficial uses and the option of shutting down pumps).

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2) Concerns about the proposed rule language on page 17 of the presentation :

Page 17 presents "New Flare Requirement Language –paragraph (d)(1)" which is very different from the summary description from page 8 discussed above. Here is the text of proposed rule language from page 17:

> An owner or operator that submits an application to install, replace, or relocate a flare or flare station after [date of adoption]:
> (A)Shall not operate that flare(s) so as to exceed the applicable NOx, VOC, and carbon monoxide (CO) emission limits specified in Table 1 –Emission Limits; and
> (B)Shall not operate that flare(s) more than 800 hours per calendar year if it combusts Produced Gas.
>
> i. Flaring conducted during source testing; maintenance, upgrades, or breakdowns of equipment; utility pipeline curtailment; or upsets that lead to safety concerns need not be included in the 800 hours.
> ii. The owner or operator of a flare that exceeds 800 hours shall submit a Notification of Annual Operation Greater than 800 hours and provide documentation substantiating the hours during any of the allowable exceptions pursuant clause (d)(1)(B)(i).

15-2

The exemptions delineated in this proposed rule language go far beyond source testing (limited and clear) and "pipeline curtailment" (which is undefined and potentially unlimited). Now the exemptions include maintenance, upgrades, and upsets with safety concerns - none of which are defined, none of which are limited. Without definition, these are potentially unlimited exemptions, and they are unenforceable.

Upgrades of equipment could be defined and thereby limited.

Maintenance would be harder to define and limit.

A "safety concern" exemption would be extremely difficult to define and enforce. Well sites are not refineries and do not have the same kind of safety issues. Nor are wells like landfills that cannot be shut down. I am not persuaded that there is a "safety concern" argument that could stand examination. Any attempt to define a "safety concern" would be lengthy and fraught. Exempting "safety" without any definition would be an open to door to routine flaring, contrary to the AQMP.

The limitation of hours per year of allowable flaring should by itself cover maintenance, equipment breakdowns, and safety concern issues if there are any. If the allowable hours of flaring are not meant for these purposes, then what are they meant to cover?

The difference between the rule language presented on page 17 and the very different summary description on page 8 is notable in and of itself.

---

3) I think alternative solutions already suggested in other communications could achieve consensus support.

A modest increase in allowable hours per year of flaring could be agreeable if coupled with a gradual phase out of existing BACT flare permits and replacement with new permits that are limited as per the new rules.

I think such a proposal could achieve consensus.

Phasing out the existing permits for BACT flares that allow routine flaring is eminently possible. NOx reductions at the point of flaring might be small, but the AQMP also considered GHG emissions and the benefits of utilizing beneficial use produced low emission fuels for mobile sources. The AQMP was clear in calling for a prioritization of beneficial uses over flaring. Allowing existing permits for routine flaring to continue indefinitely conflicts with the AQMP. 15-3

A modestly increased allowable hours of flaring would be enforceable, without the kind of problems kicked up by most of the proposed exemptions (except for a source testing exemption). But the need for such an increase needs to be clearly demonstrated and any such increase should be balanced by a phase out of permits that allow routine flaring.

This alternative would be enforceable, much easier to write into rule language, I think it would garner consensus support, and it would meet the AQMP's directions for action.

Yours

Michael

Response to Comment Letter #15

Response to Comment 15-1:

As stated in Response to Comment 9-1, staff is proposing to remove the annual 800 hour limit in lieu of an alternative limit on new flares of "produced gas." Staff is still proposing to exclude utility pipeline curtailment from the proposed limitation and included a definition to clearly define what activity will not be included toward the proposed throughput limitation. Those activities include, monitoring equipment breakdown or gas pipeline upgrades and maintenance. Including an exception for utility pipeline curtailment does not preclude the use of other beneficial use of the gas.

Response to Comment 15-2:

Staff agrees with the concern that the initial list of exclusions was too broad and potentially not enforceable. As such, staff is now proposing to limit those activities that can be excluded from the throughput limit to verifiable ones such as utility pipeline curtailment and source testing. Staff was also concerned that excluding activities that cannot be substantiated could lead to rule circumvention.

Response to Comment 15-3:

The 2016 AQMP did include a goal to encourage beneficial use over flaring and for others to replace older flares with clean4er ones; however, it did not state there should be further limits imposed on all flares. Staff is not proposing to change the permit conditions of currently installed flares meeting the Table 1 – Emission Limits. These flares were permitted in good faith and are meeting the current BACT limit. It should be noted, there are only eight flares currently permitted for oil and gas production that meet the lower NOx emission limits. Those flares only emit approximately 0.01 tons/day NOx (based on the average throughput from 2015 – 2017). Even if those facilities began flaring 24/7, the NOx emissions would only be about 0.04 tons/day NOx.

Those flares will eventually be phased out once they are replaced and permit limits will be imposed at that time.

Comment Letter #16

CIPA

California Independent Petroleum Association
1001 K Street, 6th Floor
Sacramento, CA 95814
Phone: (916) 447-1177
Fax: (916) 447-1144

December 4, 2018

Wayne Nastri, Executive Officer
South Coast Air Quality Management District
21865 Copley Drive
Diamond Bar, CA 91765

RE: PROPOSED RULE 1118.1. CONTROL OF EMISSIONS FROM NON-REFINERY FLARES

Dear Mr. Nastri:

The California Independent Petroleum Association (CIPA) respectfully submits the following comments on Proposed Rule 1118.1 under development by the South Coast Air Quality Management District (SCAQMD). CIPA represents the majority of companies operating oil and gas facilities within the SCAQMD's jurisdiction and has monitored the development of this rule since 2017. CIPA submitted written comments in March of this year on suggested revisions to the draft rule and we appreciate the District's willingness to work with our members in crafting a rule that achieves the goals of the regulation while not placing undue and unnecessary requirements on operators within the Los Angeles basin.

While the revised rule presented in November incorporated some positive changes, a new provision limiting flares to 800 hours a year is problematic and counterintuitive to the goals of the rule. Our members have been in discussion with District Staff about alternatives to the 800-hour limit, yet this limit remains in the draft proposed rule as it appears on the District's website today. In addition to being a de minimis contributor of overall emissions captured by the rule, our members are left with few options in disposing of stranded gas. Alternatives can be cost prohibitive. We request this provision be amended to recognize specific field conditions, allow for operator flexibility and recognize and incentivize the benefits of retrofitting and deploying new equipment. CIPA strongly supports reasonable pathways for exemptions on small producers and incentives for operators to adopt non-flare solutions. 16-1

Additionally, we request the District work with the California Public Utilities Commission and the California Air Resources Board in developing a solution to this that ultimately reduces flaring, better utilizes this resource and achieves the goals of the World Bank's "Zero Routine Flaring by 2030" initiative for which California is a signatory. Without reasonable and economically and technologically feasible alternatives, restricting an operator's ability to flare 16-2

1

creates safety concerns and ultimately may lead to the shut-down of field operations altogether. It is important this rule preserve an operator's ability to flare in order to sustain field operations.

CIPA strongly supports and advocates the benefits of in-state production. California oil and gas producers operate under some of strictest rules in the world and replacing Los Angeles production with imported fuels from other countries harms Californians. We stand ready to continue working with the District in crafting a rule that realizes the countless benefits of a strong oil and gas industry. Should you wish to discuss these comments further, please do not hesitate to contact me directly at (661) 477-0401. 16-3

Sincerely,

\S\

Willie Rivera
Director of Regulatory Affairs
California Independent Petroleum Association

CC: Michael Krause, SCAQMD
Heather Farr, SCAQMD
Steve Tsumura, SCAQMD

Response to Comment Letter #16

Response to Comment 16-1:

Staff agrees with your comments and modified the rule to remove the 800 hour limit and provide the following alternative annual throughput limitation and exemptions:

- Replacement flares will have an annual throughput limit of 110 percent of the average annual throughput for the two years immediately preceding the submittal of flare application;
- New flares that are not replacing an existing flare will have an annual throughput limit of 45 million standard cubic feet; and
- Gas throughput combusted during source tests or utility pipeline curtailment will not be included in the above limitations.

Response to Comment 16-2:

The SCAQMD will remain actively involved in solutions that will result in less flaring and more beneficial use of gas that would otherwise be flared.

Response to Comment 16-3:

Staff appreciates the contributions made by CIPA in supporting our California economy and employment. Staff worked to create a rule that will benefit the environment while not stifling business.

APPENDIX B – RULE 1118.1 FORMS

Notification of Flare Inventory and Capacity

South Coast Air Quality Management District

R1118.1 Notification of Flare Inventory and Capacity

Submit this form within 30 days from rule adoption.

Mail To: SCAQMD
Enforcement Manager Toxics
21865 Copley Dr.
Diamond Bar, CA 91765

Section A - Operator Information

1. **Facility Name** (Business Name of Operator):

2. **SCAQMD Facility ID**

3. **Owner's Business Name** (if different from Business Name of Operator):

Section B - Equipment Location Address

4. **Equipment Location is:**

Address

City State Zip

Section C - Business Mailing Address

5. **Correspondence Information:**

☐ Check here if same as equipment location address

Contact Name Title

Phone # Ext. E-Mail

Address

City State Zip

Section D – Flare Inventory and Capacity

Flare Number (Serial # or I.D.)	Permit Number	Date of Flare Installation	Type of Gas Combusted*	Maximum Rated Capacity			Fuel Meter Installed?	Fuel Meter Description	Date of Last Source Test
				Size	MMscf/ hour	MMBtu/ hour			
					☐	☐	Yes ☐ No ☐		
					☐	☐	Yes ☐ No ☐		
					☐	☐	Yes ☐ No ☐		
					☐	☐	Yes ☐ No ☐		
					☐	☐	Yes ☐ No ☐		
					☐	☐	Yes ☐ No ☐		
					☐	☐	Yes ☐ No ☐		
					☐	☐	Yes ☐ No ☐		

Attach additional forms to report more flares.
*1 – Any gas in an open flare; 2 – Digester Gas; 3 – Landfill Gas; 4 – Produced Gas

Section E - Authorization/Signature *I hereby certify that all information contained herein and information submitted with this application are true and correct.*

6. **Signature of Responsible Official:**

7. **Title of Responsible Official:**

8. **Print Name:**

9. **Date:**

Notification of Annual Percent Capacity Greater Than Threshold

South Coast Air Quality Management District

R1118.1 Notification of Annual Percent Capacity Greater Than Threshold

Mail To: SCAQMD
21865 Copley Dr.
Diamond Bar, CA 91765

Submit this form within 30 days from the end of the calendar year.

Section A - Operator Information

1. Facility Name (Business Name of Operator):

2. SCAQMD Facility ID

3. Owner's Business Name (if different from Business Name of Operator):

Section B - Equipment Location Address

4. Equipment Location is:

Street Address

City, CA Zip

Contact Name Title

Phone # Ext. E-Mail

Section C - Business Mailing Address

5. Correspondence Information:

☐ Check here if same as equipment location address

Address

City State Zip

Contact Name Title

Phone # Ext. E-Mail

Section D – Surpassing Capacity Threshold

6. Year flare surpassed capacity threshold: _____

7. Capacity threshold surpassed previous calendar year? ☐ Yes ☐ No

8. Number of Flares

9. Source Category

10. Capacity Threshold

11. List the flare identification, the annual percent capacity for each flare, and mark whether the determination was based on throughput or heat input. If more line items are needed, please attach an additional form.

Flare ID	Annual Percent Capacity	Throughput (MMscf)	Heat Input (MMBtu)
		☐	☐
		☐	☐
		☐	☐
		☐	☐
		☐	☐
		☐	☐
		☐	☐
		☐	☐
		☐	☐
		☐	☐

Section E - Authorization/Signature

I hereby certify that all information contained herein and information submitted with this application are true and correct.

12. Signature of Responsible Official:

13. Title of Responsible Official:

14. Print Name:

15. Date:

SCAQMD USE ONLY	APPLICATION TRACKING #		EQUIPMENT CATEGORY CODE:	FEE $		VALIDATION
A R DATE	ENG.A R DATE	CLASS I II	ASSIGNMENT Unit Engineer	CHECK/MONEY ORDER #	AMOUNT $	TRACKING #

☐ South Coast Air Quality Management District, Rule 1118.1 Notification of Flare Surpassing Capacity Threshold Form (2018.10)

Notification of Intent Form

South Coast Air Quality Management District
R1118.1 Notification of Intent

Mail To: SCAQMD
21865 Copley Dr.
Diamond Bar, CA 91765

Submit this form within 60 days of surpassing the capacity threshold for two consecutive years.

Section A - Operator Information

1. Facility Name (Business Name of Operator):
2. SCAQMD Facility ID
3. Owner's Business Name (If different from Business Name of Operator):

Section B - Equipment Location Address

4. Equipment Location is:
Street Address
City, CA Zip
Contact Name Title
Phone # Ext. E-Mail

Section C - Business Mailing Address

5. Correspondence Information:
☐ Check here if same as equipment location address
Address
City State Zip
Contact Name Title
Phone # Ext. E-Mail

Section D – Statement of Intent

6. For each flare at the above facility that surpassed the Rule 1118.1 capacity threshold, please indicate the intended compliance pathway.

Flare	Flare Replacement	Flare Reduction	Tentative Flare Reduction Plan (e.g. fuel cell, transportation fuel, etc.)
1	☐	☐	
2	☐	☐	
3	☐	☐	
4	☐	☐	
5	☐	☐	

If there are more than 5 units please attach an additional form.

Section E - Authorization/Signature

I hereby certify that all information contained herein and information submitted with this application are true and correct.

7. Signature of Responsible Official:
8. Title of Responsible Official:
9. Print Name:
10. Date:

SCAQMD USE ONLY	APPLICATION TRACKING #		EQUIPMENT CATEGORY CODE:	FEE $	VALIDATION
DATE A R	ENGR DATE A R	CLASS I III	ASSIGNMENT Unit Engineer	CHECK/MONEY ORDER #	AMOUNT $	TRACKING #

☐ South Coast Air Quality Management District, Rule 1118.1 Notification of Intent Form (2018.10)

Notification of Flare Throughput Reduction Form

South Coast Air Quality Management District

R1118.1 Notification of Flare Throughput Reduction

Mail To: SCAQMD
21865 Copley Dr.
Diamond Bar, CA 91765

Submit this form within 6 months of surpassing the capacity threshold for two consecutive years.

Section A - Operator Information

1. Facility Name (Business Name of Operator):

2. SCAQMD Facility ID

3. Owner's Business Name (If different from Business Name of Operator):

Section B - Equipment Location Address

4. Equipment Location is:

Street Address

City, CA Zip

Contact Name Title

Phone # Ext. E-Mail

Section C - Business Mailing Address

5. Correspondence Information:
☐ Check here if same as equipment location address

Address

City State Zip

Contact Name Title

Phone # Ext. E-Mail

Section D – Current Flare Throughput

6. Flare capacity:
_____ MMscf/year or _____ MMBtu/year

7. Flare throughput the prior two consecutive years:
Total Annual Throughput the first year surpassing threshold:
_____ MMscf/year or _____ MMBtu/year

Total Annual Throughput the second year surpassing threshold:
_____ MMscf/year or _____ MMBtu/year

8. Percent Capacity the prior two consecutive years
First Year_____ %

Second Year_____ %

Section E – Flare Throughput Reduction

9. List the alternative method(s) proposed to reduce flare throughput:

Alternative Use of Flare Gas	Description	Projected Throughput (MMscf/year)	Time to Implement
Energy Generation			
Gas compression			
Transportation Fuel			
Pipeline Injection			
Other			

Section E - Authorization/Signature

I hereby certify that all information contained herein and information submitted with this application are true and correct.

10. Signature of Responsible Official:

11. Title of Responsible Official:

12. Print Name:

13. Date:

SCAQMD USE ONLY	APPLICATION TRACKING #		EQUIPMENT CATEGORY CODE:	FEE $	VALIDATION
A R DATE	ENG A R DATE	CLASS I III	ASSIGNMENT Unit Engineer	CHECK/MONEY ORDER #	AMOUNT $	TRACKING #

☐ South Coast Air Quality Management District, Rule 1118.1 Notification of Flare Throughput Reduction Form (2018.10)

Notification of Increments of Progress Form

South Coast Air Quality Management District

R1118.1 Notification of Increments of Progress

Mail To: SCAQMD
21865 Copley Dr.
Diamond Bar, CA 91765

Submit this form within 6 months of surpassing the capacity threshold for two consecutive years.

Section A - Operator Information

1. **Facility Name** (Business Name of Operator):

2. **SCAQMD Facility ID** _____

3. **Owner's Business Name** (If different from Business Name of Operator):

Section B - Equipment Location Address

4. **Equipment Location is:**

Street Address

City, CA Zip

Contact Name Title

Phone # Ext. E-Mail

Section C - Business Mailing Address

5. **Correspondence Information:**

☐ Check here if same as equipment location address

Address

City State Zip

Contact Name Title

Phone # Ext. E-Mail

Section D – Increments of Progress

6. List the actions completed and yet to be completed to reduce flare throughput:

Actions Completed	Projected Throughput Reduction (MMscf/year)

Actions Yet to be Completed	Projected Time to Implement

Section E - Authorization/Signature

I hereby certify that all information contained herein and information submitted with this application are true and correct.

7. **Signature of Responsible Official:**

8. **Title of Responsible Official:**

9. **Print Name:**

10. **Date:**

SCAQMD USE ONLY	APPLICATION TRACKING #		EQUIPMENT CATEGORY CODE:	FEE $	VALIDATION
A R DATE	ENG A R DATE	CLASS I III	ASSIGNMENT Unit Engineer	CHECK/MONEY ORDER #	AMOUNT $	TRACKING #

Total Annual Throughput Recordkeeping Sample

SAMPLE RECORDKEEPING FORM

Rule 1118.1 Percent Capacity Recordkeeping
Total Annual Throughput

Reporting Year:	
Facility ID:	
Facility Name:	
Flare ID	
Flare Capacity:	
Source Category	
Capacity threshold	

Month	Throughput (MMscf/month)	Percent Capacity
January *(Example)*		
February		
March		
April		
May		
June		
July		
August		
September		
October		
November		
December		
Annual Throughput	0	

v102418

Total Annual Heat Capacity Recordkeeping Sample

SAMPLE RECORDKEEPING FORM

Rule 1118.1 Percent Capacity Recordkeeping
Total Annual Heat Capacity

Reporting Year:		
Facility ID:		
Facility Name:		
Flare ID		
Flare Capacity:		**MMBtu/year**
Source Category:		
Capacity threshold:		

	Measured Values		Calculated Values	
Month	**Throughput (MMscf/month)**	**Heat Value (Btu/scf)**	**Heat Input (Btu/Month)**	**Percent Capacity**
January *(Example)*				
February				
March				
April				
May				
June				
July				
August				
September				
October				
November				
December				
Annual Heat Input	0			

v102418

~~**Chapter 5**~~

REFERENCES

"Final 2016 Air Quality Management Plan", South Coast Air Quality Management District, March 2017

"Santa Barbara County Air Pollution Control District Rule 359 – Flares and Thermal Oxidizers", Adopted June 28, 1994

"San Joaquin Valley Air Pollution Control District (SJVAPCD) Rule 4311 – Flares", Adopted June 20, 2002; (Amended June 15, 2006; June 18, 2009)

"South Coast Air Quality Management District – Best Available Control Technology Guidelines" Adopted August 17, 2000 (Revised June 6, 2003; December 5, 2003; July 9, 2004; July 14, 2006; December 2, 2016; February 2, 2018)

"Bureau of Land Management Waste Prevention, Production Subject to Royalties, and Resource Conservation", 43 CFR Parts 3100, 3160 and 3170

ATTACHMENT H

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

Final Socioeconomic Impact Assessment for Proposed Rule 1118.1 – Control of Emissions from Non-Refinery Flares

January 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 Rees, Ph.D.

Author: Paul Stroik, Ph.D., Air Quality Specialist

Technical Assistance: Heather Farr, Program Supervisor
Ryan Finseth, Air Quality Specialist
Steve Tsumura, Air Quality Specialist

Reviewed By: Shah Dabirian, Ph.D., Program Supervisor
Michael Krause, Planning and Rules Manager
Ian MacMillan, Planning and Rules Manager
Karin Manwaring, Senior Deputy District Counsel
William Wong, Principal Deputy District Counsel

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
GOVERNING BOARD

Chairman: DR. WILLIAM A. BURKE.
Speaker of the Assembly Appointee

Vice Chairman: DR. CLARK E. PARKER, SR.
Senate Rules Committee Appointee

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Cities of Riverside County

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Cities of Los Angeles County/Eastern Region

JANICE HAHN
Supervisor, Fourth District
County of Los Angeles

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Governor's Appointee

LARRY MCCALLON
Mayor, Highland
Cities of San Bernardino County

JUDITH MITCHELL
Mayor Pro Tem, Rolling Hills Estates
Cities of Los Angeles County/Western Region

SHAWN NELSON
Supervisor, Fourth District
County of Orange

V. MANUEL PEREZ
Supervisor, Fourth District
County of Riverside

DWIGHT ROBINSON
Council Member, Lake Forest
Cities of Orange County

JANICE RUTHERFORD
Supervisor, Second District
County of San Bernardino

EXECUTIVE OFFICER:

WAYNE NASTRI

EXECUTIVE SUMMARY

A socioeconomic analysis was conducted to assess the potential impacts of Proposed Rule (PR) 1118.1 on the four-county region of Los Angeles, Orange, Riverside, and San Bernardino. A summary of the analysis and findings is presented below.

<table>
<tr><td>Elements of Proposed Amendments</td><td>PR 1118.1 - Control of Emissions from Non-Refinery Flares will implement, in part, the SCAQMD 2016 AQMP control measure CMB-03 – Emission Reductions from Non-Refinery Flares, and RACT/RACM requirements (see staff report). PR 1118.1 will also facilitate the transition of the NOx RECLAIM program to a command-and-control regulatory structure.

PR 1118.1 applies to RECLAIM and non-RECLAIM facilities that flare produced gas, digester gas, landfill gas, and other combustible gases or vapors. PR 1118.1 establishes NOx, CO, and VOC emission limits and provides implementation timeframes while encouraging beneficial use of the combustible gases or vapors. The provisions in PR 1118.1 establish NOx, CO, and VOC emission limits for new and existing flares flaring digester gas, landfill gas, produced gas, and other flare gas.

PR 1118.1 focuses on routine flaring by setting flare capacity thresholds and requiring facilities to take action if their flare throughput exceeds these flare capacity thresholds. The provisions in PR 1118.1 promote beneficial use of combustible gases or vapors by allowing existing non-refinery flares to not meet the emission limits required by PR 1118.1 if their usage is reduced below a capacity threshold, respective to the gas being flared.

Additionally, PR 1118.1 establishes provisions for monitoring, reporting, and recordkeeping, including requirements for source testing and fuel meters. PR 1118.1 establishes exemptions for closed landfills, along with a few other facilities. PR 1118.1 is expected to reduce 0.18 tons of NOx per day from 2024 onwards.</td></tr>
<tr><td>Potentially Affected Facilities and Industries</td><td>PR 1118.1 Facility Counts (Flare Counts)
<table><tr><td>All Permitted Non-Refinery Facilities & Flares in SCAQMD</td><td>153 (295)</td></tr><tr><td>Not Affected by PR 1118.1</td><td>71 (114)</td></tr><tr><td>Potentially Affected by PR 1118.1</td><td>82 (181)</td></tr></table>
There are 295 flares at 153 facilities subject to PR 1118.1. These 153 facilities are classified under many NAICS codes, with the majority in 211111 (Crude Petroleum and Natural Gas Extraction), 221320 (Sewage Treatment Facilities), 562212 (Solid Waste Landfill). Of these 153 facilities, 78 are located in Los Angeles County, 30 in Orange County, 25 in Riverside</td></tr>
</table>

County, and 20 facilities in San Bernardino County. 20 facilities are currently in the NOx RECLAIM program.

Of the 153 facilities subject to PR 1118.1, 71 were identified as not needing to take any action to comply with PR 1118.1, because their flares or flare stations meet one of the following conditions in the proposed rule:

1) Operate in landfills collecting less than 2,000 MMscf of landfill gas per calendar year and has either stopped accepting waste or is classified by CalRecycle as an Inert Waste Disposal Site or an Asbestos Contaminated Waste Disposal Site; or
2) Are flares with various-location permits; or
3) Combust regeneration gas; or
4) Combust only propane or butane or a combination of propane or butane; or
5) Are classified as facilities flaring gas other than landfill, digester, or produced gas; or
6) Already meet PR 1118.1 emission limits and operate at Title-V facilities which already perform source testing needed to prove meeting PR 1118.1 emission limits.

Thus 82 of the 153 facilities subject to PR 1118.1 are facilities staff expects may be affected by adoption of PR 1118.1, with a total of 181 flares possibly affected in some way by adoption of PR 1118.1.

Assumptions of Analysis

PR 1118.1 Potentially Affected Flares by Expected Compliance Method

Flare Replacement	23
Fuel Meter Install	149
Source Testing	9
Total	**181**

Replacement flares

There are 23 flares at 16 facilities which SCAQMD staff expects to be replaced or install beneficial use to comply with PR 1118.1. Equipment and installation costs are expected to result in a one-time cost of $960,000 on average for each flare.

Fuel meters

Of the 181 flares affected by PR 1118.1, there are at most 149 flares which SCAQMD staff expects to install fuel meters as a result of PR 1118.1. These fuel meters would be installed to assist in demonstrating their respective flares meet the PR 1118.1 capacity-threshold requirement, allowing the flare to not need replacement as stipulated in PR 1118.1. Fuel meter costs vary widely based upon flare specifications and generally have a base price around $3,500. Staff conservatively used an average price of

<table>
<tr><td></td><td>$7,000 per fuel meter, resulting in the addition of fuel meters as a result of PR 1118.1 costing $1,043,000.

Source tests
There are at most seven facilities which SCAQMD staff expects to only perform additional source tests due to adoption of PR 1118.1. These costs come from facilities with flares meeting PR 1118.1 emission limits. These additional source tests will be performed at earliest upon PR 1118.1 adoption and subsequently every five years to ensure the flare is meeting PR 1118.1 emission limits. Each source test is conservatively assumed to cost around $12,000, resulting in an additional cost of $84,000 starting in 2019, and every five years thereafter.

Monitoring, reporting, and recordkeeping
Beyond installation of fuel meters, and performing source testing, staff believes additional costs of monitoring, reporting, and recordkeeping due to PR 1118.1 to be negligible (e.g. labor cost to record fuel-meter data, and maintain and report recorded data).

Permitting
Facilities replacing their flares to comply with PR 1118.1 are likely to incur increased permitting expenses. Staff believes additional permitting costs due to PR 1118.1 are already included in the one-time and annual costs of operating a new flare, as costs provided to SCAQMD by facilities operating a PR 1118.1 compliant flare list permitting costs.</td></tr>
<tr><td>Compliance Costs</td><td>PR 1118.1 Expected Compliance Costs (2019-2045)
<table>
<tr><th>Cost Scenario</th><th>Total cost if all expenses made in 2018 (millions)</th><th>Annualized cost (millions)</th></tr>
<tr><td>High-cost scenario (4% interest rate)</td><td>$74,054,000*</td><td>$4.7</td></tr>
<tr><td>Low-cost scenario (1% interest rate)</td><td>$97,478,000*</td><td>$4.2</td></tr>
</table>
* “High”-cost refers to annualized cost. “High”-cost scenario assumes a higher discount rate, meaning future expenses have lower current value.

PR 1118.1’s overall compliance cost is expected to be incurred by the landfill, oil and gas, and wastewater treatment sectors. PR 1118.1’s total annualized compliance cost from 2019 - 2045 is expected to range from $4.2 - $4.7 million for the low- (1% real interest rate) and high- (4% real interest rate) cost scenarios respectively.

Based on the high-cost scenario, about 98% of the costs of PR 1118.1 stem from purchasing, engineering, installing etc. of new flares. The remaining costs of PR 1118.1 stem from fuel meters and source testing. Additional costs of monitoring, reporting, and recordkeeping and permit modifications are expected to be negligible.</td></tr>
</table>

<table>
<tr>
<td>Jobs and Other Socioeconomic Impacts</td>
<td>
PR 1118.1 Expected Annual Foregone Jobs (2019-2045)
<table>
<tr><th>Cost Scenario</th><th>Annual foregone jobs
(% of SCAB jobs)</th></tr>
<tr><td>High-cost scenario (4% interest rate)</td><td>39 (0.0003%)</td></tr>
<tr><td>Low-cost scenario (1% interest rate)</td><td>35 (0.0003%)</td></tr>
</table>

Based on the above assumptions, the compliance cost of PR 1118.1, and the application of the Regional Economic Models, Inc. (REMI) model, it is projected 35 - 39 jobs will be forgone on average annually from 2019 - 2045 in total across all SCAQMD industries. The projected job forgone impacts represent about 0.0003% of total employment in the four-county region for both the low- and high-cost scenarios. Jobs foregone can come from current jobs lost, or potential future created jobs no longer being created.

The landfill, oil and gas, and wastewater treatment facilities industries are expected to forego five jobs annually from 2019 - 2045 as a result of PR 1118.1 being adopted.

Due to most expenditures from PR 1118.1 expected to be made outside the South Coast Air Basin, PR 1118.1 is expected to reduce disposable income in the local economy, dampening the demand for goods and services in the local economy. These inter-region effects are expected to result in jobs forgone projected in sectors such as construction (NAICS 23), food services and drinking places (NAICS 722), and state and local government (NAICS 92). The remainder of the projected reduction in employment would be across all major sectors of the economy due to secondary and induced impacts of PR 1118.1.
</td>
</tr>
<tr>
<td>Competitiveness</td>
<td>As a result of PR 1118.1 being approved, it is projected the landfill, oil and gas, and wastewater treatment sectors would experience a rise in their relative costs of production of 0.082% - 0.093%, 0.008% - 0.009%, and 0.039% - 0.043% in 2025 for the low and high cost scenarios, respectively. The landfill, oil and gas, and wastewater treatment sectors are also expected to experience an increase in their delivered prices by 0.062% - 0.070%, 0.002% - 0.002%, and 0.015% - 0.016% in 2025 for the low and high cost scenarios. These price and cost increases are very small relative to average inflation of industrial equipment costs, which was 2.3% from 1999-2018.

Delivered prices that a facility may charge for specific goods or services may increase at a greater rate than this, allowing incurred costs to be passed through to downstream industries and end-users. The remaining sectors considered unaffected by PR 1118.1 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.</td>
</tr>
<tr>
<td>RECLAIM: Potential NOx</td>
<td>There are 20 facilities potentially affected by PR 1118.1 in the NOx RECLAIM trading program. If PR 1118.1 is adopted, none of the 20 potentially affected facilities are expected to receive an initial determination</td>
</tr>
</table>

RTC Market Impacts	notification. These facilities have additional permitted RECLAIM NOx source equipment subject to command-and-control rules planned for future adoption or amendment.

INTRODUCTION

Proposed Rule 1118.1 (PR 1118.1) - Control of Emissions from Non-Refinery Flares will implement, in part, the South Coast Air Quality Management District (SCAQMD) 2016 Air Quality Management Plan (AQMP) control measure CMB-03 – Emission Reductions from Non-Refinery Flares, and RACT/RACM requirements (see staff report). PR 1118.1 will also facilitate the transition of the nitrogen oxide (NOx) RECLAIM program to a command-and-control regulatory structure.[1] PR 1118.1 applies to RECLAIM and non-RECLAIM non-refinery facilities, primarily landfills, oil and gas facilities, and wastewater-treatment facilities.

PR 1118.1 establishes NOx, carbon monoxide (CO), and volatile organic compound (VOC) emission limits for non-refinery flares. Additionally, PR 1118.1 establishes provisions for monitoring, reporting, and recordkeeping, including requirements for source testing and installing fuel meters. PR 1118.1 establishes several exemptions, including one covering most closed landfills, and others for flares that emit less than 30 lbs. of NOx per month or operate less than 200 hours per calendar year.

PR 1118.1 is expected to reduce 0.18 tons of NOx per day from 2024 onwards.

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 rule include a SCAQMD Governing Board resolution and various sections of the California Health & Safety Code, summarized below.

SCAQMD Governing Board Resolution

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

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."

[1] Whenever RECLAIM is mentioned in this report, the nitrogen oxide (NOx) RECLAIM program is meant, and does not include the sulfur oxide (SOx) RECLAIM program.

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 Best Available Retrofit Control Technology or "all feasible measures" requirements relating to ozone, carbon monoxide (CO), oxides of sulfur (SOx), oxides of nitrogen (NOx), and their precursors.

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 PR 1118.1 Staff Report prepared for this proposed rule. All other elements for socioeconomic analyses required for PR 1118.1 described above are included in this assessment.

AFFECTED INDUSTRIES

Of the 153 facilities subject to PR 1118.1 there are 20 open landfills, 39 closed landfills, 29 wastewater treatment facilities, 36 oil and gas facilities, and 29 other facilities providing various services subject to PR 1118.1. The majority of PR 1118.1 facilities are classified under North American Industry Classification System (NAICS) codes 211111 (Crude Petroleum and Natural Gas Extraction), 221320 (Sewage Treatment Facilities), 562212 (Solid Waste Landfill).[2] Of these 153 facilities, 78 are located in Los Angeles County, 30 in Orange County, 25 in Riverside County, and 20 in San Bernardino County. Of the 153 affected facilities, 20 facilities are currently in the NOx RECLAIM program.

[2] NAICS codes used in this report are from the 2012 coding system.

Of the 153 facilities with 295 flares subject to PR 1118.1, 80 flares at 45 facilities are expected to be exempt as described in the bullets below:

- Seventy flares at 37 closed landfills expected to collect less than 2,000 MMscf of landfill gas per calendar year.

- One flare at one open landfill classified by CalRecycle as an Inert Waste Disposal Site or an Asbestos Contaminated Waste Disposal Site.

- Four flares at three with various-location permits.

- Five flares at four facilities combusting regeneration gas not already exempted due to being closed landfills.

Of the remaining 215 flares at 109 facilities subject to PR 1118.1,[3] 23 facilities are expected to incur no additional costs from 26 flares due to being classified as facilities flaring gas other than digester, landfill, or produced gas. An additional seven facilities have in total eight flares from which they are expected to incur no additional costs from PR 1118.1 adoption due to already meeting PR 1118.1 emission requirements and already perform source testing required by PR 1118.1 due to being Title-V facilities.

For the duration of this report the remaining 181 flares at 82 facilities are considered "potentially affected flares" and "potentially affected facilities" respectively.[4] Potentially affected facilities are expected to comply with PR 1118.1 in the manner described below (also displayed in Figure 1):

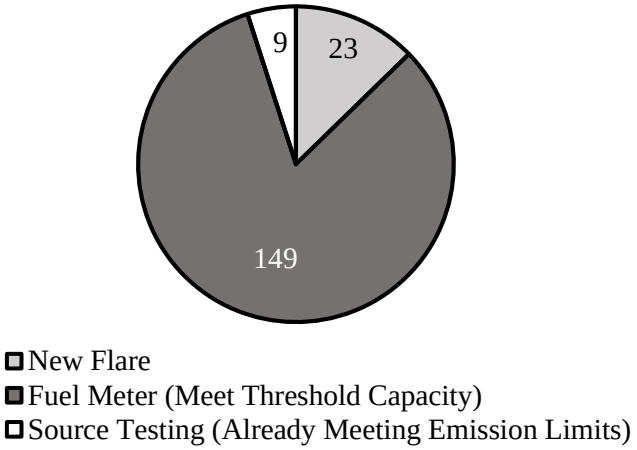
- **Flare installation:** Twenty-three flares are expected to be replaced at 16 facilities incurring a one-time cost of purchasing and installing the flare, along with annual operation and maintenance costs.

- **Fuel meters (monitoring):** One-hundred-forty-nine flares at 67 facilities are expected to have fuel meters installed to prove their flares meet the PR 1118.1 capacity thresholds incurring one-time costs of purchase and installation of a fuel meter.

- **Source testing (monitoring):** Two flares at two facilities are expected to comply with the PR 1118.1 low-pollution exemption, incurring an additional source-test cost every five years beginning upon date of PR 1118.1 adoption. Additionally, seven flares at five facilities are expected to require additional source testing due to those flares meeting the Table 1 emission limits, but the facilities are assumed to not already be performing source testing due to not being Title-V facilities.

[3] Fourty-four facilities have only exempt flares. One facility has some exempt and non-exempt flares.
[4] Facility counts not simply reduced as some facilities have flares potentially unaffected and potentially affected by PR 1118.1.

Figure 1: Distribution of Potentially Affected Flares by PR 1118.1 Compliance Method



Any additional reporting, and recordkeeping requirements imposed by PR 1118.1 are expected to impose negligible costs. Any potential administrative burden from these requirements is also lessened because all 82 potentially affected facilities are eligible for extensions for flare throughput reduction or flare replacement submitted to and reviewed by the SCAQMD Executive Officer.

Figure 2 presents the 82 potentially affected facilities of PR 1118.1 by process. As seen in Figure 2, 34 operate in the oil & gas sector (about 41%) and flare produced gas, 26 operate in the wastewater treatment sector (about 32%) and flare digester gas, 16 operate as landfills (about 20%) and flare landfill gas, and six operate in various sectors (about 7%) and flare digester gas.

Figure 2: Distribution of Potentially Affected Facilities by Process

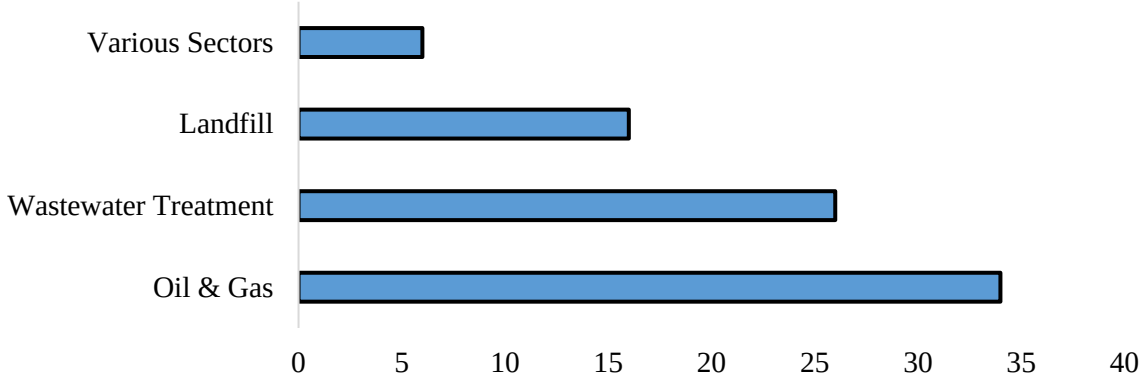


Table 1 presents the 82 potentially affected facilities of PR 1118.1 by NAICS code. As seen in Table 1, 33 (about 40%) are classified under crude petroleum and natural gas extraction (NAICS 211111), 25 (about 30%) under sewage treatment (NAICS 221320), 15 (about 18%) under solid-waste landfills, and the remaining nine (about 11%) are classified as other industries.

Small Businesses

SCAQMD defines a "small business" in Rule 102, for purposes of fees, as one which employs 10 or fewer persons and which earns less than $500,000 in gross annual receipts. SCAQMD also

defines "small business" for the purpose of qualifying for access to services from SCAQMD's Small Business Assistance Office as a business with an annual receipt of $5 million or less, or with 100 or fewer employees. In addition to SCAQMD's definition of a small business, the federal Clean Air Act Amendments (CAAA) of 1990 and the federal Small Business Administration (SBA) also provide definitions of a small business.

The CAAA classifies a business as a "small business stationary source" if it: (1) employs 100 or fewer employees, (2) emits less than 10 tons per year of any single pollutant and less than 20 tons per year of all pollutants, and (3) is a small business as defined under the federal Small Business Act (15 U.S.C. Sec. 631, et seq.). The SBA definitions of small businesses vary by six-digit North American Industrial Classification System (NAICS) codes. In general terms, a small business must have no more than 500 employees for most manufacturing industries, and no more than $7 million in average annual receipts for most nonmanufacturing industries.[5]

Table 1: PR 1118.1 Potentially Affected Facilities by Industry

NAICS	Facility Count	Industry Description
211111	33	Crude Petroleum and Natural Gas Extraction
221320	25	Sewage Treatment Facilities
562212	15	Solid Waste Landfill
312120	2	Breweries
562219	2	Other Nonhazardous Waste Treatment and Disposal
213111	1	Drilling Oil and Gas Wells
221112	1	Fossil Fuel Electric Power Generation
311920	1	Coffee and Tea Manufacturing
311991	1	Perishable Prepared Food Manufacturing
445110	1	Supermarkets and Other Grocery (except Convenience) Stores
Total	**82**	

Facilities meeting the following categories are considered small businesses by SBA:

- In landfill industry (NAICS 562212) earning less than $38.5 million average annual revenue.
- In oil and gas industry (NAICS 211111) with fewer than 1,250 employees.
- In wastewater treatment industry (NAICS 221320) earning less than $20.5 million average annual revenue.

Of the affected landfill, oil and gas, and wastewater treatment facilities potentially affected by PR 1118.1, staff believes 20 to be public utilities. Information on sales and employees for 57 of the remaining 62 facilities were available in the 2018 Dun and Bradstreet Enterprise Database, and their small business status was determined as follows:

[5] The latest SBA definition of small businesses by industry can be found at: http://www.sba.gov/content/table-small-business-size-standards.

- Under SCAQMD's definition of small business in Rule 102, staff estimates 20 small businesses affected by PR 1118.1.
- Under the SBA definitions of small business, staff estimates 42 small businesses affected by PR 1118.1.
- Under the CAAA definition of small business, staff estimates 41 small businesses affected by PR 1118.1.

COMPLIANCE COST

Methods and Sources of Data

To estimate meaningful costs associated with any rule, one must decide on a relevant time horizon over which to estimate the rule's costs. This analysis considers the cost of this rule, PR 1118.1, from 2019-2045, as some facilities are expected to install new flares due to PR 1118.1 by 2021 at the earliest, and those flares are expected to have a 25-year life expectancy.

The main requirements of PR 1118.1 having cost impacts for potentially affected facilities include one-time costs and annual recurring costs. The one-time costs include capital and installation costs for flares and fuel meters. Annual recurring costs of PR 1118.1 include additional source testing for new flares and also to determine the heating value needed to demonstrate compliance with the low-emission exemption (less than 30 lbs. NOx per month) in PR 1118.1.

Staff used the following sources to estimate costs of capital, installation, and operating and maintenance of flares and fuel meters, as well as source testing:

1) Actual and quoted costs from facilities within the PR 1118.1 universe (used to estimate all costs considered).

2) Vendor cost estimates for source tests and fuel meters (used to verify source-test and fuel-meter costs used in this report are conservative estimates).

Costs for New Flare Installations

Of the 82 potentially affected facilities, only 16 were identified as candidates for installing new flares to comply with PR 1118.1. Required modifications (and associated costs) to flaring units in order to meet the NOx, CO, and VOC concentration limits in PR 1118.1 are detailed below. There are 23 flares located at 16 facilities that are expected to be replaced in order to comply with PR 1118.1.

Based on equipment and installation costs of flares that comply with PR 1118.1 provided to the SCAQMD by PR 1118.1 universe facilities, each replaced flare is expected to result in a one-time capital cost of $1.5 million on average.[6] Installation of new flares is expected to raise a facility's average annual cost, but is hard to estimate. Annual costs to operate flares complying with PR 1118.1 emissions limits were provided by several facilities within the PR 1118.1 universe, but not

[6] This includes costs for flare purchase, installation, engineering, source testing, permitting, etc. One-time capital cost estimates provided to SCAQMD ranged from around $230,000 to $2,573,000.

all were broken down by specific cost (e.g. electricity, permitting, calibration, etc.). To provide conservative annual cost estimates of replacing a flare due to adoption of PR 1118.1, it is assumed the flare being replaced had an annual operating cost of $0. Therefore each replaced flare is expected to increase a facility's average annual cost around $120,000.[7]

Some facilities assumed to replace an existing flare might be exempt from doing so under the PR 1118.1 low-use exemption (flare used less than 200 hours per year). Since timed flare usage has historically not been reported to SCAQMD, nor was it gathered in development of PR 1118.1, this report assumes no facility meets this exemption. This further amplifies the conservative nature of this report's cost estimates.

Costs for Source Testing and Fuel Meters

There are nine flares at seven facilities expected to comply with PR 1118.1 through source testing to either prove they meet the low-emission exemption (emit less than 30 lbs. NOx per month) or prove they meet PR 1118.1 Table-1 emission limits.[8] To do so, each facility is expected to perform source testing every five years beginning in the year of PR 1118.1 adoption. Source testing is conservatively estimated to cost $12,000 per flare.[9]

There are 149 flares at 67 facilities expected to comply with PR 1118.1 by meeting their industry's respective flare capacity threshold. In order to prove a flare meets its respective PR 1118.1 capacity threshold, its facility must provide the SCAQMD with flow readings from an installed fuel meter for each flare or flare station. To be conservative, it is assumed all 149 flares are individual flares and do not have a fuel meter as of rule adoption. Purchase and installation of each fuel meter is expected to cost $7,000 on average.[10]

Miscellaneous Costs

Facilities replacing their flares to comply with PR 1118.1 are likely to incur increased permitting expenses. Staff believes additional permitting costs due to PR 1118.1 are already included in the one-time and annual costs of operating a new flare, as costs provided to SCAQMD by facilities operating a PR 1118.1 compliant flare list permitting costs.

Six flares at six facilities in the oil and gas industry are expected to install new flares due to PR 1118.1 adoption. PR 1118.1 requires annual usage to be no greater than 10% of their prior two-year average for any modified, replaced, or relocated flare at oil and gas facilities with estimated annual emissions of four tons or more of sulfur oxides, VOCs, NOx, specific organics, or particulate matter, or emissions of 100 tons per year or more of carbon monoxide. Staff believes this requirement, and its subsequent recordkeeping requirements, imposes no additional costs as the facilities affected by it already report annual usage to the SCAQMD.

[7] Annual cost estimates of new flare operation provided to SCAQMD ranged from around $19,000 to $306,000.

[8] This source testing is assumed to be additional due to PR 1118.1 as staff believes non-Title-V facilities with flares meeting the PR 1118.1 Table-1 emission limits are not required to perform source testing.

[9] SCAQMD reached out to several vendors for cost estimates on source testing. On average, source testing required to comply with the low-emissions exemption costs around $5,000. $12,000 is used as a conservative source-testing cost estimate, and was provided to SCAQMD by one facility expected to comply with PR 1118.1.

[10] This value comes from a quote provided to the SCAQMD from the City of Riverside. Staff research of fuel meters currently sold show base prices for fuel meters around $3,500.

Cost Summary

Table 2 presents the distribution of overall predicted costs of PR 1118.1 by select cost categories. The majority of predicted costs, about $2.6 million annually, is attributed to annual operation and maintenance of replaced flares. The one-time costs associated with flares, e.g. flare purchase, engineering, installation, etc., is estimated to be $1.5 - $2.0 million annually for the low- and high-cost scenarios respectively. The low-cost scenario assumes a real interest rate of 1%, while the high-cost scenario assumes a 4% real interest rate.[11] The remaining costs associated with fuel meters is estimated at about $39,000 annually. The average annual cost of PR 1118.1 is estimated to be $4.2 - $4.7 million between 2019 and 2045, for the low- and high-cost scenarios respectively.

Table 3 presents total and average annual compliance costs of PR 1118.1 by industry types. The majority of the cost is expected to be incurred by landfills ($3.7-$4.2 million or 88% - 89% for the low- and high-cost scenarios respectively). The majority of the remaining cost is expected to be incurred by oil and gas facilities ($355,000 - $420,000 or 8.5% - 8.9% for the low- and high-cost scenarios) and wastewater treatment facilities ($136,000 - $146,000 or about 3% for both low- and high-cost scenarios).[12]

Table 4 presents the cost-effectiveness of PR 1118.1, estimated at $45,000-$59,000 based on the discount cash flow (DCF) method.

Table 2: Total and Average Annual Cost of PR 1118.1 by Cost Category

	Present Worth Value (2018)		**Annual Average (2019-2045)**	
Cost Categories	**1% Discount Rate**	**4% Discount Rate**	**1% Real Interest Rate**	**4% Real Interest Rate**
One-Time Cost				
Flare replacement (includes all associated costs, e.g. flare, engineering, installation, construction, permitting, source testing, etc.)	$34,441,000	$31,545,000	$1,477,000	$2,022,000
Fuel meters	$1,033,000	$1,003,000	$39,000	$39,000
Recurring Costs				
Additional operation and maintenance of replaced flares	$61,413,000	$41,086,000	$2,634,000	$2,634,000
Additional source testing	$591,000	$419,000	$25,000	$25,000
Total	**$97,478,000**	**$74,054,000**	**$4,175,000**	**$4,720,000**

Note: Values rounded to nearest thousand dollars.

[11] Higher real interest rates increase the annualized value of one-time expenses by assuming payments made for capital after its purchase are increasingly less valuable relative to a payment made in the capital's purchase year.
[12] Percentages do not add to 100%. The remaining costs are borne by other industries listed in Table 1.

Table 3: Projected Total and Average Annual Compliance Costs by Industry for Potentially Affected Facilities

Industry description	NAICS Codes	Present Worth Value (2018)		Average Annual Costs (2019-2045)	
		1% Discount Rate	4% Discount Rate	1% Discount Rate	4% Discount Rate
Oil and gas extraction	2111	$8,318,000	$6,669,000	$355,000	$420,000
Support activities for mining	2131	$7,000	$7,000	< $500	< $500
Water, sewage, and other systems	2213	$3,221,000	$2,423,000	$136,000	$146,000
Other food manufacturing	3119	$14,000	$13,000	$1,000	$1,000
Beverage manufacturing	3121	$14,000	$13,000	$1,000	$1,000
Retail trade	4451	$7,000	$7,000	< $500	< $500
Waste management and remediation services	5622	$85,897,000	$64,922,000	$3,682,000	$4,152,000
Total		**$97,478,000**	**$74,054,000**	**$4,175,000**	**$4,720,000**

Note: Adding all industry values may not add to total amount due to rounding. "< $500" indicates the estimated value is less than $500.

Table 4: Cost-Effectiveness

Cost scenario	DCF ($/ton)
4% discount and real interest rate	$45,000
1% discount and real interest rate	$59,000

JOBS AND OTHER SOCIOECONOMIC IMPACTS

The REMI model (PI+ v2.2.8) was used to assess the total socioeconomic impacts of the regulatory change from PR 1118.1.[13] 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.[14]

The assessment herein is performed relative to a baseline ("business as usual") where PR 1118.1 would not be implemented. Adoption of PR 1118.1 would create a regulatory scenario under which

[13] Regional Economic Modeling Inc. (REMI). Policy Insight® for the South Coast Area (160-sector model). Version 2.2.8, 2018.

[14] Within each county, producers are made up of 156 private non-farm industries and sectors, 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.)

the potentially affected facilities would incur average annual compliance costs totaling $3.9 - $4.5 million for low- and high-cost scenarios respectively. Direct effects of proposed rules/amendments must be estimated and used as inputs into the REMI PI+ 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 PR 1118.1 include additional costs to the potentially affected facilities and additional sales by local vendors of equipment, devices, or services supplying the necessary goods/services to help the potentially affected facilities meet the proposed requirements of PR 1118.1.

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 5 lists the industry sectors modeled in REMI PI+ that would either incur a cost or benefit from the compliance expenditures.[15]

Table 5: Industries Incurring Costs or Benefits from PR 1118.1 Compliance

Source of Compliance Costs	REMI Industries Incurring Compliance Costs (NAICS)	REMI Industries Benefitting from Compliance Spending (NAICS)
Flare Replacement	Landfills (562); Oil and Gas (211); Wastewater Treatment (2213);	*One-time Capital Cost:* Retail (44-45), Wholesale (42)
Fuel meters		*One-time Capital Cost:* Retail (44-45), Wholesale (42)
Source testing		*Recurring Cost:* Management, scientific, and technical consulting services (5416)
Operation and maintenance of replaced flares		*Recurring Cost:* Retail (44-45), Wholesale (42)

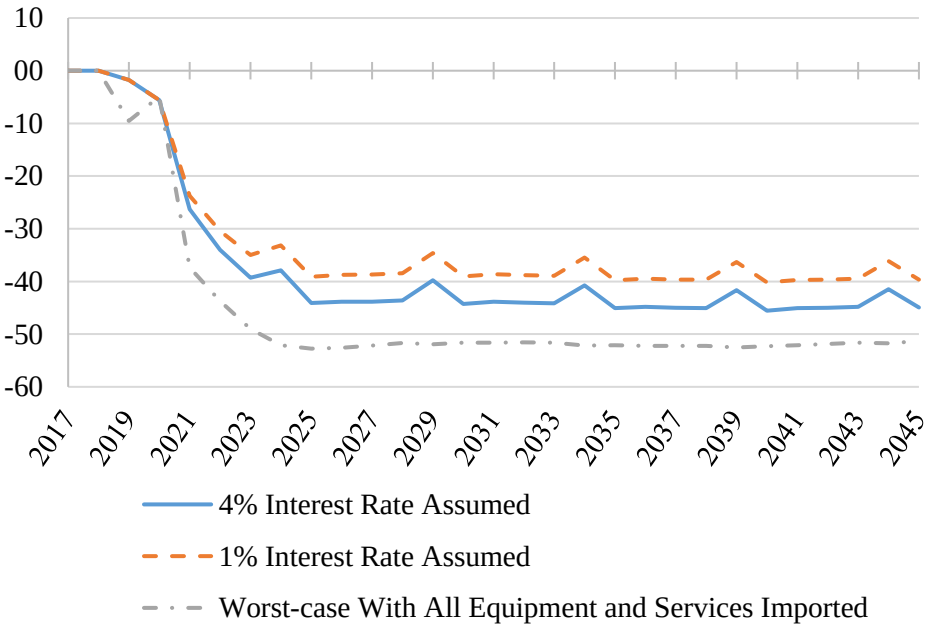
Given the nature of data provided to SCAQMD from PR 1118.1 facilities, it is hard to distinguish the specific costs associated with flare replacement and annual operation and maintenance of replaced flares. Moreover, many flare-making and fuel-meter companies are headquartered outside

[15] 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. Current air-quality modeling employed by SCAQMD performs poorly with "small" changes in air pollution, e.g. less than 10 tons per day, in that such air-pollution changes are hard to distinguish from random variation in the model.

the SCAQMD.[16] Therefore, it is assumed 100% of source-testing costs are supplied by professional service companies within the SCAQMD, and 8% of all flare and fuel-meter expenses are attributed to retail and wholesale companies within the SCAQMD to account for local installation and engineering costs (for 16% total).

As presented in Figure 3, PR 1118.1 is expected to result in an average of 35 - 39 jobs foregone annually from 2019 - 2045 for the low- and high-cost scenarios respectively. The projected job impacts represent about 0.0003% of total employment in the four-county region for both the low- and high-cost scenarios. A "worst-case" scenario, where all purchases made due to PR 1118.1 went to suppliers outside the four-county region, resulted in approximately 48 jobs on average expected to be foregone annually from 2019 - 2045. Reductions in foregone jobs are expected every five years starting in 2019 due to additional source testing.[17]

Figure 3: Projected Regional Foregone Jobs, 2019 - 2045



Jobs foregone can come from currently existing jobs or future new jobs. Figure 4 plots predicted foregone jobs, baseline jobs, and total jobs following adoption of PR 1118.1 from 2017 – 2045 for the high-cost scenario. Figure 4 makes clear the predicted job impacts from PR 1118.1 are small relative to the total predicted jobs, and that jobs can be foregone without someone currently employed losing their job.

[16] Information from SCAQMD staff familiar with industries covered by PR 1118.1. Some examples confirming this are flares from Aereon (Princeton, NJ) and John Zink (Tulsa, OK), and fuel meters from GE (headquarters in Boston, MA) and Emerson (headquarters in St. Louis, MO).

[17] Source testing would be necessary for facilities proving their flares meet PR 1118.1 emission rate requirements. Some facilities may delay source testing due to having performed one within five years prior to PR 1118.1 adoption. To be conservative, all facilities expected to perform source testing due so upon rule adoption.

Figure 4: Projected Regional Job Impact, 2017 – 2045 (High-Cost Scenario)

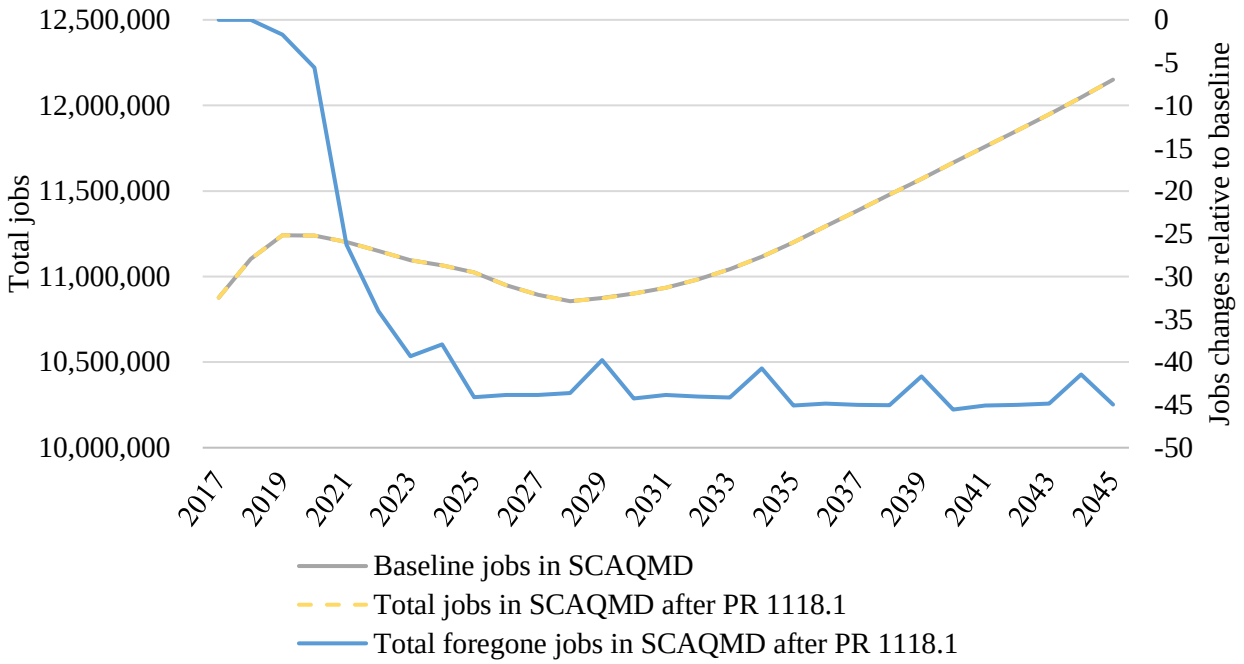


Table 6 presents expected job impacts of PR 1118.1 for the top 10 industries with negative job impacts, one industry with expected positive job impacts, and the remaining industries grouped together. Jobs are expected to be foregone in the overall economy throughout the time period considered (2019 - 2045). Years 2024 and 2029 are displayed to make clear the every-five-year positive job impacts from year of adoption of PR 1118.1 in the management, scientific, and technical consulting services sector (NAICS 5416) due to additional source testing.

Although the landfill, oil and gas, and wastewater treatment sectors would bear most of the estimated total compliance costs of PR 1118.1, the job impacts projected for these industries are relatively small, with an estimated average of six jobs foregone annually between 2019 and 2045. Staff believes this to be reasonable, as the landfill, oil and gas, and wastewater treatment sectors are likely more capital intensive than many other industries in the four-county region. The remainder of the projected reduction in employment would be across all major sectors of the economy from secondary and induced impacts of PR 1118.1.[18]

Competitiveness

The additional cost brought on by PR 1118.1 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.

[18] Secondary impacts on jobs are changes in jobs to supplying industries of the affected industries, while induced impacts on jobs are changes in jobs due to overall disposable income changes in the SCAQMD economy.

Table 6: Job Impacts of PR 1118.1 (High-Cost Scenario)

Industries (NAICS)	2019	2024	2029	2035	2045	Average Annual Job Changes (2019 - 2045)	Average Annual Baseline (2019 - 2045)	% Change from Baseline Jobs
Construction (23)	-2	-8	-5	-4	-3	-5	472,000	-0.0010%
Waste management and remediation services (562)	0	-3	-4	-4	-4	-4	22,000	-0.0167%
State and Local Government (92)	0	-3	-3	-3	-3	-3	908,000	-0.0003%
Food services and drinking places (722)	0	-2	-3	-3	-3	-3	731,000	-0.0004%
Real estate (531)	0	-2	-2	-2	-2	-2	576,000	-0.0003%
Retail trade (44-45)	0	-1	-1	-2	-2	-1	986,000	-0.0001%
Oil and gas extraction (211)	0	-1	-2	-2	-2	-1	23,000	-0.0060%
Offices of health practitioners (6211-6213)	0	-1	-1	-2	-2	-1	428,000	-0.0003%
Transit and ground passenger transportation (485)	0	-1	-2	-2	-2	-1	103,000	-0.0014%
Individual and family services; Community and vocational rehabilitation services (6241-6243)	0	-1	-1	-1	-1	-1	396,000	-0.0003%
Management, scientific, and technical consulting services (5416)	2	2	2	-1	-1	0	137,000	0.0000%
Other industries	-2	-16	-17	-20	-20	-17	6,511,000	-0.0003%
Total	**-02**	**-38**	**-40**	**-45**	**-45**	**-39**	**11,294,000**	**-0.0003%**

Note: Adding all industry values may not add to total amount due to rounding.

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 landfill, oil and gas, and wastewater treatment sectors, which contain most of the affected facilities, would experience a rise in their relative costs of production of 0.082% - 0.093%, 0.008% - 0.009%, and 0.039% - 0.043% in 2025 for the low- and high-cost scenarios,

respectively. The landfill, oil and gas, and wastewater treatment sectors are also expected to experience an increase in their delivered prices by 0.062% - 0.070%, 0.002% - 0.002%, and 0.015% - 0.016% in 2025 for the low- and high-cost scenarios respectively.

Delivered prices 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. Due to the increased costs imposed by PR 1118.1, the remaining sectors are also 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.

Potential NOx RTC Market Impacts

There are 20 facilities potentially affected by PR 1118.1 in the NOx RECLAIM trading program. If PR 1118.1 is adopted, none of the 20 potentially affected facilities are expected to receive an initial determination notification. These facilities have additional permitted RECLAIM NOx source equipment subject to command-and-control rules planned for future adoption or amendment.

ATTACHMENT I

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

Final Environmental Assessment for Proposed Rule 1118.1 – Control of Emissions from Non-Refinery Flares

December 2018

SCAQMD No. 10252018LE
State Clearinghouse No: 2018101063

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PREFACE

This document constitutes the Final Environmental Assessment (EA) for Proposed Rule 1118.1 – Control of Emissions from Non-Refinery Flares. A Draft EA was circulated for a 32-day public review and comment period from October 26, 2018 to November 27, 2018 and three comment letters were received. The comment letters and responses relative to the Draft EA have been included in Appendix E of this Final EA.

Analysis of PR 1118.1 in the Draft EA indicated that reducing NOx and VOC emissions is a direct environmental benefit, and furthermore, no secondary significant adverse environmental impacts were expected for any environmental topic areas. Since no significant adverse impacts were identified, an alternatives analysis and mitigation measures are not required. [CEQA Guidelines Section 15252].

To facilitate identification of the changes between the Draft EA and the Final EA, modifications to the document were included as underlined text and text removed from the document was indicated by ~~strikethrough~~. Subsequent to the release of the Draft EA for public review and comment, modifications were made to PR 1118.1 and some of the revisions were made in response to verbal and written comments received during the rule development process. The modifications include: 1) the addition, revision, and removal of definitions for clarification; 2) rewording and renumbering of rule language; 3) emission limits for additional types of flare gases; 4) additional requirements limiting oil and gas production flaring at replacement flares and new flares; 5) extended timelines for compliance with flare replacement or throughput reduction, and the option to make a one-time switch between the two options; 5) changes to recordkeeping, notification, source testing, and calculation requirements; and 6) new exemptions for flares that combust regeneration gas, combust only natural gas, propane, butane, or a combination of propane and butane, or flares with a various locations permit. In addition, because PR 1118.1 was modified to regulate additional types of flares, several facilities were added to the list of affected facilities. To avoid confusion, minor formatting changes are not shown in underline or strikethrough mode.

Staff has reviewed the modifications to PR 1118.1 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 EA. 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 EA pursuant to CEQA Guidelines Sections 15073.5 and 15088.5. Therefore, the Draft EA has been revised to include the aforementioned modifications such that is now the Final EA for PR 1118.1.

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CHAPTER 1

PROJECT DESCRIPTION

INTRODUCTION

The California Legislature created the South Coast Air Quality Management District (SCAQMD) in 1977[1] as the agency responsible for developing and enforcing emission control rules and regulations in the South Coast Air Basin (Basin) and portions of the Salton Sea Air Basin 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) Guidelines[2] 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, 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 SCAQMD[3]. Furthermore, SCAQMD must adopt rules and regulations that carry out the AQMP[4]. The AQMP is a regional blueprint for how SCAQMD will achieve air quality standards and healthful air and the 2016 AQMP[5] contains multiple goals promoting reductions of criteria air pollutants, greenhouse gases, 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 the 2016 AQMP, the adoption resolution directed staff to transition facilities participating in 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.

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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, 2016 Air Quality Management Plan. http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2016-air-quality-management-plan/final-2016-aqmp/final2016aqmp.pdf

In addition, the 2016 AQMP included Control Measure CMB-05 - Further NOx Reductions from RECLAIM Assessment, committed to achieving additional NOx emission reductions of five tons per day to occur by 2025. Further, California State Assembly Bill 617, approved by the Governor on July 26, 2017, requires air districts to develop, by January 1, 2019, an expedited schedule for the implementation of BARCT no later than December 31, 2023 for facilities that are subject to a market-based compliance program.

Currently, there are currently no source-specific rules regulating oxides of nitrogen (NOx), carbon monoxide (CO), and volatile organic compounds (VOC) emissions from non-refinery flares. However, the 2016 AQMP also addresses emissions from non-refinery flares in Control Measure CMB-03 - Emission Reductions from Non-Refinery Flares. As such, SCAQMD staff is proposing a new rule to implement the 2016 AQMP Control Measures CMB-03 and CMB-05, Proposed Rule (PR) 1118.1 – Control of Emissions from Non-Refinery Flares. The proposed rule seeks to reduce NOx and VOC emissions from flaring produced gas, digester gas, landfill gas, and other combustible gases and vapors and to encourage alternatives to flaring. The proposed rule also contains a limit on CO emissions to ensure proper combustion and that both NOx and CO are maintained at lower levels.

PR 1118.1 includes NOx, CO, and VOC emission limits that reflect BARCT standards and a capacity threshold that seeks to identify routine flaring. For flares that exceed the capacity threshold, either a reduction in flare gas throughput (amount of gas flared) or replacement with a flare that generates lower emissions will be required. The capacity threshold varies depending on the type of gas being flared (landfill, digester, produced) and the type of flare equipment (open flare versus an enclosed flare). PR 1118.1 provides exemptions for low-use and low-emitting flares. Additionally, PR 1118.1 establishes provisions for source testing, monitoring, reporting, and record keeping. PR 1118.1 is expected to reduce 0.18 ~~0.2~~ ton of NOx per day from flares located at landfills, wastewater treatment plants, oil and gas production facilities, organic liquid loading stations, and tank farms.

PR 1118.1 applies to owners and operators of flares that require a SCAQMD permit at both RECLAIM and non-RECLAIM facilities, including, but not limited to, oil and gas production, wastewater treatment facilities, landfills, organic liquid loading stations, and tank farms. This rule does not apply to owners and operators of flares used at petroleum refineries, sulfur recovery plants, various location flares, hydrogen production plants subject to SCAQMD Rule 1118 – Control of Emissions from Refinery Flares, flares which route 100% natural gas directly into the flare burner to oxidize combustible gases or vapors and are subject to SCAQMD Rule 1147 – NOx Reductions from Miscellaneous Sources, and other refinery processes that will be subject to SCAQMD Proposed Rule 1109.1 –Refinery Equipment[6], upon adoption.

CALIFORNIA ENVIRONMENTAL QUALITY ACT

The California Environmental Quality Act (CEQA), California Public Resources Code Section 21000 *et seq.*, requires environmental impacts of proposed projects to be evaluated and feasible methods to reduce, avoid or eliminate significant adverse impacts of these projects to be identified and implemented. The lead agency is the "public agency that has the principal responsibility for carrying out or approving a project that may have a significant effect upon the environment."

[6] Proposed Rule 1109.1 is a new rule that is identified in the October 5, 2018 Rule and Control Measure Forecast as scheduled to undergo rule development in 2019. PR 1109.1 will establish requirements for refineries that are transitioning from RECLAIM to command-and-control. http://www.aqmd.gov/docs/default-source/Agendas/Governing-Board/2018/2018-oct5-022.pdf

[Public Resources Code Section 21067]. Since PR 1118.1 is a SCAQMD-proposed rule, the SCAQMD has the primary responsibility for supervising or approving the entire project as a whole and is the most appropriate public agency to act as lead agency. [CEQA Guidelines[7] Section 15051(b)].

CEQA requires that all potential adverse environmental impacts of proposed projects be evaluated and that methods to reduce or avoid identified significant adverse environmental impacts of these projects be implemented if feasible. The purpose of the CEQA process is to inform the lead agency, responsible agencies, decision makers and the general public of potential adverse environmental impacts that could result from implementing PR 1118.1 and to identify feasible mitigation measures or alternatives, when an impact is significant.

Public Resources Code Section 21080.5 allows public agencies with regulatory programs to prepare a plan or other written documents in lieu of an environmental impact report once the Secretary of the Resources Agency has certified the regulatory program. 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.

Because PR 1118.1 requires discretionary approval by a public agency, it is a "project" as defined by CEQA[8]. The proposed project will reduce NOx and VOC emissions from non-refinery flares, reduce public health impacts by reducing exposure to NOx and VOCs, and will provide an overall environmental benefit to air quality. However, SCAQMD's review of the proposed project also shows that the activities that facility operators may undertake to comply with PR 1118.1 may also create secondary adverse environmental impacts that would not result in significant impacts for any environmental topic area. Thus, the analysis of PR 1118.1 indicates that the type of CEQA document appropriate for the proposed project is an Environmental Assessment (EA). The EA is a substitute CEQA document, prepared in lieu of a Negative Declaration with no significant impacts (CEQA Guidelines Section 15252), pursuant to the SCAQMD's Certified Regulatory Program (CEQA Guidelines Section 15251(l); SCAQMD Rule 110). The EA is also a public disclosure document intended to: 1) provide the lead agency, responsible agencies, decision makers and the general public with information on the environmental impacts of the proposed project; and, 2) be used as a tool by decision makers to facilitate decision making on the proposed project.

Thus, the SCAQMD, as lead agency for the proposed project, prepared a Draft EA pursuant to its Certified Regulatory Program. The Draft EA includes a project description in Chapter 1 and an Environmental Checklist in Chapter 2. The Environmental Checklist provides a standard tool to identify and evaluate a project's adverse environmental impacts and the analysis concluded that no significant adverse impacts would be expected to occur if PR 1118.1 is implemented. Because PR 1118.1 will have no statewide, regional or area wide significance, no CEQA scoping meeting is required to be held for the proposed project pursuant to Public Resources Code Section 21083.9(a)(2). Further, pursuant to CEQA Guidelines Section 15252, since no significant adverse impacts were identified, no alternatives or mitigation measures are required.

The Draft EA ~~is being~~ was released for a 32-day public review and comment period from October 26, 2018 to November 27, 2018. ~~All~~ Three comment~~s~~ letters were received during the public

[7] The CEQA Guidelines are codified at Title 14 California Code of Regulations Section 15000 *et seq.*

[8] CEQA Guidelines Section 15378

comment period on the analysis presented in the Draft EA; the comment letters and the ~~will be~~ responses~~ded to and~~ are included in Appendix E to the Final EA.

Staff has reviewed the modifications to PR 1118.1 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 EA. 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 EA pursuant to CEQA Guidelines Sections 15073.5 and 15088.5. Therefore, the Draft EA has been revised to include the aforementioned modifications such that is now the Final EA for PR 1118.1.

Prior to making a decision on the adoption of PR 1118.1, the SCAQMD Governing Board must review and certify the Final EA as providing adequate information on the potential adverse environmental impacts that may occur as a result of adopting PR 1118.1.

PROJECT LOCATION

PR 1118.1 applies to any owner or operator of gas flares that require a SCAQMD permit, including, but not limited to, oil and gas production, wastewater treatment plants, landfills, organic liquid loading stations, and tank farms. The SCAQMD has jurisdiction over an area of approximately 10,743 square miles, consisting of the four-county South Coast Air Basin (Basin) (Orange County and the non-desert portions of Los Angeles, Riverside and San Bernardino counties), and the Riverside County portions of the Salton Sea Air Basin (SSAB) and Mojave Desert Air Basin (MDAB). The Basin, which is a subarea of SCAQMD's jurisdiction, is bounded by the Pacific Ocean to the west and the San Gabriel, San Bernardino, and San Jacinto mountains to the north and east. It includes all of Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino counties. The Riverside County portion of the SSAB is bounded by the San Jacinto Mountains in the west and spans eastward up to the Palo Verde Valley. A federal non-attainment area (known as the Coachella Valley Planning Area) is a subregion of Riverside County and the SSAB that is bounded by the San Jacinto Mountains to the west and the eastern boundary of the Coachella Valley to the east (see Figure 1-1).

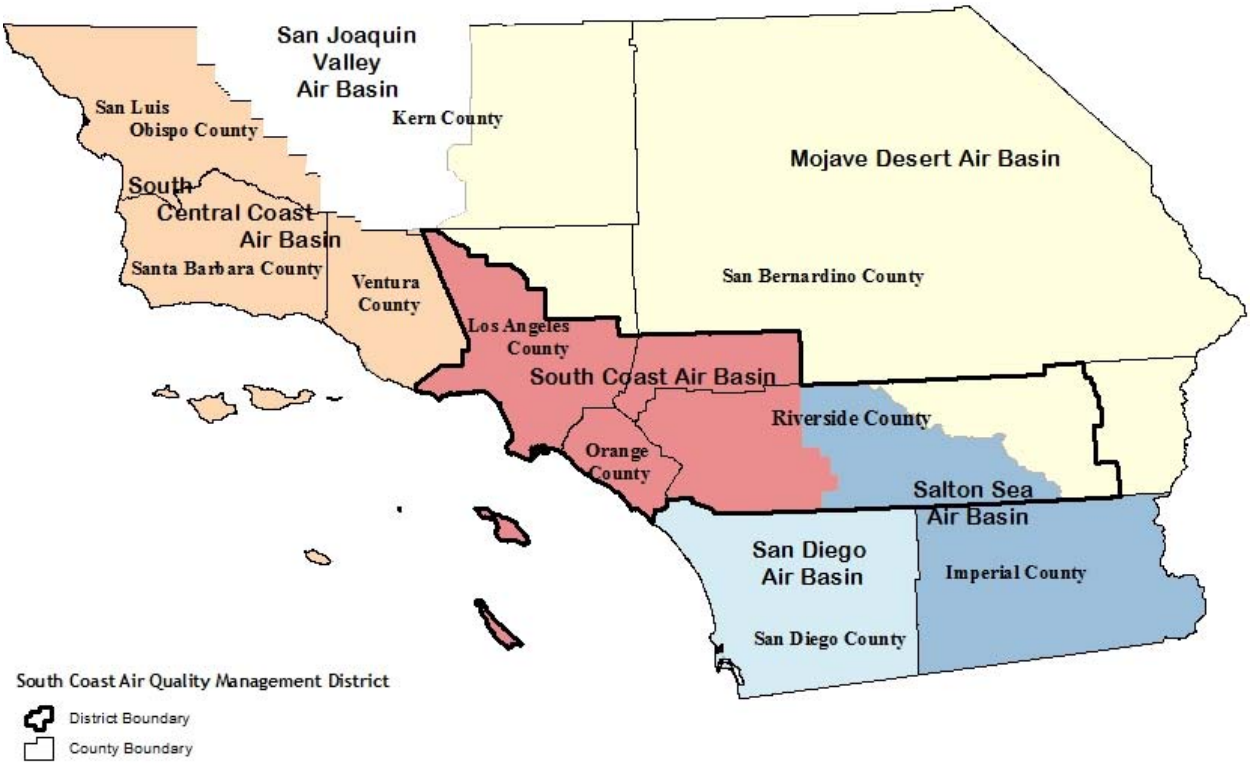


Figure 1-1
Southern California Air Basins

PROJECT BACKGROUND

A survey of SCAQMD permits for non-refinery flares indicate NOx emission rates from many facilities exceed current Best Available Control Technology (BACT) limits. Non-refinery flare emissions are currently regulated through the BACT limits as determined in SCAQMD Rules 1303 and 1701, but there are currently no source-specific rules regulating NOx emissions from non-refinery flares. The first SCAQMD BACT NOx standard for flares was established in 1988 at 0.06 pound per million British thermal unit (pound/MMBtu) for biogas. In 2016, advancements in flare technology allowed the NOx standard to be reduced to 0.018 pound/MMBtu for oil and gas production. Similar flare technology advances for biogas combustion at landfill and wastewater treatment plants lead to the 2006 update at landfills and 2018 update at remaining sites to 0.025 pound/MMBtu. For major polluting facilities, these new BACT determinations serve as requirement pursuant to the United States Environmental Protection Agency (USEPA) Lowest Achievable Emission Rate (LAER) Policy. A facility is defined as a "major polluting facility" if it emits, or has the potential to emit, a criteria air pollutant at a level that equals or exceeds the emission thresholds specified in the federal Clean Air Act. BACT/LAER determinations are based on a permit-by-permit analysis of what is achieved in practice. For non-major polluting facilities, state law requires a more detailed analysis, including cost effectiveness. The non-major source BACT standard for biogas went into effect in year 2000 and is 0.06 pound/MMBtu. There is no non-major source standard for the oil and gas industry.

As a region that is designated as extreme non-attainment for ozone, SCAQMD is required by USEPA to adopt all reasonably available control measures (RACM) or control technologies (RACM/RACT), particularly when adopted by other air agencies. In this case, two California air districts, San Joaquin Valley Air Pollution Control District (SJVAPCD) and Santa Barbara County Air Pollution Control District (SBCAPCD) have adopted rules for non-refinery flares. PR 1118.1 also addresses the USEPA's requirements for RACM/Best Available Control Measure (BACM) as presented in SJVAPCD Rule 4311 – Flares, which includes emission limits for non-refinery flares, and SBCAPCD Rule 359 – Flares and Thermal Oxidizers, which regulates the use of flares and thermal oxidizers for petroleum and transportation facilities. In addition, PR 1118.1 is being developed to facilitate the on-going transition of the NOx RECLAIM program to a command-and-control regulatory structure.

PROJECT DESCRIPTION

PR 1118.1 will reduce NOx and VOC emissions from non-refinery flares and encourage alternatives to flaring. PR 1118.1 applies to owners and operators of flares that require a SCAQMD permit, including, but not limited to, oil and gas production, wastewater treatment facilities, landfills, organic liquid loading stations, and tank farms. The proposed rule includes NOx, CO, and VOC emission limits that reflect BARCT standards and a capacity threshold that seeks to identify routine flaring. For flares that exceed the capacity threshold, either a reduction in flare gas throughput or replacement with a flare with lower emissions will be required. The capacity threshold varies depending on the type of gas being flared (landfill, digester, produced) and the type of flare equipment (open flare versus a shrouded flare). Further, PR 1118.1 sets additional limits for replacement and new oil and gas production flares. PR 1118.1 also provides exemption for low-use, low-emitting flares, and other special circumstances. Additionally, PR 1118.1 establishes provisions for source testing, monitoring, reporting, and record keeping.

There are ~~146~~ 153 facilities and ~~288~~ 295 flares in SCAQMD's jurisdiction that are subject to PR 1118.1. Of these flares, most are not expected to be have make any physical modifications in order to comply with PR 1118.1 because they are already operating below their capacity threshold, based on permit information. Additionally, some flares are not expected to be subject to the emission limits in PR 1118.1 because they would qualify for an exemption because they either: 1) emit less than 30 pounds of NOx per month; 2) operate less than 200 hours per year; 3) already meet the proposed emission limits; 4) are located on a closed landfill or an inert waste landfill that releases less than 2,000 million standard cubic feet per year (MMscf/year) of landfill gas; 5) combust regeneration gas; 6) combust only natural gas, propane, butane, or a combination of propane and butane; or 7) operate pursuant to a various locations permit. Of the ~~288~~ 295 flares that would be subject to PR 1118.1, SCAQMD staff has identified 25 flares at 16 facilities that potentially may need to be replaced or undergo a flare gas throughput reduction in order to comply with PR 1118.1.

The following is a detailed summary of the key elements contained in PR 1118.1. A draft of PR 1118.1 can be found in Appendix A.

Purpose – subdivision (a)

Subdivision (a) defines the purpose of PR 1118.1 is to reduce NOx and VOC emissions from flaring produced gas, digester gas, landfill gas, and other combustible gases or vapors and encourage alternatives to flaring.

Applicability – subdivision (b)

Subdivision (b) establishes that PR 1118.1 applies to any owner or operator of flares that require a SCAQMD permit at facilities, including, but not limited to, oil and gas production, wastewater treatment facilities, landfills, and organic liquid ~~loading stations, and tank farms~~ handling facilities.

Definitions – subdivision (c)

The following definitions are proposed: Annual Throughput; ~~Assist Gas;~~ Biogas; Capacity; Capacity Threshold; Digester Gas; Facility; Flare; Flare Replacement; Flare Station; Heat Input; Landfill Gas; Major Facility; Minor Facility; Notification of Annual Percent Capacity Greater than Threshold; Notification of Flare Inventory and Capacity; Notification of Flare Throughput Reduction; Notification of Increments of Progress; Notification of Intent; Open Flare; Organic Liquid; Organic Liquid Loading; Organic Liquid Storage; Other Flare Gas; Oxides of Nitrogen; Percent Capacity; Pipeline Breakout Station; Produced Gas; Protocol; Regenerative Adsorption System; Regeneration Gas; Relocate; ~~Statement of Intent; Various Locations Flare;~~ Utility Pipeline Curtailment; and Volatile Organic Compound (VOC).

Requirements– subdivision (d)

Subdivision (d) establishes the following requirements for facilities subject to PR 1118.1:

> *Emission Limit:* Paragraph (d)(1) requires owners or operators that install, replace, or relocate any flare to comply with the applicable NOx, VOC, and CO emission limits in pounds/MMBtu for digester gas, landfill gas, produced gas, other flare gas, and organic liquid storage, and in ~~parts per million (ppm) for other flare gas~~ pounds per 1,000 gallons loaded for organic liquid loading, presented in Table 1-1.

Table 1-1
Flare Emission Limits

Type of Flare Gas	pound/MMBtu		
	NOx	CO	VOC
Digester gas[a]	~~0.025~~	~~0.06~~	~~0.038~~
Major facility	0.025	0.06	0.038
Minor facility	0.06	N/A	N/A
Landfill gas[a]	0.025	0.06	0.038
Produced gas	0.018	~~0.06~~ 0.01	0.008
Other flare gas	0.06	N/A	N/A
Organic liquid handling:			
Organic liquid storage	0.25	0.37	N/A
Organic liquid loading~~Other flare gas~~	~~**ppm @ 3% oxygen**~~ ~~**Destruction Efficiency**~~ pounds/1,000 gallons loaded		
	~~30~~ 0.034	~~10~~ 0.05	~~99%~~ N/A

~~Compliance with emission limits shall be demonstrated when combusting 100% biogas (e.g., with no regeneration gas)~~ Note: Table 1-1 Flare Emission Limits shall continue to apply unless amended or otherwise superseded following a technology assessment, caused to be performed by the Executive Officer, to determine potential alternative limits appropriate for digester gas generated from food waste diverted from landfills.

Produced Gas Flare Limits: Subparagraph (d)(1)(B) sets conditions for flaring produced gas at facilities that have estimated annual emissions of four or more tons of sulfur oxides, VOCs, NOx, specific organics, particulate matter (PM) or emissions of 100 tons per year or more of CO. Clause (d)(1)(B)(ii) states that replacement flares are limited to 110% of the average throughput from the previous two calendar years. Clause (d)(2)(B)(ii) states that a new flare that is not replacing an existing flare shall have an annual throughput limit of 45 MMscf/yr. Flaring conducted during source testing or utility pipeline curtailment is not counted toward these throughput limits. Additionally, records are required to be maintained to support the activities not counted toward the throughput limit.

Paragraph (d)(2) states that an owner or operator with a submitted application for a flare or flare station with a deemed complete date prior to the date of rule adoption shall comply with the paragraph (d)(3)

Capacity Thresholds: Paragraph (d)(3~~2~~) requires owners or operators ~~who do not meet the emission limits in Table 1-1, as of January 1, 2019,~~ to comply with Table 1-2 – Annual Capacity Thresholds and the monitoring, recordkeeping, and reporting requirements in paragraph (g)(2).~~:~~

Table 1-2
Annual Capacity Thresholds

Type of Flare Gas	Threshold
Any gas combusted in an open flare	5%
Digester gas	70%
Landfill gas	20%
Produced gas	5%

- ~~Calculate the annual percent of permitted flare capacity used for each flare or flare station[9]. This calculation is detailed and later described in subdivision (g) - Monitoring, Recordkeeping, and Reporting. A formula is provided to convert the total annual throughput to an hourly rate, and divide by the annual capacity to determine the annual percent capacity. Annual throughput is explained to be the summed total throughput for each calendar year, as measured monthly by fuel meters. Capacity is defined as the manufacturer's designated capacity, or, if unknown or unavailable, capacity shall be the permitted limit; and~~

- Subparagraph (d)(3)(A) states that if a flare or flare station's annual percent capacity exceeds an applicable threshold in Table 1-2, the owner or operator shall submit a Notification of Annual Percent Capacity Greater than Threshold to the Executive Officer no later than 30 days from the end of the calendar year.

- Subparagraph (d)(3)(B) states that an owner or operator shall submit a ~~statement~~ Notification of Intent to the Executive Officer to reduce flare throughput or replace or modify the flare to meet Table 1-1 emission limits no later than 60 days after the end of the second consecutive calendar year if the applicable annual percent capacity threshold in ~~(see~~ Table 1-2 ~~below)~~ is exceeded~~surpassed for two consecutive calendar years~~. Clauses (d)(3)(B)(i) and (d)(3)(B)(ii) state that the ~~statement~~ Notification of intent is required to specify one of the following compliance options: 1) flare or flare station throughput reduction pursuant to paragraph (d)(4); or 2) flare or flare station replacement or modification pursuant to paragraph (d)(5).

- Subparagraph (d)(3)(C) states that an owner or operator of an existing flare or flare station shall not be subject to the annual capacity threshold requirements in paragraph (d)(3) if the flare or flares comply with the applicable flare emission limits in Table 1-1 as demonstrated by a SCAQMD approved source test. Testing shall follow a SCAQMD approved protocol conducted every five years thereafter, in accordance with paragraph (f)(4).

Flare Throughput Reduction: Paragraph (d)(4~~3~~) establishes ~~sets~~ reporting and compliance schedule requirements for achieving a reduction in flaring. In particular, subparagraph (d)(4)(A) establishes requirements for the owner or operator ~~is required~~ to submit a N~~n~~otification of Flare Throughput Reduction to the Executive Officer that includes alternative methods to reduce flare or flare station throughput below the applicable annual capacity threshold in Table 1-2 and a timetable to implement and operate the alternative method. This notification is required to be submitted within six months or within 12 months for a Publicly-Owned Facility from the end of the second consecutive calendar year~~of the second consecutive annual exceedance~~. Subparagraph (d)(4)(B) requires the owner or operator ~~is also required~~ to submit a Notification of Increments of Progress ~~reports~~ to the Executive Officer to include~~ing~~ actions to implement the throughput reduction completed, actions to implement the throughput reduction yet to be completed, and any changes to the original N~~n~~otification of Intent or the Notification of Flare Throughput Reduction. The Notification of Increments of Progress is due within 13 ~~12~~ months of the end of the second calendar year when the ~~consecutive~~ annual percent capacity is greater than ~~exceedance, and annually thereafter until flaring is reduced below~~ the applicable capacity threshold in Table 1-2. Implementation of the flare reduction

~~[9] A flare station is a group of flares which share common infrastructure such as a flare pad, blowers, or fuel meter.~~

project ~~Flaring~~ is required to ~~be reduced below the applicable capacity threshold in Table 1-2~~ occur within 36 months from ~~of~~ the end of the second consecutive calendar year when the annual percent capacity is greater than the applicable threshold in Table 1-2~~second annual exceedance~~. Subparagraph (d)(4)(C) states that the owner or operator shall reduce the annual throughput to the flare or flare station to a level at or below the applicable capacity threshold in Table 1-2. Finally, the demonstration of flare reduction at a level at or below the applicable threshold in Table 1-2 shall occur within 30 days after the end of the next calendar year the flare reduction project was implemented.

Flare Replacement: Paragraph (d)(54) establishes procedures and a compliance schedule for flare replacement. Subparagraph (d)(5)(A) requires ~~submitting~~ a permit application to be submitted for a ~~new~~ flare replacement if an owner or operator submitted a Statement of Intent to replace or modify a flare or flare station~~, or to replace or modify an existing flare, and for determining compliance~~. The permit application ~~to replace or modify a flare or flare station~~ is required to be submitted within six months or within 12 months for a Publicly-Owned Facility from the end of the second consecutive calendar year when the annual percent capacity is greater than the applicable threshold listed in Table 1-2~~of the second consecutive annual exceedance~~. Subparagraph (d)(5)(B) requires the modified or replacement flare or flare station to meet the applicable emission limits in Table 1-1. The flare installation is required to be completed within 18 months after the SCQAMD issues the permit to construct. Finally, subparagraph (d)(5)(C) requires the owner or operator to demonstrate compliance with the applicable emission limits in Table 1-1 by ~~determination~~ conducting a source test in accordance with the procedures contained in subdivision (f). ~~is required to be completed within 180 days after the completion of the flare installation.~~

Change of Notification of Intent: Paragraph (d)(6) allows an owner or operator to submit a one-time rescission and revision of a previously submitted Notification of Intent to change the compliance option provided that the owner or operator notifies and implements the new compliance pathway no later than 36 months from the end of the second consecutive calendar year the annual capacity was greater than the applicable threshold from Table 1-2, and the revision is to change the compliance option from either: 1) flare throughput reduction per paragraph (d)(4) to flare replacement per paragraph (d)(5) to meet applicable emission limits in Table 1-1 and is triggered by the submittal of a flare application; or 2) flare replacement per paragraph (d)(4) to meet applicable emission limits in Table 1-1 and is triggered by the submittal of a Notification of Flare Throughput Reduction.

Paragraph (d)(7) requires an owner or operator of a flare or flare station combusting gases identified in Table 1-2 to submit a Notification of Flare Inventory and Capacity within 30 days of rule adoption which identifies for each flare or flare station the following information: the permit number, date of flare installation, type of gas combusted, maximum rated capacity (e.g., MMscf/hour or MMBtu/hour), description of fuel meter (if installed), and the date of the last source test.

Maintenance: Paragraph (d)(85) requires an owner or operator to perform maintenance on a flare or flare station in accordance with the ~~flare~~ manufacturer's schedule and specifications.

Paragraph (d)(9) requires the following information to be displayed in an accessible location on the flare: the model number and rated heat input capacity of the flare on a permanent rating plate for any flare installed, relocated, or modified after the date of rule adoption.

Paragraph (d)(10) states that notifications submitted will be subject to fees pursuant to SCAQMD Rule 301 – Permitting and Associated Fees.

Time Extension ~~Provision~~ – subdivision (e)

Subdivision (e) will establish the following time extension provisions for facilities subject to PR 1118.1:

Requests of the Executive Officer: Paragraph (e)(1) allows an owner or operator of a flare or flare station to submit a written request within at least 60 days prior to the schedule deadline to the Executive Officer for ~~a~~ one 24-month extension from the schedule in paragraph (d)(4) or one 12-month extension from the schedule in paragraph (d)(5) ~~to comply with the flare reduction or flare replacement or modification schedules outlined in subdivision (d)~~. An extension shall not be available for an owner or operator of a flare or flare station complying with paragraph (d)(6). The time extension request will need to include the following: permit number or application number of the flare seeking ~~requiring~~ the extension; the reason~~s~~ why a time extension is requested~~needed~~; increments of progress completed and increments of ~~so far,~~ progress yet to be completed; the anticipated time needed to complete each increment pursuant to the compliance schedule, and the length of time requested.

Approval of Time Extensions: Paragraph (e)(2) sets criteria for the Executive Officer to review and approve or reject requests for time extension. The owner or operator must provide sufficient details ~~identifying~~ justifying the basis for the requested ~~reason a time~~ extension and its duration~~is needed~~. Additionally, the owner or operator must demonstrate that there are specific circumstances ~~beyond their control~~ that necessitate the additional time requested ~~for~~ to comply~~iance~~ with the scheduled deadlines. This demonstration may include, but is not limited to, providing detailed schedules, engineering designs, construction plans, permit applications, purchase orders, economic burden, and technical infeasibility. Subparagraph (e)(2)(C) states that the failure to satisfy the aforementioned criteria may result in the denial of the request.

Source Tests – subdivision (f)

Subdivision (f) establishes the following source test requirements ~~for point source emission control~~:

Source Test Compliance Schedule: Paragraph (f)(1) establishes requirements for conducting an initial source test and source testing~~s~~ every five years thereafter in order to demonstrate compliance with NOx, VOC, and CO limits in Table 1-1. ~~Source tests are required to be conducted every five years, starting within 12 months of rule adoption.~~ For a flare subject to paragraph (d)(1), the initial source test shall be conducted according to the conditions in the permit to construct and the follow up source tests shall be conducted every five years pursuant to paragraph (d)(4). At least 90 days prior to a scheduled source test, a source test protocol is required to be submitted to the Executive Officer for approval, followed by an additional written notification to the Executive Officer indicating the intent to conduct source testing one week prior to a scheduled source test. Each source test shall be conducted according to the approved protocol. Additionally, if an approved protocol and corresponding source test were conducted prior to adoption of PR 1118.1 which demonstrated compliance with the emission limits in Table 1-1, the owner or operator will be allowed to conduct the next source test within five years of the most recent source test. ~~A new source test protocol is required to be submitted if the previous source test was not approved by the SCAQMD.~~ Operators of landfill gas flares may fulfill the five-year source testing requirement through the source testing requirements

contained in SCAQMD Rule 1150.1 – Control of Gaseous Emissions From Municipal Solid Waste Landfills, if the source test includes the pollutants from Table 1-1.

Submitting Protocol for Repeated Source Tests: Paragraph (f)(2) relieves a flare or flare station owner or operator from having to resubmit a ~~new~~ source test protocol unless requested by the SCAQMD provided that ~~or if~~ the flare or flare station and its method of operation have not been altered in a manner that requires~~ing~~ a permit ~~alteration~~ application submittal and the rule or permit emission limits have not become more stringent since the previous source test.

Compliance Determination Calculations: Paragraph (f)(3) requires all ~~compliance determinations~~ source tests to be ~~calculated~~ conducted as follows: using a SCAQMD approved test protocol; averaged over a ~~period of at least 15~~ maximum of 60 minutes of flare operation; during operation other than start up or ~~after flare start~~shut down; ~~and,~~ and in as-found operating condition.

NOx, CO, and VOC Emission Determination: Paragraph (f)(4) requires ~~the quantity of~~ NOx, CO, and VOC emissions ~~to be presented~~ in units of pounds/MMBtu heat input ~~and~~ to be determined ~~in accordance with~~ using the pollutant concentrations measured according to ~~established in~~ paragraph (f)(5) and the gas composition of the total gas or vapor combusted in the burner measured~~ment requirements established in~~ according to paragraph (f)(6). The emissions for these pollutants are required to be calculated in accordance with the procedures in 40 CFR Part 60, Appendix A, Method 19, Sections 2 and 3, or by ~~using~~ another SCAQMD-approved test method.

NOX, CO, and VOC Concentration Determination: Paragraph (f)(5) identifies the allowable methods to be used for determining the concentrations of NOx, CO, and VOC emissions. NOx and CO concentrations are required to be quantified by using SCAQMD Method - 100.1 Instrumental Analyzer Procedures for Continuous Gaseous Emission Sampling. VOC concentrations are required to be quantified by using SCAQMD Method 25.1 - Determination of VOC Emissions from Stationary Sources or Method 25.3 - Determination of VOC Emissions from Stationary Sources.

Gas Composition Determination: Paragraph (f)(6) requires gas composition to be determined by one of the following methods: 1) ASTM Method D-3588 – Standard Practice for Calculating Heat Value, Compressibility Factor, and Relative Density of Gaseous Fuels; 2) ASTM Method D1945 – Standard Test Method for Analysis of Natural Gas by Gas Chromatography; or 3) ASTM D7833 – Standard Test Method for Determination of Hydrocarbons and Non-Hydrocarbon Gases in Gaseous Mixtures by Gas Chromatography.

~~Independent~~ Source Test Contractor ~~Compliance Determinations~~: Paragraph (f)(7) requires source tests to be conducted using an ~~independent~~ Executive Officer approved contractor ~~in accordance with SCAQMD Rule 304 – Equipment, Materials, and Ambient Air Analyses, subdivisions (k) and (l), to conduct source testing~~ under the laboratory Approval Program for the applicable test methods.

~~*Emission Exceedances:* Paragraph (f)(8) states that emissions determined to exceed any emission limits in PR 1118.1, using test methods specified in paragraph (f)(4) shall be considered a violation.~~

Source Test Records: Paragraph (f)(~~9~~8) requires source test records to be maintained for at least five years or until the next source test is performed, whichever occurs later, and shall be made available to SCAQMD personnel upon request. The source test reports ~~records must indicate~~ shall identify whether the source test was conducted pursuant to a SCAQMD approved protocol and must clearly identify the model, application number, permit number, origins of all gas or vapor combusted, and serial numbers of the specific flare(s) tested. If no flare model and serial number are available, a detailed description of the flare or flare station and its location is required to be included.

Monitoring, Recordkeeping, and Reporting Requirements – subdivision (g)

Subdivision (g) establishes monitoring, recordkeeping, and reporting requirements for flare and flare station owners and operators.

Fuel Meters: Paragraph (g)(1), subparagraphs (g)(1)(A) through (g)(1)(D), establish requirements for installing and operating a fuel meter. Within 90 days of the date of rule adoption, flare owners or operators are required to install and operate a fuel meter for each gas or vapor, routed to every flare or flare station, unless there is a~~n~~ metering system already installed and approved in writing by the Executive Officer. These fuel meters are required to be equipped with a dependable, permanent supply of power that cannot be unplugged, switched off, or reset, except by the main power supply circuit for the building and associated equipment or by the flare's safety shut off switch. The continuous electric power ~~supply~~ to a fuel meter may only ~~is not allowed to be~~ shut off ~~unless the flare is not operating, or is shut down~~ for maintenance or safety. Meters are also required to be calibrated within 90 days of installation or rule adoption, whichever is later~~sooner~~. Meters must also be calibrated annually thereafter, using recommended procedures or an alternative calibration method approved in writing by the Executive officer. If the fuel meter was calibrated one year prior to the date of rule adoption, the next calibration shall be conducted within the one year anniversary date of the prior calibration.

Determining Percent Capacity: ~~Subparagraph~~ Paragraph (g)(2)~~(1)(E)~~ requires a determination of percent capacity of a flare or flare meter, effective upon rule adoption, or when a fuel meter is installed, whichever is later, and requires ~~along with~~ records to be maintained that document~~ing~~ the percent capacity determination.

- ~~Clause (g)(1)(E)(i)~~ Subparagraph (g)(2)(A) requires the calculation for total annual throughput ~~to be conducted~~ in units of ~~terms of volume (~~MMscf/year~~)~~ or by total annual heat input in units of ~~(~~MMBtu/year~~)~~ to be calculated by summing the throughput or heat input of the gas at the end of each calendar year. In particular, t~~T~~he monthly throughput is required to be measured and recorded at least once per ~~a~~ month ~~in accordance with the flare-specific~~ by the fuel meter(s) ~~requirements described subparagraphs (g)(1)(A) through (g)(1)(C)~~. If determining the percent capacity in units of MMBtu/year, t~~T~~he heat input of the flare gas is also required to be measured and recorded at least once per month. The heat input may be calculated and recorded for a landfill~~s~~ monthly by measuring the methane concentration of landfill or digester gas with a portable nondispersive infrared detector or equivalent detector approved in writing by the Executive Officer, and calibrated per manufacturer's specifications. Heat input measurements are not required for any month or months when the flare is not in use.

- ~~Clause (g)(2)(BE)(ii)~~ Subparagraph (g)(2)(B) states that capacity shall be ~~based on~~determined by the manufacturer~~'s~~ designation, if known; ~~if this information is not known or available,~~Otherwise, the capacity shall be determined using ~~the~~ permit conditions limiting~~s~~ throughput or heat input~~will be used as a surrogate for the capacity~~. The capacity for flare stations shall be determined by combining the total capacity of all the flares in the flare station.

- ~~Clause (g)(2)(CE)(iii)~~ Subparagraph (g)(2)(C) presents the equations for how the annual percent capacity shall ~~should~~ be calculated at the end of each calendar year.
    - If percent capacity by volume is chosen, the following equation is provided:

$$Percent\ Capacity_{MMscf} = \frac{Total\ Annual\ Throughput\ \left(\frac{MMscf}{year}\right) \Big/ x\ 8760\ \frac{\cancel{hour}}{\cancel{year}}}{\text{Capacity (MMscf/hour)}}\ x\ 100\%$$

    - Whereas, if percent capacity by ~~volume~~ heat input is selected, the following equation is used:

$$Percent\ Capacity_{MMBtu} = \frac{Total\ Annual\ Heat\ Input\ \left(\frac{MMBtu}{year}\right) \Big/ x\ 8760\ \frac{\cancel{hour}}{\cancel{year}}}{\text{Capacity (MMBtu/hour)}}\ x\ 100\%$$

    x = the time period in hours/year that records are required to be maintained and recorded

- Subparagraph (g)(2~~1~~)(D) states that if an owner or operator fails to measure or record the monthly throughput or heat input value in compliance with the provisions above, the percent capacity will be assumed to be 100% for the months without records.

Low-emitting exemption (mass): ~~Subparagraph (g)(2)(A)~~ Paragraph (g)(3) requires ~~flare or flare station~~ an owner~~s~~ or operator~~s~~ with an exempt flare or flare station pursuant to paragraph (h)(2) to ~~demonstrate that NOx emissions are less than 30 pounds per month if they wish to validate compliance by relying on exemptions that are determined via~~ monitor and maintain NOx emission records as follows: ~~the mass-based exemption provided in subdivision (h) (see subparagraph (h)(2)(A)). The~~ 1) NOx emissions ~~are required to~~ shall be determined based on the most recently ~~by an~~ approved source test ~~in accordance with the requirements subdivision (f)~~ conducted pursuant to a SCAQMD approved source test protocol;~~.~~ 2) t~~T~~he monthly gas throughput ~~is required to~~ shall be measured and recorded at least once per month by the fuel meter(s);~~.~~ 3) t~~T~~he heat input of the flare gas ~~is also required to~~ shall be measured and recorded at least monthly according to the methods listed presented in paragraph (f)(6) for gas composition determination, or calculated and recorded monthly by measuring the methane concentration of landfill or digester gas using a portable nondispersive infrared detector, or equivalent detector, calibrated per manufacturer's specifications, or estimated using default heat values of 600 Btu/scf for digester gas, 500 Btu/scf for landfill gas, and 1,000 Btu/scf for produced gas. Finally, the monthly pounds of NOx emitted shall be calculated by multiplying

the monthly volume flow rate (MMscf/month) by the NOx emission factor (pounds NOx/MMBtu) and by the heat value of the gas (Btu/scf).

Low use exemption (duration): ~~Subparagraph (g)(2)(B)~~ Paragraph (g)(4) requires ~~a demonstration~~flare and flare station operation records to be monitored and maintained for a flare or flare station that is exempt pursuant to paragraph (h)(3) ~~for any flare that qualifies for the low usage~~ for the 200 hours per year validation using a calibrated non-resettable totalizing time meter or equivalent method approved in writing by the Executive Officer or for the an annual throughput limit equivalent to 200 hours per year validation, using a calibrated fuel meter or equivalent method approved in writing by the Executive Officer.~~exemption in accordance with subdivision (h) to verify that the flare operates less than 200 hours per year. For flares that are exempt under the low use provision, monthly recordkeeping of flare use is required and the usage shall be verified via an installed, calibrated, non-resettable totalizing time meter.~~

Recordkeeping: Subparagraphs (g)(5~~2~~)(A~~C~~) through (g)(5~~2~~)(D~~F~~) establish the following recordkeeping requirements for an owner or operator of a flare or flare station to:~~.~~ 1) maintain records of annual throughput attributed to source testing and utility pipeline curtailment for a flare or flare station complying with subparagraph (d)(1)(B); 2) maintain a~~A~~ copy of the manufacturer's distributor's, installer's or maintenance company's written maintenance schedule and instructions; 3)~~ are required to be maintained, and a record of maintenance activity is also required to be retained for at least three years, and presented upon request~~. ~~The model number and rated heat input capacity of flares are required to be displayed on a permanent plate in an accessible location for any flare installed after the date of rule adoption.~~ provide t~~T~~he manufacturer's maintenance instructions, maintenance records, and the source test reports ~~are required to be provided~~ to the Executive Officer upon request; and 4)~~. Lastly,~~ retain all written or electronic records ~~are required to be maintained~~ for at least five years, which shall be ~~and~~ made available~~ upon request~~ no later than five business days from the date requested.

Exemptions – subdivision (h)

Subdivision (h) establishes ~~the criteria for qualifying for an~~ exemption criteria for owners or operators of a flare or flare station~~from either the entirety or portions of PR 1118.1~~.

General Exemptions: Paragraph (h)(1) exempts ~~certain~~ flares or flare stations at ~~facilities from all provisions of the rule. p~~Petroleum refineries, sulfuric acid plants, sulfur recovery plants, asphalt plants, biodiesel plants, and hydrogen production~~s~~ plants fueled in part with refinery gas. Paragraph (h)(1) also exempts a flare or flare station ~~that are subject to SCAQMD Rule 1118, and facilities~~ that routes only propane or butane or a combination of propane and butane directly into the flare burner.~~ will be subject to PR 1109.1[10], are also exempt from PR 1118.1.~~ Similarly, a f~~F~~lare~~s~~ or flare station which route~~s~~ ~~100 percent of the~~ only natural gas directly into the flare burner ~~to oxidize combustible gases or vapors and are~~ subject to SCAQMD Rule 1147 – NOx Reductions from Miscellaneous Sources NOx emission limits, are also exempt from PR 1118.1. Additionally, a flare or flare station at a ~~closed~~ landfill~~s~~ which generate~~s~~ less than 2,000 MMscf of landfill gas per calendar year and has either ceased accepting waste or is

[10] ~~Proposed Rule 1109.1 is a new rule that is identified in the October5, 2018 Rule and Control Measure Forecast as scheduled to undergo rule development in 2019. PR 1109.1 will establish requirements for refineries that are transitioning from RECLAIM to command-and-control. http://www.aqmd.gov/docs/default-source/Agendas/Governing-Board/2018/2018-oct5-022.pdf~~

classified by the California Department of Resources Recycling and Recovery as an inert waste disposal site or an asbestos contaminated waste disposal site is ~~are~~ exempt from this rule. Finally, a flare or flare station operating with a various location ~~flares~~permit or combusting regeneration gas are also exempt ~~operating in compliance with SCAQMD rules and regulations are exempt~~ from PR 1118.1.

Low-Emitting Exemption: Paragraph (h)(2) states that owners or operators of flares or flare stations that emit less than 30 pounds of NOx per month are exempt from the requirements of subdivision (d), provided the flare or flare station has a permit that specifies conditions that limit the applicable NOx emissions and operates in compliance with the permit condition.~~emission limits in Table 1-1.~~

Low-Use Exemption: Paragraph (h)(3) states that an owner~~s~~ or operator~~s~~ of a flare~~s~~ or flare station that operate~~s~~ ~~less than~~ 200 hours or less per calendar year, or with an annual throughput limit equivalent to 200 hours per year is ~~are~~ exempt from the requirements in subdivision (d) provided the flare or flare station has a permit that specifies conditions that limit the operating hours or annual throughput and operates in compliance with the permit condition.~~emission limits in Table 1-1.~~

Paragraph (h)(4) states that an owner or operator of a flare or flare station is exempt pursuant to paragraph (h)(2) or (h)(3) shall be subject to the requirements in subdivision (d) in the event the flare or flare station exceeds the applicable limitations in paragraph (h)(2) or (h)(3).

Open Flare Exemption: Paragraph (h)(5~~4~~) exempts an owner~~s~~ or operator~~s~~ of an open flare~~s~~ from the source testing requirements in subdivision (f).

Source Testing, Utility Pipeline Curtailment, and Pilot Light Exemptions: Paragraph (h)(6~~5~~) specifies that gas throughput combusted ~~NOx emissions, and time accrued~~ during source testing pursuant to subdivision (f), utility pipeline curtailment, or operating the pilot light may ~~can~~ be omitted from the annual through limitation in subparagraph (d)(1)(B)~~calculation of percent capacity and from mass emissions and hours accrued for low use exemptions~~.

Produced Gas Exemptions: Paragraph (h)(7) states that gas throughput combusted during source testing pursuant to subdivision (f), utility pipeline curtailment, or operating the pilot light may be omitted from the annual throughput limitation in subparagraph (d)(1)(B).

TECHNOLOGY OVERVIEW

Sites which produce VOCs such as landfills, wastewater treatment plants, anaerobic digesters, oil and gas production facilities, marine loading terminals, etc. need to reduce their VOC emissions by destroying the VOCs. A common technology employed by these industries is combustion device called a flare, which can destroy gases.

Flare Technologies

A flare is a control device that is utilized to control a VOC stream by piping them to a burner that combusts the VOC containing gases. There are a variety of existing flare technologies currently in use at the facilities affected by PR 1118.1: open flares, enclosed flares, low-NOx flares, and other flares.

Open Flares
Early flares were designed as elevated, candlestick-type flares that have an open flame with a specially designed burner tip, and auxiliary fuel to achieve nearly 98 percent VOC destruction. The destruction efficiency is driven by flame temperature, residence time in the combustion zone, and turbulent mixing of the components. Complete combustion results in the conversion of all the VOCs to carbon dioxide and water but also results in the emission of NOx, sulfur oxides, and CO. Open flares have a high rated capacity and long service life. They are low-cost, simple to use, and reliable but they are also noisy, emit smoke, heat radiation and light. There are few open flares remaining in the SCAQMD. Open flares cannot be source tested due to the open flame and absence of a stack.

Enclosed Flares
To mitigate the noise and the visible pollution of the open flame, most non-refinery flares in operation today are enclosed ground flares. In an enclosed flare, the burners are shrouded in a stack that is internally insulated. This stack provides wind protection and reduces noise, luminosity, and heat radiation. Enclosed flares generally have less capacity than open flares, but they are reliable and straightforward to operate. The majority of non-refinery flares subject to PR 1118.1 are enclosed ground flares, while their NOx emissions can be higher, most meet the 1988 BACT NOx limit of 0.06 pound/MMBtu.

Low-NOx Flares
The new generation of low-NOx flare utilizes a pre-mixed gas stream with air-assist combustion and is designed with ultra-low NOx burners resulting in decreased NOx and VOC emissions. These low-NOx flares can achieve NOx emissions of less than 0.025 pounds per million Btu (lb/MMBtu) and they have been available for almost a decade. There are two major manufacturers of these low-NOx flares. John Zink Hamworthy Combustion (John Zink) produces Zink Ultra Low Emissions (ZULE®) flare, which electronically control air-to-fuel ratio within the enclosed flare to provide more efficient destruction and less NOx emissions without an increase of carbon monoxide. The other low-NOx flare is the Certified Ultra-Low Emissions Burner (CEB®) produced by the Aereon Corporation. It incorporates the premixing of gases and patented wire mesh technology that allows for more efficient combustion and retention of heat, with a decrease of NOx emissions. Due to the added complexity in the design of the low-NOx flares, some stakeholders have experienced reliability issues. This is especially true of the early generation flares installed that do not combust a constant gas flow.

Other Flaring
For the Other Flaring category, John Zink produces a NOxSTAR Vapor Combustion System capable of reducing emissions for marine terminal loading and unloading by meeting a stringent 99.99 percent destruction efficiency and a 0.036 pound/MMBtu NOx emission. CEB® flares have also been permitted and installed for use for organic liquid handling.

Beneficial Use Opportunities
PR1118.1 seeks to encourage alternatives to flaring, while at the same time, allowing an existing flare to be maintained if the flare throughput is reduced below capacity thresholds established in the rule. Flare throughput reduction can be achieved by harnessing and conditioning the waste gas for a variety of uses. Alternatives to flaring include utilizing fuel cells to create electricity and hydrogen; using micro-turbines and boilers to create power for the facility; using boilers for heat in anaerobic digesters; selling the gas to be used in transportation; converting the gas to liquids for transportation; and/ or natural gas pipeline injection. Sites such as oil and gas facilities that do not

produce enough gas or are not located near appropriate pipelines for injection could route the gas towards power generation, such as micro-turbines, and/or capture for use in transportation. The flare gas has value and most facilities strive to maximize the use of the gas, the following sections highlight some of the beneficial use options.

Fuel Cells

Fuel cells use a chemical reaction, rather than combustion, to generate electricity. They are very efficient and the fuel cells do not produce NOx emissions, though a small amount of NOx can be produced from associated fuel burners. Fuel cells can utilize biogas or produced gas as the fuel, but the contaminants, especially the siloxanes in biogas, must be removed as they will poison the catalyst. Fuel cells represent a great opportunity for beneficial use and NOx emissions but the technology, and the associated gas clean-up, is costly.

Combined Heat and Power

Combined heat and power (CHP) is an efficient technology that generates electricity and captures the heat that would otherwise be wasted to provide useful thermal energy, such as steam or hot water. Nearly two-thirds of the energy used by conventional electricity generation is wasted in the form of heat discharged to the environment.

Boilers

New power producing technologies, such as the organic Rankine cycle (ORC), has shown the ability to consume the gas that would otherwise be flared and provide a co-benefit by producing power. This technology utilizes heat recovery from gas combustion to operate the ORC loop to make power. For an oil and gas facility, for example, this is accomplished by installing a skid-mounted boiler on site to combust the gas and provide hot water for the ORC. The amount of power generated is not a high enough quantity to sell to the grid, but will be able to meet some of the facility's power needs and/or heat needs. These boilers emit either 9 ppm (at 3 percent oxygen) or 5 ppm (at 3 percent oxygen with selective catalytic reduction), depending on the size, which will result in 40 to 67 percent less NOx emissions than a low-NOx flare. For a wastewater treatment facility that currently utilizes boilers for providing heat to the anaerobic digesters, the same boiler can be utilized to process any excess gas that would otherwise be flared. In addition, a landfill can potentially utilize this technology to generate electricity from landfill gas that would otherwise be flared.

Micro-turbines and Turbines

Micro-turbines and turbines can be powered by gas that would otherwise be flared to generate power. Most systems require gas cleanup but there are with regenerative thermal oxidation that can be used to produce power without the necessity of biogas cleanup. These technologies can be used at each of the source categories and are especially useful at landfills with low methane gas.

Gas Recovery, Processing, Compression, and Transportation

Another alternative to flaring is to compress the gas that would otherwise be flared and either use it on-site or transport the gas for sale or use at another location. The gas can be cleaned up prior to compression and used to create a transportation fueling station or the compressed gas can be transported and injected into the pipeline. This type of system is useful when a natural gas pipeline is not readily accessible.

Gas-to-liquids
Flare gas can also be converted to liquid fuels and sold as transportation fuel or energy generation. This is a way to reduce or eliminate flaring while making a profit of the gas that would otherwise be flared.

SUMMARY OF AFFECTED FACILITIES

There are ~~146~~ 153 facilities and ~~288~~ 295 flares that are potentially subject to the requirements in PR 1118.1. Based on the proposed capacity threshold and current flare emission limits, SCAQMD staff has identified 16 facilities and 25 flares that may need to make physical modifications in order to comply with the requirements in PR 1118.1. Table 1-3 identifies the flares that may be affected by PR 1118.1:

Table 1-3
Potentially Impacted Flares

	Facility ID	Facility Name	Type of Gas Flared	Number of Affected Flares
1	150400	BREITBURN OPERATING L.P.	Produced gas	1
2	150209	BREITBURN OPERATING L.P.	Produced gas	1
3	150201	BREITBURN OPERATING L.P.	Produced gas	1
4	172872	BREITBURN OPERATING L.P.	Produced gas	1
5	119219	CHIQUITA CANYON LLC	Landfill Gas	1
6	139865	CITY OF BURBANK WATER AND POWER	Landfill Gas	1
7	13662	CITY OF WHITTIER LANDFILL	Landfill Gas	1
8	9163	INLAND EMPIRE UTILITIES AGENCY	Digester Gas	1
9	45262	LA COUNTY SANITATION DISTRICT - SCHOLL CANYON	Landfill Gas	4
10	69646	ORANGE COUNTY WASTE & RECYCLING - FRANK R. BOWERMAN	Landfill Gas	5
11	52753	ORANGE COUNTY WASTE & RECYCLING - PRIMA DESHECHA	Landfill Gas	1
12	74413	REDLANDS CITY - CALIFORNIA STREET LANDFILL	Landfill Gas	1
13	156312	ROSECRANS ENERGY	Produced gas	1
14	7068	SAN BERNARDINO COUNTY SOLID WASTE MANAGEMENT	Landfill Gas	2
15	50299	SAN BERNARDINO COUNTY SOLID WASTE MANAGEMENT - MID VALLEY	Landfill Gas	2
16	49111	SUNSHINE CANYON LANDFILL	Landfill Gas	1
			Total Flares	**25**

CHAPTER 2

ENVIRONMENTAL CHECKLIST

INTRODUCTION

The environmental checklist provides a standard evaluation tool to identify a project's potential adverse environmental impacts. This checklist identifies and evaluates potential adverse environmental impacts that may be created by the proposed project.

GENERAL INFORMATION

Project Title:	Final ~~Draft~~ Environmental Assessment for Proposed Rule 1118.1 – Control of Emissions from Non-Refinery Flares
Lead Agency Name:	South Coast Air Quality Management District
Lead Agency Address:	21865 Copley Drive Diamond Bar, CA 91765
CEQA Contact Person:	Mr. Luke Eisenhardt, (909) 396-3443
PR 1118.1 Contact Person	Mr. Steve Tsumura, (909) 396-2549
Project Sponsor's Name:	South Coast Air Quality Management District
Project Sponsor's Address:	21865 Copley Drive Diamond Bar, CA 91765
General Plan Designation:	Not applicable
Zoning:	Not applicable
Description of Project:	PR 1118.1 seeks to reduce NOx and VOC emissions from flaring activities at landfills, wastewater treatment plants, oil and gas production facilities, organic liquid loading stations, and tank farms and to encourage alternatives to flaring. PR 1118.1 establishes emission limits that reflect BARCT standards for flares and provides an exemption for low-use and low-emitting flares. PR 1118.1 also establishes a capacity threshold, based on a flare's maximum rated capacity, to identify flares that would need to be replaced or undergo a flare gas throughput reduction (e.g., use gas beneficially). Additionally, PR 1118.1 establishes requirements for facilities to conduct periodic source tests, monitor and record gas usage, and submit reports. PR 1118.1 is estimated to reduce 0.18 ~~0.2~~ ton per day of NOx. The Final ~~Draft~~ EA did not result in the identification of any environmental topic areas that would be significantly adversely affected by PR 1118.1. ~~One~~ Six of the facilities affected by PR 1118.1 were identified on lists compiled by the California Department of Toxic Substances Control per Government Code Section 65962.5.
Surrounding Land Uses and Setting:	Various
Other Public Agencies Whose Approval is Required:	Not applicable

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The following environmental impact areas have been assessed to determine their potential to be affected by the proposed project. As indicated by the checklist on the following pages, environmental topics marked with an "✓"involve at least one impact that is a "Potentially Significant Impact". An explanation relative to the determination of impacts can be found following the checklist for each area.

☐ Aesthetics	☐ Geology and Soils	☐ Population and Housing
☐ Agriculture and Forestry Resources	☐ Hazards and Hazardous Materials	☐ Public Services
☐ Air Quality and Greenhouse Gas Emissions	☐ Hydrology and Water Quality	☐ Recreation
☐ Biological Resources	☐ Land Use and Planning	☐ Solid and Hazardous Waste
☐ Cultural Resources	☐ Mineral Resources	☐ Transportation and Traffic
☐ Energy	☐ Noise	☐ Mandatory Findings of Significance

DETERMINATION

On the basis of this initial evaluation:

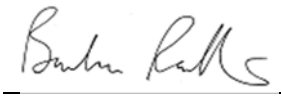
☑ I find the proposed project, in accordance with those findings made pursuant to CEQA Guidelines Section 15252, COULD NOT have a significant effect on the environment, and that an ENVIRONMENTAL ASSESSMENT with no significant impacts has been prepared.

☐ I find that although the proposed project could have a significant effect on the environment, there will NOT be significant effects in this case because revisions in the project have been made by or agreed to by the project proponent. An ENVIRONMENTAL ASSESSMENT with no significant impacts will be prepared.

☐ I find that the proposed project MAY have a significant effect(s) on the environment, and an ENVIRONMENTAL ASSESSMENT will be prepared.

☐ I find that the proposed project MAY have a "potentially significant impact" on the environment, but at least one effect: 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards; and, 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL ASSESSMENT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects: 1) have been analyzed adequately in an earlier ENVIRONMENTAL ASSESSMENT pursuant to applicable standards; and, 2) have been avoided or mitigated pursuant to that earlier ENVIRONMENTAL ASSESSMENT, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Date: October 25, 2018 **Signature:** 

Barbara Radlein
Program Supervisor, CEQA
Planning, Rules, and Area Sources

ENVIRONMENTAL CHECKLIST AND DISCUSSION

PR 1118.1 seeks to reduce NOx and VOC emissions from flaring produced gas, digester gas, landfill gas, and other combustible gases and vapors and to encourage alternatives to flaring. PR 1118.1 applies to owners and operators of flares that require a SCAQMD permit at both RECLAIM and non-RECLAIM facilities, including, but not limited to, oil and gas production, wastewater treatment facilities, landfills, organic liquid loading stations, and tank farms. The proposed rule includes NOx, CO, and VOC emission limits that reflect BARCT standards and a capacity threshold that seeks to identify routine flaring. For flares that exceed the capacity threshold, either a reduction in flare gas throughput or replacement with a flare with lower NOx emissions will be required. The capacity threshold varies depending on the type of gas being flared (landfill, digester, produced) and the type of flare equipment (open flare versus a shrouded flare). Further, PR 1118.1 sets additional limits for replacement and new oil and gas production flares. PR 1118.1 provides an exemption for low-use, low-emitting flares, and other special circumstances. Additionally, PR 1118.1 establishes provisions for source testing, monitoring, reporting, and recordkeeping. PR 1118.1 is expected to reduce 0.18 ~~0.2~~ ton of NOx per day from flares located at landfills, wastewater treatment plants, oil and gas production facilities, organic liquid loading stations, and tank farms.

Implementing PR 1118.1 would be expected to result in some facilities either replacing flares to meet emission requirements or developing an alternative project to decrease gas throughput in lieu of flaring; the activities associated with making these physical changes may also create secondary adverse environmental impacts. Similarly, activities associated with conducting source tests and installing fuel meters may also create secondary adverse environmental impacts.

While there are other requirements in PR 1118.1 that are necessary to support compliance with the rule, the following components of PR 1118.1 are administrative or procedural in nature and as such, would not be expected to cause any physical changes at affected facilities: monitoring fuel meters; recordkeeping; sending notifications and reports to the SCAQMD; applying for permit applications; and preparing and submitting source testing protocols. As such, these components of PR 1118.1 would not be expected to create any secondary adverse environmental impacts.

For these reasons, the analysis in this EA focuses on the potential secondary adverse environmental impacts associated with: 1) installing replacement flares; 2) implementing alternative beneficial use projects to lower flare gas throughput; 3) installing fuel meters; and 4) conducting source tests. The effects of implementing these key rule components in PR 1118.1 have been evaluated relative to the environmental topics identified in the following environmental checklist (e.g., aesthetics, agriculture and forestry resources, biological resources, etc.). To evaluate these impacts, several assumptions were relied upon in the foregoing analyses, which are explained below.

Compliance with Emission Limits: There are ~~146~~ 153 facilities and ~~288~~ 295 flares in SCAQMD's jurisdiction that are subject to PR 1118.1. Of these flares, many will be exempt from having to comply with the emission limits in PR 1118.1 because they emit less than 30 pounds/month of NOx, operate less than 200 hours/year, or they are located on a closed landfill which produces less than 2,000 MMscf/year of landfill gas. Additionally, permit information along with three-year average flare throughput data indicates that there are some flares currently operating below their capacity threshold which means that they are already in compliance with PR 1118.1. In addition, there are some facilities currently operating low-NOx flares which are already in compliance with PR 1118.1. Thus, the analysis shows that only 25 flares at 16 facilities will potentially need to be replaced in order to meet the proposed emission limits. Alternatively, a flare

owner/operator could elect to reduce the gas throughput to the flare(s) through implementing a beneficial use project such as turbines, fuel cells, or internal combustion engines.

There are 25 flares that were determined by staff to currently exceed both the capacity thresholds and NOx emission limits, and therefore may potentially require replacement or throughput reduction under PR 1118.1. Unless in compliance with the emission limits in Table 1-1, flare operators have two years to monitor the flare for exceedance of the percent capacity thresholds. After this two year monitoring period, there is a six month allowance period for privately owned facilities and a 12 month allowance period for publicly owned facilities to either notify the SCAQMD of a plan to reduce flare throughput below the percent capacity threshold, or to submit an application to replace the flare with one which meets the emission limits. If the flare owner/operator chooses to reduce flare throughput via beneficial use or otherwise, three years, plus an additional ~~one~~ two year extension ~~or longer~~ (if requested and approved), are provided in order to comply with PR 1118.1. If the owner/operator chooses to replace the flare with an emission compliant flare, they have ~~one year~~ 18 months to install the new flare after the permit is approved, with a possible 12 month extension, ~~or longer~~ if requested and approved. This means that flare operators may have at least 5.5 years (or six years if publicly owned), but possibly ~~6~~ 7.5 years (or eight years if publicly owned)~~or longer~~, if deadline extensions are requested and approved, to comply via flare throughput reduction, or at least ~~3.5~~ four years (or 4.5 years if publicly owned), but ~~4.5~~ five years (or 5.5 years if publicly owned), or longer depending on the time it takes for permit issuance or if deadline extensions are requested and approved, to comply via flare replacement.

Options to Reduce Flare Gas Throughput: Though there are several methods of reducing flare gas throughput, such as developing and constructing a beneficial use project, reducing gas output, or storing gas; however, not all of these options are practical, reasonably foreseeable or physically possible at all facilities because of the wide size range of sites, setting, and logistics unique to individual facility operations. For example, while a large turbine project could substantially reduce flare gas throughput, the high cost of such a project would make it economically infeasible at many sites. Large-scale beneficial use projects are typically capital improvement projects that are heavily influenced by economic and political factors that are beyond the scope of this analysis and decisions to construct these types of projects would likely be made regardless of or in addition to PR 1118.1, but not solely because of PR 1118.1. Further, SCAQMD staff is not aware of any PR 1118.1 facilities that are planning to construct a large-scale beneficial use project in the immediate future and is unable to predict or forecast, when, if at all, any would be built in the long-term. Therefore, in accordance with CEQA Guidelines Section 15145, an evaluation of construction and operation impacts for a large-scale beneficial use project such as large turbine project is concluded to be speculative and will not be evaluated further in this analysis.

However, SCAQMD staff's research has determined that the installation of a fuel cell power production system, along with a gas processing unit and the installation of a backup natural gas compression and a compressed natural gas (CNG) transport system either via truck or pipeline may be a cost-effective, feasible alternative to flaring. SCAQMD staff conducted a survey of affected facilities and most owners/operators indicated that they will likely opt to replace their flare(s). However, because it is possible that some owners/operators may choose to implement the aforementioned fuel cell and gas compression system, it is impossible to accurately forecast or predict how many of these systems would actually be installed. As such, this analysis assumes that 20 existing flares will be replaced with 20 new, lower emitting flares. For the remaining five existing flares, this analysis assumes that owners/operators will elect to reduce their flare gas

throughput by processing that gas, and routing it to a fuel cell and gas processing, compression, and transport system (CNG system).

Source Testing: Of the ~~288~~ 295 flares, a portion will be required to undergo new source testing as a result of PR 1118.1 but most flares already conduct source tests due to other SCAQMD rule requirements. For example, there are 155 flares at landfills that are currently required to undergo annual source tests due to other SCAQMD rule requirements, which is more frequent than the proposed source testing requirement of once per five years in PR 1118.1. Additionally, wastewater treatment plants already undergo periodic source testing no less than every five years. Furthermore, major oil production facilities are already required to source test, no less frequently than every five years, and only minor facilities do not require source testing. Digester gas flares and landfill gas flares would only need additional analysis for NOx and CO, and not require additional source testing. Finally, "other gas" is exempt from source testing under PR 1118.1. For these reasons, the source testing requirements in PR 1118.1 with respect to flares at landfills for digester gas and landfill gas, flares at wastewater treatment plants, and flares at major oil production facilities are not considered activities that would create new, additional source testing impacts beyond the existing setting. Also, because open flares cannot be source tested, they are exempt from the source testing requirements in PR 1118.1. In light of the aforementioned existing source testing obligations and the exemption for open flares, there are only 36 ~~28~~ flares that were not previously required to undergo source testing that would now be expected to undergo source testing once every five years.

Fuel Meter Installations: Of the ~~288~~ 295 flares, some will need fuel meters to be installed, while most are already equipped with fuel meters, because all non-refinery flares that received SCAQMD permits after 1988 were installed with fuel meters. In addition, closed landfill flares with a landfill gas flow of less than 2,000 MMscf/year are exempt from the requirement to be equipped with fuel meters. SCAQMD's database indicates that there are only 10 out of the ~~288~~ 295 flares that received SCAQMD permits prior to 1988. For this reason, this analysis assumes that only 10 new fuel meter installations would be required in order to comply with PR 1118.1 and these installations are required to occur within 90 days of rule adoption.

Conclusion: Of the ~~288~~ 295 flares at ~~146~~ 153 facilities affected by PR 1118.1: 25 flares at 16 facilities would require either a flare replacement to reduce emissions, or an alternative project to reduce flare gas throughput such as the installation of a fuel cell, gas processing, and gas compression and transport system; ~~28~~ 36 flares would need to undergo additional source testing; and 10 flares would need to have flow meters installed.

		Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
I.	**AESTHETICS.** Would the project:				
a)	Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☑
b)	Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☑
c)	Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☐	☑
d)	Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☐	☑

Significance Criteria

The proposed project impacts on aesthetics will be considered significant if:

- The project will block views from a scenic highway or corridor.
- The project will adversely affect the visual continuity of the surrounding area.
- The impacts on light and glare will be considered significant if the project adds lighting which would add glare to residential areas or sensitive receptors.

Discussion

PR 1118.1 will reduce NOx and VOC emissions from non-refinery flares and encourage alternatives to flaring. PR 1118.1 applies to owners and operators of flares that require a SCAQMD permit, including, but not limited to, oil and gas production, wastewater treatment facilities, landfills, organic liquid loading stations, and tank farms. The proposed rule includes NOx, CO, and VOC emission limits that reflect BARCT standards and a capacity threshold that seeks to identify routine flaring. For flares that exceed the capacity threshold, either a reduction in flare throughput or replacement with a flare with lower emissions will be required. The capacity threshold varies depending on the type of gas being flared (e.g., landfill, digester, produced) and the type of flare equipment (e.g., open flare versus a shrouded flare). PR 1118.1 provides an exemption for low-use and low-emitting flares. Additionally, PR 1118.1 establishes provisions for source testing, monitoring, reporting, and recordkeeping. Of the ~~288~~ 295 flares at ~~146~~ 153 facilities affected by PR 1118.1: 25 flares at 16 facilities would require either a flare replacement to reduce emissions, or an alternative project to reduce flare gas throughput such as the installation of a fuel cell, gas processing, and gas compression and transport system; ~~28~~ 36 flares would need to undergo additional source testing; and 10 flares would need to have flow meters installed.

I. a), b), c), & d) No Impact. To replace flares or install a fuel cell and CNG system, construction activities would be expected to occur at affected facilities. Construction will require the use of heavy-duty construction equipment such as forklifts, loaders, cranes, and welders. The

construction equipment is expected to be not substantially visible to the surrounding area due to construction occurring within existing facility's property line, existing fencing along property lines, and existing structures and features currently within the facilities that may buffer the views of the construction activities. Furthermore, the types of facilities that are expected to undergo construction are wastewater treatment plants, oil and gas production facilities, and landfills and all of these facilities currently have heavy duty trucks frequently entering and exiting the site, and construction equipment on site on a day-to-day basis. Thus, any construction activities that may occur as a result of PR 1118.1 will likely be consistent with the character of the existing setting of the affected sites and will not be expected to cause substantial aesthetic differences from existing on-site equipment needed for day-to-day operation activities. In addition, the construction activities are expected to be temporary in nature and will cease following the completion of the project. Once construction is completed, all construction equipment that is not part of the each facilities day-to-day operations will be removed from each facility. Flare replacement is expected to be completed within ~~4.5~~ 5.5 years after the date of rule adoption at all affected facilities; however, construction of each new flare per site is only expected to take approximately eight weeks. Construction of beneficial use projects may take longer, but would expect to be completed within ~~6.5~~ eight years.

In the event that a facility chooses to replace a flare, the new flare will appear to be the same as the existing flare. If the flare being replaced is an open flare with a visible flame, the new flare will be enclosed such that the flame will no longer be visible, which will have the effect of improving what some consider an undesirable existing aesthetic impact. Therefore, replacement flares will either be consistent with the existing visual character of sites, or improve the existing visual character.

Fuel cell and gas compression and transport units installed as alternative beneficial use projects to reduce flaring would likely only be constructed if suitable space were available. Gas compression and transport units are delivered by truck, and are no larger than a semi-truck trailer, and therefore, scenic vistas would not be expected to be altered beyond the existing setting. Similarly, fuel cell plants are modular and generally low in height when compared to existing flares; thus, if a facility elects to install a fuel cell plant, scenic vistas would not be expected to be substantially altered beyond the existing setting. Finally, the fuel cell and gas compression and transport units are industrial in appearance, similar to the existing stationary and mobile equipment on site. For this reason, the additional of fuel cell and gas compression and transport units would not be expected to degrade the existing character of the site, nor adversely affect the visual continuity of the surrounding area of the affected facilities.

PR 1118.1 also contains requirements that would cause fuel meters to be installed and new source tests to be conducted. These activities would be low-profile and limited to occurring within each facility's property and would be expected to blend in with regular day-to-day activities. Furthermore, because fuel meters are relatively small in size and industrial in appearance relative to the size of a flare, the installation of fuel meters will not be visually discernable from other existing equipment onsite and thus, would not be expected to affect any scenic vistas. Further, any potential construction equipment needed to install the fuel meters would be small in scale, likely hand tools, and would not be expected to damage or obstruct scenic resources or degrade the existing visual character of any site in the vicinity of affected facilities. Additional source testing would not affect the visual character of affected facilities. Source testing would only occur once every five years and would blend in with routine site operations. Therefore, it will cause not cause any discernable aesthetic impacts.

PR 1118.1 does not include any components that would require construction activities to occur at night. Further, cities often have their own limitations and prohibitions that restrict construction from occurring during evening hours and weekends. Therefore, no additional temporary construction lighting at the facility would be expected. However, if facility operators determine that the construction schedule requires nighttime activities, temporary lighting may be required. Nonetheless, since construction activities would be completely located within the boundaries of each affected facility, additional temporary lighting is not expected to be discernable from the existing permanent night lighting. Additionally, while the proposed project has no provisions that would require affected equipment to operate at night, some facilities currently operate multiple shifts and existing lighting is utilized during the nighttime shifts. However, operations of replacement flares would not be effectively different than current practices, so no new nighttime operations are expected. Lastly, some open flares, with visible flames will be replaced with shrouded flares, thus eliminating a light source that was previously visible during both the day and night. For these reasons, the proposed project would not create a new source of substantial light or glare at any of the affected facilities in a manner that would adversely affect day or nighttime views in the surrounding areas.

Conclusion

Based upon these considerations, significant adverse aesthetics impacts are not expected from implementing PR 1118.1. Since no significant aesthetics impacts were identified, no mitigation measures are necessary or required.

		Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
II.	**AGRICULTURE AND FORESTRY RESOURCES.** Would the project:				
a)	Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland mapping and Monitoring Program of the California Resources Agency, to non- agricultural use?	☐	☐	☐	☑
b)	Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☑
c)	Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?	☐	☐	☐	☑
d)	Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☑

Significance Criteria

Project-related impacts on agriculture and forestry resources will be considered significant if any of the following conditions are met:

- The proposed project conflicts with existing zoning or agricultural use or Williamson Act contracts.
- The proposed project will convert prime farmland, unique farmland or farmland of statewide importance as shown on the maps prepared pursuant to the farmland mapping and monitoring program of the California Resources Agency, to non-agricultural use.
- The proposed project conflicts with existing zoning for, or causes rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined in Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g)).
- The proposed project would involve changes in the existing environment, which due to their location or nature, could result in conversion of farmland to non-agricultural use or conversion of forest land to non-forest use.

Discussion
PR 1118.1 will reduce NOx and VOC emissions from non-refinery flares and encourage alternatives to flaring. PR 1118.1 applies to owners and operators of flares that require a SCAQMD permit, including, but not limited to, oil and gas production, wastewater treatment facilities, landfills, organic liquid loading stations, and tank farms. The proposed rule includes NOx, CO, and VOC emission limits that reflect BARCT standards and a capacity threshold that seeks to identify routine flaring. For flares that exceed the capacity threshold, either a reduction in flare throughput or replacement with a flare with lower emissions will be required. The capacity threshold varies depending on the type of gas being flared (e.g., landfill, digester, produced) and the type of flare equipment (e.g., open flare versus a shrouded flare). PR 1118.1 provides an exemption for low-use and low-emitting flares. Additionally, PR 1118.1 establishes provisions for source testing, monitoring, reporting, and recordkeeping. Of the ~~288~~ 295 flares at ~~146~~ 153 facilities affected by PR 1118.1: 25 flares at 16 facilities would require either a flare replacement to reduce emissions, or an alternative project to reduce flare gas throughput such as the installation of a fuel cell, gas processing, and gas compression and transport system; ~~28~~ 36 flares would need to undergo additional source testing; and 10 flares would need to have flow meters installed.

II. a), b), c), & d) No Impact. The affected facilities and their immediately surrounding areas are not located on or near areas zoned for agricultural use, Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland mapping and Monitoring Program of the California Resources Agency. Therefore, the proposed project would not result in any construction of new buildings or other structures that would require converting farmland to non-agricultural use or conflict with zoning for agriculture use or a Williamson Act contract. The construction and operation activities would be expected to occur within the confines of existing industrial facilities, thus the proposed project is not expected to result in converting farmland to non-agricultural use; conflict with existing zoning for agricultural use, or a Williamson Act Control.

All of the facilities are located in industrial use areas in the urban portion of the Basin that is not near forest land. Therefore, the proposed project is not expected to conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g)) or result in the loss of forest land or conversion of forest land to non-forest use. Consequently, the proposed project would not create any significant adverse agriculture or forestry impacts.

Conclusion
Based upon these considerations, significant adverse agriculture and forestry resources impacts are not expected from implementing PR 1118.1. Since no significant agriculture and forestry resources impacts were identified, no mitigation measures are necessary or required.

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
III. AIR QUALITY AND GREENHOUSE GAS EMISSIONS. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☑
b) Violate any air quality standard or contribute to an existing or projected air quality violation?	☐	☐	☑	☐
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors)?	☐	☐	☑	☐
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☑	☐
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☑	☐
f) Diminish an existing air quality rule or future compliance requirement resulting in a significant increase in air pollutant(s)?	☐	☐	☑	☐
g) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☑	☐
h) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☑	☐

Significance Criteria

To determine whether or not air quality and greenhouse gas impacts from implementing PR 1118.1 are significant, impacts will be evaluated and compared to the criteria in Table 2-1. PR 1118.1 will be considered to have significant adverse impacts if any one of the thresholds in Table 2-1 are equaled or exceeded.

Table 2-1
SCAQMD Air Quality Significance Thresholds

Mass Daily Thresholds [a]		
Pollutant	**Construction** [b]	**Operation** [c]
NO_x	100 lbs/day	55 lbs/day
VOC	75 lbs/day	55 lbs/day
PM_{10}	150 lbs/day	150 lbs/day
$PM_{2.5}$	55 lbs/day	55 lbs/day
SO_x	150 lbs/day	150 lbs/day
CO	550 lbs/day	550 lbs/day
Lead	3 lbs/day	3 lbs/day
Toxic Air Contaminants (TACs), Odor, and GHG Thresholds		
TACs (including carcinogens and non-carcinogens)	Maximum Incremental Cancer Risk ≥ 10 in 1 million Cancer Burden > 0.5 excess cancer cases (in areas ≥ 1 in 1 million) Chronic & Acute Hazard Index ≥ 1.0 (project increment)	
Odor	Project creates an odor nuisance pursuant to SCAQMD Rule 402	
GHG	10,000 MT/yr CO_2eq for industrial facilities	
Ambient Air Quality Standards for Criteria Pollutants [d]		
NO_2 1-hour average annual arithmetic mean	SCAQMD is in attainment; project is significant if it causes or contributes to an exceedance of the following attainment standards: 0.18 ppm (state) 0.03 ppm (state) and 0.0534 ppm (federal)	
PM_{10} 24-hour average annual average	10.4 μg/m^3 (construction)[e] & 2.5 μg/m^3 (operation) 1.0 μg/m^3	
$PM_{2.5}$ 24-hour average	10.4 μg/m^3 (construction)[e] & 2.5 μg/m^3 (operation)	
SO_2 1-hour average 24-hour average	0.25 ppm (state) & 0.075 ppm (federal – 99th percentile) 0.04 ppm (state)	
Sulfate 24-hour average	25 μg/m^3 (state)	
CO 1-hour average 8-hour average	SCAQMD is in attainment; project is significant if it causes or contributes to an exceedance of the following attainment standards: 20 ppm (state) and 35 ppm (federal) 9.0 ppm (state/federal)	
Lead 30-day Average Rolling 3-month average	1.5 μg/m^3 (state) 0.15 μg/m^3 (federal)	

[a] Source: SCAQMD CEQA Handbook (SCAQMD, 1993)
[b] Construction thresholds apply to both the South Coast Air Basin and Coachella Valley (Salton Sea and Mojave Desert Air Basins).
[c] For Coachella Valley, the mass daily thresholds for operation are the same as the construction thresholds.
[d] Ambient air quality thresholds for criteria pollutants based on SCAQMD Rule 1303, Table A-2 unless otherwise stated.
[e] Ambient air quality threshold based on SCAQMD Rule 403.

KEY: lbs/day = pounds per day ppm = parts per million μg/m^3 = microgram per cubic meter ≥ = greater than or equal to
MT/yr CO_2eq = metric tons per year of CO_2 equivalents > = greater than

Revision: March 2015

Preface

Subsequent to the circulation of the Draft EA for public comment and review, several changes were made to PR 1118.1 which required updates to the air quality and GHG analysis. Specifically, the estimated NOx reductions from PR 1118.1 were reduced from 0.2 ton/day in the Draft EA to 0.18 ton/day in the Final EA. In the Draft EA, the calculation for determining the overall anticipated NOx emissions~~s~~ reductions for PR 1118.1 of 0.2 ton/day for 25 flares was based on an achieving an average NOx emission reductions of 15.8 pounds/day NOx for each operational replacement flare. However, in this Final EA, the average NOx emission reductions for each operational replacement flare was adjusted 14.4 pounds/day NOx which translates to overall NOx emission reductions of 0.18 ton/day for 25 replacement flares. The analysis which relied on these calculations has been updated to reflect the adjustments to the estimate of overall NOx emission reductions. Nevertheless, the adjusted calculations in this Final EA do not cause an exceedance of the SCAQMD's CEQA air quality significance thresholds during the period of construction only, operation only, or construction and operational overlap. Therefore, this Final EA concluded that the air quality impacts from construction and operation remain less than significant after the adjustments to the analysis have been made.

In addition, PR 1118.1 was updated by increasing the overall length of time allowed for rule compliance, including extensions, by one year for flare replacement projects, and 1.5 years for throughput reduction for beneficial use projects. The effect of this update to PR 1118.1 is expected to result in the construction of replacement flares and beneficial use projects to be spread out over a longer period of time than was initially considered in the Draft EA, whereby reducing the probability of multiple projects occurring concurrently, and reducing the air quality impacts estimated to occur on a peak construction day. As such, the potential air quality impacts analyzed in the Draft EA likely overestimate the actual impacts that may occur as a result of implementing PR 1118.1. Thus, the conclusion of less than significant air quality and GHG impacts in the Draft EA, remain unchanged in the Final EA.

Discussion

PR 1118.1 will reduce NOx and VOC emissions from non-refinery flares and encourage alternatives to flaring. PR 1118.1 applies to owners and operators of flares that require a SCAQMD permit, including, but not limited to, oil and gas production, wastewater treatment facilities, landfills, organic liquid loading stations, and tank farms. The proposed rule includes NOx, CO, and VOC emission limits that reflect BARCT standards and a capacity threshold that seeks to identify routine flaring. For flares that exceed the capacity threshold, either a reduction in flare throughput or replacement with a flare with lower emissions will be required. The capacity threshold varies depending on the type of gas being flared (e.g., landfill, digester, produced) and the type of flare equipment (e.g., open flare versus a shrouded flare). PR 1118.1 provides an exemption for low-use and low-emitting flares. Additionally, PR 1118.1 establishes provisions for source testing, monitoring, reporting, and recordkeeping. Of the ~~288~~ 295 flares at ~~146~~ 153 facilities affected by PR 1118.1: 25 flares at 16 facilities would require either a flare replacement to reduce emissions, or an alternative project to reduce flare gas throughput such as the installation of a fuel cell, gas processing, and gas compression and transport system; ~~28~~ 36 flares would need to undergo additional source testing; and 10 flares would need to have flow meters installed.

III. a) No Impact. The SCAQMD is required by law to prepare a comprehensive district-wide Air Quality Management Plan (AQMP) which includes strategies (e.g., control measures) to reduce emission levels to achieve and maintain state and federal ambient air quality standards, and to ensure that new sources of emissions are planned and operated to be consistent with the

SCAQMD's air quality goals. The AQMP's air pollution reduction strategies include control measures which target stationary, area, mobile and indirect sources. These control measures are based on feasible methods of attaining ambient air quality standards. Pursuant to the provisions of both the state and federal Clean Air Acts, the SCAQMD is also required to attain the state and federal ambient air quality standards for all criteria pollutants.

The most recent regional blueprint for how the SCAQMD will achieve air quality standards and healthful air is outlined in the 2016 AQMP[11] which contains multiple goals of promoting reductions of criteria air pollutants, greenhouse gases, and toxics. In particular, the 2016 AQMP includes control measure CMB-03 which requires reductions of NOx and VOC emissions through the implementation of PR 1118.1. PR 1118.1 will reduce these emissions by setting stricter emission standards on non-refinery flares for new flares and existing non-exempt flares, and by encouraging alternatives to flaring.

For these reasons, PR 1118.1 is not expected to obstruct or conflict with the implementation of the 2016 AQMP because the emission reductions from implementing PR 1118.1 are in accordance with the emission reduction goals in the 2016 AQMP. PR 1118.1 would reduce NOx and VOC emissions, and therefore be consistent with the goals of the 2016 AQMP. Thus, implementing PR 1118.1 to reduce emissions from non-refinery flares would not conflict with or obstruct implementation of the applicable air quality plans.

III. b) and f) Less Than Significant Impact. While PR 1118.1 is designed to reduce NOx and VOC emissions, secondary air quality impacts are expected from its implementation due to physical activities that may need to occur. For example, the requirements in PR 1118.1 for certain flares to meet stricter emission standards would be expected to result in construction activities associated with replacing approximately 25 flares at 16 facilities. Additionally, construction of alternative beneficial use projects to reduce flare usage in lieu of flare replacement, such as a micro-turbine, fuel cell, and a gas processing, compression, and transport system would also require construction activities at facilities that choose this option. These construction activities may contribute to air quality and greenhouse gas (GHG) impacts. Further, additional minor secondary air quality impacts during operation are also expected to occur as a result of facilities conducting source testing and installing fuel meters.

Table 2-2 summarizes the key requirements in PR 1118.1 that may result in secondary adverse air quality and GHG impacts during construction and operation. It should be noted that for the sake of this analysis, and as indicated in Table 2-2, a fuel cell and CNG system project is assumed as the alternative beneficial use project.

[11] SCAQMD, Final 2016 Air Quality Management Plan, March, 2017. http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2016-air-quality-management-plan/final-2016-aqmp/final2016aqmp.pdf

Table 2-2
Sources of Potential Secondary Adverse Air Quality and GHG Impacts During Construction and Operation

Key Requirements in PR 1118.1	Physical Actions Anticipated During:	
	Construction	**Operation**
Option 1: Flare Emission Limits (Flare Replacement)	1. Possible removal and disposal of old flares and site preparation as needed 2. Vehicle trips for workers and deliveries 3. Installation of new flares	Reduced emissions from new, cleaner flares
Option 2: Flare Throughput Reduction (Beneficial Use)	1. Site preparation for fuel cell, gas processing, compression, and transport equipment 2. Vehicle trips for workers and deliveries 3. Construction activity for installation of equipment	1. Reduced emissions from fuel cell operation 2. Vehicle trips for servicing and replacing parts of gas processing equipment 3. Vehicle trips for gas transport
Fuel Meter Installation	1. Vehicle trips for workers and deliveries 2. Minor installation activities	No new operational impacts
Source Testing	None are needed	Vehicle trips due to periodic source testing

For the purpose of conducting a worst-case CEQA analysis for flare replacement or an alternative beneficial use project, the following assumptions have been made:

Compliance with PR 1118.1 for affected facilities is expected to be met by either replacing an old flare with a low-NOx flare or by decreasing flare gas throughput via an alternative beneficial use project. For the purpose of this analysis, a combination of fuel cell and gas processing, compression, and transport is considered as a feasible beneficial use project. It is assumed that a facility owner/operator will choose either to replace a flare or implement a beneficial use project consisting of a combination of fuel cell and gas processing, compression, and transport.

Because flare replacement will likely incur lower capital costs than a beneficial use project, this analysis assumes that construction of a new flare will be completed more quickly. In particular, the construction impact analysis assumes that installation of a new flare will take up to eight weeks to complete and installation of a fuel cell and gas processing, compression, and transport system will take up to four months to complete. Given the 4.5 year timeframe for flare replacement, and the 6.5 year timeframe for flare gas throughput reduction for facilities to comply with the requirements in PR 1118.1, it is conservatively assumed that the construction phase for some facilities would overlap. Further, it is important to note that of the 25 facilities which will need to make modifications to comply with PR 1118.1, only 23 facilities actually produce enough gas to

make a beneficial use project practical. However, while it is impossible to accurately forecast or predict how many of these 23 facilities would pursue implementing a flare gas throughput reduction over replacing their existing flares, at a minimum, there are two facilities that will be expected to replace their flares instead of implementing a flare gas throughput reduction project. Due to the unknown facility specific factors that may be associated with a facility's decision to implement a flare gas throughput reduction project, this analysis assumes that 20 existing flares will be replaced with 20 new, low-NOx flares. For the remaining facilities with five existing flares, this analysis assumes that owners/operators will elect to reduce their flare gas throughput by processing that gas, and routing it to a fuel cell and CNG system.

Because flare replacement has a shorter timeframe than the flare gas throughput reduction project, most flare replacement projects are assumed to be completed before the start of beneficial use projects. For this analysis, construction and operation activities are separated by phase. Phase 1 consists of the installation of fuel meters within the first 90 days after rule adoption. Phase 2 consists of the installation of 13 new flares which is assumed to occur within the first 3.5 years after rule adoption, with no more than seven being constructed on a peak day. Phase 3 consists of the installation of the seven remaining occurring between three to four and a half years after rule adoption overlapping with the construction of five beneficial use projects occurring between 3.5 to 6.5 years after rule adoption. Phase 3 is assumed to occur after 13 flares from Phase 2 have been constructed and are operational. It is important to note that this analysis is conservative because while some portions of construction will overlap, as a practical matter, it is unlikely that construction of all seven flares will occur concurrently with the construction of all five beneficial use projects during Phase 3.

Construction of Replacement Flares

- Each old flare will be demolished and removed after the each new flare is installed. This is a conservative assumption because some facilities will choose to not to demolish every old flare and instead keep them in place as a backup.
- Each replacement flares will require 600 square feet of cleared area for installation. The typical footprint of a flare is approximately six feet by six feet; however the overall construction footprint will be larger to allow for an extra buffer surrounding the equipment.
- Work will occur in sequential order according to the following phases:
    - Demolition will require one crane and one loader to remove the old flare, plus the use of hand tools, for six hours per day each, for ten days. Five workers will commute to each construction site per day.
    - Site preparation will require one grader and one loader for eight hours each for one day. Five workers will commute to each construction site per day.
    - The construction phase, during which the new flare is installed and hooked up to gas piping and equipment will require one crane operating for four hours per day, one forklift operating for six hours per day, and one welder operating for eight hours per day, over a 30 day construction period. Two workers will commute to each construction site per day.
- Workers will commute to the construction site in light duty automobiles and trucks.
- One vendor trip will occur in one heavy-duty truck each day during the construction phase.

Construction of Fuel Cell Project

- The fuel cell project will require 2,400 square feet of cleared area for installation.
- Work will occur in sequential order according to the following phases:
    - Site Preparation will require one grader and one loader, each operating for eight hours per day for five days. Five workers will commute to each construction site each day.
    - Grading will require one concrete saw operating eight hours per day, one rubber tire dozer operating one hour per day, and two loaders operating six hours per day for two days. Ten workers will commute to each construction site each day.
    - Paving will require four cement mixers operating six hours per day, and one paver, one roller, and one loader each operating seven hours per day for five days. Eighteen workers will commute to each construction site each day.
    - Installation of components and construction will require one crane operating for four hours per day, two forklifts operating for six hours per day, and two loaders operating for eight hours per day for 100 days. Four workers will commute to the construction site each day.
- Workers will commute to the construction site in light duty automobiles and trucks.
- Components of this system will be delivered as skid-mounted modules by truck. One heavy-duty truck vendor trip is assumed to occur each day over the 100 day construction period.

Construction of Gas Processing, Compression, and Transport System

- Components of this system will be delivered by truck and arrive pre-mounted on trailers. No construction equipment or additional workers, aside from the truck driver, are needed for installation because existing employees can handle this work.
- Gas processing equipment from the fuel cell project will be used, so no additional gas processing equipment will be needed for this phase.
- Minor site preparation and grading will be needed. Approximately 6,000 square feet of land will need to be cleared for the delivery and placement of gas transport trucks and other trailer mounted equipment. This site preparation and grading work will need to be completed during the fuel cell site preparation activities; thus, no additional equipment or workers will be required for this task.

Installation of Fuel Meters

- The fuel meter installation can be completed with hand powered and electric powered tools. For this reason, negligible air emissions will be expected to occur during this task.
- Fuel meter installation will require one light duty automobile or truck trip for worker transport, and one medium-duty vendor truck trip to deliver the fuel meter to the construction site.
- Ten new fuel meters will be installed within 90 days of rule adoption. This analysis assumes that the fuel meter installations will not overlap the construction of new flares or fuel cell projects, because the permitting process for new flares or fuel cell projects typically takes longer than 90 days.

- This analysis assume that all ten facilities will install fuel meters on the same day.

Operation of Replacement Flares

To comply with PR 1118.1, this analysis assumes that existing flares will be replaced with new low-NOx flares. A range of emission factors and percent flare throughput utilization capacity exists for currently operating flares. In all cases, the emissions from new replacement flares will be lower than the existing flares, whereby reducing the total amount of operational flare emissions when compared to the baseline. PR 1118.1 is estimated to reduce NOx emissions by ~~0.2~~ 0.18 ton (~~396~~ 360 pounds) per day if all 16 facilities choose to replace all 25 flares.

Operation of Fuel Cell

- Operation of one fuel cell will produce 1.4 megawatt (MW) of power which will offset an equivalent amount of power demand from California's electricity grid.
- One 1.4 MW system is estimated to consume approximately 260,000 scf of natural gas per day. The amount of gas consumed per fuel cell is assumed to displace the remaining amount of gas which would otherwise be flared.
- Fuel cells produce some emissions at the following rates: 0.01 pound per megawatt-hour (lb/MWh) NOx, 0.0001 lb/MWh SOx, and 0.00002 lb/MWh PM10. The increased emissions from operating one fuel cell will be offset by the decreased emissions from one flare.

Operation of Gas Processing, Compression, and Transport System

- The analysis assumes that five CNG system projects will be operating when complete.
- In the event that there is more available gas than one fuel cell can process, gas compression and transport will be necessary for backup so as to avoid having to flare the excess gas. For the purpose of this analysis, 20% of the total gas sent to all affected flares (20% x 21.5 MMscf/day = 4.3 MMscf/day) is assumed to be diverted, processed and transported by the CNG system equipment.
- In order to transport 4.3 MMscf/day of natural gas, the analysis assumes that 43 round trips per day will be needed with each truck transporting 100,000 scf per trip at a distance of 40 miles per trip.
- Emissions that may be generated from the CNG transport trucks were calculated using composite emission factors for heavy-duty diesel from the aggregate truck fleet from 1975 to 2018 per CARB's EMFAC2017 database.
- CNG system equipment will periodically require regular maintenance to change out filter media and conduct safety checks. While it is likely that this work could be performed by the CNG system contractor during normal operations, a worst-case scenario of one light duty truck or automobile trip is assumed to be needed each day, once per year.

Source Testing

Source tests will need to be conducted once every five years for ~~28~~ 36 flares that currently are not required to undergo source testing. Due to the limited number of qualified source testing companies within the SCAQMD, multiple source tests at multiple facilities are not likely to occur on the same day. This analysis assumes that one light duty truck trip will be needed per facility that has equipment undergoing source testing.

Phasing of Construction and Operations

Construction and operation activities associated with the various compliance projects will be completed in phases. During Phase 1, fuel meters will be installed. During Phase 2, construction of 13 replacement flares will occur without any overlapping operational impacts (e.g., operational benefits from new flares operating while construction is occurring). During Phase 3, construction of seven new flares will overlap construction of five beneficial use projects. By the time Phase 3 starts, the 13 flares replaced during Phase 2 will be operational and providing an air quality benefit. During Phase 4, since all construction from the previous phases will have been completed, there will only be operational impacts from all 20 replacement flares and five beneficial use projects, as well as source testing, and servicing of CNG and fuel cell systems. The construction and operational activities of each phase are outlined in Table 2-3:

Table 2-3
Construction and Operational Activities by Phase

Phase	Timeline (after Rule Adoption)	Construction Activities	Operational Activities
1	90 Days	Install Fuel Meters	None
2	0-3.5 Years	Replace 13 Flares	None
3	3.5-6.5 Years	• Replace 7 Flares • Construct 5 CNG/Fuel Cell System Projects	NOx Reductions from 13 Replacement Flares
4	After 6.5 Years	None	• NOx Reductions from 20 Replacement Flares and 5 Beneficial Use Projects • Service CNG/Fuel Cell Systems • Source Testing Every 5 Years • Transport of CNG

Decreased Emissions during Operation

Implementation of PR 1118.1 is estimated to reduce NOx emissions by ~~0.2~~ 0.18 ton per day if 25 flares are replaced with lower emission flares. Typically, NOx emission limits will be reduced from 0.06 pound/MMBtu to 0.025 pound/MMBtu based on a review of existing flares, although some existing flares may have different emission factors. Additionally, oil and gas production facilities will be required to adhere to a stricter standard of 0.018 pound/MMBtu NOx. However, if facilities instead construct beneficial use projects rather than replacement flares, all of the NOx emissions associated with their existing flares will be reduced to zero. Rather than attempt to forecast which specific individual flares will be replaced or have their gas throughput reduced via a beneficial use project, for a conservative estimate, it is assumed that emission reductions will be shared equally by each flare, regardless of individual flare gas throughput. The amount of average NOx emission reductions per existing flare is calculated in Table 2-4 for replacement flares and beneficial use projects.

Table 2-4
Estimated NOx Emission Reductions From Flare Replacements

Compliance Option	NOx Emissions (lbs/day)
Baseline NOx Emissions from 25 Existing Flares	667.4
Average Baseline NOx Emissions per Existing Flare	26.7
Average NOx Emissions from Flaring After Replacement is Completed[a,b]	~~10.9~~ 12.3
Average NOx Emissions Reduction per Existing Flare from PR 1118.1[a,c]	~~15.8~~ 14.4

Notes:

a. This calculation assumes one flare replacement or one beneficial use project will occur for each flare. While the gas throughput varies per flare, this calculation assumes each project will achieve an average emission reduction of NOx across all 25 flares.

b. ~~This calculation assumes that~~ Flare replacement will lower NOx emissions by 58% (from 0.06 lb/MMBtu to 0.025 lb/MMBtu) per flare. However, the average NOx emissions after construction is overestimated because oil and gas flares will need to comply with a more stringent NOx emission limit of 0.018 lb/MMBtu

c. It is assumed that beneficial use projects will reduce emissions by 26.7 lbs/day NOx from each flare diverted, however there will be additional NOx emissions associated with operating the beneficial use project, shown in Table 2-9.

Decreased NOx Emissions by Phase

The estimated NOx emission reductions presented in Table 2-4 will take effect as soon as each flare or beneficial use project is constructed and fully operational. The estimated NOx emission reductions for each of the three phases are presented in Table 2-5.

Table 2-5
NOx Emission Reductions during Operational Phases

Phase	NOx Emission Reductions[a]	
	Replacement Flares[b]	**Beneficial Use Projects[a,e]**
Phase 2: Replacement of 13 Existing Flares	• 14.4 ~~15.8~~ lbs/day after the first flare is replaced • 187.2 ~~205.4~~ lbs/day after all 13 flares are replaced	None
Phase 3: 13 New Flares in Operation, Replacement of 7 Existing Flares and Construction of 5 Beneficial Use Projects to Divert Emissions from 5 Flares	• 187.2 ~~205.4~~ lbs/day from end of Phase 2 • Additional 100.8 ~~110.6~~ lbs/day after 7 more flares are replaced • Total: 288 ~~316.4~~ lbs/day after 20 flares total are replaced	• 26.7 lbs/day after emissions from one flare are diverted to the first beneficial use project • 133.5 lbs/day after 5 flares are replaced
Phase 4: Operation of 20 new flares and 5 Beneficial Use Projects	288 ~~316.4~~ lbs/day	133.5 lbs/day

Notes:
a. Phase 1 does not involve any NOx emission reductions and was not included in this table
b. Each compliance project is assumed to result in an average NOx emission reduction across all flares.
c. The average net NOx emission reductions per new replacement flares is 14.4 ~~15.8~~ lbs/day NOx (see Table 2-4)
d. Beneficial Use Projects are assumed to eliminate an average of 26.7 lbs/day of NOx emissions per flare.
e. This table only considers the NOx reductions from diverted emissions from flares that have been avoided through beneficial use projects. Operation of a CNG System and fuel cell would generate approximately 4.8 lbs/day NOx. See Table 2-9 for overall emissions after considering these impacts.

Construction and Operational Impacts

Criteria pollutant emissions were calculated for all off-road construction equipment and on-road vehicles transporting workers, vendors, and material removal and delivery during construction

using the California Emissions Estimator Model[12]® version 2016.3.2 (CalEEMod). The detailed output reports for the CalEEMod runs are included in Appendix B. The following tables present the results of the construction air quality analysis by phase. Appendix B also contains the spreadsheets with the results and assumptions used for this analysis.

Total operational emissions were estimated using CARB's EMFAC2017[13] for the following mobile sources: heavy-duty diesel fueled trucks used to transport compressed natural gas; light-duty gasoline-fueled passenger vehicles used for transport of workers for fuel cell and gas processing system service calls; and light-duty gasoline fueled passenger vehicles used for source testing trips. Additional operational emissions associated with fuel cell operation were calculated using available emission factors from a *Fuel Cell Energy Sure Source 1500* product specifications sheet[14].

Phase 1

Prior to the construction of new flares and fuel cell and gas processing, compression, and transport projects, fuel meter installations will occur. Because these activities are expected to be completed within the first 90 days after rule adoption, it is not expected that fuel meter installations will overlap with any construction activities associated with installing new flares or beneficial use projects.

Table 2-6 summarizes the peak daily emissions associated with installing fuel meters at all affected facilities. The air quality impacts due to construction do not exceed any significance threshold, thus the air quality construction impacts from Phase 1 is less than significant. Detailed calculations are found in Appendix C.

Table 2-6
Phase 1: Vehicular Construction Emissions from Fuel Meter Installations (pounds/day)[a, b]

	CO	NOx	VOC	SOx	PM10	PM2.5
Ten Delivery Trucks	1.4	2.1	0.3	0.0	0.1	0.1
Ten Worker Trips	1.6	0.1	0.2	0.0	0.0	0.0
Total	**3.0**	**2.2**	**0.5**	**0.0**	**0.2**	**0.1**
Significance Threshold for Construction	550	100	75	150	150	55
Significant?	**No**	**No**	**No**	**No**	**No**	**No**

Notes:
a. Installation of one fuel meter will require one delivery truck roundtrip and one worker personal vehicle round trip per facility on a peak day.
b. All 10 facilities were assumed to install fuel meters on the same day.

[12] CalEEMod is a statewide land use emissions computer model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify potential criteria pollutant and greenhouse gas (GHG) emissions associated with both construction and operations from a variety of land use projects.
[13] The EMFAC emissions model is developed and used by CARB to assess emissions from on-road vehicles including cars, trucks, and buses in California. It should be noted that EMFAC2017 has not yet been approved by U.S. EPA but does provide the latest emission factors available. https://www.arb.ca.gov/msei/categories.htm#onroad_motor_vehicles
[14] Fuel Cell Energy, 2018. Sure Source 1500 Product Specification. Accessed October, 2018 at https://www.fuelcellenergy.com/products

Phase 2

During Phase 2, which is assumed to last for three years after rule adoption, construction will begin for the first 13 new flares. The analysis assumes that a maximum of seven flares, or roughly half of the flares for this phase will undergo construction concurrently, when taking into account the 3.5 year duration of Phase 2, and that flare replacement activities can take up to eight weeks per flare. As presented in Table 2-5, as each new flare is constructed and becomes operational during Phase 2, operational impacts in the form of NOx emission reductions will occur.

Table 2-7 summarizes the peak daily emissions associated with construction at all affected facilities during Phase 2. The air quality impacts due to construction do not exceed any significance threshold, thus the impact is expected to be less than significant. Further calculations are found in Appendix C.

Table 2-7
Phase 2: Peak Daily Construction Emissions by Pollutant (lb/day)

Activity	CO	NOx	VOC	SOx	PM10	PM2.5
Flare Replacement (1 New Flares Constructed on a Peak Day)	4.79	9.78	0.88	0.01	1.00	0.46
Significance Threshold for Construction	550	100	75	150	150	55
Significant?	**No**	**No**	**No**	**No**	**No**	**No**
Flare Replacement (7 New Flares Constructed on a Peak Day)[a]	33.55	68.44	6.13	0.07	7.03	3.20
Significance Threshold for Construction	550	100	75	150	150	55
Significant?	**No**	**No**	**No**	**No**	**No**	**No**

Notes:

a. The peak day for Phase 2 construction during the first 3.5 years is based on the assumption that 7 new flares will be simultaneously under construction.

Phase 3

During Phase 3, construction of the 13 new flares during Phase 2 will have been completed. By the time Phase 3 begins, the operation of these 13 new flares and the corresponding NOx emission reductions will be in effect. During Phase 3, construction of seven new flares and five CNG and fuel cell systems will occur. Given the two year duration of this phase, it is highly unlikely that all seven new flares will undergo construction on the same day as the construction of the five CNG and fuel systems. However, for the purpose of conducting a worst-case analysis to establish peak daily emissions, this analysis assumes that all of these construction activities will occur simultaneously.

Table 2-8 summarizes the peak daily emissions associated with construction and operations at all affected facilities during Phase 3. The air quality impacts due to construction do not exceed any significance threshold during Phase 3, thus less than significant air quality impacts during operation are expected during this phase. Further information and calculations are found in Appendix C.

Table 2-8
Phase 3: Peak Daily Construction and Operational Emissions by Pollutant (lb/day)

Activity	CO	NOx	VOC	SOx	PM10	PM2.5
Flare Replacement (1 Flare)	4.79	9.78	0.88	0.01	1.00	0.46
Fuel Cell and CNG System (1 Project)	8.28	11.17	1.12	0.01	0.49	1.04
NOx Emissions Reductions from Operating 1 Replacement Flare	0.0	-14.4 ~~15.8~~	0.0	0.0	0.0	0.0
Subtotal for 1 Flare Replacement, 1 Fuel Cell and CNG Systems, and 1 Operational Replacement Flare	**13.07**	**6.55** ~~**5.15**~~	**1.99**	**0.02**	**1.49**	**1.50**
Significance Threshold for Overlapping Construction and Operation[a]	550	55	55	150	150	55
Significant?	**No**	**No**	**No**	**No**	**No**	**No**
Flare Replacement (7 Flares)	33.55	68.44	6.13	0.07	7.03	3.20
Fuel Cell and CNG System (5 Project)	41.38	55.84	5.59	0.07	2.44	5.19
NOx Emissions Reductions from Operating 13 Replacement Flares	0.0	-187.2 ~~205.4~~	0.0	0.0	0.0	0.0
Total for 7 Flare Replacements, 5 Fuel Cell and CNG Systems, and 13 Operational Replacement Flares	**74.9**	**-62.9** ~~**81.1**~~	**11.7**	**0.1**	**9.5**	**8.4**
Significance Threshold for Overlapping Construction and Operation[a]	550	55	55	150	150	55
Significant?	**No**	**No**	**No**	**No**	**No**	**No**

Note:
a. When construction and operation phases overlap, the operational significance thresholds are applied instead of the construction significance thresholds.

Phase 4

During Phase 4, all construction activities will have been completed and all flares will have been replaced and all fuel cell and CNG systems will be up and running. Trucks will regularly transport CNG during this phase. In addition, maintenance of gas processing equipment will be conducted annually and source testing will occur every five years during Phase 4.

The total operational emissions were estimated using CARB's EMFAC2017[15] for the following mobile sources: heavy-duty diesel trucks used to transport compressed natural gas; light-duty gasoline-fueled passenger vehicles used for transport of workers for fuel cell and gas processing system service calls; and light-duty gasoline-fueled passenger vehicles used for source testing trips. Additional operational emissions associated with fuel cell operation were calculated using available emission factors from a Fuel Cell Energy Sure Source 1500 product specifications sheet[16].

[15] The EMFAC emissions model is developed and used by CARB to assess emissions from on-road vehicles including cars, trucks, and buses in California. It should be noted that EMFAC2017 has not yet been approved by U.S. EPA but does provide the latest factors developed. https://www.arb.ca.gov/msei/categories.htm#onroad_motor_vehicles

[16] Fuel Cell Energy, 2018. Sure Source 1500 Product Specification. Accessed October, 2018 at https://www.fuelcellenergy.com/products/

Table 2-9 summarizes the peak daily emissions associated with operation activities occurring during Phase 4. Additional details of the assumptions and spreadsheets can be found in Appendix C. Since the total emissions from operational activities during Phase 4 do not exceed any operational air quality significance thresholds, less than significant air quality impacts are expected during operation for this phase.

Table 2-9
Phase 4: Peak Daily Operational Emissions by Pollutant (lb/day)

Activity	CO	NOx	VOC	SOx	PM10	PM2.5
CNG Transport by Truck (One Round-trip)[a]	0.10	0.52	0.02	0.00	0.02	0.01
Fuel Cell Emissions (Operation of one 1.4MW Facility)[b]	NA[f]	1.7	NA[f]	0.0	0.0	0.0[f]
Fuel Cell/CNG System Maintenance Trips[c]	0.2	0.0	0.0	0.0	0.0	0.0
Source Testing Trips[c]	0.2	0.0	0.0	0.0	0.0	0.0
NOx Emissions Reductions from Diverting Flaring to One Beneficial Use Project	0.0	-26.7	0.0	0.0	0.0	0.0
NOx Emissions Reductions from Operating One New flare	0.0	-14.4 ~~15.8~~	0.0	0.0	0.0	0.0
Subtotal	**0.4**	**-38.9 ~~40.3~~**	**0.1**	**0.0**	**0.0**	**0.0**
CNG Transport by 43 Trucks (Operation)	4.44	22.25	0.88	0.06	0.72	0.47
Fuel Cell Emissions (Operation of five 1.4MW Facilities)	NA[f]	1.7	NA[f]	0.0	0.0	0.0[f]
Fuel Cell/CNG System Maintenance Trips[c]	0.2	0.0	0.0	0.0	0.0	0.0
Source Testing Trips[c]	0.2	0.0	0.0	0.0	0.0	0.0
NOx emissions reductions from diverting flaring to 5 Beneficial Use Projects[d]	0.0	133.5	0.0	0.0	0.0	0.0
NOx emissions reductions from operating 20 new flares[e]	0.0	288 ~~316.4~~	0.0	0.0	0.0	0.0
Total (with NOx Reductions Included)	**0.4**	**-461.8 ~~490.2~~[g]**	**0.1**	**0.0**	**0.0**	**0.0**
Significance Threshold for Operation	550	55	55	150	150	55
Significant?	**No**	**No**	**No**	**No**	**No**	**No**

Notes:
a. CNG transport assumes that heavy-duty diesel truck trips will travel 40 miles round-trip per day.
b. Fuel cell operation assumes 1.4 MW facilities operating 24 hours per day. The following emission factors were used to calculated emissions: 0.01 lb/day NOx, 0.0001 lb/day SOx, and 0.00002 lb/day PM10 per MWh.
c. Each fuel cell/CNG system maintenance trip and source test trip will require one passenger vehicle trip on a peak day. A peak day assumes one of each trip total.

d. Beneficial use projects are assumed to avoid all NOx emissions from 5 existing flares. The net NOx emission reductions are estimated at an average of 26.7 pounds/day per flare. Emission reductions of other criteria pollutants were not quantified.
e. 20 Flares are assumed to have been replaced with new low-NOx flares by the time peak operations during Phase 4 occur. Flare replacements were estimated in Table 2-4 to reduce NOx emissions by 15.8 lbs/day per flare. Emission reductions of other criteria pollutants were not quantified.
f. N/A indicates emission factors were not available. They are assumed to equal 0. PM2.5 was assumed to equal the available PM10 emission factor.
g. This rule is expected to reduce NOx emissions by ~~396~~ 360pounds/day (0.18 ~~0.2~~ ton/day). NOx emissions could be greater if flaring is diverted to beneficial use projects rather than new flares.

None of the emissions during construction only, operation only, or construction and operational overlap periods exceed the SCAQMD's CEQA air quality significance thresholds. Therefore, the air quality impacts from construction and operation are considered to be less than significant. The proposed project is not expected to result in significant adverse air quality impacts.

III. c) Less Than Significant Impact.

Cumulatively Considerable Impacts

Based on the foregoing analysis, since criteria pollutant project-specific air quality impacts from implementing PR 1118.1 would not be expected to exceed the air quality significance thresholds in Table 2-1, cumulative air quality impacts are also expected to be less than significant. SCAQMD cumulative significance thresholds are the same as project-specific significance thresholds. Therefore, potential adverse impacts from implementing PR 1118.1 would not be "cumulatively considerable" as defined by CEQA Guidelines Section 15064(h)(1) for air quality impacts. Per CEQA Guidelines Section 15064(h)(4), the mere existence of significant cumulative impacts caused by other projects alone shall not constitute substantial evidence that the proposed project's incremental effects are cumulatively considerable.

The SCAQMD's guidance on addressing cumulative impacts for air quality is as follows: "As Lead Agency, the SCAQMD uses the same significance thresholds for project specific and cumulative impacts for all environmental topics analyzed in an Environmental Assessment or EIR." "Projects that exceed the project-specific significance thresholds are considered by the SCAQMD to be cumulatively considerable. This is the reason project-specific and cumulative significance thresholds are the same. Conversely, projects that do not exceed the project-specific thresholds are generally not considered to be cumulatively significant."[17]

This approach was upheld by the Court in *Citizens for Responsible Equitable Environmental Development v. City of Chula Vista* (2011) 197 Cal. App. 4th 327, 334. The Court determined that where it can be found that a project did not exceed the SCAQMD's established air quality significance thresholds, the City of Chula Vista properly concluded that the project would not cause a significant environmental effect, nor result in a cumulatively considerable increase in these pollutants. The court found this determination to be consistent with CEQA Guidelines Section 15064.7, stating, "The lead agency may rely on a threshold of significance standard to determine whether a project will cause a significant environmental effect." The court found that, "Although

[17] SCAQMD Cumulative Impacts Working Group White Paper on Potential Control Strategies to Address Cumulative Impacts From Air Pollution, August 2003, Appendix D, Cumulative Impact Analysis Requirements Pursuant to CEQA, at D-3. http://www.aqmd.gov/docs/default-source/Agendas/Environmental-Justice/cumulative-impacts-working-group/cumulative-impacts-white-paper-appendix.pdf

the project will contribute additional air pollutants to an existing non-attainment area, these increases are below the significance criteria…" "Thus, we conclude that no fair argument exists that the Project will cause a significant unavoidable cumulative contribution to an air quality impact." As in *Chula Vista*, here the SCAQMD has demonstrated, when using accurate and appropriate data and assumptions, that the project will not exceed the established SCAQMD significance thresholds. See also, *Rialto Citizens for Responsible Growth v. City of Rialto* (2012) 208 Cal. App. 4th 899. Here again the court upheld the SCAQMD's approach to utilizing the established air quality significance thresholds to determine whether the impacts of a project would be cumulatively considerable. Thus, it may be concluded that the proposed project will not contribute to a significant unavoidable cumulative air quality impact.

III. d) Less Than Significant Impact. Diesel powered vehicles will be utilized during construction of new flares and beneficial use projects. Diesel particulate matter is considered a carcinogenic and chronic toxic air contaminant (TAC). The construction activities are expected to be completed within six months at each of the affected facilities; thus, a Health Risk Assessment (HRA) was not conducted, which is consistent with the Office of Environmental Health Hazard Assessment (OEHHA) Guidance Manual (2015)[18]. The analysis in Section III b) and f) concluded that the quantity of pollutants that may be generated from implementing the proposed project would be less than significant during construction, operation, and the construction and operation overlap period. Furthermore, though CNG transport trucks were modeled as heavy-duty diesel using most conservative EMFAC 2017 emission factors in Section III b) and f), these transport trucks are actually likely to be fueled by natural gas, instead of diesel fuel. Thus, the quantity of emissions from these transport truck activities as presented in Table 2-9 likely overestimate the air quality impacts. Even so, because the emissions from all activities that may occur as part of implementing PR 1118.1 are at less than significant levels, the emissions that may be generated from implementing the proposed project would not be substantial, regardless of whether sensitive receptors are located near the affected facilities. Therefore, PR 1118.1 is not expected to generate significant adverse TAC impacts from construction or expose sensitive receptors to substantial pollutant concentrations.

III. e) Less Than Significant Impact.

Odor Impacts

Odor problems depend on individual circumstances. For example, individuals can differ quite markedly from the populated average in their sensitivity to odor due to any variety of innate, chronic or acute physiological conditions. This includes olfactory adaptation or smell fatigue (i.e., continuing exposure to an odor usually results in a gradual diminution or even disappearance of the small sensation).

During construction and operation, diesel-fueled equipment and vehicles will be operated. However, the diesel fuel is required to have a low sulfur content (e.g., 15 ppm by weigh or less) in accordance with SCAQMD Rule 431.2 – Sulfur Content of Liquid Fuels[19], thus the fuel is expected to minimize odor. The operation of construction equipment will occur within the confines of existing affected facilities. It would be expected sufficient dispersion of diesel emissions over

[18] OEHHA, Air Toxics Hot Spots Program Guidance Manual for the Preparation of Health Risk Assessments, March 6, 2015. https://oehha.ca.gov/air/crnr/notice-adoption-air-toxics-hot-spots-program-guidance-manual-preparation-health-risk-0

[19] SCAQMD, Rule 431.2 – Sulfur Content of Liquid Fuels, September 15, 2000. http://www.aqmd.gov/docs/default-source/rule-book/rule-iv/rule-431-2.pdf

distance generally occurs such that odors associated with diesel emissions may not be discernable to off-site receptors, depending on the location of the equipment and its distance relative to the nearest off-site receptor. The diesel trucks that will be operated on-site as a part of construction activities will not be allowed to idle longer than five minutes per any one location in accordance with the CARB idling regulation[20], so odors from these vehicles would not be expected. In addition, construction activities with installing new flares and beneficial use projects would be temporary and occur over a short period of time. Though CNG transport would require additional trucks on sites which set up a CNG system, it should be noted that these trucks are expected to be fueled by natural gas, rather than diesel, as previously explained in Section III d). The additional operation of trucks that may be needed to conduct source tests and facility maintenance activities such as filter replacements, etc. would be intermittent and occur over a relatively short period of time. For these reasons, the proposed project would not be expected to generate diesel exhaust odor greater than what is already typically present at the affected facilities. Thus, PR 1118.1 is not expected to create significant adverse objectionable odors during construction or operation. Since no significant impacts were identified for this issue, no mitigation measures for odors are necessary or required.

III. g) and h) Less Than Significant Impacts.

Greenhouse Gas (GHG) Impacts

Significant changes in global climate patterns have recently been associated with global warming, an average increase in the temperature of the atmosphere near the Earth's surface, attributed to accumulation of GHG emissions in the atmosphere. GHGs trap heat in the atmosphere, which in turn heats the surface of the Earth. Some GHGs occur naturally and are emitted to the atmosphere through natural processes, while others are created and emitted solely through human activities. The emission of GHGs through the combustion of fossil fuels (i.e., fuels containing carbon) in conjunction with other human activities, appears to be closely associated with global warming. State law defines GHG to include the following: carbon dioxide (CO2), methane (CH4), nitrous oxide (N2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF6) (Health and Safety Code Section 38505(g)). The most common GHG that results from human activity is CO2, followed by CH4 and N2O.

Traditionally, GHGs and other global warming pollutants are perceived as solely global in their impacts and that increasing emissions anywhere in the world contributes to climate change anywhere in the world. A study conducted on the health impacts of CO2 "domes" that form over urban areas cause increases in local temperatures and local criteria pollutants, which have adverse health effects[21].

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

[20] CARB, Multi-Regulation Summary (MRS) Requirements for Diesel Truck and Equipment Owners, https://www.arb.ca.gov/msprog/onrdiesel/documents/multirule.pdf

[21] Jacobsen, Mark Z. "Enhancement of Local Air Pollution by Urban CO2 Domes," Environmental Science and Technology, as describe in Stanford University press release on March 16, 2010 available at: http://news.stanford.edu/news/2010/march/urban-carbon-domes-031610.html.

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.

The SCAQMD convened a "Greenhouse Gas CEQA Significance Threshold Working Group" to consider a variety of benchmarks and potential significant thresholds to evaluate GHG impacts. On December 5, 2008, the SCAQMD adopted an interim CEQA GHG Significance Threshold for projects where the SCAQMD is the lead agency (SCAQMD 2008). This GHG interim threshold is set at 10,000 metric tons (MT) of CO2 equivalent emissions (CO2e) per year. Projects with incremental increases below this threshold will not be cumulatively considerable. GHG emission impacts from the implementation of PR 1118.1 were calculated at the project-specific level during construction and operational activities.

Table 2-10 summarizes the GHG analysis which shows that PR 1118.1 may result in the generation of 4,863 MT per year of CO2e emissions, which is less than the CEQA significance threshold for GHG emissions. The detailed calculations of GHG emissions can be found in Appendix C.

Table 2-10
Greenhouse Gas Emissions from Affected Facilities

Activity	**CO2e (MT/yr)**
Fuel Meter Installation[a,b]	0.02
Flare Replacement Construction[a]	0.46
CNG and Fuel Cell System Construction[a]	1.17
CNG Transport Truck Trips[c]	1024
Fuel Cell Service Trips[d]	0.07
Source Testing Trips[e]	0.52 ~~0.41~~
Fuel Cell Operation (natural gas)[f]	27,282
Subtotal	28,309
Emissions Avoided by Not Flaring[g]	23,446
Total Emissions	**4,863**
Significance Threshold	10,000
Significant?	**No**

Notes:
a. Flare Replacement, CNG and Fuel Fell System Installation, and Fuel Meter Installation project GHGs are amortized over 30 years.
b. The calculation for fuel meter installations assumes 10 40-mile passenger and delivery round trips each.
c. The calculation for CNG Transport assumes 43 daily 40-mile heavy-duty diesel-fueled truck trips.
d. The calculation for Fuel Cell Service Trips assumes 5 40-mile passenger round trips per year.
e. The calculation for Source Testing Trips assumes ~~28~~ 36 40-mile passenger round trips per year.
f. The calculation for Fuel Cell Operation is assumed to produce 980 lbs/MW of NOx emissions, based on constant operation using natural gas as a fuel with a heating value of 930 Btu/scf. Fuel Cell Energy, 2018. Sure Source 1500 Product Specification. Accessed October 2018 at: https://www.fuelcellenergy.com/products
g. The calculation of natural gas combustion relies on the GHG emission factor of 53 kg CO2e/MMBtu according to US EIA[22].

[22] United States Energy Information Administration. Carbon Dioxide Emission Coefficients. February 2016. Accessed October 2018 at: https://www.eia.gov/environment/emissions/co2_vol_mass.php

As shown in Table 2-10, the CEQA GHG significance threshold for industrial sources would not be exceeded. For this reason, implementing the proposed project would not be expected to generate significant adverse cumulative GHG air quality impacts. Further, as noted in Section III. a), implementation of PR 1118.1 would not be expected to conflict with an applicable plan, policy or regulation adopted for the purpose of reducing criteria pollutants and the same is true for GHG emissions. Therefore, GHG impacts from implementing PR 1118.1 are less than significant.

Conclusion

Based upon these considerations, significant air quality and GHG emissions impacts are not expected from implementing PR 111.81. Since no significant air quality and GHG emissions impacts were identified, no mitigation measures are necessary or required.

		Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
IV.	**BIOLOGICAL RESOURCES.** Would the project:				
a)	Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☐	☑
b)	Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☐	☑
c)	Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☑
d)	Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☐	☑
e)	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☑
f)	Conflict with the provisions of an adopted Habitat Conservation plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☑

Significance Criteria

Impacts on biological resources will be considered significant if any of the following criteria apply:

- The project results in a loss of plant communities or animal habitat considered to be rare, threatened or endangered by federal, state or local agencies.
- The project interferes substantially with the movement of any resident or migratory wildlife species.
- The project adversely affects aquatic communities through construction or operation of the project.

Discussion

PR 1118.1 will reduce NOx and VOC emissions from non-refinery flares and encourage alternatives to flaring. PR 1118.1 applies to owners and operators of flares that require a SCAQMD permit, including, but not limited to, oil and gas production, wastewater treatment facilities, landfills, organic liquid loading stations, and tank farms. The proposed rule includes NOx, CO, and VOC emission limits that reflect BARCT standards and a capacity threshold that seeks to identify routine flaring. For flares that exceed the capacity threshold, either a reduction in flare throughput or replacement with a flare with lower emissions will be required. The capacity threshold varies depending on the type of gas being flared (e.g., landfill, digester, produced) and the type of flare equipment (e.g., open flare versus a shrouded flare). PR 1118.1 provides an exemption for low-use and low-emitting flares. Additionally, PR 1118.1 establishes provisions for source testing, monitoring, reporting, and recordkeeping. Of the ~~288~~ 295 flares at ~~146~~ 153 facilities affected by PR 1118.1: 25 flares at 16 facilities would require either a flare replacement to reduce emissions, or an alternative project to reduce flare gas throughput such as the installation of a fuel cell, gas processing, and gas compression and transport system; ~~28~~ 36 flares would need to undergo additional source testing; and 10 flares would need to have flow meters installed.

IV. a), b), c), & d) No Impact. Implementation of PR 1118.1 would occur at existing affected facilities, which are located in industrial areas. Thus, PR 1118.1 is not expected to adversely affect in any way habitats that support riparian habitat, federally protected wetlands, or migratory corridors. Similarly, special status plants, animals, or natural communities identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service are not expected to be found on or in close proximity to affected facilities. Therefore, PR 1118.1 would have no direct or indirect impacts that could adversely affect plant or animal species or the habitats on which they rely. PR 1118.1 does not require the acquisition of additional land or further conversions of riparian habitats or sensitive natural communities where endangered or sensitive species may be found. In addition, any construction from the implementation of PR 1118.1 would take place at the existing facilities and would not occur on or near a wetland or in the path of migratory species.

IV. e) & f) No Impact. The proposed project is not expected to conflict with local policies or ordinances protecting biological resources or local, regional, or state conservation plans, because land use and other planning considerations are determined by local governments and no land use or planning requirements would be altered by implementation of PR 1118.1. Additionally, PR 1118.1 would not conflict with any adopted Habitat Conservation Plan, Natural Community Conservation Plan, or any other relevant habitat conservation plan, and would not create divisions in any existing communities because compliance with PR 1118.1 would occur at existing facilities

in previously disturbed areas which are not typically subject to Habitat or Natural Community Conservation Plans.

Conclusion

Based upon these considerations, significant biological resource impacts are not expected from implementing PR 1118.1. Since no significant biological resource impacts were identified, no mitigation measures are necessary or required.

		Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
V.	**CULTURAL RESOURCES.** Would the project:				
a)	Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?	☐	☐	☐	☑
b)	Cause a substantial adverse change in the significance of an archaeological resource as defined in Section 15064.5?	☐	☐	☐	☑
c)	Directly or indirectly destroy a unique paleontological resource, site, or feature?	☐	☐	☐	☑
d)	Disturb any human remains, including those interred outside formal cemeteries?	☐	☐	☐	☑
e)	Cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code Section 21074?	☐	☐	☐	☑

Significance Criteria

Impacts to cultural resources will be considered significant if:

- The project results in the disturbance of a significant prehistoric or historic archaeological site or a property of historic or cultural significance, or tribal cultural significance to a community or ethnic or social group or a California Native American tribe.
- Unique paleontological resources or objects with cultural value to a California Native American tribe are present that could be disturbed by construction of the proposed project.
- The project would disturb human remains.

Discussion

PR 1118.1 will reduce NOx and VOC emissions from non-refinery flares and encourage alternatives to flaring. PR 1118.1 applies to owners and operators of flares that require a SCAQMD permit, including, but not limited to, oil and gas production, wastewater treatment facilities, landfills, organic liquid loading stations, and tank farms. The proposed rule includes NOx, CO, and VOC emission limits that reflect BARCT standards and a capacity threshold that seeks to identify routine flaring. For flares that exceed the capacity threshold, either a reduction in flare throughput or replacement with a flare with lower emissions will be required. The capacity threshold varies depending on the type of gas being flared (landfill, digester, produced) and the type of flare equipment (open flare versus a shrouded flare). PR 1118.1 provides exemption for low-use and low-emitting flares. Additionally, PR 1118.1 establishes provisions for source testing, monitoring, reporting, and record keeping. Of the ~~288~~ 295 flares at ~~146~~ 153 facilities affected by PR 1118.1: 25 flares at 16 facilities would require flare replacement to reduce emissions, or alternative projects to reduce flare gas throughput such as the installation of a fuel cell, gas processing, and gas compression and transport system; ~~28~~ 36 flares would require additional source testing to meet

source testing requirements; and 10 would require flow meters to comply with monitoring requirements.

V. a) No Impact. There are existing laws in place that are designed to protect and mitigate potential impacts to cultural resources. For example, CEQA Guidelines 15064.5(a)(3) states that generally, a resource shall be considered "historically significant" if the resource meets the criteria for listing in the California Register of Historical Resources, which include the following:

- Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
- Is associated with the lives of persons important in our past;
- Embodies the distinctive characteristics of a type, period, region, or method of construction, or represent the work of an important creative individual, or possesses high artistic values; or
- Has yielded or may likely to yield information important in prehistory or history..

Buildings, structures, and other potential culturally significant resources that are less than 50 years old are generally excluded from listing in the National Register of Historic Places, unless they are shown to be exceptionally important. Structures that may be affected by PR 1118.1 are existing flares, used for industrial purposes, and would generally not be considered to be historically significant, since they would not have any of the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values. Furthermore, source testing activities would have no effect on historic resources. Therefore, PR 1118.1 is not expected to cause any impacts to significant historic cultural resources.

V. b), c), & d) No Impact. Construction-related activities and source testing are expected to be confined within the affected existing industrial facilities with the implementation of PR 1118.1. Thus, PR 1118.1 is not expected to require physical changes to the environment which may disturb paleontological or archaeological resources. Furthermore, it is envisioned that these areas are already either devoid of significant cultural resources or whose cultural resources have been previously disturbed. Therefore, PR 1118.1 has no potential to cause a substantial adverse change to a historical or archaeological resource, directly or indirectly to destroy a unique paleontological resource or site or unique geologic feature, or to disturb any human remains, including those interred outside formal cemeteries. Implementing PR 1118.1 is, therefore, not anticipated to result in any activities or promote any programs that could have a significant adverse impact on cultural resources.

V. e) No Impact. Construction-related activities and operational activities such as source testing are expected to be confined within the affected existing industrial facilities with the implementation of PR 1118.1. Therefore, no impacts to historical or cultural resources are anticipated to occur. PR 1118.1 is not expected to require physical changes to a site, feature, place, cultural landscape, sacred place or object with cultural value to a California Native American Tribe. Furthermore, PR 1118.1 is not expected to result in a physical change to a resource determined to be eligible for inclusion or listed in the California Register of Historical Resources or included in a local register of historical resources. For these reasons, PR 1118.1 is not expected to cause any substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code Section 21074.

As part of releasing this CEQA document for public review and comment, the SCAQMD also provided a formal notice of the proposed project to all California Native American Tribes (Tribes) that requested to be on the Native American Heritage Commission's (NAHC) notification list per Public Resources Code Section 21080.3.1(b)(1). The NAHC notification list provides a 30-day period during which a Tribe may respond to the formal notice, in writing, requesting consultation on the proposed project.

In the event that a Tribe submits a written request for consultation during this 30-day period, the SCAQMD will initiate a consultation with the Tribe within 30 days of receiving the request in accordance with Public Resources Code Section 21080.3.1(b). Consultation ends when either: 1) both parties agree to measures to avoid or mitigate a significant effect on a Tribal Cultural Resource and agreed upon mitigation measures shall be recommended for inclusion in the environmental document [see Public Resources Code Section 21082.3(a)]; or, 2) either party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached [see Public Resources Code Section 21080.3.2(b)(1)-(2) and Section 21080.3.1(b)(1)].

Conclusion

Based upon these considerations, significant adverse cultural resources impacts are not expected from implementing PR 1118.1. Since no significant cultural resources impacts were identified, no mitigation measures are necessary or required.

		Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
VI.	**ENERGY.** Would the project:				
a)	Conflict with adopted energy conservation plans?	☐	☐	☐	☑
b)	Result in the need for new or substantially altered power or natural gas utility systems?	☐	☐	☑	☐
c)	Create any significant effects on local or regional energy supplies and on requirements for additional energy?	☐	☐	☑	☐
d)	Create any significant effects on peak and base period demands for electricity and other forms of energy?	☐	☐	☑	☐
e)	Comply with existing energy standards?	☐	☐	☐	☑

Significance Criteria

Impacts to energy resources will be considered significant if any of the following criteria are met:

- The project conflicts with adopted energy conservation plans or standards.
- The project results in substantial depletion of existing energy resource supplies.
- An increase in demand for utilities impacts the current capacities of the electric and natural gas utilities.
- The project uses non-renewable resources in a wasteful and/or inefficient manner.

Discussion

PR 1118.1 will reduce NOx and VOC emissions from non-refinery flares and encourage alternatives to flaring. PR 1118.1 applies to owners and operators of flares that require a SCAQMD permit, including, but not limited to, oil and gas production, wastewater treatment facilities, landfills, organic liquid loading stations, and tank farms. The proposed rule includes NOx, CO, and VOC emission limits that reflect BARCT standards and a capacity threshold that seeks to identify routine flaring. For flares that exceed the capacity threshold, either a reduction in flare throughput or replacement with a flare with lower emissions will be required. The capacity threshold varies depending on the type of gas being flared (e.g., landfill, digester, produced) and the type of flare equipment (e.g., open flare versus a shrouded flare). PR 1118.1 provides an exemption for low-use and low-emitting flares. Additionally, PR 1118.1 establishes provisions for source testing, monitoring, reporting, and recordkeeping. Of the ~~288~~ 295 flares at ~~146~~ 153 facilities affected by PR 1118.1: 25 flares at 16 facilities would require either a flare replacement to reduce emissions, or an alternative project to reduce flare gas throughput such as the installation of a fuel cell, gas processing, and gas compression and transport system; ~~28~~ 36 flares would need to undergo additional source testing; and 10 flares would need to have flow meters installed.

VI. a) & e) No Impact. PR 1118.1 is not expected to conflict with any adopted energy conservation plans or violate any energy conservation standards because existing facilities would be expected to continue implementing any existing energy conservation plans that are currently in place regardless of whether PR 1118.1 is implemented. Any energy resources that may be necessary to replace existing flares with lower emitting flares, would be used to achieve reductions in NOx, and VOC emissions, and therefore, would not be using non-renewable resources in a wasteful manner. Additionally, any energy resources needed to install fuel meters and conduct source testing would be used to verify emissions reductions, and would not be a wasteful use of non-renewable resources. Furthermore, because PR 1118.1 encourages alternatives to flaring, such as using the flare gases in a beneficial manner (e.g., for energy production), PR 1118.1 will actually create additional opportunities for utilizing renewable energy. For these reasons, PR 1118.1 is not expected to conflict with energy conservation plans or existing energy standards, or use non-renewable resources in a wasteful manner.

VI. b), c), & d) Less Than Significant Impact. PR 1118.1 applies to non-refinery flares which combust gases from landfills, wastewater treatment gas, produced gas, and other gases. These gases are not currently used as an energy source but they could be under PR 1118.1, if facilities choose to decrease flare gas throughput via beneficial use projects such as fuel cells and gas processing, compression, and transport. The additional energy supplies will made available to the region in the form of electricity from fuel cells, or natural gas from the CNG system projects. Though overall, PR 1118.1 could potentially increase electricity supply generated from renewable resources, minor electricity consumption increases will also be expected to occur because any new flares that will be installed will also need electric fans to provide enough air to ensure proper combustion and to achieve lower NOx emissions. Because of these additional fans, new flare installations will create a slight increase in electricity demand compared to the existing flares that currently operate without fans. Additionally the installation of 10 new fuel meters will create minor electricity demands at existing facilities. The projected increased electricity demands that may result from PR 1118.1 are presented in Table 2-11.

Table 2-11
Operational Increases in Electricity Demand

Equipment	Annual Energy Demand (GW-h)[g]
Fuel Meters[a,c]	0.0005
Replacement Flare Fans[b,c]	5.2560
Total	**5.2565**
SCAQMD Basin Electricity End Use Consumption[d,e]	120,210
Total Impact % of Capacity[f]	0.0044%
Significant?	**No**

Notes:
a. The analysis assumes that fuel meters consume 6 watts of electricity, based on Fox Thermal Flow Meter Specs: https://www.foxthermal.com/products/ft1.php
b. The calculations assume that air blower fans that are installed in new flares consume 30 kilowatts of electricity, based on the Aereon CEB-800CA product specifications sheet: http://www.aereon.com/sites/default/files/enclosed_combustion_systems%20-%20CEB%20800%20CA_Product%20Sheet%20FINAL.pdf
c. Fuel meters and replacement flare fans are assumed to operate continuously according to the following equation. Demand = 365 days/yr * 24 hr/day * power consumption rate (watts or kilowatts).
d. 2016 Draft Final SCAQMD Chapter 10, 2012 Electricity use in gigawatt-hour (GW-h), (http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2016-air-quality-management-plan/draft-final-aqmp/strikeout/11ch10-draft-final-120116.pdf).
e. The energy supply is assumed to be equal to energy consumption.
f. SCAQMD's energy threshold for both types of fuel used is 1 percent of supply.
g. GW-h = gigawatt-hour which is equivalent to 1,000 megawatt hours

To implement the physical modifications outlined in Table 2-2, diesel fuel is expected to be needed to operate off-road construction equipment and on-road vehicles (passenger vehicles and trucks) during construction. Gasoline and diesel fuel would be also needed to operate on-road vehicles (passenger vehicles and trucks) during operation. CNG transport trucks will likely be powered by natural gas, potentially directly from the facilities if proper equipment is installed. In this analysis, the energy demands are considered scenarios in which these CNG transport trucks are powered either by diesel or natural gas. The following sections evaluate the various types of energy sources that may be affected by implementing PR 1118.1.

Construction
During construction, diesel fuel will be consumed by portable construction equipment (e.g., welders, forklifts, and etc.) needed to replace flares or install beneficial use projects, gasoline will be consumed by construction workers' vehicles, and additional diesel fuel will be consumed vendor or haul trucks traveling to and from each affected facility.

To estimate "worst-case" energy impacts associated with construction activities, SCAQMD staff estimated the total gasoline and diesel fuel consumption for each affected facility during construction and operation based on CARB's OFFROAD2017 model.

CalEEMod version 2016.3.2 was used to calculate construction emissions which was determined from the default trip lengths for construction worker commute trips (e.g., 29.4 miles per worker round trip to/from the construction site per day) and vendor trips (e.g., 14.7 miles per vendor round trip to/from the construction site per day). Source testing trips, fuel meter installation trips, and CNG transport trips were assumed to be 40 miles. The fuel usage per vehicle used during

construction round trips was then calculated by taking the CalEEMod output and assuming that each: 1) construction workers' and source testers' gasoline-fueled passenger vehicle would get a fuel economy rate of approximately 21 miles per gallon (mpg); 2) vendor diesel truck would get a fuel economy rate of approximately 6.6 mpg; and 3) CNG transport diesel truck would get a fuel economy rate of approximately 5.9 mpg or 5.3 miles diesel gallon equivalent if operating on natural gas. Table 2-12 summarizes the projected fuel use impacts associated with construction activities. Detailed calculations of fuel usage may be found in Appendix C.

Table 2-12
Total Projected Fuel Usage for Construction Activities

Fuel Type	Year 2017 Basin Estimated Fuel Demand (mmgal/yr)[a]	Construction Fuel Usage (mmgal/year)[b]	Total Increase Above Baseline[c]	Significant
Diesel	775	0.00033	0.00004%	No
Gasoline	7,086	0.00088	0.00001%	No

Notes:

a. California Annual Retail Fuel Outlet Report Results (CEC-A15) Spreadsheets, 2017 California Energy Commission (http://www.energy.ca.gov/almanac/transportation_data/gasoline/piira_retail_survey.html). [Accessed October 12, 2018.]

b. Estimated peak fuel usage from construction activities. Diesel usage estimates are based on the usage of portable construction equipment and vendor trips. Gasoline usage estimates are derived from construction workers' vehicle daily trips to and from work.

c. SCAQMD's energy threshold for both types of fuel used is 1% of fuel supply.

The 2017 California Annual Retail Fuel Outlet Report Results from the California Energy Commission (CEC) show that 775 million gallons of diesel and 7,086 million gallons of gasoline were consumed in 2017 in the Basin. Thus, even if an additional 882 gallons of diesel and 332 gallons of gasoline are consumed during construction, the fuel usages are 0.00004% and 0.00001% above the 2017 baseline for diesel and gasoline, respectively, and both projected increases are well below the SCAQMD's significance threshold for fuel supply. Thus, no significant adverse impact on fuel supplies would be expected during construction.

Operation - Fuel Use from Vehicles

Once construction is completed, additional vehicle trips and fuel use are expected to be needed from the following activities during operation: truck trips to transport compressed natural gas; truck trips for source testing every five years at ~~28~~ 36 facilities; and annual truck trips to service CNG and fuel cell system equipment at five facilities. Two scenarios were evaluated for transport of compressed natural gas, heavy-duty diesel trucks, and heavy-duty natural gas powered trucks. The projected fuel demand during operation is presented in Table 2-13.

Table 2-13
Total Projected Fuel Usage for Operation Activities, Two Scenarios

Scenario	Fuel Type	Year 2017 Estimated Fuel Demand (mmgal/yr)[a]	Fuel Usage (mmgal/year)	Total Increase Above Baseline	Significant[b]
1: CNG transport trucks fueled by diesel	Gasoline	7,086	0.00006	0.000001%	No
	Diesel	775	0.11	0.014%	No
	Natural Gas[c]	18	0	0%	No
2: CNG transport trucks fueled by natural gas	Gasoline	7,086	0.00006	0.000001%	No
	Diesel	775	0	0%	No
	Natural Gas[c]	18	0.12	0.65%	No

Notes:
a. California Annual Retail Fuel Outlet Report Results (CEC-A15) Spreadsheets, 2017 California Energy Commission (http://www.energy.ca.gov/almanac/transportation_data/gasoline/piira_retail_survey.html). [Accessed October 24, 2018.]
b. SCAQMD's energy threshold for fuel used is 1% of fuel supply.
c. Natural gas consumption for California was 45.61 gasoline equivalent gallons. It was assumed that the South Coast Basin uses 40% of the total natural gas supply, as it uses 40% of the states diesel supply. See Appendix C for detailed calculations.

Operational gasoline truck usage is only expected to consume about 63 gallons of gasoline, approximately 0.000001% of the annual gasoline supply. Diesel operated heavy duty truck usage could consume 106,407 gallons of diesel, which is only 0.014% of the annual diesel supply, well under the SCAQMD significance threshold. Alternatively, if CNG transport trucks are powered by natural gas, they could use 118,453 gasoline gallon equivalents. This is potentially 0.65% of the South Coast Basin's annual natural gas vehicular consumption for 2017, which is still under the 1% significance threshold. However, there are much greater stores of natural gas beyond the fuel consumption by vehicles, so a greater supply of natural gas could be made available for vehicles, decreasing the risk of significance. Furthermore, with proper equipment, it is possible to power the CNG transport trucks with the very same gas they carry. If this were the case, operation of these CNG transport trucks would not deplete any of the South Coast Basin's natural gas supply.

Based on the foregoing analyses, the construction and operational-related activities associated with the implementation of PR 1118.1 would not use energy in a wasteful manner and would not result in substantial depletion of existing energy resource supplies, create a significant demand of energy when compared to existing supplies. Thus, there are no significant adverse energy impacts associated with the implementation of PR 1118.1.

Conclusion

Based upon these considerations, significant adverse energy impacts are not expected from implementing PR 1118.1. Since no significant energy impacts were identified, no mitigation measures are necessary or required.

		Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
VII.	**GEOLOGY AND SOILS.** Would the project:				
a)	Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:	☐	☐	☐	☑
	• Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?	☐	☐	☐	☑
	• Strong seismic ground shaking?	☐	☐	☐	☑
	• Seismic–related ground failure, including liquefaction?	☐	☐	☐	☑
b)	Result in substantial soil erosion or the loss of topsoil?	☐	☐	☑	☐
c)	Be located on a geologic unit or soil that is unstable or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☑	☐
d)	Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☐	☐	☑
e)	Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☑

Significance Criteria

Impacts on the geological environment will be considered significant if any of the following criteria apply:

- Topographic alterations would result in significant changes, disruptions, displacement, excavation, compaction or over covering of large amounts of soil.
- Unique geological resources (paleontological resources or unique outcrops) are present that could be disturbed by the construction of the proposed project.

- Exposure of people or structures to major geologic hazards such as earthquake surface rupture, ground shaking, liquefaction or landslides.
- Secondary seismic effects could occur which could damage facility structures, e.g., liquefaction.
- Other geological hazards exist which could adversely affect the facility, e.g., landslides, mudslides.

Discussion
PR 1118.1 will reduce NOx and VOC emissions from non-refinery flares and encourage alternatives to flaring. PR 1118.1 applies to owners and operators of flares that require a SCAQMD permit, including, but not limited to, oil and gas production, wastewater treatment facilities, landfills, organic liquid loading stations, and tank farms. The proposed rule includes NOx, CO, and VOC emission limits that reflect BARCT standards and a capacity threshold that seeks to identify routine flaring. For flares that exceed the capacity threshold, either a reduction in flare throughput or replacement with a flare with lower emissions will be required. The capacity threshold varies depending on the type of gas being flared (e.g., landfill, digester, produced) and the type of flare equipment (e.g., open flare versus a shrouded flare). PR 1118.1 provides an exemption for low-use and low-emitting flares. Additionally, PR 1118.1 establishes provisions for source testing, monitoring, reporting, and recordkeeping. Of the ~~288~~ 295 flares at ~~146~~ 153 facilities affected by PR 1118.1: 25 flares at 16 facilities would require either a flare replacement to reduce emissions, or an alternative project to reduce flare gas throughput such as the installation of a fuel cell, gas processing, and gas compression and transport system; ~~28~~ 36 flares would need to undergo additional source testing; and 10 flares would need to have flow meters installed.

VII. a) No Impact. PR 1118.1 would result in construction activities and source testing at existing affected facilities located in developed industrial settings. Affected facilities are expected to install replacement flares near current existing flares on developed project sites, such that only minor site preparation is anticipated. Further, the proposed project does not cause or require a new facility to be constructed, however facilities may choose to reduce flare gas throughput with alternative beneficial use projects such as the installation of a fuel cell and gas processing, compression, and transport system. Nevertheless, this type of project would only be considered if it were feasible and cost-effective given the current site conditions. A fuel cell project would likely need to be sited on previously cleared, geologically inactive, and stable land, and would not require substantial site preparation. Therefore, PR 1118.1 is not expected to significantly adversely affect geophysical conditions in the SCAQMD.

Southern California is an area of known seismic activity. As part of the issuance of building permits, local jurisdictions are responsible for assuring that the Uniform Building Code is adhered to and can conduct inspections to ensure compliance. The Uniform Building code is considered to be a standard safeguard against major structural failures and loss of life. The basic formulas used for the Uniform building Code seismic design require determination of the seismic zone and site coefficient, which represents the foundation condition at the site. The Uniform Building Code requirements also consider liquefaction potential and establish stringent requirements for building foundations in areas potentially subject to liquefaction. The replacement of up to 25 flares would be expected to conform to the Uniform Building Code and all other applicable state and local building codes. Structures must be designed to comply with the Uniform Building Code Zone 4 requirements if they are located in a seismically active area. The Uniform Building Code is considered to be a standard safeguard against major structural failures and loss of life. Thus, PR

1118.1 would not alter the exposure of people or property to geological hazards such as earthquakes, landslides, mudslides, ground failure, or other natural hazards. Furthermore, as the structures considered are flares, no people would be inside of the flare shrouding structure, except for repairs, which would be extremely infrequent. As a result, substantial exposure of people or structures to the risk of loss, injury, or death involving the rupture of an earthquake fault, seismic ground shaking, ground failure or landslides is not anticipated.

VII. b) Less than Significant Impact. Since 1118.1 may result in the construction of new flares and beneficial use projects such the installation of a fuel cell and gas processing, compression, and transport system, such that construction activities such as minor grading may be necessary to prepare a level foundation. As such, minimal, temporary erosion resulting from grading activities may be expected if soil stabilizers are not used. However, these grading activities and any associated temporary erosion that may occur are expected to be relatively minimal since the existing facilities have previously been graded and paved, and construction is expected to occur on flat areas of the facilities, near existing industrial equipment. Furthermore, a project like this would only be considered if it were feasible given the current site conditions. Since source tests and fuel meter installations would only require the minimal use of equipment, these activities would not be expected to create erosion or contribute to the loss of topsoil. For these reasons, no unstable earth conditions or changes in geologic substructures are expected to result from implementing PR 1118.1. Therefore, impacts to the loss of topsoil and soil erosion are less than significant.

VII. c) Less than Significant Impact. Since PR 1118.1 will affect existing facilities, it is expected that the soil types present at the affected facilities will not be made further susceptible to expansion or liquefaction. Furthermore, subsidence is not anticipated to be a problem since only minor construction for flare replacement or fuel cell and gas compression and transport projects is expected to occur at affected facilities. The areas where the existing facilities are located are not envisioned to be prone to new landslide impacts or have unique geologic features since the existing facilities are currently operational. Though some facilities such as landfills are located in foothill, mountain, or canyon regions with steep slopes, construction is expected to occur only in developed and previously graded areas. Thus, the proposed project would not be expected to increase or exacerbate any existing risks at the affected facility locations. Implementation of PR 1118.1 would not require locating facilities on a geologic unit or soil that is unstable or that would become unstable as a result of the project; therefore, it would not be expected to potentially result in on-or off-site landslide, lateral spreading, subsidence, liquefaction or collapse. As such, no impacts to this topic area are anticipated.

VII. d) & e) No Impact. The implementation of PR 1118.1 includes replacing flares, potentially constructing beneficial use projects, conducting source testing, and installing fuel meters. These activities are expected to be confined within the affected existing industrial facilities. Further, PR 1118.1 would not require the installation of septic tanks or other alternative wastewater disposal systems since each affected facility would be expected to have an existing sewer system. Therefore, no persons or property will be exposed to new impacts related to expansive soils or soils incapable of supporting water disposal. Thus, the implementation of PR 1118.1 will not adversely affect soils associated with a installing a new septic system or alternative wastewater disposal system or modifying an existing sewer.

Conclusion

Based upon these considerations, significant adverse geology and soils impacts are not expected from the implementation of PR 1118.1. Since no significant geology and soils impacts were identified, no mitigation measures are necessary or required.

		Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
VIII.	**HAZARDS AND HAZARDOUS MATERIALS.** Would the project:				
a)	Create a significant hazard to the public or the environment through the routine transport, use, and disposal of hazardous materials?	☐	☐	☑	☐
b)	Create a significant hazard to the public or the environment through reasonably foreseeable upset conditions involving the release of hazardous materials into the environment?	☐	☐	☑	☐
c)	Emit hazardous emissions, or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☑	☐
d)	Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment?	☐	☐	☐	☑
e)	For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public use airport or a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☑
f)	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☑
g)	Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☐	☑
h)	Significantly increased fire hazard in areas with flammable materials?	☐	☐	☑	☐

Significance Criteria

Impacts associated with hazards will be considered significant if any of the following occur:

- Non-compliance with any applicable design code or regulation.
- Non-conformance to National Fire Protection Association standards.
- Non-conformance to regulations or generally accepted industry practices related to operating policy and procedures concerning the design, construction, security, leak detection, spill containment or fire protection.
- Exposure to hazardous chemicals in concentrations equal to or greater than the Emergency Response Planning Guideline (ERPG) 2 levels.

Discussion

PR 1118.1 will reduce NOx and VOC emissions from non-refinery flares and encourage alternatives to flaring. PR 1118.1 applies to owners and operators of flares that require a SCAQMD permit, including, but not limited to, oil and gas production, wastewater treatment facilities, landfills, organic liquid loading stations, and tank farms. The proposed rule includes NOx, CO, and VOC emission limits that reflect BARCT standards and a capacity threshold that seeks to identify routine flaring. For flares that exceed the capacity threshold, either a reduction in flare throughput or replacement with a flare with lower emissions will be required. The capacity threshold varies depending on the type of gas being flared (e.g., landfill, digester, produced) and the type of flare equipment (e.g., open flare versus a shrouded flare). PR 1118.1 provides an exemption for low-use and low-emitting flares. Additionally, PR 1118.1 establishes provisions for source testing, monitoring, reporting, and recordkeeping. Of the ~~288~~ 295 flares at ~~146~~ 153 facilities affected by PR 1118.1: 25 flares at 16 facilities would require either a flare replacement to reduce emissions, or an alternative project to reduce flare gas throughput such as the installation of a fuel cell, gas processing, and gas compression and transport system; ~~28~~ 36 flares would need to undergo additional source testing; and 10 flares would need to have flow meters installed.

VIII. a) & b) Less than Significant Impact. PR 1118.1 will reduce emissions of NOx and VOCs and in turn, reduce the potential for the public and the environment to be exposed to these compounds. The purpose of flares and the partial purpose of beneficial use projects which use flare gas to create energy is to oxidize VOCs into carbon dioxide and water. This effectively reduces hazardous impacts of flare gas. NOx emissions will decrease when replacement flares are installed or if clean alternative beneficial use projects such as fuel cells are implemented.

There are no requirements in PR 1118.1 that would require facilities to change their current hazardous waste handling practices. Thus, no new significant hazards are expected to the public or environment through the continued routine operations at non-refinery flares. However, if a facility operator chooses to install a gas processing, compression, and transport system using trucks to transport compressed natural gas, this will increase the amount of hazardous material transported. Natural gas is considered highly flammable. Additionally, natural gas can cause irritation, dizziness, or asphyxiation if inhaled in high enough concentrations. Compressed natural gas is routinely transported without incident. Though additional compressed natural gas truck trips may occur as a result of PR 1118.1, drivers and operators will be required to comply will all appropriate safety precautions, no release of hazardous materials would be expected to occur through a reasonable foreseeable upset condition.

For the reasons described above, PR 1118.1 is not expected to create a new significant hazard to the public or environment through routine use and transport or hazardous materials, nor reasonably foreseeable upset conditions involving the release of hazardous materials into the environment.

VIII. c) Less than Significant Impact. Of the ~~146~~ 153 facilities expected to be affected by this rule, there are five facilities located within one-quarter mile of a school. None of these facilities are expected to undergo physical modifications including flare replacement or alternative beneficial use projects as a result of this rule. These facilities and their proximities to schools are identified in Appendix D. PR 1118.1, if adopted, will reduce exposure to NOx, VOCs, and CO by setting stricter emission limits for flares. PR 1118.1 does not include new requirements of alter existing requirements for hazardous waste disposal. For this reason, all ~~146~~ 153 facilities, including the five that are located within one-quarter mile of a school, are expected to continue to take the appropriate and required actions to ensure proper handling of existing quantities of hazardous or acutely hazardous materials, substances or wastes that are currently generated.

VIII. d) No Impact. Government Code Section 65962.5 refers to hazardous waste handling practices at facilities subject to the Resources Conservation and Recovery Act (RCRA). One of the ~~146~~ 153 facilities, BKK landfill, presented in Appendix D, is identified on lists of California Department of Toxics Substances Control (DTSC) hazardous waste facilities per Government Code Section 65962.5. Subsequent to the release of the Draft EA for public comment and review, additional facilities were added to the list in Appendix D and five of these were identified as California DTSC hazardous waste facilities. No physical impacts are expected to occur at the facility initially identified in the Draft EA or the five additional facilities identified in this Final EA as a result of PR 1118.1. As such, there will be no additional public health hazard from this rule. Implementation of PR 1118.1 is not expected to interfere with existing hazardous waste management programs since facilities handling 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. Therefore, compliance with PR 1118.1 would not create a new significant hazard to the public or environment.

VIII. e) No Impact. Federal Aviation Administration regulation, 14 CFR Part 77 – Safe, Efficient Use and Preservation of the Navigable Airspace, provide information regarding the types of projects that may affect navigable airspace. Projects may adversely affect navigable airspace if they involve construction or alteration of structures greater than 200 feet above ground level within a specified distance from the nearest runway or objects within 20,000 feet of an airport or seaplane base with at least one runway more than 3,200 feet in length and the object would exceed a slope of 100:1 horizontally (100 feet horizontally for each one foot vertically from the nearest point of the runway).

While there are 14 of ~~146~~ 153 facilities as identified in Appendix D that are located within two miles of an airport, of the 16 facilities which are expected to require flare replacements or alternative beneficial use projects, none are located within two miles of an airport. Furthermore, flare replacement projects and alternative projects such as fuel cell systems are not expected to exceed 24 feet in height, which is well below the 200 feet limit specified in 14 CFR Part 77. Furthermore, source testing is not expected to impact airports in any way. Therefore, implementation of PR 1118.1 is not expected to increase or create any new safety hazards to peoples working or residing in the vicinity of public/private airports.

VIII. f) No Impact. Health and Safety Code Section 25506 specifically requires all businesses handling hazardous materials to submit a business emergency response plan to assist local administering agencies in the emergency release or threatened release of a hazardous material. Business emergency response plans generally require the following:

- Identification of individuals who are responsible for various actions, including reporting, assisting emergency response personnel and establishing an emergency response team;
- Procedures to notify the administering agency, the appropriate local emergency rescue personnel, and the California Office of Emergency Services;
- Procedures to mitigate a release or threatened release to minimize any potential harm or damage to persons, property or the environment;
- Procedures to notify the necessary persons who can respond to an emergency within the facility;
- Details of evacuation plans and procedures;
- Descriptions of the emergency equipment available in the facility;
- Identification of local emergency medical assistance; and,
- Training (initial and refresher) programs for employees in:
    1. The safe handling of hazardous materials used by the business;
    2. Methods of working with the local public emergency response agencies;
    3. The use of emergency response resources under control of the handler;
    4. Other procedures and resources that will increase public safety and prevent or mitigate a release of hazardous materials.

In general, every county or city and all facilities using a minimum amount of hazardous materials are required to formulate detailed contingency plans to eliminate, or at least minimize, the possibility and effect of fires, explosion, or spills. In conjunction with the California Office of Emergency Services, local jurisdictions have enacted ordinances that set standards for area and business emergency response plans. These requirements include immediate notification, mitigation of an actual or threatened release of a hazardous material, and evacuation of the emergency area.

Emergency response plans are typically prepared in coordination with the local city or county emergency plans to ensure the safety of not only the public (surrounding local communities), but the facility employees as well. The proposed project would not impair the implementation of, or physically interfere with any adopted emergency response plans or emergency evacuation plans that may be in place at existing facilities. The flare replacements or possible beneficial use projects in accordance with PR 1118.1 may require an update of each affected facility's existing emergency response plan to reflect the physical modifications; however, the act of modifying an emergency response plan to reflect these anticipated building modifications will not create any environmental impacts. Therefore, PR 1118.1 is not expected to impair the implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

VIII. g) No Impact. The facilities affected by PR 1118.1 are typically located in existing industrial use areas and are not located near wildlands. However some facilities, mainly landfills are located in foothills or canyon areas. No provision of PR 1118.1 would require expansion of facilities outside current site boundaries. Any new construction activities and source testing activities would be expected to occur onsite in developed areas. These activities would not disturb existing wildlands, nor increase the risk of fire in wildlands. Therefore, PR 1118.1 is not expected to be significant for exposing people or structures to risk of loss, injury or death involving wildland fires.

VIII. h) Less Than Significant Impact. The Uniform Fire Code and Uniform Building Code set standards intended to minimize risks from flammable or otherwise hazardous materials. Local jurisdictions are required to adopt the uniform codes or comparable regulations. Local fire agencies require permits for the use or storage of hazardous materials and permit modifications for proposed increases in their use. Permit conditions depend on the type and quantity of the hazardous materials at the facility. Permit conditions may include, but are not limited to, specifications for sprinkler systems, electrical systems, ventilation, and containment. The fire departments make annual business inspections to ensure compliance with permit conditions and other appropriate regulations. Further, businesses are required to report increases in the storage or use of flammable and otherwise hazardous materials to local fire departments. Local fire departments ensure that adequate permit conditions are in place to protect against the potential risk of upset. PR 1118.1 would not change the existing requirements and permit conditions for the proper handling of flammable materials. Further, PR 1118.1 does not contain any requirements that would prompt facility owners/operators to begin using new flammable materials. In addition, the National Fire Protection Association has special designations for deflagrations (e.g., explosion prevention) when using materials that may be explosive. Therefore, operators of facilities that process and combust natural gas and other flare gases are already required to have reliable, economical and effective means of explosion. Additional information pertaining to these types of protective measures is available in Chapter 8 of the *Industrial Ventilation, A Manual for Recommended Practice for Design*, 28th Edition, published by the American Conference of Governmental Industrial Hygienists, ©2013.

Conclusion

Based upon these considerations, significant adverse hazards and hazardous materials impacts are not expected from implementing PR 1118.1. Since no significant hazards and hazardous materials impacts were identified, no mitigation measures are necessary or required.

		Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
IX.	**HYDROLOGY AND WATER QUALITY.** Would the project:				
a)	Violate any water quality standards, waste discharge requirements, exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board, or otherwise substantially degrade water quality?	☐	☐	☑	☐
b)	Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g. the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☑	☐
c)	Substantially alter the existing drainage pattern of the site or area, including through alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in substantial erosion or siltation on- or off-site or flooding on- or off-site?	☐	☐	☐	☑
d)	Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☐	☑
e)	Place housing or other structures within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map, which would impede or redirect flood flows?	☐	☐	☐	☑

		Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
f)	Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam, or inundation by seiche, tsunami, or mudflow?	☐	☐	☐	☑
g)	Require or result in the construction of new water or wastewater treatment facilities or new storm water drainage facilities, or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☑	☐
h)	Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☑	☐
i)	Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☑	☑

Significance Criteria

Potential impacts on water resources will be considered significant if any of the following criteria apply:

Water Demand:

- The existing water supply does not have the capacity to meet the increased demands of the project, or the project would use more than 262,820 gallons per day of potable water.
- The project increases demand for total water by more than five million gallons per day.

Water Quality:

- The project will cause degradation or depletion of ground water resources substantially affecting current or future uses.
- The project will cause the degradation of surface water substantially affecting current or future uses.

- The project will result in a violation of National Pollutant Discharge Elimination System (NPDES) permit requirements.
- The capacities of existing or proposed wastewater treatment facilities and the sanitary sewer system are not sufficient to meet the needs of the project.
- The project results in substantial increases in the area of impervious surfaces, such that interference with groundwater recharge efforts occurs.
- The project results in alterations to the course or flow of floodwaters.

Discussion
PR 1118.1 will reduce NOx and VOC emissions from non-refinery flares and encourage alternatives to flaring. PR 1118.1 applies to owners and operators of flares that require a SCAQMD permit, including, but not limited to, oil and gas production, wastewater treatment facilities, landfills, organic liquid loading stations, and tank farms. The proposed rule includes NOx, CO, and VOC emission limits that reflect BARCT standards and a capacity threshold that seeks to identify routine flaring. For flares that exceed the capacity threshold, either a reduction in flare throughput or replacement with a flare with lower emissions will be required. The capacity threshold varies depending on the type of gas being flared (e.g., landfill, digester, produced) and the type of flare equipment (e.g., open flare versus a shrouded flare). PR 1118.1 provides an exemption for low-use and low-emitting flares. Additionally, PR 1118.1 establishes provisions for source testing, monitoring, reporting, and recordkeeping. Of the ~~288~~ 295 flares at ~~146~~ 153 facilities affected by PR 1118.1: 25 flares at 16 facilities would require either a flare replacement to reduce emissions, or an alternative project to reduce flare gas throughput such as the installation of a fuel cell, gas processing, and gas compression and transport system; ~~28~~ 36 flares would need to undergo additional source testing; and 10 flares would need to have flow meters installed.

IX. a), b), g), h), &i) Less than Significant Impact. PR 1118.1 contains no requirements regarding the new usage of water or the new generation of wastewater, though water may be used and wastewater generated through normal existing operations at facilities which operate flares. Flares do not require water to operate, nor do they generate wastewater during normal operations, though a small amount of wastewater may be generated if moisture removal is used on the flare gas. Additionally, source testing and installation of fuel meters is not expected to require any water nor generate any wastewater. However, beneficial use projects from landfill gas and biogas typically require moisture removal before the gas can be used in equipment such as fuel cells, turbines, or other projects. These gases contain approximately 150 to 300 pounds of water per MMscf (19 to 38 gallons per MMscf) of gas that will be removed before utilization in a beneficial use project. A larger project may use approximately five MMscf gas per day, which would produce about 95 to 190 gallons of wastewater per day.

If facility operators choose to construct and operate a fuel cell system, there will be an increase in the need for water, as well as an increase in wastewater generation. In particular, a 1.4 MW fuel cell is expected to require water on average, 4.5 gallons per minute, or 6,480 gallons per day. Additionally, this same fuel cell would be expected to generate wastewater at a rate of 2.25 gallons per minute, or 3,240 gallons per day. In total, if five facilities installed fuel cell and gas processing systems, the water demand would be approximately 32,400 gallons/day, which is well below the significance thresholds of 262,820 gallons per day for potable water and five million gallons per day of total water, respectively. Additionally, the generation of up to 190 gallons/day from potential gas treatment as described earlier, as well as an additional 6,480 gallons per day of

wastewater to be generated by a fuel cell system are not expected to result in a significant strain on current wastewater treatment plants or require additional facilities for the treatment of this water.

For these reasons, implementing PR 1118.1 would not be expected to violate any water quality standards, waste discharge requirements, exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board, or otherwise substantially degrade water quality, substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level, require or result in the construction of new water or wastewater treatment facilities or new storm water drainage facilities, or expansion of existing facilities, nor would it result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments. Finally, due to the relative small amount of water that may be needed, sufficient water supplies are available to serve the project from existing entitlements and resources.

IX. c) & d) No Impact. Implementation of PR 1118.1 will take place at existing affected facilities. In particular, PR 1118.1 would require facilities to replace flares or reduce flaring, possibly through beneficial use projects. As part of constructing these beneficial use projects, the operator may also install swales, rain drains, or other stormwater conveyances to connect to each facility's existing storm drain system. Currently, no operations of the existing facilities nor any of the potential beneficial use projects require stormwater conveyances as part of the day-to-day function.

For these reasons, implementation of PR 1118.1 would not be expected to substantially alter the existing drainage pattern of the site or area beyond what currently exists at existing facilities. No streams or rivers are expected to run through existing facilities, because these facilities operate in urban industrial areas. Thus, PR 1118.1 would not cause an alteration of the course of a stream or river. Construction to complete beneficial use projects may require some minor earthwork to prepare affected areas at the affected facility. Any construction activities, however would not be expected to permanently create unpaved areas that would be vulnerable to surface runoff in a manner that would result in substantial erosion or siltation on- or off-site or flooding on- or off-site. In addition, PR 1118.1 would not create new or contribute to existing runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff, because PR 1118.1 does not contain any requirements that would change existing drainage patterns or the procedures for how surface runoff is handled.

IX. e) & f) No Impact. As previously explained in Section IV – Biological Resources, PR 1118.1 would not require new development in undeveloped areas. Replacement of flares and construction of beneficial use projects at affected facilities would be short-term and take place within existing facility settings. Therefore, PR 1118.1 would not be expected to cause placing housing or structures to be placed within 100-year flood hazard areas as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map, which would impede or redirect flood flows. Similarly, PR 1118.1 would also not be expected to expose people or structures to a significant risk of loss, injury or death involving flooding as a result of the failure of a levee or dam, or inundation by seiche, tsunami, or mudflow because any flood event of this

nature would be part of the existing setting or topography that is present for reasons unrelated to PR 1118.1.

Conclusion

Based upon these considerations, significant adverse hydrology and water quality impacts are not expected from implementing PR 1118.1. Since no significant hydrology and water quality impacts were identified, no mitigation measures are necessary or required.

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
X. LAND USE AND PLANNING. Would the project:				
a) Physically divide an established community?	☐	☐	☐	☑
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☑

Significance Criteria

Land use and planning impacts will be considered significant if the project conflicts with the land use and zoning designations established by local jurisdictions.

Discussion

PR 1118.1 will reduce NOx and VOC emissions from non-refinery flares and encourage alternatives to flaring. PR 1118.1 applies to owners and operators of flares that require a SCAQMD permit, including, but not limited to, oil and gas production, wastewater treatment facilities, landfills, organic liquid loading stations, and tank farms. The proposed rule includes NOx, CO, and VOC emission limits that reflect BARCT standards and a capacity threshold that seeks to identify routine flaring. For flares that exceed the capacity threshold, either a reduction in flare throughput or replacement with a flare with lower emissions will be required. The capacity threshold varies depending on the type of gas being flared (e.g., landfill, digester, produced) and the type of flare equipment (e.g., open flare versus a shrouded flare). PR 1118.1 provides an exemption for low-use and low-emitting flares. Additionally, PR 1118.1 establishes provisions for source testing, monitoring, reporting, and recordkeeping. Of the ~~288~~ 295 flares at ~~146~~ 153 facilities affected by PR 1118.1: 25 flares at 16 facilities would require either a flare replacement to reduce emissions, or an alternative project to reduce flare gas throughput such as the installation of a fuel cell, gas processing, and gas compression and transport system; ~~28~~ 36 flares would need to undergo additional source testing; and 10 flares would need to have flow meters installed.

X. a) & b) No Impact. PR 1118.1 does not require the construction of new facilities and the physical effects that will result from PR 1118.1 will occur at existing facilities located industrial areas and would not be expected to go beyond existing boundaries. For this reason, implementation of PR 1118.1 is not expected to physically divide an established community. Therefore, no impacts are anticipated.

Further, land use and other planning considerations are determined by local governments and PR 1118.1 does not alter any land use or planning requirements. Compliance with PR 1118.1 would take place within existing facilities. Thus, it would not be expected to affect or conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project

(including, but not limited to the general plan, specific plan, local coastal program or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect.

Conclusion

Based upon these considerations, significant adverse land use and planning impacts are not expected from implementing PR 1118.1. Since no significant land use and planning impacts were identified, no mitigation measures are necessary or required.

		Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
XI.	**MINERAL RESOURCES.** Would the project:				
a)	Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☑
b)	Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☑

Significance Criteria

Project-related impacts on mineral resources will be considered significant if any of the following conditions are met:

- The project would result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state.
- The proposed project results in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan.

Discussion

PR 1118.1 will reduce NOx and VOC emissions from non-refinery flares and encourage alternatives to flaring. PR 1118.1 applies to owners and operators of flares that require a SCAQMD permit, including, but not limited to, oil and gas production, wastewater treatment facilities, landfills, organic liquid loading stations, and tank farms. The proposed rule includes NOx, CO, and VOC emission limits that reflect BARCT standards and a capacity threshold that seeks to identify routine flaring. For flares that exceed the capacity threshold, either a reduction in flare throughput or replacement with a flare with lower emissions will be required. The capacity threshold varies depending on the type of gas being flared (e.g., landfill, digester, produced) and the type of flare equipment (e.g., open flare versus a shrouded flare). PR 1118.1 provides an exemption for low-use and low-emitting flares. Additionally, PR 1118.1 establishes provisions for source testing, monitoring, reporting, and recordkeeping. Of the ~~288~~ 295 flares at ~~146~~ 153 facilities affected by PR 1118.1: 25 flares at 16 facilities would require either a flare replacement to reduce emissions, or an alternative project to reduce flare gas throughput such as the installation of a fuel cell, gas processing, and gas compression and transport system; ~~28~~ 36 flares would need to undergo additional source testing; and 10 flares would need to have flow meters installed.

XI. a) & b) No Impact. There are no provisions in PR 1118.1 that would result in the loss of availability of a known mineral resource of value to the region and the residents of the state, or of a locally-important mineral resource recovery site delineated on a local general plan, specific plan

or other land use plan. Some examples of mineral resources are gravel, asphalt, bauxite, and gypsum, which are commonly used for construction activities or industrial processes. The proposed project would require source testing, and either the replacement of flares, or the reduction in flaring through construction of beneficial use projects such as boilers, turbines, or fuel cells which would have no effects on the use of important minerals, such as those described above. Therefore, no new demand on mineral resources is expected to occur and significant adverse mineral resources impacts from implementing PR 1118.1 are not anticipated.

Conclusion

Based upon these considerations, significant adverse mineral resource impacts are not expected from implementing PR 1118.1. Since no significant mineral resource impacts were identified, no mitigation measures are necessary or required.

		Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
XII.	**NOISE.** Would the project result in:				
a)	Exposure of persons to or generation of permanent noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☑	☐
b)	Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☑	☐
c)	A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☑	☐
d)	For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public use airport or private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☑	☐

Significance Criteria

Noise impact will be considered significant if:

- Construction noise levels exceed the local noise ordinances or, if the noise threshold is currently exceeded, project noise sources increase ambient noise levels by more than three decibels (dBA) at the site boundary. Construction noise levels will be considered significant if they exceed federal Occupational Safety and Health Administration (OSHA) noise standards for workers.
- The proposed project operational noise levels exceed any of the local noise ordinances at the site boundary or, if the noise threshold is currently exceeded, project noise sources increase ambient noise levels by more than three dBA at the site boundary.

Discussion

PR 1118.1 will reduce NOx and VOC emissions from non-refinery flares and encourage alternatives to flaring. PR 1118.1 applies to owners and operators of flares that require a SCAQMD permit, including, but not limited to, oil and gas production, wastewater treatment facilities, landfills, organic liquid loading stations, and tank farms. The proposed rule includes NOx, CO, and VOC emission limits that reflect BARCT standards and a capacity threshold that seeks to identify routine flaring. For flares that exceed the capacity threshold, either a reduction in flare throughput or replacement with a flare with lower emissions will be required. The capacity threshold varies depending on the type of gas being flared (e.g., landfill, digester, produced) and the type of flare equipment (e.g., open flare versus a shrouded flare). PR 1118.1 provides an exemption for low-use and low-emitting flares. Additionally, PR 1118.1 establishes provisions for source testing,

monitoring, reporting, and recordkeeping. Of the ~~288~~ 295 flares at ~~146~~ 153 facilities affected by PR 1118.1: 25 flares at 16 facilities would require either a flare replacement to reduce emissions, or an alternative project to reduce flare gas throughput such as the installation of a fuel cell, gas processing, and gas compression and transport system; ~~28~~ 36 flares would need to undergo additional source testing; and 10 flares would need to have flow meters installed.

XII. a), b), & c) Less than Significant Impact. The facilities that may be affected by PR 1118.1 are located in urbanized industrial areas. The existing noise environment at each of the facilities is typically dominated by noise from existing equipment on-site, vehicular traffic around the facilities, and trucks entering and existing facility premises. Large, potentially noise-intensive construction equipment would be needed temporarily to replace flares or construct beneficial use projects to reduce flaring as part of implementing PR 1118.1. Operation of the construction equipment would be expected to comply with all existing noise control laws and ordinances, as would source testing. Since the facilities are located in industrial areas, which have a higher background noise level when compared to other areas, the noise generated during construction will likely be indistinguishable from the background noise levels at the property line. Additionally, Occupational Safety and Health Administration (OSHA) and California-OSHA have established noise standards to protect worker health both indoors and outdoors, which would be adhered to during any construction activities. Furthermore, compliance with local noise ordinances typically limit the hours of construction to reduce the temporary noise impacts from construction to sensitive and offsite receptors. These potential noise increases would only be temporary until construction is completed and would be expected to be within the allowable noise levels established by the local noise ordinances for industrial areas; thus, impacts are expected to be less than significant.

XII. d) Less than Significant Impact. As stated in Section VIII e), 14 of the ~~146~~ 153 facilities identified in Appendix C are located within two miles of an airport. The existing noise environment at each of these facilities is dominated by noise from existing equipment on-site, vehicular traffic around the facilities, and trucks entering and exiting facility premises. Thus, any new noise impacts would from construction activities would be temporary and likely to generate noise that is indistinguishable from the background levels at the property line. Additionally, replacement flares would not cause additional noise impacts when compared to existing flares. Further, alternative use projects such as a fuel cell and gas processing, compression and transport system are not expected to generate significant noise during operation. Thus, PR 1118.1 is not expected to expose persons residing or working within two miles of a public airport or private airstrip to excessive noise levels.

Conclusion

Based upon these considerations, significant adverse noise impacts are not expected from the implementing PR 1118.1. Since no significant noise impacts were identified, no mitigation measures are necessary or required.

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
XIII. POPULATION AND HOUSING. Would the project:				
a) Induce substantial growth in an area either directly (for example, by proposing new homes and businesses) or indirectly (e.g. through extension of roads or other infrastructure)?	☐	☐	☐	☑
b) Displace substantial numbers of people or existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☑

Significance Criteria

Impacts of the proposed project on population and housing will be considered significant if the following criteria are exceeded:

- The demand for temporary or permanent housing exceeds the existing supply.
- The proposed project produces additional population, housing or employment inconsistent with adopted plans either in terms of overall amount or location.

Discussion

PR 1118.1 will reduce NOx and VOC emissions from non-refinery flares and encourage alternatives to flaring. PR 1118.1 applies to owners and operators of flares that require a SCAQMD permit, including, but not limited to, oil and gas production, wastewater treatment facilities, landfills, organic liquid loading stations, and tank farms. The proposed rule includes NOx, CO, and VOC emission limits that reflect BARCT standards and a capacity threshold that seeks to identify routine flaring. For flares that exceed the capacity threshold, either a reduction in flare throughput or replacement with a flare with lower emissions will be required. The capacity threshold varies depending on the type of gas being flared (e.g., landfill, digester, produced) and the type of flare equipment (e.g., open flare versus a shrouded flare). PR 1118.1 provides an exemption for low-use and low-emitting flares. Additionally, PR 1118.1 establishes provisions for source testing, monitoring, reporting, and recordkeeping. Of the ~~288~~ 295 flares at ~~146~~ 153 facilities affected by PR 1118.1: 25 flares at 16 facilities would require either a flare replacement to reduce emissions, or an alternative project to reduce flare gas throughput such as the installation of a fuel cell, gas processing, and gas compression and transport system; ~~28~~ 36 flares would need to undergo additional source testing; and 10 flares would need to have flow meters installed.

XIII. a) No Impact. The construction activities associated with flare replacement and beneficial use projects that are expected to occur at 16 facilities are not expected to involve or require the relocation of individuals, require new housing or commercial facilities, or change the distribution of the population. As explained in Section III, only a handful workers per facility may be needed to perform construction activities to comply with PR 1118.1 and these workers can be supplied from the existing labor pool in the local Southern California area. The operation of beneficial use projects may result in the hiring of permanent employees. In the event that new employees are

hired, it is expected that the number of new employees hired at any one facility would be relatively small, perhaps no more than one or two per facility. Regardless of implementing PR 1118.1, human population within the jurisdiction of the SCAQMD. As such, PR 1118.1 is not anticipated to not result in changes in population densities, population distribution, or induce significant growth in population.

XIII. b) No Impact. PR 1118.1 would result in construction activities within the confines of existing facilities. No housing would be displaced during construction. Additional source testing requirements would not be expected to substantially alter existing operations at non-refinery flare facilities. Consequently, PR 1118.1 is not expected to result in the creation of any industry that would affect population growth, directly or indirectly induce the construction of single- or multiple-family units, or require the displacement of persons or housing elsewhere within the SCAQMD's jurisdiction.

Conclusion
Based upon these considerations, significant adverse population and housing impacts are not expected from implementing PR 1118.1. Since no significant population and housing impacts were identified, no mitigation measures are necessary or required.

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
XIV. PUBLIC SERVICES. Would the proposal result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered government facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the following public services:				
a) Fire protection?	☐	☐	☑	☐
b) Police protection?	☐	☐	☐	☑
c) Schools?	☐	☐	☐	☑
d) Other public facilities?	☐	☐	☐	☑

Significance Criteria

Impacts on public services will be considered significant if the project results in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered government facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response time or other performance objectives.

Discussion

PR 1118.1 will reduce NOx and VOC emissions from non-refinery flares and encourage alternatives to flaring. PR 1118.1 applies to owners and operators of flares that require a SCAQMD permit, including, but not limited to, oil and gas production, wastewater treatment facilities, landfills, organic liquid loading stations, and tank farms. The proposed rule includes NOx, CO, and VOC emission limits that reflect BARCT standards and a capacity threshold that seeks to identify routine flaring. For flares that exceed the capacity threshold, either a reduction in flare throughput or replacement with a flare with lower emissions will be required. The capacity threshold varies depending on the type of gas being flared (e.g., landfill, digester, produced) and the type of flare equipment (e.g., open flare versus a shrouded flare). PR 1118.1 provides an exemption for low-use and low-emitting flares. Additionally, PR 1118.1 establishes provisions for source testing, monitoring, reporting, and recordkeeping. Of the ~~288~~ 295 flares at ~~146~~ 153 facilities affected by PR 1118.1: 25 flares at 16 facilities would require either a flare replacement to reduce emissions, or an alternative project to reduce flare gas throughput such as the installation of a fuel cell, gas processing, and gas compression and transport system; ~~28~~ 36 flares would need to undergo additional source testing; and 10 flares would need to have flow meters installed.

XIV. a) Less Than Significant Impact. Implementation of PR 1118.1 is expected to cause the flares to be replaced or alternative beneficial use projects to be implemented in order to reduce flaring. In the event that facilities choose to install a gas processing, compression, and transport system, additional natural gas may be temporarily stored onsite and transported. Though natural gas is a hazardous material due to its high flammability and ability to cause irritation, dizziness, and asphyxiation hazards from inhalation, as noted in Section VIII, a release caused by PR 1118.1 is unlikely during normal operations when following proper safety precautions. Therefore, natural gas processing, compression, and transport is not expected to significantly impact the hazardous material ("Haz Mat") response capabilities of the applicable fire protection services for each facility. For these reasons, implementation of PR 1118.1 is not expected to substantially alter or increase the need or demand for additional public services (e.g., fire and related emergency services, etc.) above current levels, so no significant impact to these existing services is anticipated.

XIV. b), c) & d) No Impact. As explained in Section XIII a), PR 1118.1 is not anticipated to generate any significant effects, either direct or indirect, on the population or population distribution within SCAQMD's jurisdiction as no additional workers are anticipated to be required to comply with PR 1118.1. Because PR 1118.1 is not expected to induce population growth in any way, and because the local labor pool (e.g., workforce) would remain the same since PR 1118.1 would not trigger changes to current usage practices, no additional schools would need to be constructed as a result of implementing PR 1118.1. Any construction activities would be temporary. Therefore, since no increase in local population would be anticipated as a result of implementing PR 1118.1, there would be no corresponding impacts to local schools and there would be no corresponding need for new or physically altered public facilities in order to maintain acceptable service ratios, response times, or other performance objectives. Therefore, no impacts would be expected to schools or other public facilities.

Conclusion

Based upon these considerations, significant adverse public services impacts are not expected from implementing PR 1118.1. Since no significant public services impacts were identified, no mitigation measures are necessary or required.

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
XV. RECREATION.				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☑
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment or recreational services?	☐	☐	☐	☑

Significance Criteria

Impacts to recreation will be considered significant if:

- The project results in an increased demand for neighborhood or regional parks or other recreational facilities.
- The project adversely affects existing recreational opportunities.

Discussion

PR 1118.1 will reduce NOx and VOC emissions from non-refinery flares and encourage alternatives to flaring. PR 1118.1 applies to owners and operators of flares that require a SCAQMD permit, including, but not limited to, oil and gas production, wastewater treatment facilities, landfills, organic liquid loading stations, and tank farms. The proposed rule includes NOx, CO, and VOC emission limits that reflect BARCT standards and a capacity threshold that seeks to identify routine flaring. For flares that exceed the capacity threshold, either a reduction in flare throughput or replacement with a flare with lower emissions will be required. The capacity threshold varies depending on the type of gas being flared (e.g., landfill, digester, produced) and the type of flare equipment (e.g., open flare versus a shrouded flare). PR 1118.1 provides an exemption for low-use and low-emitting flares. Additionally, PR 1118.1 establishes provisions for source testing, monitoring, reporting, and recordkeeping. Of the ~~288~~ 295 flares at ~~146~~ 153 facilities affected by PR 1118.1: 25 flares at 16 facilities would require either a flare replacement to reduce emissions, or an alternative project to reduce flare gas throughput such as the installation of a fuel cell, gas processing, and gas compression and transport system; ~~28~~ 36 flares would need to undergo additional source testing; and 10 flares would need to have flow meters installed.

XV. a) & b) No Impact. As previously explained in Section XIII – Population and Housing, PR 1118.1 is not expected to affect population growth or distribution within the SCAQMD's jurisdiction because workers needed to conduct construction activities to comply with PR 1118.1 can be supplied by the existing labor pool in the local Southern California area and no additional employees are expected long-term to comply with operational requirements. Further, all facilities subject to PR 1118.1 currently have existing air pollution control devices or systems with onsite

personnel trained to maintain the equipment. As such, PR 1118.1 is not anticipated to generate any significant adverse effects, either indirectly or directly on population growth within the SCAQMD's jurisdiction or population distribution, thus no additional demand for recreational facilities would be expected. Further, no provisions in PR 1118.1 could increase the demand for or use of existing neighborhood and regional parks or other recreational facilities or require the construction of new or expansion of existing recreational facilities that might have an adverse physical effect on the environment because it would not directly or indirectly increase or redistribute population.

Conclusion

Based upon these considerations, significant adverse recreation impacts are not expected from implementing PR 1118.1. Since no significant recreation impacts were identified, no mitigation measures are necessary or required.

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
XVI. SOLID AND HAZARDOUS WASTE. Would the project:				
a) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☑	☐
b) Comply with federal, state, and local statutes and regulations related to solid and hazardous waste?	☐	☐	☑	☐

Significance Criteria

The proposed project impacts on solid and hazardous waste will be considered significant if the following occurs:

- The generation and disposal of hazardous and non-hazardous waste exceeds the capacity of designated landfills.

Discussion

PR 1118.1 will reduce NOx and VOC emissions from non-refinery flares and encourage alternatives to flaring. PR 1118.1 applies to owners and operators of flares that require a SCAQMD permit, including, but not limited to, oil and gas production, wastewater treatment facilities, landfills, organic liquid loading stations, and tank farms. The proposed rule includes NOx, CO, and VOC emission limits that reflect BARCT standards and a capacity threshold that seeks to identify routine flaring. For flares that exceed the capacity threshold, either a reduction in flare throughput or replacement with a flare with lower emissions will be required. The capacity threshold varies depending on the type of gas being flared (e.g., landfill, digester, produced) and the type of flare equipment (e.g., open flare versus a shrouded flare). PR 1118.1 provides an exemption for low-use and low-emitting flares. Additionally, PR 1118.1 establishes provisions for source testing, monitoring, reporting, and recordkeeping. Of the ~~288~~ 295 flares at ~~146~~ 153 facilities affected by PR 1118.1: 25 flares at 16 facilities would require either a flare replacement to reduce emissions, or an alternative project to reduce flare gas throughput such as the installation of a fuel cell, gas processing, and gas compression and transport system; ~~28~~ 36 flares would need to undergo additional source testing; and 10 flares would need to have flow meters installed.

XVI. a & b) Less Than Significant Impact. PR 1118.1 may cause some minor construction activities to occur at 16 facilities, and these activities may result in the generation of some solid construction waste that may need to be disposed of in a landfill. PR 1118.1 does not contain any requirements that would cause existing practices for disposing of solid and hazardous waste to change. For this reason, facilities that currently comply with all applicable local, state, or federal waste disposal regulations would not be expected to change their current practices if PR 1118.1 is implemented. If a facility does choose to construct an alternative beneficial use project to reduce flare gas throughput such as a fuel cell and gas processing, compression, and transport system there is a possibility that small amounts of waste will be generated from replacement of parts during routine servicing and maintenance of the system. The amount of waste generated would be negligible when considering the facilities regular waste generation from ordinary operations.

Thus, implementation of PR 1118.1 is not expected to interfere with any affected facility's ability to comply with applicable local, state, or federal waste disposal regulations in a manner that would cause a significant adverse solid and hazardous impact.

Conclusion

Based upon these considerations, significant adverse solid and hazardous waste impacts are not expected from implementing PR 1118.1. Since no significant solid and hazardous waste impacts were identified, no mitigation measures are necessary or required.

		Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
XVII. TRANSPORTATION AND TRAFFIC. Would the project:					
a)	Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☐	☐	☑	☐
b)	Conflict with an applicable congestion management program, including but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	☐	☐	☑	☐
c)	Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	☑
d)	Substantially increase hazards due to a design feature (e.g. sharp curves or dangerous intersections) or incompatible uses (e.g. farm equipment)?	☐	☐	☐	☑
e)	Result in inadequate emergency access?	☐	☐	☐	☑
f)	Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	☐	☐	☐	☑

Significance Criteria

Impacts on transportation and traffic will be considered significant if any of the following criteria apply:

- Peak period levels on major arterials are disrupted to a point where level of service (LOS) is reduced to D, E or F for more than one month.
- An intersection's volume to capacity ratio increase by 0.02 (two percent) or more when the LOS is already D, E or F.
- A major roadway is closed to all through traffic, and no alternate route is available.
- The project conflicts with applicable policies, plans or programs establishing measures of effectiveness, thereby decreasing the performance or safety of any mode of transportation.
- There is an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system.
- The demand for parking facilities is substantially increased.
- Water borne, rail car or air traffic is substantially altered.
- Traffic hazards to motor vehicles, bicyclists or pedestrians are substantially increased.
- The need for more than 350 employees.
- An increase in heavy-duty transport truck traffic to and/or from the facility by more than 350 truck round trips per day.
- Increase customer traffic by more than 700 visits per day.

Discussion

PR 1118.1 will reduce NOx and VOC emissions from non-refinery flares and encourage alternatives to flaring. PR 1118.1 applies to owners and operators of flares that require a SCAQMD permit, including, but not limited to, oil and gas production, wastewater treatment facilities, landfills, organic liquid loading stations, and tank farms. The proposed rule includes NOx, CO, and VOC emission limits that reflect BARCT standards and a capacity threshold that seeks to identify routine flaring. For flares that exceed the capacity threshold, either a reduction in flare throughput or replacement with a flare with lower emissions will be required. The capacity threshold varies depending on the type of gas being flared (e.g., landfill, digester, produced) and the type of flare equipment (e.g., open flare versus a shrouded flare). PR 1118.1 provides an exemption for low-use and low-emitting flares. Additionally, PR 1118.1 establishes provisions for source testing, monitoring, reporting, and recordkeeping. Of the ~~288~~ 295 flares at ~~146~~ 153 facilities affected by PR 1118.1: 25 flares at 16 facilities would require either a flare replacement to reduce emissions, or an alternative project to reduce flare gas throughput such as the installation of a fuel cell, gas processing, and gas compression and transport system; ~~28~~ 36 flares would need to undergo additional source testing; and 10 flares would need to have flow meters installed.

XVII. a) & b) Less than Significant Impact. As previously discussed in Section III – Air Quality and Greenhouse Gas Emissions, compliance with PR 1118.1 would require construction activities related to replacing flares or constructing beneficial use projects as well as source testing, and regular trips to transport compressed natural gas. On a peak day, 12 facilities were assumed to undergo overlapping construction activities and if all the affected facilities complete their requirements on the same day, 125 light duty trucks would be used. A peak operational day, which

would include 43 heavy-duty trucks for CNG transport and possibly one or two more passenger vehicle trips associated with conducting source test or CNG system equipment maintenance, would generate fewer trips than during construction. In either scenario, the number of round trips that may occur on a peak day as a result of implementing PR 1118.1 are less than the significance threshold of 350 round trips. Traffic and transportation activities occurring during construction and operation are not expected to cause any significant adverse impacts to traffic and transportation.

XVII. c) No Impact. As explained previously in Section VIII – Hazards and Hazardous Materials, there are 14 facilities located within two miles of an airport, however no provisions of PR 1118.1 will result in a change in location of any airport, and increase in air traffic levels, or a change in in air traffic. Further, as explained in Section XIII – Population and Housing, since implementation of PR 1118.1 is not expected to require a substantial amount of additional workers on a temporary or permanent basis, no additional air traffic is anticipated. Therefore, implementation of PR 1118.1 is not expected to adversely affect air traffic patterns.

XVII. d) & e) No Impact. PR 1118.1 does not involve or require the construction of new roadways, alter existing roadways, or introduce incompatible uses to existing roadways, because the focus of the proposed rule is to control NOx, VOC, and CO emissions from non-refinery flares. Thus, there will be no change to current public roadway designs that could increase traffic hazards. Further, PR 1118.1 is not expected to substantially increase traffic hazards or create incompatible uses at or adjacent to the facilities. Construction-related activities associated with flare replacements or alternative beneficial use projects are expected to be temporary and are expected to involve short-term construction activities such as delivery truck trips which would cease after construction is completed. The proposed project is not expected to alter the existing long–term circulation patterns within the areas of each affected facility during construction. Similarly, during operation, the projected increase of additional vehicle trips that may be needed at each affected facility would be at less than significant levels individually and cumulatively such that the implementation of the proposed project is not expected to require a modification to traffic circulation. Thus, no long-term impacts on the traffic circulation system are expected to occur during construction or operation. Further, impacts to existing emergency access at the affected facilities would also not be affected because PR 1118.1 does not contain any requirements specific to emergency access points and each facility would be expected to continue to maintain their existing emergency access. As a result, PR 1118.1 is not expected to adversely impact emergency access.

XVII. f) No Impact. Since implementation of PR 1118.1 is not expected to require permanent additional workers as discussed in Section XIII – Population and Housing a), no operational traffic impacts are expected to occur and consequently. Parking may be necessary at the 28 facilities that require periodic source testing when workers are visiting the facilities, however, it would be expected only one to two workers would visit during a source test. Therefore, PR 1118.1 is not expected to adversely impact on- or off-site parking capacity. PR 1118.1 has no provisions that would conflict with alternative transportation, such as bus turnouts, bicycle racks, etcetera. Further, affected facilities would still be expected to comply with, and not interfere with adopted policies, plans, or programs supporting alternative transportation (e.g., bicycles or buses) that exist in their respective cities. In addition, implementing PR 1118.1 would be expected to occur at existing facilities and thus, would not have an impact on each facility's ability to comply with any applicable alternative transportation plans or policies.

Conclusion

Based upon these considerations, significant adverse transportation and traffic impacts are not expected from implementing PR 1118.1. Since no significant transportation and traffic impacts were identified, no mitigation measures are necessary or required.

	Potentially Significant Impact	Less Than Significant With Mitigation	Less Than Significant Impact	No Impact
XVIII. MANDATORY FINDINGS OF SIGNIFICANCE.				
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☐	☐	☑
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)	☐	☐	☑	☐
c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☑	☐

Discussion

PR 1118.1 will reduce NOx and VOC emissions from non-refinery flares and encourage alternatives to flaring. PR 1118.1 applies to owners and operators of flares that require a SCAQMD permit, including, but not limited to, oil and gas production, wastewater treatment facilities, landfills, organic liquid loading stations, and tank farms. The proposed rule includes NOx, CO, and VOC emission limits that reflect BARCT standards and a capacity threshold that seeks to identify routine flaring. For flares that exceed the capacity threshold, either a reduction in flare throughput or replacement with a flare with lower emissions will be required. The capacity threshold varies depending on the type of gas being flared (e.g., landfill, digester, produced) and the type of flare equipment (e.g., open flare versus a shrouded flare). PR 1118.1 provides an exemption for low-use and low-emitting flares. Additionally, PR 1118.1 establishes provisions for source testing, monitoring, reporting, and recordkeeping. Of the ~~288~~ 295 flares at ~~146~~ 153 facilities affected by PR 1118.1: 25 flares at 16 facilities would require either a flare replacement to reduce emissions, or an alternative project to reduce flare gas throughput such as the installation of a fuel cell, gas

processing, and gas compression and transport system; ~~28~~ 36 flares would need to undergo additional source testing; and 10 flares would need to have flow meters installed.

XVIII. a) No Impact. As explained in Section IV - Biological Resources, PR 1118.1 is not expected to significantly adversely affect plant or animal species or the habitat on which they rely because any construction and operational activities associated with the facilities are expected to occur entirely within the boundaries of existing developed facilities in areas that have been greatly disturbed and that currently do not support any species of concern or the habitat on which they rely. For these reasons, PR 1118.1 is not expected to reduce or eliminate any plant or animal species or destroy prehistoric records of the past.

XVIII. b) Less Than Significant Impact. Based on the foregoing analyses, PR 1118.1 would not result in significant adverse project-specific environmental impacts. Potential adverse impacts from implementing PR 1118.1 would not be "cumulatively considerable" as defined by CEQA Guidelines Section 15064(h)(1) for any environmental topic because there are no, or only minor incremental project-specific impacts that were concluded to be less than significant. Per CEQA Guidelines Section 15064(h)(4), the mere existence of significant cumulative impacts caused by other projects alone shall not constitute substantial evidence that the proposed project's incremental effects are cumulative considerable. SCAQMD cumulative significant thresholds are the same as project-specific significance thresholds.

Therefore, there is no potential for significant adverse cumulative or cumulatively considerable impacts to be generated by PR 1118.1 for any environmental topic area.

XVIII. c) Less Than Significant Impact. Based on the foregoing analyses, PR 1118.1 is not expected to cause adverse effects on human beings for any environmental topic, either directly or indirectly because: 1) aesthetic impacts were determined to be less than significant as analyzed in Section I - Aesthetics; 2) the air quality and GHG impacts were determined to be less than the significance thresholds as analyzed in Section III – Air Quality and Greenhouse Gases; 3) energy impacts were determined to be less than significant as analyzed in Section VI – Energy; 4) geological and soil impacts were determined to be less than significant as analyzed in VII – Geology and Soils; 5) the hazards and hazardous materials impacts were determined to be less than significant as analyzed in Section VIII – Hazards and Hazardous Materials; 6) the increased water usage and wastewater was determined to be less than significant as analyzed in Section IX – Hydrology and Water Quality; 7) the noise impacts were determined to be less than significant as analyzed in Section XII – Noise; 8) public services such as fire protection and police protection were determined to be less than the significance thresholds as analyzed in Section XIV – Public Services; 9) solid and hazardous waste impacts were determined to be less than significant as analyzed in Section XVI – Solid and Hazardous Waste; and 10) transportation and traffic impacts were determined to be less than the significant as analyzed in Section XVII – Transportation and Traffic. In addition, the analysis concluded that there would be no significant environmental impacts for the remaining environmental impact topic areas: agriculture and forestry resources, biological resources, cultural resources, land use and planning, mineral resources, population and housing, recreation, and solid and hazardous waste.

Conclusion

As previously discussed in environmental topics I through XVIII, the proposed project has no potential to cause significant adverse environmental effects. Since no mitigation measures are necessary or required.

APPENDICES

APPENDIX A

Proposed Rule 1118.1 – Control of Emissions from Non-Refinery Flares

In order to save space and avoid repetition, please refer to the latest version of PR 1118.1 located elsewhere in the Governing Board Package (meeting date January 4, 2019). The version of PR 1118.1 that was circulated with the Draft EA and released on October 26, 2018 for a 32-day public review and comment period ending on November 27, 2018 was identified as "Proposed Rule 1118.1: Preliminary Draft Rule Language (9/21/2018)." Original hard copies of the Draft EA, which include the draft version of the proposed amended rule listed above, can be obtained by visiting the Public Information Center at SCAQMD Headquarters located at 21865 Copley Drive, Diamond Bar, CA 91765, by contacting Fabian Wesson, Public Advisor by phone at (909) 396-2039 or by email at PICrequests@aqmd.gov.

APPENDIX B

CalEEMod Files

APPENDIX B-1

CalEEMod Files – Flare Replacement

1118.1 Flare Replacement - South Coast Air Basin, Annual

1118.1 Flare Replacement

South Coast Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Heavy Industry	5.00	1000sqft	0.11	5,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	11			**Operational Year**	2020
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	1227.89	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - 6 Weeks construction to install up to 4 new CEB/ZULE flares

Off-road Equipment - 1 A-frame truck crane needed to remove old flare. 1 Backhoe needed for demolition.

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Equipment is skid mounted. Crane and forklift and welder needed for installation.

Demolition -

1118.1 Flare Replacement - South Coast Air Basin, Annual

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	100.00	30.00
tblConstructionPhase	PhaseEndDate	3/7/2019	11/29/2018
tblOffRoadEquipment	HorsePower	231.00	247.00
tblOffRoadEquipment	LoadFactor	0.29	0.40
tblOffRoadEquipment	OffRoadEquipmentType		Welders
tblOffRoadEquipment	OffRoadEquipmentType	Rubber Tired Dozers	Cranes
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00

2.0 Emissions Summary

1118.1 Flare Replacement - South Coast Air Basin, Annual

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2018	0.0178	0.1487	0.0884	1.6000e-004	1.0300e-003	7.8900e-003	8.9200e-003	2.3000e-004	7.4000e-003	7.6300e-003	0.0000	13.7445	13.7445	3.6800e-003	0.0000	13.8366
Maximum	**0.0178**	**0.1487**	**0.0884**	**1.6000e-004**	**1.0300e-003**	**7.8900e-003**	**8.9200e-003**	**2.3000e-004**	**7.4000e-003**	**7.6300e-003**	**0.0000**	**13.7445**	**13.7445**	**3.6800e-003**	**0.0000**	**13.8366**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2018	0.0178	0.1487	0.0884	1.6000e-004	1.0300e-003	7.8900e-003	8.9200e-003	2.3000e-004	7.4000e-003	7.6300e-003	0.0000	13.7445	13.7445	3.6800e-003	0.0000	13.8366
Maximum	**0.0178**	**0.1487**	**0.0884**	**1.6000e-004**	**1.0300e-003**	**7.8900e-003**	**8.9200e-003**	**2.3000e-004**	**7.4000e-003**	**7.6300e-003**	**0.0000**	**13.7445**	**13.7445**	**3.6800e-003**	**0.0000**	**13.8366**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

1118.1 Flare Replacement - South Coast Air Basin, Annual

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
		Highest		

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0204	0.0000	6.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.2000e-004	1.2000e-004	0.0000	0.0000	1.3000e-004
Energy	4.9000e-004	4.4400e-003	3.7300e-003	3.0000e-005		3.4000e-004	3.4000e-004		3.4000e-004	3.4000e-004	0.0000	35.7408	35.7408	8.2000e-004	2.4000e-004	35.8328
Mobile	2.9100e-003	0.0166	0.0441	1.5000e-004	0.0126	1.6000e-004	0.0128	3.3800e-003	1.5000e-004	3.5300e-003	0.0000	14.2703	14.2703	7.1000e-004	0.0000	14.2880
Waste						0.0000	0.0000		0.0000	0.0000	1.2585	0.0000	1.2585	0.0744	0.0000	3.1180
Water						0.0000	0.0000		0.0000	0.0000	0.3668	8.3854	8.7522	0.0379	9.3000e-004	9.9764
Total	**0.0238**	**0.0210**	**0.0479**	**1.8000e-004**	**0.0126**	**5.0000e-004**	**0.0131**	**3.3800e-003**	**4.9000e-004**	**3.8700e-003**	**1.6254**	**58.3966**	**60.0219**	**0.1138**	**1.1700e-003**	**63.2152**

1118.1 Flare Replacement - South Coast Air Basin, Annual

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0204	0.0000	6.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.2000e-004	1.2000e-004	0.0000	0.0000	1.3000e-004
Energy	4.9000e-004	4.4400e-003	3.7300e-003	3.0000e-005		3.4000e-004	3.4000e-004		3.4000e-004	3.4000e-004	0.0000	35.7408	35.7408	8.2000e-004	2.4000e-004	35.8328
Mobile	2.9100e-003	0.0166	0.0441	1.5000e-004	0.0126	1.6000e-004	0.0128	3.3800e-003	1.5000e-004	3.5300e-003	0.0000	14.2703	14.2703	7.1000e-004	0.0000	14.2880
Waste						0.0000	0.0000		0.0000	0.0000	1.2585	0.0000	1.2585	0.0744	0.0000	3.1180
Water						0.0000	0.0000		0.0000	0.0000	0.3668	8.3854	8.7522	0.0379	9.3000e-004	9.9764
Total	**0.0238**	**0.0210**	**0.0479**	**1.8000e-004**	**0.0126**	**5.0000e-004**	**0.0131**	**3.3800e-003**	**4.9000e-004**	**3.8700e-003**	**1.6254**	**58.3966**	**60.0219**	**0.1138**	**1.1700e-003**	**63.2152**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	10/2/2018	10/15/2018	5	10	
2	Site Preparation	Site Preparation	10/16/2018	10/16/2018	5	1	
3	Building Construction	Building Construction	10/19/2018	11/29/2018	5	30	

1118.1 Flare Replacement - South Coast Air Basin, Annual

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Rubber Tired Dozers	0	1.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Site Preparation	Graders	1	8.00	187	0.41
Demolition	Cranes	1	6.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	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
Building Construction	3	2.00	1.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	2	5.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

1118.1 Flare Replacement - South Coast Air Basin, Annual

3.2 Demolition - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					4.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.1500e-003	0.0476	0.0227	4.0000e-005		2.3300e-003	2.3300e-003		2.1400e-003	2.1400e-003	0.0000	3.9771	3.9771	1.2400e-003	0.0000	4.0081
Total	**4.1500e-003**	**0.0476**	**0.0227**	**4.0000e-005**	**4.0000e-005**	**2.3300e-003**	**2.3700e-003**	**1.0000e-005**	**2.1400e-003**	**2.1500e-003**	**0.0000**	**3.9771**	**3.9771**	**1.2400e-003**	**0.0000**	**4.0081**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	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	1.3000e-004	1.1000e-004	1.1700e-003	0.0000	2.7000e-004	0.0000	2.8000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.2634	0.2634	1.0000e-005	0.0000	0.2636
Total	**1.3000e-004**	**1.1000e-004**	**1.1700e-003**	**0.0000**	**2.7000e-004**	**0.0000**	**2.8000e-004**	**7.0000e-005**	**0.0000**	**7.0000e-005**	**0.0000**	**0.2634**	**0.2634**	**1.0000e-005**	**0.0000**	**0.2636**

1118.1 Flare Replacement - South Coast Air Basin, Annual

3.2 Demolition - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					4.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.1500e-003	0.0476	0.0227	4.0000e-005		2.3300e-003	2.3300e-003		2.1400e-003	2.1400e-003	0.0000	3.9771	3.9771	1.2400e-003	0.0000	4.0081
Total	**4.1500e-003**	**0.0476**	**0.0227**	**4.0000e-005**	**4.0000e-005**	**2.3300e-003**	**2.3700e-003**	**1.0000e-005**	**2.1400e-003**	**2.1500e-003**	**0.0000**	**3.9771**	**3.9771**	**1.2400e-003**	**0.0000**	**4.0081**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	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	1.3000e-004	1.1000e-004	1.1700e-003	0.0000	2.7000e-004	0.0000	2.8000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.2634	0.2634	1.0000e-005	0.0000	0.2636
Total	**1.3000e-004**	**1.1000e-004**	**1.1700e-003**	**0.0000**	**2.7000e-004**	**0.0000**	**2.8000e-004**	**7.0000e-005**	**0.0000**	**7.0000e-005**	**0.0000**	**0.2634**	**0.2634**	**1.0000e-005**	**0.0000**	**0.2636**

1118.1 Flare Replacement - South Coast Air Basin, Annual

3.3 Site Preparation - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.7000e-004	0.0000	2.7000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.9000e-004	4.8800e-003	2.1300e-003	0.0000		2.1000e-004	2.1000e-004		1.9000e-004	1.9000e-004	0.0000	0.4458	0.4458	1.4000e-004	0.0000	0.4492
Total	**3.9000e-004**	**4.8800e-003**	**2.1300e-003**	**0.0000**	**2.7000e-004**	**2.1000e-004**	**4.8000e-004**	**3.0000e-005**	**1.9000e-004**	**2.2000e-004**	**0.0000**	**0.4458**	**0.4458**	**1.4000e-004**	**0.0000**	**0.4492**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	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	1.0000e-005	1.0000e-005	1.2000e-004	0.0000	3.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0263	0.0263	0.0000	0.0000	0.0264
Total	**1.0000e-005**	**1.0000e-005**	**1.2000e-004**	**0.0000**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0263**	**0.0263**	**0.0000**	**0.0000**	**0.0264**

1118.1 Flare Replacement - South Coast Air Basin, Annual

3.3 Site Preparation - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.7000e-004	0.0000	2.7000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.9000e-004	4.8800e-003	2.1300e-003	0.0000		2.1000e-004	2.1000e-004		1.9000e-004	1.9000e-004	0.0000	0.4458	0.4458	1.4000e-004	0.0000	0.4492
Total	**3.9000e-004**	**4.8800e-003**	**2.1300e-003**	**0.0000**	**2.7000e-004**	**2.1000e-004**	**4.8000e-004**	**3.0000e-005**	**1.9000e-004**	**2.2000e-004**	**0.0000**	**0.4458**	**0.4458**	**1.4000e-004**	**0.0000**	**0.4492**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	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	1.0000e-005	1.0000e-005	1.2000e-004	0.0000	3.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0263	0.0263	0.0000	0.0000	0.0264
Total	**1.0000e-005**	**1.0000e-005**	**1.2000e-004**	**0.0000**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0263**	**0.0263**	**0.0000**	**0.0000**	**0.0264**

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3.4 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0129	0.0941	0.0604	1.0000e-004		5.3300e-003	5.3300e-003		5.0400e-003	5.0400e-003	0.0000	8.3432	8.3432	2.2600e-003	0.0000	8.3997
Total	**0.0129**	**0.0941**	**0.0604**	**1.0000e-004**		**5.3300e-003**	**5.3300e-003**		**5.0400e-003**	**5.0400e-003**	**0.0000**	**8.3432**	**8.3432**	**2.2600e-003**	**0.0000**	**8.3997**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	7.0000e-005	1.8600e-003	4.9000e-004	0.0000	9.0000e-005	1.0000e-005	1.1000e-004	3.0000e-005	1.0000e-005	4.0000e-005	0.0000	0.3727	0.3727	3.0000e-005	0.0000	0.3734
Worker	1.6000e-004	1.3000e-004	1.4000e-003	0.0000	3.3000e-004	0.0000	3.3000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.3161	0.3161	1.0000e-005	0.0000	0.3163
Total	**2.3000e-004**	**1.9900e-003**	**1.8900e-003**	**0.0000**	**4.2000e-004**	**1.0000e-005**	**4.4000e-004**	**1.2000e-004**	**1.0000e-005**	**1.3000e-004**	**0.0000**	**0.6888**	**0.6888**	**4.0000e-005**	**0.0000**	**0.6897**

3.4 Building Construction - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0129	0.0941	0.0604	1.0000e-004		5.3300e-003	5.3300e-003		5.0400e-003	5.0400e-003	0.0000	8.3432	8.3432	2.2600e-003	0.0000	8.3997
Total	**0.0129**	**0.0941**	**0.0604**	**1.0000e-004**		**5.3300e-003**	**5.3300e-003**		**5.0400e-003**	**5.0400e-003**	**0.0000**	**8.3432**	**8.3432**	**2.2600e-003**	**0.0000**	**8.3997**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	7.0000e-005	1.8600e-003	4.9000e-004	0.0000	9.0000e-005	1.0000e-005	1.1000e-004	3.0000e-005	1.0000e-005	4.0000e-005	0.0000	0.3727	0.3727	3.0000e-005	0.0000	0.3734
Worker	1.6000e-004	1.3000e-004	1.4000e-003	0.0000	3.3000e-004	0.0000	3.3000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.3161	0.3161	1.0000e-005	0.0000	0.3163
Total	**2.3000e-004**	**1.9900e-003**	**1.8900e-003**	**0.0000**	**4.2000e-004**	**1.0000e-005**	**4.4000e-004**	**1.2000e-004**	**1.0000e-005**	**1.3000e-004**	**0.0000**	**0.6888**	**0.6888**	**4.0000e-005**	**0.0000**	**0.6897**

4.0 Operational Detail - Mobile

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4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	2.9100e-003	0.0166	0.0441	1.5000e-004	0.0126	1.6000e-004	0.0128	3.3800e-003	1.5000e-004	3.5300e-003	0.0000	14.2703	14.2703	7.1000e-004	0.0000	14.2880
Unmitigated	2.9100e-003	0.0166	0.0441	1.5000e-004	0.0126	1.6000e-004	0.0128	3.3800e-003	1.5000e-004	3.5300e-003	0.0000	14.2703	14.2703	7.1000e-004	0.0000	14.2880

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Heavy Industry	7.50	7.50	7.50	33,212	33,212
Total	7.50	7.50	7.50	33,212	33,212

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Heavy Industry	16.60	8.40	6.90	59.00	28.00	13.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Heavy Industry	0.550339	0.043800	0.200255	0.122233	0.016799	0.005871	0.020633	0.029727	0.002027	0.001932	0.004726	0.000704	0.000955

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5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	30.9114	30.9114	7.3000e-004	1.5000e-004	30.9746
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	30.9114	30.9114	7.3000e-004	1.5000e-004	30.9746
NaturalGas Mitigated	4.9000e-004	4.4400e-003	3.7300e-003	3.0000e-005		3.4000e-004	3.4000e-004		3.4000e-004	3.4000e-004	0.0000	4.8294	4.8294	9.0000e-005	9.0000e-005	4.8581
NaturalGas Unmitigated	4.9000e-004	4.4400e-003	3.7300e-003	3.0000e-005		3.4000e-004	3.4000e-004		3.4000e-004	3.4000e-004	0.0000	4.8294	4.8294	9.0000e-005	9.0000e-005	4.8581

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5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Heavy Industry	90500	4.9000e-004	4.4400e-003	3.7300e-003	3.0000e-005		3.4000e-004	3.4000e-004		3.4000e-004	3.4000e-004	0.0000	4.8294	4.8294	9.0000e-005	9.0000e-005	4.8581
Total		**4.9000e-004**	**4.4400e-003**	**3.7300e-003**	**3.0000e-005**		**3.4000e-004**	**3.4000e-004**		**3.4000e-004**	**3.4000e-004**	**0.0000**	**4.8294**	**4.8294**	**9.0000e-005**	**9.0000e-005**	**4.8581**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Heavy Industry	90500	4.9000e-004	4.4400e-003	3.7300e-003	3.0000e-005		3.4000e-004	3.4000e-004		3.4000e-004	3.4000e-004	0.0000	4.8294	4.8294	9.0000e-005	9.0000e-005	4.8581
Total		**4.9000e-004**	**4.4400e-003**	**3.7300e-003**	**3.0000e-005**		**3.4000e-004**	**3.4000e-004**		**3.4000e-004**	**3.4000e-004**	**0.0000**	**4.8294**	**4.8294**	**9.0000e-005**	**9.0000e-005**	**4.8581**

1118.1 Flare Replacement - South Coast Air Basin, Annual

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Heavy Industry	55500	30.9114	7.3000e-004	1.5000e-004	30.9746
Total		**30.9114**	**7.3000e-004**	**1.5000e-004**	**30.9746**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Heavy Industry	55500	30.9114	7.3000e-004	1.5000e-004	30.9746
Total		**30.9114**	**7.3000e-004**	**1.5000e-004**	**30.9746**

6.0 Area Detail

6.1 Mitigation Measures Area

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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	tons/yr										MT/yr					
Mitigated	0.0204	0.0000	6.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.2000e-004	1.2000e-004	0.0000	0.0000	1.3000e-004
Unmitigated	0.0204	0.0000	6.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.2000e-004	1.2000e-004	0.0000	0.0000	1.3000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	2.3200e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0181					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	6.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.2000e-004	1.2000e-004	0.0000	0.0000	1.3000e-004
Total	**0.0204**	**0.0000**	**6.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.2000e-004**	**1.2000e-004**	**0.0000**	**0.0000**	**1.3000e-004**

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6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	2.3200e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0181					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	6.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.2000e-004	1.2000e-004	0.0000	0.0000	1.3000e-004
Total	**0.0204**	**0.0000**	**6.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.2000e-004**	**1.2000e-004**	**0.0000**	**0.0000**	**1.3000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

1118.1 Flare Replacement - South Coast Air Basin, Annual

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	8.7522	0.0379	9.3000e-004	9.9764
Unmitigated	8.7522	0.0379	9.3000e-004	9.9764

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Heavy Industry	1.15625 / 0	8.7522	0.0379	9.3000e-004	9.9764
Total		**8.7522**	**0.0379**	**9.3000e-004**	**9.9764**

1118.1 Flare Replacement - South Coast Air Basin, Annual

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Heavy Industry	1.15625 / 0	8.7522	0.0379	9.3000e-004	9.9764
Total		**8.7522**	**0.0379**	**9.3000e-004**	**9.9764**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	1.2585	0.0744	0.0000	3.1180
Unmitigated	1.2585	0.0744	0.0000	3.1180

1118.1 Flare Replacement - South Coast Air Basin, Annual

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Heavy Industry	6.2	1.2585	0.0744	0.0000	3.1180
Total		**1.2585**	**0.0744**	**0.0000**	**3.1180**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Heavy Industry	6.2	1.2585	0.0744	0.0000	3.1180
Total		**1.2585**	**0.0744**	**0.0000**	**3.1180**

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

1118.1 Flare Replacement - South Coast Air Basin, Summer

1118.1 Flare Replacement

South Coast Air Basin, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Heavy Industry	5.00	1000sqft	0.11	5,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	11			**Operational Year**	2020
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	1227.89	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - 6 Weeks construction to install up to 4 new CEB/ZULE flares

Off-road Equipment - 1 A-frame truck crane needed to remove old flare. 1 Backhoe needed for demolition.

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Equipment is skid mounted. Crane and forklift and welder needed for installation.

Demolition -

1118.1 Flare Replacement - South Coast Air Basin, Summer

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	100.00	30.00
tblConstructionPhase	PhaseEndDate	3/7/2019	11/29/2018
tblOffRoadEquipment	HorsePower	231.00	247.00
tblOffRoadEquipment	LoadFactor	0.29	0.40
tblOffRoadEquipment	OffRoadEquipmentType		Welders
tblOffRoadEquipment	OffRoadEquipmentType	Rubber Tired Dozers	Cranes
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00

2.0 Emissions Summary

1118.1 Flare Replacement - South Coast Air Basin, Summer

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2018	0.8757	9.7765	4.7922	0.0104	0.5861	0.4667	1.0046	0.0721	0.4294	0.4570	0.0000	1,043.6473	1,043.6473	0.3080	0.0000	1,051.3476
Maximum	**0.8757**	**9.7765**	**4.7922**	**0.0104**	**0.5861**	**0.4667**	**1.0046**	**0.0721**	**0.4294**	**0.4570**	**0.0000**	**1,043.6473**	**1,043.6473**	**0.3080**	**0.0000**	**1,051.3476**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2018	0.8757	9.7765	4.7922	0.0104	0.5861	0.4667	1.0046	0.0721	0.4294	0.4570	0.0000	1,043.6473	1,043.6473	0.3080	0.0000	1,051.3476
Maximum	**0.8757**	**9.7765**	**4.7922**	**0.0104**	**0.5861**	**0.4667**	**1.0046**	**0.0721**	**0.4294**	**0.4570**	**0.0000**	**1,043.6473**	**1,043.6473**	**0.3080**	**0.0000**	**1,051.3476**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

1118.1 Flare Replacement - South Coast Air Basin, Summer

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.1118	0.0000	5.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.0900e-003	1.0900e-003	0.0000		1.1700e-003
Energy	2.6700e-003	0.0243	0.0204	1.5000e-004		1.8500e-003	1.8500e-003		1.8500e-003	1.8500e-003		29.1700	29.1700	5.6000e-004	5.3000e-004	29.3434
Mobile	0.0169	0.0866	0.2553	8.9000e-004	0.0706	8.6000e-004	0.0715	0.0189	8.1000e-004	0.0197		89.9044	89.9044	4.3300e-003		90.0126
Total	**0.1313**	**0.1109**	**0.2762**	**1.0400e-003**	**0.0706**	**2.7100e-003**	**0.0733**	**0.0189**	**2.6600e-003**	**0.0216**		**119.0755**	**119.0755**	**4.8900e-003**	**5.3000e-004**	**119.3572**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.1118	0.0000	5.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.0900e-003	1.0900e-003	0.0000		1.1700e-003
Energy	2.6700e-003	0.0243	0.0204	1.5000e-004		1.8500e-003	1.8500e-003		1.8500e-003	1.8500e-003		29.1700	29.1700	5.6000e-004	5.3000e-004	29.3434
Mobile	0.0169	0.0866	0.2553	8.9000e-004	0.0706	8.6000e-004	0.0715	0.0189	8.1000e-004	0.0197		89.9044	89.9044	4.3300e-003		90.0126
Total	**0.1313**	**0.1109**	**0.2762**	**1.0400e-003**	**0.0706**	**2.7100e-003**	**0.0733**	**0.0189**	**2.6600e-003**	**0.0216**		**119.0755**	**119.0755**	**4.8900e-003**	**5.3000e-004**	**119.3572**

1118.1 Flare Replacement - South Coast Air Basin, 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	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	10/2/2018	10/15/2018	5	10	
2	Site Preparation	Site Preparation	10/16/2018	10/16/2018	5	1	
3	Building Construction	Building Construction	10/19/2018	11/29/2018	5	30	

Acres of Grading (Site Preparation Phase): 0.5

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

1118.1 Flare Replacement - South Coast Air Basin, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Rubber Tired Dozers	0	1.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Site Preparation	Graders	1	8.00	187	0.41
Demolition	Cranes	1	6.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	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
Building Construction	3	2.00	1.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	2	5.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

1118.1 Flare Replacement - South Coast Air Basin, Summer

3.2 Demolition - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.5600e-003	0.0000	8.5600e-003	1.3000e-003	0.0000	1.3000e-003			0.0000			0.0000
Off-Road	0.8309	9.5170	4.5421	8.7100e-003		0.4663	0.4663		0.4290	0.4290		876.8018	876.8018	0.2730		883.6258
Total	**0.8309**	**9.5170**	**4.5421**	**8.7100e-003**	**8.5600e-003**	**0.4663**	**0.4748**	**1.3000e-003**	**0.4290**	**0.4303**		**876.8018**	**876.8018**	**0.2730**		**883.6258**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	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	0.0267	0.0193	0.2502	6.1000e-004	0.0559	4.5000e-004	0.0563	0.0148	4.1000e-004	0.0152		60.9360	60.9360	2.0800e-003		60.9881
Total	**0.0267**	**0.0193**	**0.2502**	**6.1000e-004**	**0.0559**	**4.5000e-004**	**0.0563**	**0.0148**	**4.1000e-004**	**0.0152**		**60.9360**	**60.9360**	**2.0800e-003**		**60.9881**

1118.1 Flare Replacement - South Coast Air Basin, Summer

3.2 Demolition - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.5600e-003	0.0000	8.5600e-003	1.3000e-003	0.0000	1.3000e-003			0.0000			0.0000
Off-Road	0.8309	9.5170	4.5421	8.7100e-003		0.4663	0.4663		0.4290	0.4290	0.0000	876.8018	876.8018	0.2730		883.6258
Total	**0.8309**	**9.5170**	**4.5421**	**8.7100e-003**	**8.5600e-003**	**0.4663**	**0.4748**	**1.3000e-003**	**0.4290**	**0.4303**	**0.0000**	**876.8018**	**876.8018**	**0.2730**		**883.6258**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	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	0.0267	0.0193	0.2502	6.1000e-004	0.0559	4.5000e-004	0.0563	0.0148	4.1000e-004	0.0152		60.9360	60.9360	2.0800e-003		60.9881
Total	**0.0267**	**0.0193**	**0.2502**	**6.1000e-004**	**0.0559**	**4.5000e-004**	**0.0563**	**0.0148**	**4.1000e-004**	**0.0152**		**60.9360**	**60.9360**	**2.0800e-003**		**60.9881**

1118.1 Flare Replacement - South Coast Air Basin, Summer

3.3 Site Preparation - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	0.7858	9.7572	4.2514	9.7600e-003		0.4180	0.4180		0.3846	0.3846		982.7113	982.7113	0.3059		990.3596
Total	**0.7858**	**9.7572**	**4.2514**	**9.7600e-003**	**0.5303**	**0.4180**	**0.9483**	**0.0573**	**0.3846**	**0.4418**		**982.7113**	**982.7113**	**0.3059**		**990.3596**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	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	0.0267	0.0193	0.2502	6.1000e-004	0.0559	4.5000e-004	0.0563	0.0148	4.1000e-004	0.0152		60.9360	60.9360	2.0800e-003		60.9881
Total	**0.0267**	**0.0193**	**0.2502**	**6.1000e-004**	**0.0559**	**4.5000e-004**	**0.0563**	**0.0148**	**4.1000e-004**	**0.0152**		**60.9360**	**60.9360**	**2.0800e-003**		**60.9881**

1118.1 Flare Replacement - South Coast Air Basin, Summer

3.3 Site Preparation - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	0.7858	9.7572	4.2514	9.7600e-003		0.4180	0.4180		0.3846	0.3846	0.0000	982.7113	982.7113	0.3059		990.3596
Total	**0.7858**	**9.7572**	**4.2514**	**9.7600e-003**	**0.5303**	**0.4180**	**0.9483**	**0.0573**	**0.3846**	**0.4418**	**0.0000**	**982.7113**	**982.7113**	**0.3059**		**990.3596**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	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	0.0267	0.0193	0.2502	6.1000e-004	0.0559	4.5000e-004	0.0563	0.0148	4.1000e-004	0.0152		60.9360	60.9360	2.0800e-003		60.9881
Total	**0.0267**	**0.0193**	**0.2502**	**6.1000e-004**	**0.0559**	**4.5000e-004**	**0.0563**	**0.0148**	**4.1000e-004**	**0.0152**		**60.9360**	**60.9360**	**2.0800e-003**		**60.9881**

1118.1 Flare Replacement - South Coast Air Basin, Summer

3.4 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8607	6.2732	4.0284	6.5800e-003		0.3554	0.3554		0.3360	0.3360		613.1174	613.1174	0.1661		617.2693
Total	**0.8607**	**6.2732**	**4.0284**	**6.5800e-003**		**0.3554**	**0.3554**		**0.3360**	**0.3360**		**613.1174**	**613.1174**	**0.1661**		**617.2693**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	4.3000e-003	0.1215	0.0308	2.6000e-004	6.4000e-003	8.9000e-004	7.2900e-003	1.8400e-003	8.5000e-004	2.6900e-003		27.7009	27.7009	1.9100e-003		27.7488
Worker	0.0107	7.7000e-003	0.1001	2.4000e-004	0.0224	1.8000e-004	0.0225	5.9300e-003	1.7000e-004	6.0900e-003		24.3744	24.3744	8.3000e-004		24.3952
Total	**0.0150**	**0.1292**	**0.1309**	**5.0000e-004**	**0.0288**	**1.0700e-003**	**0.0298**	**7.7700e-003**	**1.0200e-003**	**8.7800e-003**		**52.0753**	**52.0753**	**2.7400e-003**		**52.1440**

3.4 Building Construction - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8607	6.2732	4.0284	6.5800e-003		0.3554	0.3554		0.3360	0.3360	0.0000	613.1174	613.1174	0.1661		617.2693
Total	**0.8607**	**6.2732**	**4.0284**	**6.5800e-003**		**0.3554**	**0.3554**		**0.3360**	**0.3360**	**0.0000**	**613.1174**	**613.1174**	**0.1661**		**617.2693**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	4.3000e-003	0.1215	0.0308	2.6000e-004	6.4000e-003	8.9000e-004	7.2900e-003	1.8400e-003	8.5000e-004	2.6900e-003		27.7009	27.7009	1.9100e-003		27.7488
Worker	0.0107	7.7000e-003	0.1001	2.4000e-004	0.0224	1.8000e-004	0.0225	5.9300e-003	1.7000e-004	6.0900e-003		24.3744	24.3744	8.3000e-004		24.3952
Total	**0.0150**	**0.1292**	**0.1309**	**5.0000e-004**	**0.0288**	**1.0700e-003**	**0.0298**	**7.7700e-003**	**1.0200e-003**	**8.7800e-003**		**52.0753**	**52.0753**	**2.7400e-003**		**52.1440**

4.0 Operational Detail - Mobile

1118.1 Flare Replacement - South Coast Air Basin, Summer

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0169	0.0866	0.2553	8.9000e-004	0.0706	8.6000e-004	0.0715	0.0189	8.1000e-004	0.0197		89.9044	89.9044	4.3300e-003		90.0126
Unmitigated	0.0169	0.0866	0.2553	8.9000e-004	0.0706	8.6000e-004	0.0715	0.0189	8.1000e-004	0.0197		89.9044	89.9044	4.3300e-003		90.0126

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Heavy Industry	7.50	7.50	7.50	33,212	33,212
Total	7.50	7.50	7.50	33,212	33,212

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Heavy Industry	16.60	8.40	6.90	59.00	28.00	13.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Heavy Industry	0.550339	0.043800	0.200255	0.122233	0.016799	0.005871	0.020633	0.029727	0.002027	0.001932	0.004726	0.000704	0.000955

1118.1 Flare Replacement - South Coast Air Basin, Summer

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	2.6700e-003	0.0243	0.0204	1.5000e-004		1.8500e-003	1.8500e-003		1.8500e-003	1.8500e-003		29.1700	29.1700	5.6000e-004	5.3000e-004	29.3434
NaturalGas Unmitigated	2.6700e-003	0.0243	0.0204	1.5000e-004		1.8500e-003	1.8500e-003		1.8500e-003	1.8500e-003		29.1700	29.1700	5.6000e-004	5.3000e-004	29.3434

1118.1 Flare Replacement - South Coast Air Basin, Summer

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Heavy Industry	247.945	2.6700e-003	0.0243	0.0204	1.5000e-004		1.8500e-003	1.8500e-003		1.8500e-003	1.8500e-003		29.1700	29.1700	5.6000e-004	5.3000e-004	29.3434
Total		**2.6700e-003**	**0.0243**	**0.0204**	**1.5000e-004**		**1.8500e-003**	**1.8500e-003**		**1.8500e-003**	**1.8500e-003**		**29.1700**	**29.1700**	**5.6000e-004**	**5.3000e-004**	**29.3434**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Heavy Industry	0.247945	2.6700e-003	0.0243	0.0204	1.5000e-004		1.8500e-003	1.8500e-003		1.8500e-003	1.8500e-003		29.1700	29.1700	5.6000e-004	5.3000e-004	29.3434
Total		**2.6700e-003**	**0.0243**	**0.0204**	**1.5000e-004**		**1.8500e-003**	**1.8500e-003**		**1.8500e-003**	**1.8500e-003**		**29.1700**	**29.1700**	**5.6000e-004**	**5.3000e-004**	**29.3434**

6.0 Area Detail

6.1 Mitigation Measures Area

1118.1 Flare Replacement - South Coast Air Basin, 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/day										lb/day					
Mitigated	0.1118	0.0000	5.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.0900e-003	1.0900e-003	0.0000		1.1700e-003
Unmitigated	0.1118	0.0000	5.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.0900e-003	1.0900e-003	0.0000		1.1700e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0127					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0990					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	5.0000e-005	0.0000	5.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.0900e-003	1.0900e-003	0.0000		1.1700e-003
Total	**0.1118**	**0.0000**	**5.1000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**1.0900e-003**	**1.0900e-003**	**0.0000**		**1.1700e-003**

1118.1 Flare Replacement - South Coast Air Basin, Summer

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0127					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0990					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	5.0000e-005	0.0000	5.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.0900e-003	1.0900e-003	0.0000		1.1700e-003
Total	**0.1118**	**0.0000**	**5.1000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**1.0900e-003**	**1.0900e-003**	**0.0000**		**1.1700e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

1118.1 Flare Replacement - South Coast Air Basin, Summer

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

1118.1 Flare Replacement - South Coast Air Basin, Winter

1118.1 Flare Replacement

South Coast Air Basin, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Heavy Industry	5.00	1000sqft	0.11	5,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	11			**Operational Year**	2020
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	1227.89	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - 6 Weeks construction to install up to 4 new CEB/ZULE flares

Off-road Equipment - 1 A-frame truck crane needed to remove old flare. 1 Backhoe needed for demolition.

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Equipment is skid mounted. Crane and forklift and welder needed for installation.

Demolition -

1118.1 Flare Replacement - South Coast Air Basin, Winter

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	100.00	30.00
tblConstructionPhase	PhaseEndDate	3/7/2019	11/29/2018
tblOffRoadEquipment	HorsePower	231.00	247.00
tblOffRoadEquipment	LoadFactor	0.29	0.40
tblOffRoadEquipment	OffRoadEquipmentType		Welders
tblOffRoadEquipment	OffRoadEquipmentType	Rubber Tired Dozers	Cranes
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00

2.0 Emissions Summary

1118.1 Flare Replacement - South Coast Air Basin, Winter

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2018	0.8769	9.7784	4.7700	0.0103	0.5861	0.4667	1.0046	0.0721	0.4294	0.4570	0.0000	1,039.8739	1,039.8739	0.3079	0.0000	1,047.5711
Maximum	**0.8769**	**9.7784**	**4.7700**	**0.0103**	**0.5861**	**0.4667**	**1.0046**	**0.0721**	**0.4294**	**0.4570**	**0.0000**	**1,039.8739**	**1,039.8739**	**0.3079**	**0.0000**	**1,047.5711**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2018	0.8769	9.7784	4.7700	0.0103	0.5861	0.4667	1.0046	0.0721	0.4294	0.4570	0.0000	1,039.8739	1,039.8739	0.3079	0.0000	1,047.5711
Maximum	**0.8769**	**9.7784**	**4.7700**	**0.0103**	**0.5861**	**0.4667**	**1.0046**	**0.0721**	**0.4294**	**0.4570**	**0.0000**	**1,039.8739**	**1,039.8739**	**0.3079**	**0.0000**	**1,047.5711**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

1118.1 Flare Replacement - South Coast Air Basin, Winter

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.1118	0.0000	5.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.0900e-003	1.0900e-003	0.0000		1.1700e-003
Energy	2.6700e-003	0.0243	0.0204	1.5000e-004		1.8500e-003	1.8500e-003		1.8500e-003	1.8500e-003		29.1700	29.1700	5.6000e-004	5.3000e-004	29.3434
Mobile	0.0163	0.0892	0.2380	8.4000e-004	0.0706	8.7000e-004	0.0715	0.0189	8.2000e-004	0.0197		85.3364	85.3364	4.2900e-003		85.4436
Total	**0.1307**	**0.1135**	**0.2590**	**9.9000e-004**	**0.0706**	**2.7200e-003**	**0.0733**	**0.0189**	**2.6700e-003**	**0.0216**		**114.5075**	**114.5075**	**4.8500e-003**	**5.3000e-004**	**114.7881**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.1118	0.0000	5.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.0900e-003	1.0900e-003	0.0000		1.1700e-003
Energy	2.6700e-003	0.0243	0.0204	1.5000e-004		1.8500e-003	1.8500e-003		1.8500e-003	1.8500e-003		29.1700	29.1700	5.6000e-004	5.3000e-004	29.3434
Mobile	0.0163	0.0892	0.2380	8.4000e-004	0.0706	8.7000e-004	0.0715	0.0189	8.2000e-004	0.0197		85.3364	85.3364	4.2900e-003		85.4436
Total	**0.1307**	**0.1135**	**0.2590**	**9.9000e-004**	**0.0706**	**2.7200e-003**	**0.0733**	**0.0189**	**2.6700e-003**	**0.0216**		**114.5075**	**114.5075**	**4.8500e-003**	**5.3000e-004**	**114.7881**

1118.1 Flare Replacement - South Coast Air Basin, 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	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	10/2/2018	10/15/2018	5	10	
2	Site Preparation	Site Preparation	10/16/2018	10/16/2018	5	1	
3	Building Construction	Building Construction	10/19/2018	11/29/2018	5	30	

Acres of Grading (Site Preparation Phase): 0.5

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

1118.1 Flare Replacement - South Coast Air Basin, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Demolition	Rubber Tired Dozers	0	1.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Site Preparation	Graders	1	8.00	187	0.41
Demolition	Cranes	1	6.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	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
Building Construction	3	2.00	1.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	2	5.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	2	5.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

1118.1 Flare Replacement - South Coast Air Basin, Winter

3.2 Demolition - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.5600e-003	0.0000	8.5600e-003	1.3000e-003	0.0000	1.3000e-003			0.0000			0.0000
Off-Road	0.8309	9.5170	4.5421	8.7100e-003		0.4663	0.4663		0.4290	0.4290		876.8018	876.8018	0.2730		883.6258
Total	**0.8309**	**9.5170**	**4.5421**	**8.7100e-003**	**8.5600e-003**	**0.4663**	**0.4748**	**1.3000e-003**	**0.4290**	**0.4303**		**876.8018**	**876.8018**	**0.2730**		**883.6258**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	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	0.0293	0.0212	0.2280	5.7000e-004	0.0559	4.5000e-004	0.0563	0.0148	4.1000e-004	0.0152		57.1626	57.1626	1.9600e-003		57.2116
Total	**0.0293**	**0.0212**	**0.2280**	**5.7000e-004**	**0.0559**	**4.5000e-004**	**0.0563**	**0.0148**	**4.1000e-004**	**0.0152**		**57.1626**	**57.1626**	**1.9600e-003**		**57.2116**

1118.1 Flare Replacement - South Coast Air Basin, Winter

3.2 Demolition - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.5600e-003	0.0000	8.5600e-003	1.3000e-003	0.0000	1.3000e-003			0.0000			0.0000
Off-Road	0.8309	9.5170	4.5421	8.7100e-003		0.4663	0.4663		0.4290	0.4290	0.0000	876.8018	876.8018	0.2730		883.6258
Total	**0.8309**	**9.5170**	**4.5421**	**8.7100e-003**	**8.5600e-003**	**0.4663**	**0.4748**	**1.3000e-003**	**0.4290**	**0.4303**	**0.0000**	**876.8018**	**876.8018**	**0.2730**		**883.6258**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	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	0.0293	0.0212	0.2280	5.7000e-004	0.0559	4.5000e-004	0.0563	0.0148	4.1000e-004	0.0152		57.1626	57.1626	1.9600e-003		57.2116
Total	**0.0293**	**0.0212**	**0.2280**	**5.7000e-004**	**0.0559**	**4.5000e-004**	**0.0563**	**0.0148**	**4.1000e-004**	**0.0152**		**57.1626**	**57.1626**	**1.9600e-003**		**57.2116**

1118.1 Flare Replacement - South Coast Air Basin, Winter

3.3 Site Preparation - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	0.7858	9.7572	4.2514	9.7600e-003		0.4180	0.4180		0.3846	0.3846		982.7113	982.7113	0.3059		990.3596
Total	**0.7858**	**9.7572**	**4.2514**	**9.7600e-003**	**0.5303**	**0.4180**	**0.9483**	**0.0573**	**0.3846**	**0.4418**		**982.7113**	**982.7113**	**0.3059**		**990.3596**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	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	0.0293	0.0212	0.2280	5.7000e-004	0.0559	4.5000e-004	0.0563	0.0148	4.1000e-004	0.0152		57.1626	57.1626	1.9600e-003		57.2116
Total	**0.0293**	**0.0212**	**0.2280**	**5.7000e-004**	**0.0559**	**4.5000e-004**	**0.0563**	**0.0148**	**4.1000e-004**	**0.0152**		**57.1626**	**57.1626**	**1.9600e-003**		**57.2116**

1118.1 Flare Replacement - South Coast Air Basin, Winter

3.3 Site Preparation - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	0.7858	9.7572	4.2514	9.7600e-003		0.4180	0.4180		0.3846	0.3846	0.0000	982.7113	982.7113	0.3059		990.3596
Total	**0.7858**	**9.7572**	**4.2514**	**9.7600e-003**	**0.5303**	**0.4180**	**0.9483**	**0.0573**	**0.3846**	**0.4418**	**0.0000**	**982.7113**	**982.7113**	**0.3059**		**990.3596**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	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	0.0293	0.0212	0.2280	5.7000e-004	0.0559	4.5000e-004	0.0563	0.0148	4.1000e-004	0.0152		57.1626	57.1626	1.9600e-003		57.2116
Total	**0.0293**	**0.0212**	**0.2280**	**5.7000e-004**	**0.0559**	**4.5000e-004**	**0.0563**	**0.0148**	**4.1000e-004**	**0.0152**		**57.1626**	**57.1626**	**1.9600e-003**		**57.2116**

1118.1 Flare Replacement - South Coast Air Basin, Winter

3.4 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8607	6.2732	4.0284	6.5800e-003		0.3554	0.3554		0.3360	0.3360		613.1174	613.1174	0.1661		617.2693
Total	**0.8607**	**6.2732**	**4.0284**	**6.5800e-003**		**0.3554**	**0.3554**		**0.3360**	**0.3360**		**613.1174**	**613.1174**	**0.1661**		**617.2693**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	4.4800e-003	0.1218	0.0341	2.5000e-004	6.4000e-003	9.0000e-004	7.3000e-003	1.8400e-003	8.6000e-004	2.7000e-003		26.9641	26.9641	2.0500e-003		27.0153
Worker	0.0117	8.4600e-003	0.0912	2.3000e-004	0.0224	1.8000e-004	0.0225	5.9300e-003	1.7000e-004	6.0900e-003		22.8651	22.8651	7.8000e-004		22.8846
Total	**0.0162**	**0.1302**	**0.1252**	**4.8000e-004**	**0.0288**	**1.0800e-003**	**0.0298**	**7.7700e-003**	**1.0300e-003**	**8.7900e-003**		**49.8292**	**49.8292**	**2.8300e-003**		**49.8999**

1118.1 Flare Replacement - South Coast Air Basin, Winter

3.4 Building Construction - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8607	6.2732	4.0284	6.5800e-003		0.3554	0.3554		0.3360	0.3360	0.0000	613.1174	613.1174	0.1661		617.2693
Total	**0.8607**	**6.2732**	**4.0284**	**6.5800e-003**		**0.3554**	**0.3554**		**0.3360**	**0.3360**	**0.0000**	**613.1174**	**613.1174**	**0.1661**		**617.2693**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	4.4800e-003	0.1218	0.0341	2.5000e-004	6.4000e-003	9.0000e-004	7.3000e-003	1.8400e-003	8.6000e-004	2.7000e-003		26.9641	26.9641	2.0500e-003		27.0153
Worker	0.0117	8.4600e-003	0.0912	2.3000e-004	0.0224	1.8000e-004	0.0225	5.9300e-003	1.7000e-004	6.0900e-003		22.8651	22.8651	7.8000e-004		22.8846
Total	**0.0162**	**0.1302**	**0.1252**	**4.8000e-004**	**0.0288**	**1.0800e-003**	**0.0298**	**7.7700e-003**	**1.0300e-003**	**8.7900e-003**		**49.8292**	**49.8292**	**2.8300e-003**		**49.8999**

4.0 Operational Detail - Mobile

1118.1 Flare Replacement - South Coast Air Basin, Winter

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0163	0.0892	0.2380	8.4000e-004	0.0706	8.7000e-004	0.0715	0.0189	8.2000e-004	0.0197		85.3364	85.3364	4.2900e-003		85.4436
Unmitigated	0.0163	0.0892	0.2380	8.4000e-004	0.0706	8.7000e-004	0.0715	0.0189	8.2000e-004	0.0197		85.3364	85.3364	4.2900e-003		85.4436

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Heavy Industry	7.50	7.50	7.50	33,212	33,212
Total	7.50	7.50	7.50	33,212	33,212

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Heavy Industry	16.60	8.40	6.90	59.00	28.00	13.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Heavy Industry	0.550339	0.043800	0.200255	0.122233	0.016799	0.005871	0.020633	0.029727	0.002027	0.001932	0.004726	0.000704	0.000955

1118.1 Flare Replacement - South Coast Air Basin, Winter

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	2.6700e-003	0.0243	0.0204	1.5000e-004		1.8500e-003	1.8500e-003		1.8500e-003	1.8500e-003		29.1700	29.1700	5.6000e-004	5.3000e-004	29.3434
NaturalGas Unmitigated	2.6700e-003	0.0243	0.0204	1.5000e-004		1.8500e-003	1.8500e-003		1.8500e-003	1.8500e-003		29.1700	29.1700	5.6000e-004	5.3000e-004	29.3434

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Heavy Industry	247.945	2.6700e-003	0.0243	0.0204	1.5000e-004		1.8500e-003	1.8500e-003		1.8500e-003	1.8500e-003		29.1700	29.1700	5.6000e-004	5.3000e-004	29.3434
Total		**2.6700e-003**	**0.0243**	**0.0204**	**1.5000e-004**		**1.8500e-003**	**1.8500e-003**		**1.8500e-003**	**1.8500e-003**		**29.1700**	**29.1700**	**5.6000e-004**	**5.3000e-004**	**29.3434**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Heavy Industry	0.247945	2.6700e-003	0.0243	0.0204	1.5000e-004		1.8500e-003	1.8500e-003		1.8500e-003	1.8500e-003		29.1700	29.1700	5.6000e-004	5.3000e-004	29.3434
Total		**2.6700e-003**	**0.0243**	**0.0204**	**1.5000e-004**		**1.8500e-003**	**1.8500e-003**		**1.8500e-003**	**1.8500e-003**		**29.1700**	**29.1700**	**5.6000e-004**	**5.3000e-004**	**29.3434**

6.0 Area Detail

6.1 Mitigation Measures Area

1118.1 Flare Replacement - South Coast Air Basin, 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/day										lb/day					
Mitigated	0.1118	0.0000	5.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.0900e-003	1.0900e-003	0.0000		1.1700e-003
Unmitigated	0.1118	0.0000	5.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.0900e-003	1.0900e-003	0.0000		1.1700e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0127					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0990					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	5.0000e-005	0.0000	5.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.0900e-003	1.0900e-003	0.0000		1.1700e-003
Total	**0.1118**	**0.0000**	**5.1000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**1.0900e-003**	**1.0900e-003**	**0.0000**		**1.1700e-003**

1118.1 Flare Replacement - South Coast Air Basin, Winter

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0127					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0990					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	5.0000e-005	0.0000	5.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.0900e-003	1.0900e-003	0.0000		1.1700e-003
Total	**0.1118**	**0.0000**	**5.1000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**1.0900e-003**	**1.0900e-003**	**0.0000**		**1.1700e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

1118.1 Flare Replacement - South Coast Air Basin, Winter

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

APPENDIX B-2

Fuel Cell and Gas Processing System

1118.1 Fuel Cell and Compressed Natural Gas System Project - South Coast Air Basin, Annual

1118.1 Fuel Cell and Compressed Natural Gas System Project

South Coast Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Heavy Industry	2.40	1000sqft	0.06	2,400.00	0
Other Asphalt Surfaces	6.00	1000sqft	0.14	6,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	11			**Operational Year**	2020
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	1227.89	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

1118.1 Fuel Cell and Compressed Natural Gas System Project - South Coast Air Basin, Annual

Project Characteristics -

Land Use -

Construction Phase -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Vehicle Trips -

Fleet Mix -

Table Name	Column Name	Default Value	New Value

2.0 Emissions Summary

1118.1 Fuel Cell and Compressed Natural Gas System Project - South Coast Air Basin, Annual

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2018	0.0348	0.3496	0.2496	3.8000e-004	2.6600e-003	0.0221	0.0248	8.8000e-004	0.0204	0.0213	0.0000	34.8514	34.8514	0.0102	0.0000	35.1054
2019	0.0221	0.2189	0.1746	2.8000e-004	1.5000e-003	0.0132	0.0147	4.0000e-004	0.0122	0.0126	0.0000	24.6210	24.6210	7.2300e-003	0.0000	24.8018
Maximum	**0.0348**	**0.3496**	**0.2496**	**3.8000e-004**	**2.6600e-003**	**0.0221**	**0.0248**	**8.8000e-004**	**0.0204**	**0.0213**	**0.0000**	**34.8514**	**34.8514**	**0.0102**	**0.0000**	**35.1054**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2018	0.0348	0.3496	0.2496	3.8000e-004	2.6600e-003	0.0221	0.0248	8.8000e-004	0.0204	0.0213	0.0000	34.8514	34.8514	0.0102	0.0000	35.1053
2019	0.0221	0.2189	0.1746	2.8000e-004	1.5000e-003	0.0132	0.0147	4.0000e-004	0.0122	0.0126	0.0000	24.6209	24.6209	7.2300e-003	0.0000	24.8017
Maximum	**0.0348**	**0.3496**	**0.2496**	**3.8000e-004**	**2.6600e-003**	**0.0221**	**0.0248**	**8.8000e-004**	**0.0204**	**0.0213**	**0.0000**	**34.8514**	**34.8514**	**0.0102**	**0.0000**	**35.1053**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

1118.1 Fuel Cell and Compressed Natural Gas System Project - South Coast Air Basin, Annual

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	10-4-2018	1-3-2019	0.3991	0.3991
2	1-4-2019	4-3-2019	0.2292	0.2292
		Highest	0.3991	0.3991

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0103	0.0000	1.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.1000e-004	2.1000e-004	0.0000	0.0000	2.2000e-004
Energy	2.3000e-004	2.1300e-003	1.7900e-003	1.0000e-005		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004	0.0000	17.1556	17.1556	3.9000e-004	1.2000e-004	17.1997
Mobile	1.4000e-003	7.9400e-003	0.0212	7.0000e-005	6.0500e-003	8.0000e-005	6.1300e-003	1.6200e-003	7.0000e-005	1.6900e-003	0.0000	6.8498	6.8498	3.4000e-004	0.0000	6.8582
Waste						0.0000	0.0000		0.0000	0.0000	0.6049	0.0000	0.6049	0.0358	0.0000	1.4987
Water						0.0000	0.0000		0.0000	0.0000	0.1761	4.0250	4.2010	0.0182	4.5000e-004	4.7887
Total	**0.0119**	**0.0101**	**0.0231**	**8.0000e-005**	**6.0500e-003**	**2.4000e-004**	**6.2900e-003**	**1.6200e-003**	**2.3000e-004**	**1.8500e-003**	**0.7810**	**28.0305**	**28.8115**	**0.0547**	**5.7000e-004**	**30.3455**

1118.1 Fuel Cell and Compressed Natural Gas System Project - South Coast Air Basin, Annual

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0103	0.0000	1.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.1000e-004	2.1000e-004	0.0000	0.0000	2.2000e-004
Energy	2.3000e-004	2.1300e-003	1.7900e-003	1.0000e-005		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004	0.0000	17.1556	17.1556	3.9000e-004	1.2000e-004	17.1997
Mobile	1.4000e-003	7.9400e-003	0.0212	7.0000e-005	6.0500e-003	8.0000e-005	6.1300e-003	1.6200e-003	7.0000e-005	1.6900e-003	0.0000	6.8498	6.8498	3.4000e-004	0.0000	6.8582
Waste						0.0000	0.0000		0.0000	0.0000	0.6049	0.0000	0.6049	0.0358	0.0000	1.4987
Water						0.0000	0.0000		0.0000	0.0000	0.1761	4.0250	4.2010	0.0182	4.5000e-004	4.7887
Total	**0.0119**	**0.0101**	**0.0231**	**8.0000e-005**	**6.0500e-003**	**2.4000e-004**	**6.2900e-003**	**1.6200e-003**	**2.3000e-004**	**1.8500e-003**	**0.7810**	**28.0305**	**28.8115**	**0.0547**	**5.7000e-004**	**30.3455**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

1118.1 Fuel Cell and Compressed Natural Gas System Project - South Coast Air Basin, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	10/4/2018	10/4/2018	5	1	
2	Grading	Grading	10/5/2018	10/8/2018	5	2	
3	Building Construction	Building Construction	10/9/2018	2/25/2019	5	100	
4	Paving	Paving	2/26/2019	3/4/2019	5	5	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0.14

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Rubber Tired Dozers	1	1.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37

1118.1 Fuel Cell and Compressed Natural Gas System Project - South Coast Air Basin, Annual

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
Site Preparation	2	5.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	4.00	1.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.7000e-004	0.0000	2.7000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.9000e-004	4.8800e-003	2.1300e-003	0.0000		2.1000e-004	2.1000e-004		1.9000e-004	1.9000e-004	0.0000	0.4458	0.4458	1.4000e-004	0.0000	0.4492
Total	**3.9000e-004**	**4.8800e-003**	**2.1300e-003**	**0.0000**	**2.7000e-004**	**2.1000e-004**	**4.8000e-004**	**3.0000e-005**	**1.9000e-004**	**2.2000e-004**	**0.0000**	**0.4458**	**0.4458**	**1.4000e-004**	**0.0000**	**0.4492**

1118.1 Fuel Cell and Compressed Natural Gas System Project - South Coast Air Basin, Annual

3.2 Site Preparation - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	1.0000e-005	1.0000e-005	1.2000e-004	0.0000	3.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0263	0.0263	0.0000	0.0000	0.0264
Total	**1.0000e-005**	**1.0000e-005**	**1.2000e-004**	**0.0000**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0263**	**0.0263**	**0.0000**	**0.0000**	**0.0264**

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					2.7000e-004	0.0000	2.7000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.9000e-004	4.8800e-003	2.1300e-003	0.0000		2.1000e-004	2.1000e-004		1.9000e-004	1.9000e-004	0.0000	0.4458	0.4458	1.4000e-004	0.0000	0.4492
Total	**3.9000e-004**	**4.8800e-003**	**2.1300e-003**	**0.0000**	**2.7000e-004**	**2.1000e-004**	**4.8000e-004**	**3.0000e-005**	**1.9000e-004**	**2.2000e-004**	**0.0000**	**0.4458**	**0.4458**	**1.4000e-004**	**0.0000**	**0.4492**

1118.1 Fuel Cell and Compressed Natural Gas System Project - South Coast Air Basin, Annual

3.2 Site Preparation - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	1.0000e-005	1.0000e-005	1.2000e-004	0.0000	3.0000e-005	0.0000	3.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0263	0.0263	0.0000	0.0000	0.0264
Total	**1.0000e-005**	**1.0000e-005**	**1.2000e-004**	**0.0000**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**1.0000e-005**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0263**	**0.0263**	**0.0000**	**0.0000**	**0.0264**

3.3 Grading - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					7.5000e-004	0.0000	7.5000e-004	4.1000e-004	0.0000	4.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.0600e-003	9.4300e-003	7.7800e-003	1.0000e-005		6.2000e-004	6.2000e-004		5.9000e-004	5.9000e-004	0.0000	1.0608	1.0608	2.0000e-004	0.0000	1.0659
Total	**1.0600e-003**	**9.4300e-003**	**7.7800e-003**	**1.0000e-005**	**7.5000e-004**	**6.2000e-004**	**1.3700e-003**	**4.1000e-004**	**5.9000e-004**	**1.0000e-003**	**0.0000**	**1.0608**	**1.0608**	**2.0000e-004**	**0.0000**	**1.0659**

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3.3 Grading - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	5.0000e-005	4.0000e-005	4.7000e-004	0.0000	1.1000e-004	0.0000	1.1000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1054	0.1054	0.0000	0.0000	0.1054
Total	**5.0000e-005**	**4.0000e-005**	**4.7000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**1.1000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.1054**	**0.1054**	**0.0000**	**0.0000**	**0.1054**

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					7.5000e-004	0.0000	7.5000e-004	4.1000e-004	0.0000	4.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.0600e-003	9.4300e-003	7.7800e-003	1.0000e-005		6.2000e-004	6.2000e-004		5.9000e-004	5.9000e-004	0.0000	1.0608	1.0608	2.0000e-004	0.0000	1.0659
Total	**1.0600e-003**	**9.4300e-003**	**7.7800e-003**	**1.0000e-005**	**7.5000e-004**	**6.2000e-004**	**1.3700e-003**	**4.1000e-004**	**5.9000e-004**	**1.0000e-003**	**0.0000**	**1.0608**	**1.0608**	**2.0000e-004**	**0.0000**	**1.0659**

1118.1 Fuel Cell and Compressed Natural Gas System Project - South Coast Air Basin, Annual

3.3 Grading - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	5.0000e-005	4.0000e-005	4.7000e-004	0.0000	1.1000e-004	0.0000	1.1000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1054	0.1054	0.0000	0.0000	0.1054
Total	**5.0000e-005**	**4.0000e-005**	**4.7000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**1.1000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.1054**	**0.1054**	**0.0000**	**0.0000**	**0.1054**

3.4 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0325	0.3310	0.2325	3.4000e-004		0.0213	0.0213		0.0196	0.0196	0.0000	31.2035	31.2035	9.7100e-003	0.0000	31.4464
Total	**0.0325**	**0.3310**	**0.2325**	**3.4000e-004**		**0.0213**	**0.0213**		**0.0196**	**0.0196**	**0.0000**	**31.2035**	**31.2035**	**9.7100e-003**	**0.0000**	**31.4464**

1118.1 Fuel Cell and Compressed Natural Gas System Project - South Coast Air Basin, Annual

3.4 Building Construction - 2018

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	1.3000e-004	3.7200e-003	9.7000e-004	1.0000e-005	1.9000e-004	3.0000e-005	2.2000e-004	5.0000e-005	3.0000e-005	8.0000e-005	0.0000	0.7455	0.7455	5.0000e-005	0.0000	0.7468
Worker	6.4000e-004	5.2000e-004	5.6100e-003	1.0000e-005	1.3200e-003	1.0000e-005	1.3300e-003	3.5000e-004	1.0000e-005	3.6000e-004	0.0000	1.2642	1.2642	4.0000e-005	0.0000	1.2653
Total	**7.7000e-004**	**4.2400e-003**	**6.5800e-003**	**2.0000e-005**	**1.5100e-003**	**4.0000e-005**	**1.5500e-003**	**4.0000e-004**	**4.0000e-005**	**4.4000e-004**	**0.0000**	**2.0097**	**2.0097**	**9.0000e-005**	**0.0000**	**2.0121**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0325	0.3310	0.2325	3.4000e-004		0.0213	0.0213		0.0196	0.0196	0.0000	31.2035	31.2035	9.7100e-003	0.0000	31.4463
Total	**0.0325**	**0.3310**	**0.2325**	**3.4000e-004**		**0.0213**	**0.0213**		**0.0196**	**0.0196**	**0.0000**	**31.2035**	**31.2035**	**9.7100e-003**	**0.0000**	**31.4463**

1118.1 Fuel Cell and Compressed Natural Gas System Project - South Coast Air Basin, Annual

3.4 Building Construction - 2018

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	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	1.3000e-004	3.7200e-003	9.7000e-004	1.0000e-005	1.9000e-004	3.0000e-005	2.2000e-004	5.0000e-005	3.0000e-005	8.0000e-005	0.0000	0.7455	0.7455	5.0000e-005	0.0000	0.7468
Worker	6.4000e-004	5.2000e-004	5.6100e-003	1.0000e-005	1.3200e-003	1.0000e-005	1.3300e-003	3.5000e-004	1.0000e-005	3.6000e-004	0.0000	1.2642	1.2642	4.0000e-005	0.0000	1.2653
Total	**7.7000e-004**	**4.2400e-003**	**6.5800e-003**	**2.0000e-005**	**1.5100e-003**	**4.0000e-005**	**1.5500e-003**	**4.0000e-004**	**4.0000e-005**	**4.4000e-004**	**0.0000**	**2.0097**	**2.0097**	**9.0000e-005**	**0.0000**	**2.0121**

3.4 Building Construction - 2019

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	0.0192	0.1964	0.1509	2.3000e-004		0.0121	0.0121		0.0111	0.0111	0.0000	20.4601	20.4601	6.4700e-003	0.0000	20.6219
Total	**0.0192**	**0.1964**	**0.1509**	**2.3000e-004**		**0.0121**	**0.0121**		**0.0111**	**0.0111**	**0.0000**	**20.4601**	**20.4601**	**6.4700e-003**	**0.0000**	**20.6219**

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3.4 Building Construction - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	8.0000e-005	2.3400e-003	6.0000e-004	1.0000e-005	1.3000e-004	2.0000e-005	1.4000e-004	4.0000e-005	1.0000e-005	5.0000e-005	0.0000	0.4925	0.4925	3.0000e-005	0.0000	0.4933
Worker	3.9000e-004	3.1000e-004	3.3400e-003	1.0000e-005	8.8000e-004	1.0000e-005	8.8000e-004	2.3000e-004	1.0000e-005	2.4000e-004	0.0000	0.8162	0.8162	3.0000e-005	0.0000	0.8168
Total	**4.7000e-004**	**2.6500e-003**	**3.9400e-003**	**2.0000e-005**	**1.0100e-003**	**3.0000e-005**	**1.0200e-003**	**2.7000e-004**	**2.0000e-005**	**2.9000e-004**	**0.0000**	**1.3087**	**1.3087**	**6.0000e-005**	**0.0000**	**1.3102**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0192	0.1964	0.1509	2.3000e-004		0.0121	0.0121		0.0111	0.0111	0.0000	20.4601	20.4601	6.4700e-003	0.0000	20.6219
Total	**0.0192**	**0.1964**	**0.1509**	**2.3000e-004**		**0.0121**	**0.0121**		**0.0111**	**0.0111**	**0.0000**	**20.4601**	**20.4601**	**6.4700e-003**	**0.0000**	**20.6219**

1118.1 Fuel Cell and Compressed Natural Gas System Project - South Coast Air Basin, Annual

3.4 Building Construction - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	8.0000e-005	2.3400e-003	6.0000e-004	1.0000e-005	1.3000e-004	2.0000e-005	1.4000e-004	4.0000e-005	1.0000e-005	5.0000e-005	0.0000	0.4925	0.4925	3.0000e-005	0.0000	0.4933
Worker	3.9000e-004	3.1000e-004	3.3400e-003	1.0000e-005	8.8000e-004	1.0000e-005	8.8000e-004	2.3000e-004	1.0000e-005	2.4000e-004	0.0000	0.8162	0.8162	3.0000e-005	0.0000	0.8168
Total	**4.7000e-004**	**2.6500e-003**	**3.9400e-003**	**2.0000e-005**	**1.0100e-003**	**3.0000e-005**	**1.0200e-003**	**2.7000e-004**	**2.0000e-005**	**2.9000e-004**	**0.0000**	**1.3087**	**1.3087**	**6.0000e-005**	**0.0000**	**1.3102**

3.5 Paving - 2019

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	2.0700e-003	0.0196	0.0179	3.0000e-005		1.1100e-003	1.1100e-003		1.0300e-003	1.0300e-003	0.0000	2.3931	2.3931	6.8000e-004	0.0000	2.4102
Paving	1.8000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.2500e-003**	**0.0196**	**0.0179**	**3.0000e-005**		**1.1100e-003**	**1.1100e-003**		**1.0300e-003**	**1.0300e-003**	**0.0000**	**2.3931**	**2.3931**	**6.8000e-004**	**0.0000**	**2.4102**

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3.5 Paving - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	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	2.2000e-004	1.7000e-004	1.8800e-003	1.0000e-005	4.9000e-004	0.0000	5.0000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.4591	0.4591	1.0000e-005	0.0000	0.4595
Total	**2.2000e-004**	**1.7000e-004**	**1.8800e-003**	**1.0000e-005**	**4.9000e-004**	**0.0000**	**5.0000e-004**	**1.3000e-004**	**0.0000**	**1.3000e-004**	**0.0000**	**0.4591**	**0.4591**	**1.0000e-005**	**0.0000**	**0.4595**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	2.0700e-003	0.0196	0.0179	3.0000e-005		1.1100e-003	1.1100e-003		1.0300e-003	1.0300e-003	0.0000	2.3931	2.3931	6.8000e-004	0.0000	2.4102
Paving	1.8000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.2500e-003**	**0.0196**	**0.0179**	**3.0000e-005**		**1.1100e-003**	**1.1100e-003**		**1.0300e-003**	**1.0300e-003**	**0.0000**	**2.3931**	**2.3931**	**6.8000e-004**	**0.0000**	**2.4102**

1118.1 Fuel Cell and Compressed Natural Gas System Project - South Coast Air Basin, Annual

3.5 Paving - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	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	2.2000e-004	1.7000e-004	1.8800e-003	1.0000e-005	4.9000e-004	0.0000	5.0000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.4591	0.4591	1.0000e-005	0.0000	0.4595
Total	**2.2000e-004**	**1.7000e-004**	**1.8800e-003**	**1.0000e-005**	**4.9000e-004**	**0.0000**	**5.0000e-004**	**1.3000e-004**	**0.0000**	**1.3000e-004**	**0.0000**	**0.4591**	**0.4591**	**1.0000e-005**	**0.0000**	**0.4595**

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	tons/yr										MT/yr					
Mitigated	1.4000e-003	7.9400e-003	0.0212	7.0000e-005	6.0500e-003	8.0000e-005	6.1300e-003	1.6200e-003	7.0000e-005	1.6900e-003	0.0000	6.8498	6.8498	3.4000e-004	0.0000	6.8582
Unmitigated	1.4000e-003	7.9400e-003	0.0212	7.0000e-005	6.0500e-003	8.0000e-005	6.1300e-003	1.6200e-003	7.0000e-005	1.6900e-003	0.0000	6.8498	6.8498	3.4000e-004	0.0000	6.8582

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Heavy Industry	3.60	3.60	3.60	15,942	15,942
Other Asphalt Surfaces	0.00	0.00	0.00		
Total	3.60	3.60	3.60	15,942	15,942

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Heavy Industry	16.60	8.40	6.90	59.00	28.00	13.00	92	5	3
Other Asphalt Surfaces	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
General Heavy Industry	0.550339	0.043800	0.200255	0.122233	0.016799	0.005871	0.020633	0.029727	0.002027	0.001932	0.004726	0.000704	0.000955
Other Asphalt Surfaces	0.550339	0.043800	0.200255	0.122233	0.016799	0.005871	0.020633	0.029727	0.002027	0.001932	0.004726	0.000704	0.000955

1118.1 Fuel Cell and Compressed Natural Gas System Project - South Coast Air Basin, Annual

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	14.8375	14.8375	3.5000e-004	7.0000e-005	14.8678
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	14.8375	14.8375	3.5000e-004	7.0000e-005	14.8678
NaturalGas Mitigated	2.3000e-004	2.1300e-003	1.7900e-003	1.0000e-005		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004	0.0000	2.3181	2.3181	4.0000e-005	4.0000e-005	2.3319
NaturalGas Unmitigated	2.3000e-004	2.1300e-003	1.7900e-003	1.0000e-005		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004	0.0000	2.3181	2.3181	4.0000e-005	4.0000e-005	2.3319

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5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Heavy Industry	43440	2.3000e-004	2.1300e-003	1.7900e-003	1.0000e-005		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004	0.0000	2.3181	2.3181	4.0000e-005	4.0000e-005	2.3319
Other Asphalt Surfaces	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		**2.3000e-004**	**2.1300e-003**	**1.7900e-003**	**1.0000e-005**		**1.6000e-004**	**1.6000e-004**		**1.6000e-004**	**1.6000e-004**	**0.0000**	**2.3181**	**2.3181**	**4.0000e-005**	**4.0000e-005**	**2.3319**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Heavy Industry	43440	2.3000e-004	2.1300e-003	1.7900e-003	1.0000e-005		1.6000e-004	1.6000e-004		1.6000e-004	1.6000e-004	0.0000	2.3181	2.3181	4.0000e-005	4.0000e-005	2.3319
Other Asphalt Surfaces	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		**2.3000e-004**	**2.1300e-003**	**1.7900e-003**	**1.0000e-005**		**1.6000e-004**	**1.6000e-004**		**1.6000e-004**	**1.6000e-004**	**0.0000**	**2.3181**	**2.3181**	**4.0000e-005**	**4.0000e-005**	**2.3319**

1118.1 Fuel Cell and Compressed Natural Gas System Project - South Coast Air Basin, Annual

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Heavy Industry	26640	14.8375	3.5000e-004	7.0000e-005	14.8678
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		**14.8375**	**3.5000e-004**	**7.0000e-005**	**14.8678**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Heavy Industry	26640	14.8375	3.5000e-004	7.0000e-005	14.8678
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		**14.8375**	**3.5000e-004**	**7.0000e-005**	**14.8678**

6.0 Area Detail

6.1 Mitigation Measures Area

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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	tons/yr										MT/yr					
Mitigated	0.0103	0.0000	1.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.1000e-004	2.1000e-004	0.0000	0.0000	2.2000e-004
Unmitigated	0.0103	0.0000	1.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.1000e-004	2.1000e-004	0.0000	0.0000	2.2000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	1.2000e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	9.0600e-003					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	1.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.1000e-004	2.1000e-004	0.0000	0.0000	2.2000e-004
Total	**0.0103**	**0.0000**	**1.1000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.1000e-004**	**2.1000e-004**	**0.0000**	**0.0000**	**2.2000e-004**

1118.1 Fuel Cell and Compressed Natural Gas System Project - South Coast Air Basin, Annual

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	1.2000e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	9.0600e-003					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	1.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.1000e-004	2.1000e-004	0.0000	0.0000	2.2000e-004
Total	**0.0103**	**0.0000**	**1.1000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.1000e-004**	**2.1000e-004**	**0.0000**	**0.0000**	**2.2000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

1118.1 Fuel Cell and Compressed Natural Gas System Project - South Coast Air Basin, Annual

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	4.2010	0.0182	4.5000e-004	4.7887
Unmitigated	4.2010	0.0182	4.5000e-004	4.7887

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Heavy Industry	0.555 / 0	4.2010	0.0182	4.5000e-004	4.7887
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**4.2010**	**0.0182**	**4.5000e-004**	**4.7887**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Heavy Industry	0.555 / 0	4.2010	0.0182	4.5000e-004	4.7887
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**4.2010**	**0.0182**	**4.5000e-004**	**4.7887**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.6049	0.0358	0.0000	1.4987
Unmitigated	0.6049	0.0358	0.0000	1.4987

1118.1 Fuel Cell and Compressed Natural Gas System Project - South Coast Air Basin, Annual

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Heavy Industry	2.98	0.6049	0.0358	0.0000	1.4987
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		**0.6049**	**0.0358**	**0.0000**	**1.4987**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Heavy Industry	2.98	0.6049	0.0358	0.0000	1.4987
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		**0.6049**	**0.0358**	**0.0000**	**1.4987**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

1118.1 Fuel Cell and Compressed Natural Gas System Project - South Coast Air Basin, Annual

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

1118.1 Fuel Cell and Compressed Natural Gas System Project - South Coast Air Basin, Summer

1118.1 Fuel Cell and Compressed Natural Gas System Project

South Coast Air Basin, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Heavy Industry	2.40	1000sqft	0.06	2,400.00	0
Other Asphalt Surfaces	6.00	1000sqft	0.14	6,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	11			**Operational Year**	2020
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	1227.89	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

1118.1 Fuel Cell and Compressed Natural Gas System Project - South Coast Air Basin, Summer

Project Characteristics -

Land Use -

Construction Phase -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Vehicle Trips -

Fleet Mix -

Table Name	Column Name	Default Value	New Value

2.0 Emissions Summary

1118.1 Fuel Cell and Compressed Natural Gas System Project - South Coast Air Basin, Summer

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2018	1.1177	11.1685	8.2765	0.0132	0.8645	0.7099	1.4882	0.4434	0.6532	1.0385	0.0000	1,291.2223	1,291.2223	0.3605	0.0000	1,296.9618
2019	0.9907	9.9491	7.9540	0.0134	0.2012	0.6065	0.6576	0.0534	0.5580	0.5717	0.0000	1,267.6474	1,267.6474	0.3601	0.0000	1,275.3547
Maximum	**1.1177**	**11.1685**	**8.2765**	**0.0134**	**0.8645**	**0.7099**	**1.4882**	**0.4434**	**0.6532**	**1.0385**	**0.0000**	**1,291.2223**	**1,291.2223**	**0.3605**	**0.0000**	**1,296.9618**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2018	1.1177	11.1685	8.2765	0.0132	0.8645	0.7099	1.4882	0.4434	0.6532	1.0385	0.0000	1,291.2223	1,291.2223	0.3605	0.0000	1,296.9618
2019	0.9907	9.9491	7.9540	0.0134	0.2012	0.6065	0.6576	0.0534	0.5580	0.5717	0.0000	1,267.6474	1,267.6474	0.3601	0.0000	1,275.3547
Maximum	**1.1177**	**11.1685**	**8.2765**	**0.0134**	**0.8645**	**0.7099**	**1.4882**	**0.4434**	**0.6532**	**1.0385**	**0.0000**	**1,291.2223**	**1,291.2223**	**0.3605**	**0.0000**	**1,296.9618**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

1118.1 Fuel Cell and Compressed Natural Gas System Project - South Coast Air Basin, Summer

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0563	1.0000e-005	8.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.8400e-003	1.8400e-003	0.0000		1.9600e-003
Energy	1.2800e-003	0.0117	9.8000e-003	7.0000e-005		8.9000e-004	8.9000e-004		8.9000e-004	8.9000e-004		14.0016	14.0016	2.7000e-004	2.6000e-004	14.0848
Mobile	8.1200e-003	0.0416	0.1225	4.3000e-004	0.0339	4.2000e-004	0.0343	9.0700e-003	3.9000e-004	9.4500e-003		43.1541	43.1541	2.0800e-003		43.2061
Total	**0.0657**	**0.0533**	**0.1332**	**5.0000e-004**	**0.0339**	**1.3100e-003**	**0.0352**	**9.0700e-003**	**1.2800e-003**	**0.0103**		**57.1576**	**57.1576**	**2.3500e-003**	**2.6000e-004**	**57.2929**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0563	1.0000e-005	8.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.8400e-003	1.8400e-003	0.0000		1.9600e-003
Energy	1.2800e-003	0.0117	9.8000e-003	7.0000e-005		8.9000e-004	8.9000e-004		8.9000e-004	8.9000e-004		14.0016	14.0016	2.7000e-004	2.6000e-004	14.0848
Mobile	8.1200e-003	0.0416	0.1225	4.3000e-004	0.0339	4.2000e-004	0.0343	9.0700e-003	3.9000e-004	9.4500e-003		43.1541	43.1541	2.0800e-003		43.2061
Total	**0.0657**	**0.0533**	**0.1332**	**5.0000e-004**	**0.0339**	**1.3100e-003**	**0.0352**	**9.0700e-003**	**1.2800e-003**	**0.0103**		**57.1576**	**57.1576**	**2.3500e-003**	**2.6000e-004**	**57.2929**

1118.1 Fuel Cell and Compressed Natural Gas System Project - South Coast Air Basin, 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	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	Site Preparation	Site Preparation	10/4/2018	10/4/2018	5	1	
2	Grading	Grading	10/5/2018	10/8/2018	5	2	
3	Building Construction	Building Construction	10/9/2018	2/25/2019	5	100	
4	Paving	Paving	2/26/2019	3/4/2019	5	5	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0.14

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

1118.1 Fuel Cell and Compressed Natural Gas System Project - South Coast Air Basin, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Rubber Tired Dozers	1	1.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	7.00	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
Site Preparation	2	5.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	4.00	1.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

1118.1 Fuel Cell and Compressed Natural Gas System Project - South Coast Air Basin, Summer

3.2 Site Preparation - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	0.7858	9.7572	4.2514	9.7600e-003		0.4180	0.4180		0.3846	0.3846		982.7113	982.7113	0.3059		990.3596
Total	**0.7858**	**9.7572**	**4.2514**	**9.7600e-003**	**0.5303**	**0.4180**	**0.9483**	**0.0573**	**0.3846**	**0.4418**		**982.7113**	**982.7113**	**0.3059**		**990.3596**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	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	0.0267	0.0193	0.2502	6.1000e-004	0.0559	4.5000e-004	0.0563	0.0148	4.1000e-004	0.0152		60.9360	60.9360	2.0800e-003		60.9881
Total	**0.0267**	**0.0193**	**0.2502**	**6.1000e-004**	**0.0559**	**4.5000e-004**	**0.0563**	**0.0148**	**4.1000e-004**	**0.0152**		**60.9360**	**60.9360**	**2.0800e-003**		**60.9881**

1118.1 Fuel Cell and Compressed Natural Gas System Project - South Coast Air Basin, Summer

3.2 Site Preparation - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	0.7858	9.7572	4.2514	9.7600e-003		0.4180	0.4180		0.3846	0.3846	0.0000	982.7113	982.7113	0.3059		990.3596
Total	**0.7858**	**9.7572**	**4.2514**	**9.7600e-003**	**0.5303**	**0.4180**	**0.9483**	**0.0573**	**0.3846**	**0.4418**	**0.0000**	**982.7113**	**982.7113**	**0.3059**		**990.3596**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	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	0.0267	0.0193	0.2502	6.1000e-004	0.0559	4.5000e-004	0.0563	0.0148	4.1000e-004	0.0152		60.9360	60.9360	2.0800e-003		60.9881
Total	**0.0267**	**0.0193**	**0.2502**	**6.1000e-004**	**0.0559**	**4.5000e-004**	**0.0563**	**0.0148**	**4.1000e-004**	**0.0152**		**60.9360**	**60.9360**	**2.0800e-003**		**60.9881**

1118.1 Fuel Cell and Compressed Natural Gas System Project - South Coast Air Basin, Summer

3.3 Grading - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7528	0.0000	0.7528	0.4138	0.0000	0.4138			0.0000			0.0000
Off-Road	1.0643	9.4295	7.7762	0.0120		0.6228	0.6228		0.5943	0.5943		1,169.3502	1,169.3502	0.2254		1,174.9857
Total	**1.0643**	**9.4295**	**7.7762**	**0.0120**	**0.7528**	**0.6228**	**1.3755**	**0.4138**	**0.5943**	**1.0081**		**1,169.3502**	**1,169.3502**	**0.2254**		**1,174.9857**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	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	0.0534	0.0385	0.5003	1.2200e-003	0.1118	9.0000e-004	0.1127	0.0296	8.3000e-004	0.0305		121.8720	121.8720	4.1700e-003		121.9761
Total	**0.0534**	**0.0385**	**0.5003**	**1.2200e-003**	**0.1118**	**9.0000e-004**	**0.1127**	**0.0296**	**8.3000e-004**	**0.0305**		**121.8720**	**121.8720**	**4.1700e-003**		**121.9761**

1118.1 Fuel Cell and Compressed Natural Gas System Project - South Coast Air Basin, Summer

3.3 Grading - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7528	0.0000	0.7528	0.4138	0.0000	0.4138			0.0000			0.0000
Off-Road	1.0643	9.4295	7.7762	0.0120		0.6228	0.6228		0.5943	0.5943	0.0000	1,169.3502	1,169.3502	0.2254		1,174.9857
Total	**1.0643**	**9.4295**	**7.7762**	**0.0120**	**0.7528**	**0.6228**	**1.3755**	**0.4138**	**0.5943**	**1.0081**	**0.0000**	**1,169.3502**	**1,169.3502**	**0.2254**		**1,174.9857**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	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	0.0534	0.0385	0.5003	1.2200e-003	0.1118	9.0000e-004	0.1127	0.0296	8.3000e-004	0.0305		121.8720	121.8720	4.1700e-003		121.9761
Total	**0.0534**	**0.0385**	**0.5003**	**1.2200e-003**	**0.1118**	**9.0000e-004**	**0.1127**	**0.0296**	**8.3000e-004**	**0.0305**		**121.8720**	**121.8720**	**4.1700e-003**		**121.9761**

1118.1 Fuel Cell and Compressed Natural Gas System Project - South Coast Air Basin, Summer

3.4 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0848	11.0316	7.7512	0.0114		0.7087	0.7087		0.6520	0.6520		1,146.5323	1,146.5323	0.3569		1,155.4555
Total	**1.0848**	**11.0316**	**7.7512**	**0.0114**		**0.7087**	**0.7087**		**0.6520**	**0.6520**		**1,146.5323**	**1,146.5323**	**0.3569**		**1,155.4555**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	4.3000e-003	0.1215	0.0308	2.6000e-004	6.4000e-003	8.9000e-004	7.2900e-003	1.8400e-003	8.5000e-004	2.6900e-003		27.7009	27.7009	1.9100e-003		27.7488
Worker	0.0214	0.0154	0.2001	4.9000e-004	0.0447	3.6000e-004	0.0451	0.0119	3.3000e-004	0.0122		48.7488	48.7488	1.6700e-003		48.7905
Total	**0.0257**	**0.1369**	**0.2310**	**7.5000e-004**	**0.0511**	**1.2500e-003**	**0.0524**	**0.0137**	**1.1800e-003**	**0.0149**		**76.4497**	**76.4497**	**3.5800e-003**		**76.5392**

1118.1 Fuel Cell and Compressed Natural Gas System Project - South Coast Air Basin, Summer

3.4 Building Construction - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0848	11.0316	7.7512	0.0114		0.7087	0.7087		0.6520	0.6520	0.0000	1,146.5323	1,146.5323	0.3569		1,155.4555
Total	**1.0848**	**11.0316**	**7.7512**	**0.0114**		**0.7087**	**0.7087**		**0.6520**	**0.6520**	**0.0000**	**1,146.5323**	**1,146.5323**	**0.3569**		**1,155.4555**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	4.3000e-003	0.1215	0.0308	2.6000e-004	6.4000e-003	8.9000e-004	7.2900e-003	1.8400e-003	8.5000e-004	2.6900e-003		27.7009	27.7009	1.9100e-003		27.7488
Worker	0.0214	0.0154	0.2001	4.9000e-004	0.0447	3.6000e-004	0.0451	0.0119	3.3000e-004	0.0122		48.7488	48.7488	1.6700e-003		48.7905
Total	**0.0257**	**0.1369**	**0.2310**	**7.5000e-004**	**0.0511**	**1.2500e-003**	**0.0524**	**0.0137**	**1.1800e-003**	**0.0149**		**76.4497**	**76.4497**	**3.5800e-003**		**76.5392**

1118.1 Fuel Cell and Compressed Natural Gas System Project - South Coast Air Basin, Summer

3.4 Building Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9576	9.8207	7.5432	0.0114		0.6054	0.6054		0.5569	0.5569		1,127.6696	1,127.6696	0.3568		1,136.5892
Total	**0.9576**	**9.8207**	**7.5432**	**0.0114**		**0.6054**	**0.6054**		**0.5569**	**0.5569**		**1,127.6696**	**1,127.6696**	**0.3568**		**1,136.5892**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.9000e-003	0.1148	0.0283	2.6000e-004	6.4000e-003	7.6000e-004	7.1600e-003	1.8400e-003	7.3000e-004	2.5700e-003		27.4512	27.4512	1.8500e-003		27.4974
Worker	0.0194	0.0136	0.1792	4.7000e-004	0.0447	3.5000e-004	0.0451	0.0119	3.2000e-004	0.0122		47.2145	47.2145	1.4800e-003		47.2515
Total	**0.0233**	**0.1284**	**0.2075**	**7.3000e-004**	**0.0511**	**1.1100e-003**	**0.0522**	**0.0137**	**1.0500e-003**	**0.0148**		**74.6657**	**74.6657**	**3.3300e-003**		**74.7488**

1118.1 Fuel Cell and Compressed Natural Gas System Project - South Coast Air Basin, Summer

3.4 Building Construction - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9576	9.8207	7.5432	0.0114		0.6054	0.6054		0.5569	0.5569	0.0000	1,127.6696	1,127.6696	0.3568		1,136.5892
Total	**0.9576**	**9.8207**	**7.5432**	**0.0114**		**0.6054**	**0.6054**		**0.5569**	**0.5569**	**0.0000**	**1,127.6696**	**1,127.6696**	**0.3568**		**1,136.5892**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	3.9000e-003	0.1148	0.0283	2.6000e-004	6.4000e-003	7.6000e-004	7.1600e-003	1.8400e-003	7.3000e-004	2.5700e-003		27.4512	27.4512	1.8500e-003		27.4974
Worker	0.0194	0.0136	0.1792	4.7000e-004	0.0447	3.5000e-004	0.0451	0.0119	3.2000e-004	0.0122		47.2145	47.2145	1.4800e-003		47.2515
Total	**0.0233**	**0.1284**	**0.2075**	**7.3000e-004**	**0.0511**	**1.1100e-003**	**0.0522**	**0.0137**	**1.0500e-003**	**0.0148**		**74.6657**	**74.6657**	**3.3300e-003**		**74.7488**

1118.1 Fuel Cell and Compressed Natural Gas System Project - South Coast Air Basin, Summer

3.5 Paving - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8300	7.8446	7.1478	0.0113		0.4425	0.4425		0.4106	0.4106		1,055.1823	1,055.1823	0.3016		1,062.7231
Paving	0.0734					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9033**	**7.8446**	**7.1478**	**0.0113**		**0.4425**	**0.4425**		**0.4106**	**0.4106**		**1,055.1823**	**1,055.1823**	**0.3016**		**1,062.7231**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	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	0.0874	0.0612	0.8063	2.1300e-003	0.2012	1.5700e-003	0.2028	0.0534	1.4500e-003	0.0548		212.4651	212.4651	6.6600e-003		212.6315
Total	**0.0874**	**0.0612**	**0.8063**	**2.1300e-003**	**0.2012**	**1.5700e-003**	**0.2028**	**0.0534**	**1.4500e-003**	**0.0548**		**212.4651**	**212.4651**	**6.6600e-003**		**212.6315**

1118.1 Fuel Cell and Compressed Natural Gas System Project - South Coast Air Basin, Summer

3.5 Paving - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8300	7.8446	7.1478	0.0113		0.4425	0.4425		0.4106	0.4106	0.0000	1,055.1823	1,055.1823	0.3016		1,062.7231
Paving	0.0734					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9033**	**7.8446**	**7.1478**	**0.0113**		**0.4425**	**0.4425**		**0.4106**	**0.4106**	**0.0000**	**1,055.1823**	**1,055.1823**	**0.3016**		**1,062.7231**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	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	0.0874	0.0612	0.8063	2.1300e-003	0.2012	1.5700e-003	0.2028	0.0534	1.4500e-003	0.0548		212.4651	212.4651	6.6600e-003		212.6315
Total	**0.0874**	**0.0612**	**0.8063**	**2.1300e-003**	**0.2012**	**1.5700e-003**	**0.2028**	**0.0534**	**1.4500e-003**	**0.0548**		**212.4651**	**212.4651**	**6.6600e-003**		**212.6315**

4.0 Operational Detail - Mobile

1118.1 Fuel Cell and Compressed Natural Gas System Project - South Coast Air Basin, Summer

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	8.1200e-003	0.0416	0.1225	4.3000e-004	0.0339	4.2000e-004	0.0343	9.0700e-003	3.9000e-004	9.4500e-003		43.1541	43.1541	2.0800e-003		43.2061
Unmitigated	8.1200e-003	0.0416	0.1225	4.3000e-004	0.0339	4.2000e-004	0.0343	9.0700e-003	3.9000e-004	9.4500e-003		43.1541	43.1541	2.0800e-003		43.2061

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Heavy Industry	3.60	3.60	3.60	15,942	15,942
Other Asphalt Surfaces	0.00	0.00	0.00		
Total	3.60	3.60	3.60	15,942	15,942

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Heavy Industry	16.60	8.40	6.90	59.00	28.00	13.00	92	5	3
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

1118.1 Fuel Cell and Compressed Natural Gas System Project - South Coast Air Basin, Summer

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Heavy Industry	0.550339	0.043800	0.200255	0.122233	0.016799	0.005871	0.020633	0.029727	0.002027	0.001932	0.004726	0.000704	0.000955
Other Asphalt Surfaces	0.550339	0.043800	0.200255	0.122233	0.016799	0.005871	0.020633	0.029727	0.002027	0.001932	0.004726	0.000704	0.000955

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	1.2800e-003	0.0117	9.8000e-003	7.0000e-005		8.9000e-004	8.9000e-004		8.9000e-004	8.9000e-004		14.0016	14.0016	2.7000e-004	2.6000e-004	14.0848
NaturalGas Unmitigated	1.2800e-003	0.0117	9.8000e-003	7.0000e-005		8.9000e-004	8.9000e-004		8.9000e-004	8.9000e-004		14.0016	14.0016	2.7000e-004	2.6000e-004	14.0848

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Heavy Industry	119.014	1.2800e-003	0.0117	9.8000e-003	7.0000e-005		8.9000e-004	8.9000e-004		8.9000e-004	8.9000e-004		14.0016	14.0016	2.7000e-004	2.6000e-004	14.0848
Other Asphalt Surfaces	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		**1.2800e-003**	**0.0117**	**9.8000e-003**	**7.0000e-005**		**8.9000e-004**	**8.9000e-004**		**8.9000e-004**	**8.9000e-004**		**14.0016**	**14.0016**	**2.7000e-004**	**2.6000e-004**	**14.0848**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Heavy Industry	0.119014	1.2800e-003	0.0117	9.8000e-003	7.0000e-005		8.9000e-004	8.9000e-004		8.9000e-004	8.9000e-004		14.0016	14.0016	2.7000e-004	2.6000e-004	14.0848
Other Asphalt Surfaces	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		**1.2800e-003**	**0.0117**	**9.8000e-003**	**7.0000e-005**		**8.9000e-004**	**8.9000e-004**		**8.9000e-004**	**8.9000e-004**		**14.0016**	**14.0016**	**2.7000e-004**	**2.6000e-004**	**14.0848**

6.0 Area Detail

6.1 Mitigation Measures Area

1118.1 Fuel Cell and Compressed Natural Gas System Project - South Coast Air Basin, 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/day										lb/day					
Mitigated	0.0563	1.0000e-005	8.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.8400e-003	1.8400e-003	0.0000		1.9600e-003
Unmitigated	0.0563	1.0000e-005	8.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.8400e-003	1.8400e-003	0.0000		1.9600e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	6.5500e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0497					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	8.0000e-005	1.0000e-005	8.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.8400e-003	1.8400e-003	0.0000		1.9600e-003
Total	**0.0563**	**1.0000e-005**	**8.6000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**1.8400e-003**	**1.8400e-003**	**0.0000**		**1.9600e-003**

1118.1 Fuel Cell and Compressed Natural Gas System Project - South Coast Air Basin, Summer

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	6.5500e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0497					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	8.0000e-005	1.0000e-005	8.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.8400e-003	1.8400e-003	0.0000		1.9600e-003
Total	**0.0563**	**1.0000e-005**	**8.6000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**1.8400e-003**	**1.8400e-003**	**0.0000**		**1.9600e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

1118.1 Fuel Cell and Compressed Natural Gas System Project - South Coast Air Basin, Summer

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

1118.1 Fuel Cell and Compressed Natural Gas System Project - South Coast Air Basin, Winter

1118.1 Fuel Cell and Compressed Natural Gas System Project

South Coast Air Basin, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Heavy Industry	2.40	1000sqft	0.06	2,400.00	0
Other Asphalt Surfaces	6.00	1000sqft	0.14	6,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	11			**Operational Year**	2020
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	1227.89	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

1118.1 Fuel Cell and Compressed Natural Gas System Project - South Coast Air Basin, Winter

Project Characteristics -

Land Use -

Construction Phase -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Vehicle Trips -

Fleet Mix -

Table Name	Column Name	Default Value	New Value

2.0 Emissions Summary

1118.1 Fuel Cell and Compressed Natural Gas System Project - South Coast Air Basin, Winter

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2018	1.1229	11.1703	8.2322	0.0131	0.8645	0.7100	1.4882	0.4434	0.6532	1.0385	0.0000	1,283.6755	1,283.6755	0.3606	0.0000	1,289.4088
2019	0.9993	9.9506	7.8803	0.0133	0.2012	0.6065	0.6576	0.0534	0.5580	0.5717	0.0000	1,254.4724	1,254.4724	0.3602	0.0000	1,262.1695
Maximum	**1.1229**	**11.1703**	**8.2322**	**0.0133**	**0.8645**	**0.7100**	**1.4882**	**0.4434**	**0.6532**	**1.0385**	**0.0000**	**1,283.6755**	**1,283.6755**	**0.3606**	**0.0000**	**1,289.4088**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2018	1.1229	11.1703	8.2322	0.0131	0.8645	0.7100	1.4882	0.4434	0.6532	1.0385	0.0000	1,283.6755	1,283.6755	0.3606	0.0000	1,289.4088
2019	0.9993	9.9506	7.8803	0.0133	0.2012	0.6065	0.6576	0.0534	0.5580	0.5717	0.0000	1,254.4724	1,254.4724	0.3602	0.0000	1,262.1695
Maximum	**1.1229**	**11.1703**	**8.2322**	**0.0133**	**0.8645**	**0.7100**	**1.4882**	**0.4434**	**0.6532**	**1.0385**	**0.0000**	**1,283.6755**	**1,283.6755**	**0.3606**	**0.0000**	**1,289.4088**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

1118.1 Fuel Cell and Compressed Natural Gas System Project - South Coast Air Basin, Winter

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0563	1.0000e-005	8.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.8400e-003	1.8400e-003	0.0000		1.9600e-003
Energy	1.2800e-003	0.0117	9.8000e-003	7.0000e-005		8.9000e-004	8.9000e-004		8.9000e-004	8.9000e-004		14.0016	14.0016	2.7000e-004	2.6000e-004	14.0848
Mobile	7.8300e-003	0.0428	0.1143	4.0000e-004	0.0339	4.2000e-004	0.0343	9.0700e-003	3.9000e-004	9.4600e-003		40.9615	40.9615	2.0600e-003		41.0129
Total	**0.0654**	**0.0545**	**0.1249**	**4.7000e-004**	**0.0339**	**1.3100e-003**	**0.0352**	**9.0700e-003**	**1.2800e-003**	**0.0104**		**54.9649**	**54.9649**	**2.3300e-003**	**2.6000e-004**	**55.0997**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0563	1.0000e-005	8.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.8400e-003	1.8400e-003	0.0000		1.9600e-003
Energy	1.2800e-003	0.0117	9.8000e-003	7.0000e-005		8.9000e-004	8.9000e-004		8.9000e-004	8.9000e-004		14.0016	14.0016	2.7000e-004	2.6000e-004	14.0848
Mobile	7.8300e-003	0.0428	0.1143	4.0000e-004	0.0339	4.2000e-004	0.0343	9.0700e-003	3.9000e-004	9.4600e-003		40.9615	40.9615	2.0600e-003		41.0129
Total	**0.0654**	**0.0545**	**0.1249**	**4.7000e-004**	**0.0339**	**1.3100e-003**	**0.0352**	**9.0700e-003**	**1.2800e-003**	**0.0104**		**54.9649**	**54.9649**	**2.3300e-003**	**2.6000e-004**	**55.0997**

1118.1 Fuel Cell and Compressed Natural Gas System Project - South Coast Air Basin, 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	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	Site Preparation	Site Preparation	10/4/2018	10/4/2018	5	1	
2	Grading	Grading	10/5/2018	10/8/2018	5	2	
3	Building Construction	Building Construction	10/9/2018	2/25/2019	5	100	
4	Paving	Paving	2/26/2019	3/4/2019	5	5	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0.14

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

1118.1 Fuel Cell and Compressed Natural Gas System Project - South Coast Air Basin, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Rubber Tired Dozers	1	1.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	2	6.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Cement and Mortar Mixers	4	6.00	9	0.56
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	7.00	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
Site Preparation	2	5.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	4.00	1.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

1118.1 Fuel Cell and Compressed Natural Gas System Project - South Coast Air Basin, Winter

3.2 Site Preparation - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	0.7858	9.7572	4.2514	9.7600e-003		0.4180	0.4180		0.3846	0.3846		982.7113	982.7113	0.3059		990.3596
Total	**0.7858**	**9.7572**	**4.2514**	**9.7600e-003**	**0.5303**	**0.4180**	**0.9483**	**0.0573**	**0.3846**	**0.4418**		**982.7113**	**982.7113**	**0.3059**		**990.3596**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	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	0.0293	0.0212	0.2280	5.7000e-004	0.0559	4.5000e-004	0.0563	0.0148	4.1000e-004	0.0152		57.1626	57.1626	1.9600e-003		57.2116
Total	**0.0293**	**0.0212**	**0.2280**	**5.7000e-004**	**0.0559**	**4.5000e-004**	**0.0563**	**0.0148**	**4.1000e-004**	**0.0152**		**57.1626**	**57.1626**	**1.9600e-003**		**57.2116**

1118.1 Fuel Cell and Compressed Natural Gas System Project - South Coast Air Basin, Winter

3.2 Site Preparation - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	0.7858	9.7572	4.2514	9.7600e-003		0.4180	0.4180		0.3846	0.3846	0.0000	982.7113	982.7113	0.3059		990.3596
Total	**0.7858**	**9.7572**	**4.2514**	**9.7600e-003**	**0.5303**	**0.4180**	**0.9483**	**0.0573**	**0.3846**	**0.4418**	**0.0000**	**982.7113**	**982.7113**	**0.3059**		**990.3596**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	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	0.0293	0.0212	0.2280	5.7000e-004	0.0559	4.5000e-004	0.0563	0.0148	4.1000e-004	0.0152		57.1626	57.1626	1.9600e-003		57.2116
Total	**0.0293**	**0.0212**	**0.2280**	**5.7000e-004**	**0.0559**	**4.5000e-004**	**0.0563**	**0.0148**	**4.1000e-004**	**0.0152**		**57.1626**	**57.1626**	**1.9600e-003**		**57.2116**

1118.1 Fuel Cell and Compressed Natural Gas System Project - South Coast Air Basin, Winter

3.3 Grading - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7528	0.0000	0.7528	0.4138	0.0000	0.4138			0.0000			0.0000
Off-Road	1.0643	9.4295	7.7762	0.0120		0.6228	0.6228		0.5943	0.5943		1,169.3502	1,169.3502	0.2254		1,174.9857
Total	**1.0643**	**9.4295**	**7.7762**	**0.0120**	**0.7528**	**0.6228**	**1.3755**	**0.4138**	**0.5943**	**1.0081**		**1,169.3502**	**1,169.3502**	**0.2254**		**1,174.9857**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	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	0.0586	0.0423	0.4559	1.1500e-003	0.1118	9.0000e-004	0.1127	0.0296	8.3000e-004	0.0305		114.3253	114.3253	3.9200e-003		114.4231
Total	**0.0586**	**0.0423**	**0.4559**	**1.1500e-003**	**0.1118**	**9.0000e-004**	**0.1127**	**0.0296**	**8.3000e-004**	**0.0305**		**114.3253**	**114.3253**	**3.9200e-003**		**114.4231**

1118.1 Fuel Cell and Compressed Natural Gas System Project - South Coast Air Basin, Winter

3.3 Grading - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7528	0.0000	0.7528	0.4138	0.0000	0.4138			0.0000			0.0000
Off-Road	1.0643	9.4295	7.7762	0.0120		0.6228	0.6228		0.5943	0.5943	0.0000	1,169.3502	1,169.3502	0.2254		1,174.9857
Total	**1.0643**	**9.4295**	**7.7762**	**0.0120**	**0.7528**	**0.6228**	**1.3755**	**0.4138**	**0.5943**	**1.0081**	**0.0000**	**1,169.3502**	**1,169.3502**	**0.2254**		**1,174.9857**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	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	0.0586	0.0423	0.4559	1.1500e-003	0.1118	9.0000e-004	0.1127	0.0296	8.3000e-004	0.0305		114.3253	114.3253	3.9200e-003		114.4231
Total	**0.0586**	**0.0423**	**0.4559**	**1.1500e-003**	**0.1118**	**9.0000e-004**	**0.1127**	**0.0296**	**8.3000e-004**	**0.0305**		**114.3253**	**114.3253**	**3.9200e-003**		**114.4231**

1118.1 Fuel Cell and Compressed Natural Gas System Project - South Coast Air Basin, Winter

3.4 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0848	11.0316	7.7512	0.0114		0.7087	0.7087		0.6520	0.6520		1,146.5323	1,146.5323	0.3569		1,155.4555
Total	**1.0848**	**11.0316**	**7.7512**	**0.0114**		**0.7087**	**0.7087**		**0.6520**	**0.6520**		**1,146.5323**	**1,146.5323**	**0.3569**		**1,155.4555**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	4.4800e-003	0.1218	0.0341	2.5000e-004	6.4000e-003	9.0000e-004	7.3000e-003	1.8400e-003	8.6000e-004	2.7000e-003		26.9641	26.9641	2.0500e-003		27.0153
Worker	0.0234	0.0169	0.1824	4.6000e-004	0.0447	3.6000e-004	0.0451	0.0119	3.3000e-004	0.0122		45.7301	45.7301	1.5700e-003		45.7693
Total	**0.0279**	**0.1387**	**0.2164**	**7.1000e-004**	**0.0511**	**1.2600e-003**	**0.0524**	**0.0137**	**1.1900e-003**	**0.0149**		**72.6942**	**72.6942**	**3.6200e-003**		**72.7845**

1118.1 Fuel Cell and Compressed Natural Gas System Project - South Coast Air Basin, Winter

3.4 Building Construction - 2018

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0848	11.0316	7.7512	0.0114		0.7087	0.7087		0.6520	0.6520	0.0000	1,146.5323	1,146.5323	0.3569		1,155.4555
Total	**1.0848**	**11.0316**	**7.7512**	**0.0114**		**0.7087**	**0.7087**		**0.6520**	**0.6520**	**0.0000**	**1,146.5323**	**1,146.5323**	**0.3569**		**1,155.4555**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	4.4800e-003	0.1218	0.0341	2.5000e-004	6.4000e-003	9.0000e-004	7.3000e-003	1.8400e-003	8.6000e-004	2.7000e-003		26.9641	26.9641	2.0500e-003		27.0153
Worker	0.0234	0.0169	0.1824	4.6000e-004	0.0447	3.6000e-004	0.0451	0.0119	3.3000e-004	0.0122		45.7301	45.7301	1.5700e-003		45.7693
Total	**0.0279**	**0.1387**	**0.2164**	**7.1000e-004**	**0.0511**	**1.2600e-003**	**0.0524**	**0.0137**	**1.1900e-003**	**0.0149**		**72.6942**	**72.6942**	**3.6200e-003**		**72.7845**

1118.1 Fuel Cell and Compressed Natural Gas System Project - South Coast Air Basin, Winter

3.4 Building Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9576	9.8207	7.5432	0.0114		0.6054	0.6054		0.5569	0.5569		1,127.6696	1,127.6696	0.3568		1,136.5892
Total	**0.9576**	**9.8207**	**7.5432**	**0.0114**		**0.6054**	**0.6054**		**0.5569**	**0.5569**		**1,127.6696**	**1,127.6696**	**0.3568**		**1,136.5892**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	4.0700e-003	0.1149	0.0314	2.5000e-004	6.4000e-003	7.7000e-004	7.1700e-003	1.8400e-003	7.4000e-004	2.5800e-003		26.7139	26.7139	1.9800e-003		26.7633
Worker	0.0213	0.0149	0.1628	4.4000e-004	0.0447	3.5000e-004	0.0451	0.0119	3.2000e-004	0.0122		44.2867	44.2867	1.3900e-003		44.3214
Total	**0.0254**	**0.1299**	**0.1941**	**6.9000e-004**	**0.0511**	**1.1200e-003**	**0.0522**	**0.0137**	**1.0600e-003**	**0.0148**		**71.0006**	**71.0006**	**3.3700e-003**		**71.0847**

1118.1 Fuel Cell and Compressed Natural Gas System Project - South Coast Air Basin, Winter

3.4 Building Construction - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9576	9.8207	7.5432	0.0114		0.6054	0.6054		0.5569	0.5569	0.0000	1,127.6696	1,127.6696	0.3568		1,136.5892
Total	**0.9576**	**9.8207**	**7.5432**	**0.0114**		**0.6054**	**0.6054**		**0.5569**	**0.5569**	**0.0000**	**1,127.6696**	**1,127.6696**	**0.3568**		**1,136.5892**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	4.0700e-003	0.1149	0.0314	2.5000e-004	6.4000e-003	7.7000e-004	7.1700e-003	1.8400e-003	7.4000e-004	2.5800e-003		26.7139	26.7139	1.9800e-003		26.7633
Worker	0.0213	0.0149	0.1628	4.4000e-004	0.0447	3.5000e-004	0.0451	0.0119	3.2000e-004	0.0122		44.2867	44.2867	1.3900e-003		44.3214
Total	**0.0254**	**0.1299**	**0.1941**	**6.9000e-004**	**0.0511**	**1.1200e-003**	**0.0522**	**0.0137**	**1.0600e-003**	**0.0148**		**71.0006**	**71.0006**	**3.3700e-003**		**71.0847**

1118.1 Fuel Cell and Compressed Natural Gas System Project - South Coast Air Basin, Winter

3.5 Paving - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8300	7.8446	7.1478	0.0113		0.4425	0.4425		0.4106	0.4106		1,055.1823	1,055.1823	0.3016		1,062.7231
Paving	0.0734					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9033**	**7.8446**	**7.1478**	**0.0113**		**0.4425**	**0.4425**		**0.4106**	**0.4106**		**1,055.1823**	**1,055.1823**	**0.3016**		**1,062.7231**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	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	0.0960	0.0672	0.7326	2.0000e-003	0.2012	1.5700e-003	0.2028	0.0534	1.4500e-003	0.0548		199.2901	199.2901	6.2500e-003		199.4463
Total	**0.0960**	**0.0672**	**0.7326**	**2.0000e-003**	**0.2012**	**1.5700e-003**	**0.2028**	**0.0534**	**1.4500e-003**	**0.0548**		**199.2901**	**199.2901**	**6.2500e-003**		**199.4463**

3.5 Paving - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8300	7.8446	7.1478	0.0113		0.4425	0.4425		0.4106	0.4106	0.0000	1,055.1823	1,055.1823	0.3016		1,062.7231
Paving	0.0734					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9033**	**7.8446**	**7.1478**	**0.0113**		**0.4425**	**0.4425**		**0.4106**	**0.4106**	**0.0000**	**1,055.1823**	**1,055.1823**	**0.3016**		**1,062.7231**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	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	0.0960	0.0672	0.7326	2.0000e-003	0.2012	1.5700e-003	0.2028	0.0534	1.4500e-003	0.0548		199.2901	199.2901	6.2500e-003		199.4463
Total	**0.0960**	**0.0672**	**0.7326**	**2.0000e-003**	**0.2012**	**1.5700e-003**	**0.2028**	**0.0534**	**1.4500e-003**	**0.0548**		**199.2901**	**199.2901**	**6.2500e-003**		**199.4463**

4.0 Operational Detail - Mobile

1118.1 Fuel Cell and Compressed Natural Gas System Project - South Coast Air Basin, Winter

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	7.8300e-003	0.0428	0.1143	4.0000e-004	0.0339	4.2000e-004	0.0343	9.0700e-003	3.9000e-004	9.4600e-003		40.9615	40.9615	2.0600e-003		41.0129
Unmitigated	7.8300e-003	0.0428	0.1143	4.0000e-004	0.0339	4.2000e-004	0.0343	9.0700e-003	3.9000e-004	9.4600e-003		40.9615	40.9615	2.0600e-003		41.0129

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Heavy Industry	3.60	3.60	3.60	15,942	15,942
Other Asphalt Surfaces	0.00	0.00	0.00		
Total	3.60	3.60	3.60	15,942	15,942

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Heavy Industry	16.60	8.40	6.90	59.00	28.00	13.00	92	5	3
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

1118.1 Fuel Cell and Compressed Natural Gas System Project - South Coast Air Basin, Winter

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Heavy Industry	0.550339	0.043800	0.200255	0.122233	0.016799	0.005871	0.020633	0.029727	0.002027	0.001932	0.004726	0.000704	0.000955
Other Asphalt Surfaces	0.550339	0.043800	0.200255	0.122233	0.016799	0.005871	0.020633	0.029727	0.002027	0.001932	0.004726	0.000704	0.000955

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	1.2800e-003	0.0117	9.8000e-003	7.0000e-005		8.9000e-004	8.9000e-004		8.9000e-004	8.9000e-004		14.0016	14.0016	2.7000e-004	2.6000e-004	14.0848
NaturalGas Unmitigated	1.2800e-003	0.0117	9.8000e-003	7.0000e-005		8.9000e-004	8.9000e-004		8.9000e-004	8.9000e-004		14.0016	14.0016	2.7000e-004	2.6000e-004	14.0848

1118.1 Fuel Cell and Compressed Natural Gas System Project - South Coast Air Basin, Winter

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Heavy Industry	119.014	1.2800e-003	0.0117	9.8000e-003	7.0000e-005		8.9000e-004	8.9000e-004		8.9000e-004	8.9000e-004		14.0016	14.0016	2.7000e-004	2.6000e-004	14.0848
Other Asphalt Surfaces	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		**1.2800e-003**	**0.0117**	**9.8000e-003**	**7.0000e-005**		**8.9000e-004**	**8.9000e-004**		**8.9000e-004**	**8.9000e-004**		**14.0016**	**14.0016**	**2.7000e-004**	**2.6000e-004**	**14.0848**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Heavy Industry	0.119014	1.2800e-003	0.0117	9.8000e-003	7.0000e-005		8.9000e-004	8.9000e-004		8.9000e-004	8.9000e-004		14.0016	14.0016	2.7000e-004	2.6000e-004	14.0848
Other Asphalt Surfaces	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		**1.2800e-003**	**0.0117**	**9.8000e-003**	**7.0000e-005**		**8.9000e-004**	**8.9000e-004**		**8.9000e-004**	**8.9000e-004**		**14.0016**	**14.0016**	**2.7000e-004**	**2.6000e-004**	**14.0848**

6.0 Area Detail

6.1 Mitigation Measures Area

1118.1 Fuel Cell and Compressed Natural Gas System Project - South Coast Air Basin, 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/day										lb/day					
Mitigated	0.0563	1.0000e-005	8.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.8400e-003	1.8400e-003	0.0000		1.9600e-003
Unmitigated	0.0563	1.0000e-005	8.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.8400e-003	1.8400e-003	0.0000		1.9600e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	6.5500e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0497					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	8.0000e-005	1.0000e-005	8.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.8400e-003	1.8400e-003	0.0000		1.9600e-003
Total	**0.0563**	**1.0000e-005**	**8.6000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**1.8400e-003**	**1.8400e-003**	**0.0000**		**1.9600e-003**

1118.1 Fuel Cell and Compressed Natural Gas System Project - South Coast Air Basin, Winter

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	6.5500e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0497					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	8.0000e-005	1.0000e-005	8.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.8400e-003	1.8400e-003	0.0000		1.9600e-003
Total	**0.0563**	**1.0000e-005**	**8.6000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**1.8400e-003**	**1.8400e-003**	**0.0000**		**1.9600e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

1118.1 Fuel Cell and Compressed Natural Gas System Project - South Coast Air Basin, Winter

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

APPENDIX C

Calculations and Assumptions

APPENDIX C-1

Construction and Operation Emissions

Pollutant and GHG Emissions from Vehicles and Fuel Cell

Peak Daily Construction Emissions for Flare Replacement and Fuel Cell

GHG Emission Calculations and Conversions

2018 EMFAC Vehicle Emission Factors (pounds/mile)

	CO	NOx	VOC	SOx	PM10	PM2.5	CO2	CH4
Delivery trucks	0.00338	0.00519	0.00077	1.9E-05	0.00035	0.0002	2	0.000042
Passenger Vehicles	0.004	0.00034	0.00042	8E-06	0.0001	4.4E-05	1	0.000043
Heavy Duty Trucks	0.00258	0.01293	0.00051	3.4E-05	0.00042	0.00027	4	0.000026

Vehicular Construction Emissions from Fuel Meter Installation (pounds/day)

	CO	NOx	VOC	SOx	PM10	PM2.5	GHG Emissions CO2	GHG Emissions CH4
Delivery Truck	1.4	2.1	0.3	0.0	0.1	0.1	786	0.02
Worker Trip	1.6	0.1	0.2	0.0	0.0	0.0	325	0.02
Total	**3.0**	**2.2**	**0.5**	**0.0**	**0.2**	**0.1**	1,111	0.03
Significance Threshold for Construction	550	100	75	150	150	55		
Significant?	**No**	**No**	**No**	**No**	**No**	**No**		

Assumptions

Dist (RT)	# Vehicles
40	10
40	10

Vehicular Operational Emissions from CNG Transport (pounds/day)

	CO	NOx	VOC	SOx	PM10	PM2.5	GHG Emissions CO2	GHG Emissions CH4
Heavy Duty Truck (43/day, 40 miles round trip)	4.4	22.2	0.9	0.1	0.7	0.5	6,179	0.04
Significance Threshold for Operation	550	55	55	150	150	55	NA	NA
Significant?	**No**	**No**	**No**	**No**	**No**	**No**		

Assumptions

Dist (RT)	# Vehicles
40	43

Fuel Cell Operational Emissions

	CO	NOx	VOC	SOx	PM10	PM2.5	GHG Emissions CO2	GHG Emissions CH4
Fuel Cell Emission Factors (pounds/MWh)		0.01		0.0001	0.00002		980	
Fuel Cell Emissions (24 hours per day at 7 MW total)	NA	1.68	NA	0.0168	0.00336	NA	164,640	
Significance Threshold for Operation	550	55	55	150	150	55		
Significant?	**NA**	**No**	**NA**	**No**	**No**	**NA**		

MW total	CO2e total
7	27282.49

All Operation Emissions - Peak Day (pounds/day)

	CO	NOx	VOC	SOx	PM10	PM2.5	GHG Emissions	
CNG Transport	4.4	22.2	0.9	0.1	0.7	0.5	6,179	0.04
Fuel Cell Operation	NA	1.7	NA	0.0	0.0	NA	164,640	0.00
Fuel Cell/CNG Service Trips	0.2	0.0	0.0	0.0	0.0	0.0	32	0.00
Source Testing	0.2	0.0	0.0	0.0	0.0	0.0	32	0.00
Total	**4.8**	**24.0**	**0.9**	**0.1**	**0.7**	**0.5**		
Significance Threshold for Operation	550	55	55	150	150	55		
Significant?	**No**	**No**	**No**	**No**	**No**	**No**		

Notes:

CNG transport assumes 43 truck trips of 40 miles round-trip per day

Fuel cell operation assumes five 1.4 MW facilities

Flare replacements will reduce Nox by 15.8 lbs/day

Fuel cell/CNG service trips and source testing trips will require one 40 mile passenger vehicle round-trip each on a peak day

1 of Each Project: Peak Daily Construction Emissions by Pollutant (lb/day)

Project	CO	NOx	VOC	SOx	PM10	PM2.5
Flare Replacement	4.79	9.78	0.88	0.01	1.00	0.46
Fuel Cell and Compressed Natural Gas System	8.28	11.17	1.12	0.01	0.49	1.04

CO2 Calculations and Conversions into Annual Emission Rates

Activity	CO2 lbs/day	CH4 lbs/day	CO2e lbs/day (CH4 = 25*CO2e)	CO2e lbs/project	CO2e MT/yr	Notes
Flare Replacement	-	-	-	13.8366	0.46122	ammortized over 30 years
CNG and Fuel Cell Installation	-	-	-	35.1054	1.17018	ammortized over 30 years
CNG Transport Truck	6179.111228	0.044861155	6180.232757		1024.12637	43 Daily diesel truck trips, 365 days/yr
Fuel Cell Service Trips	162.2763996	0.008627693	162.4920919		0.07377141	5 service trips per year
Source Testing	908.7478375	0.048315081	909.9557145		0.41311989	Assume all source tests happen in one year
Fuel Meter Installation	1110.960579	0.034030016	1111.81133		0.01682541	ammortized over 30 years
Fuel Cell Operation (natural gas)					27282.4944	Based on SureSource emission factor
Emissions Avoided by Not Flaring					23,445.68	Emissions from flaring equivalent gas as fuel cell (see below)

Emissions avoided by not flaring

Flare Operation Emission Factor	53	kg CO2/mmBTU	https://www.eia.gov/environment/emissions/co2_vol_mass.php
Fuel Cell gas use	181	scfm	
Assumed heat value	930	btu/ft3	
Fuel Cell heat flow rate /min	168330	btu/min	
Fuel Cell heat flow rate /day	242,395,200	btu/day	
Fuel Cell heat flow rate /year	88,474	MMBTU/yr	
CO2e released from equivalent gas flaring	4,689.14	MT CO2 saved per fuel cell	
CO2e released from equivalent gas flaring of 5 Fuel Cells	23,445.68	MT CO2 saved with 5 fuel cells	

APPENDIX C-2

Fuel Consumption

Off-road Construction Equipment Fuel Usage

On-Road Vehicle Fuel Usage

South Coast Basin Estimated Vehicular Natural Gas Supply

Off Road Construction Equipment Fuel Usage

Phase	Equipment Type	#	Hours	HP	LF	Days	Total Hour	EMFAC Off Road Fuel Usage Rate (lbs/hr)	Pounds Diesel	Gallons Diesel (6.943 lbs/gal)
Construction	Welders	1	8	46	0.45	30	240	1.194799556	286.7518935	
Construction	Cranes	1	4	231	0.29	30	120	3.301602635	396.1923162	
Construction	Forklifts	1	6	89	0.2	30	180	0.854990628	153.898313	
Site Prep	Graders	1	8	187	0.41	1	8	4.593410125	36.747281	
Demolition	Cranes	1	6	247	0.4	10	60	3.301602635	198.0961581	
Demolition	Tractors/Loaders/Backhoes	1	6	97	0.37	10	60	1.591673415	95.5004049	
Site Prep	Tractors/Loaders/Backhoes	1	8	97	0.37	1	8	1.591673415	12.73338732	
Site Prep	Graders	1	8	187	0.41	1	8	4.593410125	36.747281	
Site Prep	Loaders	1	8	97	0.37	1	8	1.591673415	12.73338732	
Grading	Concrete/Industrial Saw	1	8	81	0.73	2	16	1.385867896	22.17388633	
Grading	Rubber	1	1	247	0.4	2	2	4.403073138	8.806146277	
Grading	Tractors/Loaders/Backhoes	2	6	97	0.37	2	24	1.591673415	38.20016196	
Building	Cranes	1	4	231	0.29	100	400	3.301602635	1320.641054	
Building	Forklifts	2	6	89	0.2	100	1200	0.854990628	1025.988753	
Building	Loaders	2	8	97	0.37	100	1600	1.591673415	2546.677464	
Paving	Cement Mixer	4	6	9	0.56	5	120	0.330370149	39.64441788	
Paving	Pavers	1	7	130	0.42	5	35	3.380720519	118.3252182	
Paving	Rollers	1	7	80	0.38	5	35	1.693079104	59.25776863	
Paving	Tractors/Loaders/Backhoes	1	7	97	0.37	5	35	1.591673415	55.70856952	
Total									6464.823862	931.1283108

On Road Vehicle Fuel Usage

Activity	Vehicle Type	Phase	trip numbe	days	trip length 1 way	mpg	fuel	gallons
Delivery Trips - Fuel Cell/CNG Project	Delivery	construction	1	100	6.9	6.6	diesel	209
Delivery Trips - Flare Replacement	Delivery	construction	1	30	6.9	6.6	diesel	63
Fuel Meter Installation Delivery Trips	Delivery	installation	10	1	20	6.6	diesel	61
CNG Transport Truck Trips	Heavy Duty	operation	43	365	20	5.9	diesel	106407
CNG Transport Truck Trips	Heavy Duty	operation	43	365	20	5.3	CNG	118453
Worker Trips - Fuel Cell/CNG Project	Passenger	site prep	5	1	14.7	21	gasoline	7
Worker Trips - Fuel Cell/CNG Project	Passenger	grading	10	2	14.7	21	gasoline	28
Worker Trips - Fuel Cell/CNG Project	Passenger	construction	4	100	14.7	21	gasoline	560
Worker Trips - Fuel Cell/CNG Project	Passenger	paving	18	5	14.7	21	gasoline	126
Worker Trips - Flare Replacement	Passenger	demolition	5	10	14.7	21	gasoline	70
Worker Trips - Flare Replacement	Passenger	site prep	5	1	14.7	21	gasoline	7
Worker Trips - Flare Replacement	Passenger	construction	2	30	14.7	21	gasoline	84
Fuel Meter Installation Worker Trips	Passenger	installation	10	1	20	21	gasoline	19
Source Testing Trips	Passenger	source testing	28	1	20	21	gasoline	53
Fuel Cell Service Trips	Passenger	service	5	1	20	21	gasoline	10

Estimated South Coast Natural Gas Supply

CA Total Diesel	1937	MMgal
South Coast Basin Diesel	775	MMgal
South Coast Diesel Fraction	0.40	
CA Total Gasoline	15584	MMgal
South Coast Gasoline	7086	
South Coast Gasoline Fraction	0.45	
Estimated South Coast Natural Gas Fraction	0.40	
CA Total Natural Gas Vehicle Usage	45.61	Diesel MMgal equivalent
South Coast Estimated Natural Gas Supply	18.25	Diesel MMgal equivalent

Note: assume that South Coast natural gas supply is same fraction as diesel supply

APPENDIX D

List of Affected Facilities

Facilities with Non-Refinery Flares in the SCAQMD

Facility ID	Facility Name	Address	Gas Flared	On List per Government Code 65962.5 (Envirostor)?	Distance to Sensitive Receptor (miles)	Located Within Two Miles of an Airport?	Located Within 1/4 Mile of a School?
1179	INLAND EMPIRE UTL AGEN, A MUN WATER DIS	16400 EL PRADO CHINO 91710	Digester Gas	No	0.54	No	No
1703	EASTERN MUNICIPAL WATER DISTRICT	27401 DIAZ RD/42565 AV ALVARAD TEMECULA 92590	Digester Gas	No	0.86	No	No
2537	CORONA CITY, DEPT OF WATER & POWER	1904 W CLEARWATER DR CORONA 92880	Digester Gas	No	0.84	Yes	No
3866	SO ORANGE CO. WASTEWATER AUTHORITY	34152 DEL OBISPO ST DANA POINT 92629	Digester Gas	No	0.11	No	No
7417	EASTERN MUNICIPAL WATER DIST	26560 WATSON RD & 1301 CASE RD PERRIS 92570	Digester Gas	No	0.28	No	No
9163	INLAND EMPIRE UTL AGEN, A MUN WATER DIS	2450 PHILADELPHIA AVE ONTARIO 91761	Digester Gas	No	0.51	Yes	No
9961	RIVERSIDE CITY, WATER QUALITY CONTROL	5950 ACORN ST RIVERSIDE 92504	Digester Gas	No	0.61	No	No
10198	VALLEY SANITARY DIST	45-500 VAN BUREN ST INDIO 92201	Digester Gas	No	0.03	No	No
10245	LA CITY, TERMINAL ISLAND TREATMENT PLANT	445 FERRY ST SAN PEDRO 90731	Digester Gas	No	1.24	No	No
10983	EASTERN MUNICIPAL WATER DIST.	Various Locations	Digester Gas	No	NA	No	No
11301	SAN BERNARDINO CITY MUN WATER DEPT (WRP)	399 CHANDLER PL SAN BERNARDINO 92408	Digester Gas	No	0.62	No	No
12923	RIALTO CITY	501 E SANTA ANA AV BLOOMINGTON 92316	Digester Gas	No	1.24	No	No
13088	EASTERN MUNICIPAL WATER DISTRICT	17010 PERRIS BL/17140 KITCHING MORENO VALLEY 92551	Digester Gas	No	0.16	Yes	No
13433	SO ORANGE CO WASTEWATER AUTHORITY-RTP	29200-01 LA PAZ RD LAGUNA NIGUEL 92677	Digester Gas	No	0.53	No	Yes
13596	COLTON CITY WASTEWATER	1201 S RANCHO AV COLTON 92324	Digester Gas	No	0.25	No	Yes
14898	PALM SPRINGS WASTEWATER	4375 MESQUITE AV PALM SPRINGS 92264	Digester Gas	No	0.14	Yes	No
16642	ANHEUSER-BUSCH LLC., (LA BREWERY)	15800 ROSCOE BLVD. VAN NUYS 91406	Digester Gas	No	0.05	Yes	No
17301	ORANGE COUNTY SANITATION DISTRICT	10844 ELLIS AVE. FOUNTAIN VALLEY 92708	Digester Gas	No	0.22	No	No
19159	EASTERN MUNICIPAL WATER DIST	22251 SANDERSON AVE SAN JACINTO 92582	Digester Gas	No	0.75	No	No
20237	SAN CLEMENTE CITY, WASTEWATER DIV	380 AVENIDA PICO SAN CLEMENTE 92672	Digester Gas	No	0.27	No	No
20561	WATSON LAND COMPANY	1711 ALAMEDA WILMINGTON 90744	Digester Gas	No	0.23	No	No

Facilities with Non-Refinery Flares in the SCAQMD

Facility ID	Facility Name	Address	Gas Flared	On List per Government Code 65962.5 (Envirostor)?	Distance to Sensitive Receptor (miles)	Located Within Two Miles of an Airport?	Located Within 1/4 Mile of a School?
20604	RALPHS GROCERY CO	2201-15 S WILMINGTON AV COMPTON 90220	Digester Gas	No	0.48	No	No
22674	L.A. COUNTY SANITATION DIST VALENCIA PLT	28185 THE OLD ROAD VALENCIA 91355	Digester Gas	No	1.36	No	No
29110	ORANGE COUNTY SANITATION DISTRICT	22212 BROOKHURST ST HUNTINGTON BEACH 92646	Digester Gas	No	0.13	No	No
50402	YUCAIPA VALLEY WATER DISTRICT	880 W COUNTY LINE RD YUCAIPA 92399	Digester Gas	No	0.14	No	Yes
51304	SANTA MARGARITA WATER DIST	28793 ORTEGA HWY SAN JUAN CAPISTRANO 92675	Digester Gas	No	0.19	No	No
89186	COCA-COLA	1650 S VINTAGE AV ONTARIO 91761	Digester Gas	No	1.35	No	No
94009	LAS VIRGENES WATER DIST.	3700 LAS VIRGENES ROAD CALABASAS 91302	Digester Gas	No	0.09	No	No
109608	CR & R INC	1706 GOETZ RD. PERRIS 92570	Digester Gas	No	0.21	No	No
118526	WESTERN MUNICIPAL WATER DIST.	22751 NANDINA AVE RIVERSIDE 92518	Digester Gas	No	0.62	No	No
147371	INLAND EMPIRE UTILITIES AGENCY	6063 KIMBALL AVE CHINO 91710	Digester Gas	No	0.64	No	No
150667	VENTURA FOODS	2900 E JURUPA AVE ONTARIO 91761	Digester Gas	No	1.12	Yes	No
155877	MILLERCOORS, LLC	15801 E 1ST ST IRWINDALE 91706	Digester Gas	No	1.03	No	No
181040	SANTA MARGARITA WATER DIST	26801 CAMINO CAPISTRANO LAGUNA NIGUEL 92677	Digester Gas	No	0.23	No	No
800214	LA CITY, SANITATION BUREAU (HTP)	12000 VISTA DEL MAR PLAYA DEL REY 90293	Digester Gas	No	0.25	Yes	No
800236	LA CO. SANITATION DIST	24501 S FIGUEROA ST CARSON 90745	Digester Gas	No	0.19	No	No
6979	RIV CO., WASTE MGMT, BADLANDS LANDFILL	31125 IRONWOOD AV MORENO VALLEY 92555	Landfill Gas	No	1.24	No	No
7068	SAN BER CNTY SOLID WASTE MGMT	SAN TIMOTEO CANYON RD REDLANDS 92373	Landfill Gas	No	0.40	No	No
13662	CITY OF WHITTIER LANDFILL	13919 PENN ST WHITTIER 90602	Landfill Gas	No	0.13	No	No
15793	RIV CO, WASTE RESOURCES MGMT DIST, LAMB	16411 LAMB CANYON RD (HWY79) BEAUMONT 92223	Landfill Gas	No	3.96	No	No
42086	CITY OF UPLAND LANDFILL	870 E 15TH STREET UPLAND 91786	Landfill Gas	No	0.02	No	No
42514	LA COUNTY SANITATION DIST (CALABASAS)	5200-5300 LOST HILLS RD AGOURA 91301	Landfill Gas	No	0.17	No	No

Facilities with Non-Refinery Flares in the SCAQMD

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45262	LA COUNTY SANITATION DIST SCHOLL CANYON	3001 SCHOLL CANYON RD GLENDALE 91206	Landfill Gas	No	0.62	No	No
49111	SUNSHINE CANYON LANDFILL	14747 SAN FERNANDO RD SYLMAR 91342	Landfill Gas	No	0.56	No	No
50299	SAN BER CNTY SOLID WASTE MGMT MID VALLEY	MID-VALLEY SANITARY LANDFILL RIALTO 92377	Landfill Gas	No	0.56	No	No
50418	O C WASTE & RECYCLING, OLINDA ALPHA	1942 VALENCIA AVE BREA 92823	Landfill Gas	No	0.31	No	No
52753	OC WASTE & RECYCLING, PRIMA DESHECHA	LA PATA RD/ORTEGA HWY SAN JUAN CAPISTRANO 92675	Landfill Gas	No	0.12	No	No
69646	OC WASTE & RECYCLING, FRB	11002 BEE CANYON RD IRVINE 92602	Landfill Gas	No	0.90	No	No
74413	REDLANDS CITY (CALIFORNIA ST LANDFILL)	2151 NEVADA REDLANDS 92373	Landfill Gas	No	0.65	Yes	No
113518	BREA PARENT 2007,LLC	1942 VALENCIA AVE BREA 92821	Landfill Gas	No	0.31	No	No
113674	U S A WASTE OF CAL(EL SOBRANTE LANDFILL)	10910 DAWSON CANYON RD. CORONA 92883	Landfill Gas	No	1.27	No	No
119219	CHIQUITA CANYON LLC	29201 HENRY MAYO DR VALENCIA 91355	Landfill Gas	No	0.88	No	No
139865	CITY OF BURBANK/WATER AND POWER	2500 BEL AIRE DR BURBANK 91506	Landfill Gas	No	0.16	No	No
139938	SUNSHINE GAS PRODUCERS LLC	14747 SAN FERNANDO RD SYLMAR 91342	Landfill Gas	No	0.69	No	No
140373	AMERESCO CHIQUITA ENERGY LLC	29201 HENRY MAYO DR VALENCIA 91355	Landfill Gas	No	0.88	No	No
173846	AZUSA LAND RECLAMATION,INC	1201 W GLADSTONE ST AZUSA 91702	Landfill Gas	No	0.23	No	No
3530	CALMAT PROPERTIES CO (HEWITT PIT LANDFIL	7245 LAUREL CANYON BL NORTH HOLLYWOOD 91605	Landfill Gas (closed)	No	0.11	Yes	No
5112	RIVERSIDE CO. - MEAD VALLEY	22376 FOREST RD PERRIS 92570	Landfill Gas (closed)	No	0.40	No	No
7371	SAN BER CNTY SOLID WASTE MGMT- MILLIKEN	2050 S MILLIKEN AVE ONTARIO 91761	Landfill Gas (closed)	No	0.75	No	No
7699	SYUFY ENT.	20151 S MAIN ST. CARSON 90745	Landfill Gas (closed)	No	0.35	No	No
11434	RIV. CO. WASTE RES. MGR. DBL BUT.	31710 GRAND AVE WINCHESTER 92596	Landfill Gas (closed)	No	0.62	No	No
21189	LACO SAN DISTRICT - MISSION CYN	2501 N SEPULVEDA BL LOS ANGELES 90049	Landfill Gas (closed)	No	0.57	No	No

Facilities with Non-Refinery Flares in the SCAQMD

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24520	LA CNTY SANITATION DISTRICT-PALOS VERDES	26301 S CRENSHAW B &25704 HAWT ROLLING HILLS ESTATES 90274	Landfill Gas (closed)	No	0.44	No	No
25070	LA CNTY SANITATION DISTRICT-PUENTE HILLS	2800 WORKMAN MILL RD CITY OF INDUSTRY 91745	Landfill Gas (closed)	No	0.33	No	No
35102	MOUNTAIN GATE COUNTRY CLUB	C/O AMERICAN GOLF CORP LOS ANGELES 90049	Landfill Gas (closed)	No	0.72	No	No
42633	LA COUNTY SANITATION DISTRICTS (SPADRA)	4125 W VALLEY BLVD POMONA 91765	Landfill Gas (closed)	No	0.12	No	No
42949	LA CITY, PUB WKS DEPT, SANITATION BUREAU	12730 SHELDON ST SUN VALLEY 91352	Landfill Gas (closed)	No	0.14	No	No
49805	LA CITY, BUREAU OF SANIT(LOPEZ CANYON)	11950 LOPEZ CANYON RD LAKE VIEW TERRACE 91342	Landfill Gas (closed)	No	0.09	No	No
50297	RIVERSIDE COUNTY WASTE MANAGEMENT	2700 HALL AV RUBIDOUX 92509	Landfill Gas (closed)	No	0.06	No	No
50310	WASTE MGMT DISP &RECY SERVS INC (BRADLEY	9227 TUJUNGA AV SUN VALLEY 91352	Landfill Gas (closed)	No	0.42	Yes	No
52743	OC WASTE & RECYCLING, SANTIAGO	2503 SANTIAGO CYN RD ORANGE 92862	Landfill Gas (closed)	No	1.55	No	No
53860	PICK YOUR PART AUTO WRECKING	1903 N BLINN WILMINGTON 90744	Landfill Gas (closed)	No	0.14	No	No
57769	CITY OF RIVERSIDE (TEQUESQUITE LANDFILL)	5900 TEQUESQUITE AV RIVERSIDE 92503	Landfill Gas (closed)	No	0.19	No	No
58044	SAN BER CNTY SOLID WASTE MGMT - COLTON	21230 TROPICA RANCH RD COLTON 92324	Landfill Gas (closed)	No	0.19	No	No
60302	RIV CO WASTE MGMT (EDOM HILL)	70-100 EDOM HILL RD THOUSAND PALMS 92276	Landfill Gas (closed)	No	3.24	No	No
60315	RIVERSIDE CO - COACHELLA	87-011 44TH AV/DILLON RD COACHELLA 92236	Landfill Gas (closed)	No	2.49	No	No
60384	LOS ANGELES BY-PRODUCTS	8251 TUJUNGA AV SUN VALLEY 91352	Landfill Gas (closed)	No	0.17	Yes	No
68609	PICK YOUR PART AUTO WRECKING	11201 PENDLETON SUN VALLEY 91352	Landfill Gas (closed)	No	0.62	Yes	No
73884	RIVERSIDE CO. WASTE - ELSINORE	2250 FRANKLIN ST LAKE ELSINORE 92530	Landfill Gas (closed)	No	0.30	No	No
77033	INDUSTRY CITY,CIVIC RECREATIONAL IND AUT	1 INDUSTRY HILLS PKWY CITY OF INDUSTRY 91744	Landfill Gas (closed)	No	0.37	No	No

Facilities with Non-Refinery Flares in the SCAQMD

Facility ID	Facility Name	Address	Gas Flared	On List per Government Code 65962.5 (Envirostor)?	Distance to Sensitive Receptor (miles)	Located Within Two Miles of an Airport?	Located Within 1/4 Mile of a School?
79324	HIGHGROVE LANDFILL	1420 HIGHGROVE PASS RD RIVERSIDE 92507	Landfill Gas (closed)	No	1.86	No	No
84157	MONTEBELLO CITY	1401 N MONTEBELLO BLVD MONTEBELLO 90640	Landfill Gas (closed)	No	0.73	No	Yes
95566	LA CITY, TOYON CANYON LANDFILL	5050 MOUNT HOLLYWOOD WAY LOS ANGELES 90027	Landfill Gas (closed)	No	1.00	No	No
104086	MM LOPEZ ENERGY LLC	1700 CHABLIS AVE ONTARIO 91761	Landfill Gas (closed)	No	1.37	No	No
106164	OC WASTE - VILLA PARK	SANTIAGO CANYON & LOMA STREET ORANGE 92869	Landfill Gas (closed)	No	0.06	No	No
135173	RIVERSIDE CO. WASTE MGT.	1420 HIGHGROVE PASS RD RIVERSIDE 92507	Landfill Gas (closed)	No	1.86	No	No
135369	CORONA DWP LANDFILL	1300 MAGNOLIA AVE CORONA 92879	Landfill Gas (closed)	No	0.44	No	No
145144	ENI OIL & GAS	21000 S FIGUEROA CARSON 90745	Landfill Gas (closed)	No	0.07	No	No
165241	RIVERSIDE COUNTY, CORONA	1300 MAGNOLIA AVE CORONA 92879	Landfill Gas (closed)	No	0.44	No	No
176967	COYOTE CANYON ENERGY LLC	20662 NEWPORT COAST DR. NEWPORT BEACH 92657	Landfill Gas (closed)	No	0.34	No	No
181426	OC WASTE & RECYCLING, COYOTE	20662 NEWPORT COAST DR NEWPORT COAST 92657	Landfill Gas (closed)	No	0.34	No	No
181904	CHANDLER'S RECYCLING	1711 ALAMEDA WILMINGTON 90744	Landfill Gas (closed)	No	0.23	No	No
183607	CARSON RECLAM -TETRATECH	20400 MAIN ST CARSON 90745	Landfill Gas (closed)	No	0.06	No	No
800209	BKK CORP (EIS USE)	2210 S AZUSA AV WEST COVINA 91792	Landfill Gas (closed)	Yes	0.17	No	No
137722	VOPAK TERMINAL LONG BEACH INC,A DELAWARE	305 HENRY FORD AV SAN PEDRO 90731	Organic Liquid Handling	No	1.13	No	No
176377	TESORO LOGISTICS MARINE TERMINAL 2	1300 PIER B ST LONG BEACH 90813	Organic Liquid Handling	No	0.50	No	No
800022	CALNEV PIPE LINE, LLC, COLTON STATION	2051 W SLOVER AV BLOOMINGTON 92316	Organic Liquid Handling	No	0.24	No	No
800056	KINDER MORGAN LIQUIDS TERMINALS, LLC LA HARBOR TERMINAL	1900 WILMINGTON - SAN PEDRO RD WILMINGTON 90744	Organic Liquid Handling	Yes	0.00	No	No

Facilities with Non-Refinery Flares in the SCAQMD

Facility ID	Facility Name	Address	Gas Flared	On List per Government Code 65962.5 (Envirostor)?	Distance to Sensitive Receptor (miles)	Located Within Two Miles of an Airport?	Located Within 1/4 Mile of a School?
800057	KINDER MORGAN LIQUIDS TERMINALS, LLC CARSON TERMINAL	2000 E SEPULVEDA BLVD CARSON 90810	Organic Liquid Handling	Yes	0.67	No	No
800129	SFPP, L.P. Colton Terminal	2359 RIVERSIDE AVENUE BLOOMINGTON 92316	Organic Liquid Handling	No	0.51	No	No
800278	SFPP, L.P. Watson Station	20410 S WILMINGTON AV CARSON 90810	Organic Liquid Handling	No	0.07	No	No
800279	SFPP, L.P. Orange Terminal	1350 N MAIN ST ORANGE 92867	Organic Liquid Handling	Yes	0.06	No	No
800372	EQUILON	20945 S WILMINGTON CARSON 90810	Organic Liquid Handling	Yes	0.27	No	No
5973	SO CAL GAS CO	25205 W RYE CANYON ROAD VALENCIA 91355	Other Flaring	No	0.39	No	No
8582	SO CAL GAS CO	8141 GULANA AV PLAYA DEL REY 90293	Other Flaring	No	0.10	Yes	No
11245	HOAG HOSPITAL	301 NEWPORT BLVD NEWPORT BEACH 92658	Other Flaring	No	0.05	No	No
14914	CAL CARBON	2825 E GRANT ST. WILMINGTON 90744	Other Flaring	No	0.48	No	No
42630	PRAXAIR	5705 AIRPORT DR ONTARIO 91761	Other Flaring	No	1.74	No	No
108742	REMO INC	28101 W INDUSTRY DRIVE VALENCIA 91355	Other Flaring	No	0.11	No	Yes
169754	SO CAL HOLDING, LLC	20101 GOLDENWEST ST HUNTINGTON BEACH 92648	Other Flaring	No	0.07	No	No
176823	RIALTO BIOENERGY FACILITY, LLC	503 E SANTA ANA AVE BLOOMINGTON 92316	Other Flaring	No	1.24	No	No
800127	SO CAL GAS CO	831 N HOWARD AV MONTEBELLO 90640	Other Flaring	No	0.05	No	No
800128	SO CAL GAS CO	12801 TAMPA AVE. NORTHRIDGE 91326	Other Flaring	No	0.11	No	No
44454	STRUCTURAL COMPOSITES IND	325 ENTERPRISE PL POMONA 91768	Other Flaring - Butane	No	0.26	No	No
158910	RANCHO LPG HOLDINGS, LLC	2110 N GAFFEY ST SAN PEDRO 90731	Other Flaring - Butane	No	0.22	No	No
11998	GOODRICH CORPORATION	11120 S NORWALK BLVD SANTA FE SPRINGS 90670	Other Flaring - Propane	No	0.02	No	No

Facilities with Non-Refinery Flares in the SCAQMD

Facility ID	Facility Name	Address	Gas Flared	On List per Government Code 65962.5 (Envirostor)?	Distance to Sensitive Receptor (miles)	Located Within Two Miles of an Airport?	Located Within 1/4 Mile of a School?
12332	GATX CORPORATION	20878 SLOVER COLTON 92324	Other Flaring - Propane	Yes	0.71	No	No
13627	HILLCREST BEVERLY	10460 W PICO BLVD LOS ANGELES 90064	Produced gas	No	0.28	No	No
45086	SIGNAL HILL PETROLEUM INC	2465 TEMPLE AVE. LONG BEACH 90806	Produced gas	No	0.04	Yes	No
54349	ANGUS PETROLEUM	1901 CALIFORNIA ST HUNTINGTON BEACH 92648	Produced Gas	No	0.03	No	No
68112	TIDELANDS OIL PRODUCTION COMPANY, ETAL	1749 PIER D AVE LONG BEACH 90802	Produced gas	No	0.70	No	No
83509	THE TERMO CO	31000 HASLEY CANYON RD CASTAIC 91384	Produced gas	No	0.02	No	No
86463	WEAVER & MOLA DEVELOPMENT (BRINDLE AND THOMAS	19122 STEWART ST HUNTINGTON BEACH 92648	Produced gas	No	0.06	No	No
88359	ALAMITOS COMPANY	2001 PACIFIC COAST HWY SEAL BEACH 90740	Produced Gas	No	0.49	No	No
103480	BRIDGEMARK CORPORATION	15200 FRONTERA ANAHEIM 92806	Produced Gas	No	0.04	No	No
106844	VINTAGE PRODUCTION CALIFORNIA	24000 HWY 99/HONOR RANCHO CASTAIC, CA 91310	Produced gas	No	0.70	No	No
107551	BOLSA LEASE	W ELLIS/EDWARDS ST(BROOKS LEAS HUNTINGTON BEACH 92646	Produced Gas	No	0.09	No	No
109719	COOK ENERGY, INC. KERN LEASE	SAN MARTINEZ GR. RD-END VAL VERDE 91348	Produced gas	No	0.43	No	No
120098	BREITBURN ENERGY CO.	VARIOUS LOCATIONS	Produced Gas	No	NA	No	No
124723	GREKA OIL & GAS	1920 EAST ORCHARD DR PLACENTIA 92870	Produced gas	No	0.01	No	No
131425	MATRIX OIL CORPORATION - RIDEOUT HEIGHTS	5020 WORKMAN MILL RD WHITTIER 90601	Produced gas	No	0.19	No	No
143741	DCOR LLC	OFFSHORE PLATFORM EDITH HUNTINGTON BEACH 92649	Produced gas	No	16.00	No	No
144681	WARREN E & P, INC.	625 E ANAHEIM ST WILMINGTON 90744	Produced gas	No	0.13	No	No
148894	CALIFORNIA RESOURCES PRODUCTION CORP	24000 HWY 99/HONOR RANCHO CASTAIC 91310	Produced gas	No	0.70	No	No
149027	WARREN E & P, INC.	2209 E 'I' ST WILMINGTON 90744	Produced gas	No	0.54	No	No
150201	BREITBURN OPERATING LP	10735 S SHOEMAKER AVE SANTA FE SPRINGS 90670	Produced Gas	No	0.44	No	No

Facilities with Non-Refinery Flares in the SCAQMD

Facility ID	Facility Name	Address	Gas Flared	On List per Government Code 65962.5 (Envirostor)?	Distance to Sensitive Receptor (miles)	Located Within Two Miles of an Airport?	Located Within 1/4 Mile of a School?
150209	BREITBURN OPERATING L.P.	121 W 140TH ST & 204 140TH ST LOS ANGELES 90061	Produced Gas	No	0.15	No	No
150400	BREITBURN OPERATING L.P.	17001 CARBON CANYON RD BREA 92823	Produced Gas	No	0.62	No	No
151532	LINN OPERATING, INC	500 N KRAEMER BLVD BREA 92821	Produced gas	No	0.00	No	No
151539	BREITBURN OPERATING LP	11916 TELEGRAPH RD SANTA FE SPRINGS 90670	Produced Gas	No	0.17	No	No
151899	CALIFORNIA RESOURCES PRODUCTION CORP	26833 PICO CANYON RD NEWHALL 91381	Produced gas	No	0.27	No	No
156312	ROSECRANS ENERGY	14147 FIGUEROA LOS ANGELES 90061	Produced gas	No	0.12	No	No
165900	PROS INCORPORATED	VARIOUS LOCATIONS	Produced gas	No	NA	No	No
166073	BETA OFFSHORE	OCS LEASE PARCELS P-300/P-301 HUNTINGTON BEACH 92648	Produced Gas	No	16.00	No	No
166595	SO CAL HOLDING, LLC	1450 CHARLES WILLARD ST CARSON 90746	Produced gas	No	0.38	No	No
172872	BREITBURN OPERATING LP	2800 GLADWICK ST CARSON 90745	Produced Gas	No	0.05	No	No
174544	BREITBURN OPERATING LP	11100 CONSTITUTION AVE LOS ANGELES 90025	Produced Gas	No	0.19	No	No
175154	FREEPORT-MCMORAN OIL & GAS	1400 N MONTEBELLO BLVD MONTEBELLO 90640	Produced gas	No	0.38	No	No
175191	FREEPORT-MCMORAN OIL & GAS	5640 S FAIRFAX AVE LOS ANGELES 90056	Produced gas	No	0.28	No	No
184301	SENTINEL PEAK RESOURCES LLC	5640 S FAIRFAX AVE LOS ANGELES 90056	Produced gas	No	0.28	No	No
185578	BRIDGE ENERGY, LLC	15000 TONNER CANYON RD BREA 92821	Produced Gas	No	0.37	No	No
800325	TIDELANDS OIL PRODUCTION CO	949 PIER G AVENUE LONG BEACH 90802	Produced gas	No	1.22	No	No
800330	THUMS LONG BEACH	& FREEMAN, LONG BEACH 90802	Produced gas	No	0.93	No	No

APPENDIX E

Comment Letters Received on the Draft EA and Responses to Comments

Comment Letter #1 – Viejas Band of Kumeyaay Indians

Comment Letter #2 – City of Los Angeles, LA Sanitation and Environment

Comment Letter #3 – Santa Clarita Organization for Planning and the Environment (SCOPE)

VIEJAS
TRIBAL GOVERNMENT

P.O Box 908
Alpine, CA 91903
#1 Viejas Grade Road
Alpine, CA 91901

Phone: 6194453810
Fax: 6194455337
viejas.com

November 1, 2018

Luke Eisenhardt
South Coast AQMD
21865 Copley Drive
Diamond Bar, CA 91765

RE: Proposed Rule 1118.1- Control of Emissions from Non-Refinery Flares

Dear Mr. Eisenhardt,

In reviewing the above referenced project the Viejas Band of Kumeyaay Indians ("Viejas") would like to comment at this time.

The project area may contain many sacred sites to the Kumeyaay people. We request that these sacred sites be avoided with adequate buffer zones.

Additionally, Viejas is requesting, as appropriate, the following:

- All NEPA/CEQA/NAGPRA laws be followed
- Immediately contact Viejas on any changes or inadvertent discoveries.

Thank you for your collaboration and support in preserving our Tribal cultural resources. I look forward to hearing from you. Please call me at 619-659-2312 or Ernest Pingleton at 619-659-2314, or email, rteran@viejas-nsn.gov or epingleton@viejas-nsn.gov, for scheduling. Thank you.

Sincerely,

Ray Teran, Resource Management
VIEJAS BAND OF KUMEYAAY INDIANS

Response to Comment Letter #1

Thank you for your letter. The SCAQMD, as the lead agency for the proposed project, has jurisdiction over the four-county South Coast Air Basin (all of Orange County and the non-desert portions of Los Angeles, Riverside and San Bernardino counties), and the Riverside County portions of the Salton Sea Air Basin (SSAB) and Mojave Desert Air Basin (MDAB). The SCAQMD's jurisdiction also includes the federal nonattainment area known as the Coachella Valley Planning Area, which is a sub-region of Riverside County and the SSAB. Because the SCAQMD is not a federal agency and the project is located within SCAQMD's jurisdiction within California and there are no facilities subject to PR 1118.1 located on federally owned land, PR 1118.1 is only subject to the California Environmental Quality Act (CEQA). The National Environmental Policy Act (NEPA) is a federal regulation that only applies to federal actions. Similarly, the Native American Graves Protection and Repatriation Act (NAGPRA) is a federal regulation that only applies to federal agencies, or museums that receive federal funding. As such, compliance with NEPA and NAGPRA for this project is not required.

As part of releasing the Draft EA for public review and comment, the SCAQMD also provided a formal notice of the proposed project to all California Native American Tribes (Tribes) that requested to be on the Native American Heritage Commission's (NAHC) notification list per Public Resources Code Section 21080.3.1(b)(1). The NAHC notification list provides a 30-day period during which a Tribe may respond to the formal notice, in writing, requesting consultation on the proposed project. SCAQMD staff notified all of the tribes on the Tribal Consultation List as provided by the Native American Heritage Commission of the availability of the Draft EA. To date, SCAQMD staff has not received a consultation request for this project.

SCAQMD staff's review of the potentially affected facilities indicates that there are no facilities subject to PR 1118.1 located in the Viejas Kumeyaay area of Alpine, California, or the larger Kumeyaay Nation. According to the "about" section on the Kumeyaay.com website, as accessed on December 11, 2018, "The Kumeyaay Nation extends from San Diego and Imperial Counties in California to 60 miles south of the Mexican border." Based on this description, the SCAQMD's jurisdiction, and physical locations of facilities that will be required to comply with PR 1118.1 are not located within any of the Kumeyaay Nation in Imperial or San Diego Counties. Thus, since none of the facilities are located within the Viejas area, any construction activities that may occur as a result of PR 1118.1 would not be expected to disturb any sites sacred to the Kumeyaay people.

Finally, the Draft EA contained an analysis of the proposed project relative to potential impacts to cultural resources, including tribal cultural resources in accordance with CEQA Guidelines Section 15064.5. As discussed in Chapter 2, Section V – Cultural Resources of the Draft EA, construction-related activities associated with flare replacement and installing fuel meters and operational activities such as source testing are expected to be confined within the affected existing industrial facilities with the implementation of PR 1118.1. Further, source testing activities would not involve construction activities or the disturbance of soil. Similarly, for those facilities that may need to install a fuel meter on an existing flare, the construction activities would occur on the unit itself and would not be expected to disturb soil. For these reasons, the analysis concluded that there would be no impacts to historical or cultural resources because PR 1118.1 would not be expected to require physical changes to a site, feature, place, cultural landscape, sacred place or

object with cultural value to a California Native American Tribe. Based on the aforementioned discussion, this conclusion is especially true in particular to the Viejas Band of Kumeyaay Indians.

WASTEWATER ENGINEERING SERVICES DIVISION
2714 MEDIA CENTER DRIVE
LOS ANGELES, CA 90065
FAX: (323) 342-6210
WWW.LACITYSAN.ORG

November 19, 2018

Ms. Barbara Radlein, Program Supervisor
CEQA Special Projects Planning, Rule Development, and Area Sources
South Coast Air Quality Management District
21865 Copley Drive
Diamond Bar, CA 91765-4178

Dear Ms. Radlein,

PROPOSED RULE 1118.1–CONTROL OF EMISSIONS FROM NON-REFINERY FLARES - NOTICE OF COMPLETION OF A DRAFT ENVIRONMENTAL ASSESSMENT AND OPPORTUNITY FOR PUBLIC COMMENT

This is in response to your October 25, 2018 Notice of Completion of a Draft Environmental Assessment and Opportunity for Public Comment for analyzing environmental impacts from the proposed rule 1118.1 pursuant to its certified regulatory program (SCAQMD Rule 110). LA Sanitation, Wastewater Engineering Services Division has received and logged the notification. Upon review, it has been determined the project is unrelated to sewers and does not require any hydraulic analysis. Please notify our office in the instance that additional environmental review is necessary for this project.

If you have any questions, please call Christopher DeMonbrun at (323) 342-1567 or email at chris.demonbrun@lacity.org

Sincerely,

Ali Poosti, Division Manager
Wastewater Engineering Services Division
LA Sanitation and Environment

CD/AP: al

c: Kosta Kaporis, LASAN
Cyrous Gilani, LASAN
Christopher DeMonbrun, LASAN

CITY OF LOS ANGELES
CALIFORNIA

WASTEWATER ENGINEERING SERVICES DIVISION
2714 MEDIA CENTER DRIVE
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November 19, 2018

Ms. Barbara Radlein, Program Supervisor
CEQA Special Projects Planning, Rule Development, and Area Sources
South Coast Air Quality Management District
21865 Copley Drive
Diamond Bar, CA 91765-4178

Dear Ms. Radlein,

PROPOSED RULE 1118.1–CONTROL OF EMISSIONS FROM NON-REFINERY FLARES - NOTICE OF PUBLIC HEARING

This is in response to your October 31, 2018 Notice of Public Hearing for the adoption of Proposed Rule 1118.1 – Control Of Emissions from Non-Refinery Flares by South Coast Air Quality Management District pursuant to its certified regulatory program (SCAQMD Rule 110). LA Sanitation, Wastewater Engineering Services Division has received and logged the notification. Upon review, it has been determined the project is unrelated to sewers and does not require any hydraulic analysis. Please notify our office in the instance that additional environmental review is necessary for this project.

If you have any questions, please call Christopher DeMonbrun at (323) 342-1567 or email at chris.demonbrun@lacity.org

Sincerely,

Ali Poosti, Division Manager
Wastewater Engineering Services Division
LA Sanitation and Environment

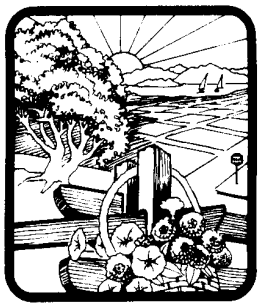
CD/AP: al

c: Kosta Kaporis, LASAN
Cyrous Gilani, LASAN
Christopher DeMonbrun, LASAN

Response to Comment Letter #2

Thank you for your letter. This letter does not appear to raise any CEQA issues relative to the analysis in Draft EA or the PR 1118.1 rule language. Therefore, no further response is required.

SCOPE
Santa Clarita Organization for Planning and the Environment
TO PROMOTE, PROTECT AND PRESERVE THE ENVIRONMENT, ECOLOGY
AND QUALITY OF LIFE IN THE SANTA CLARITA VALLEY
POST OFFICE BOX 1182, SANTA CLARITA, CA 91386
www.scope.org



11-27-18

Mr. Luke Eisenhardt
Email: leisenhardt@aqmd.gov
South Coast AQMD
21865 Copley Dr.
Diamond Bar, CA 91765

Re: DRAFT ENVIRONMENTAL ASSESSMENT - PROPOSED RULE 1118.1 – CONTROL OF EMISSIONS FROM NON-REFINERY FLARES

Dear Mr. Eisenhardt

SCOPE is a 30-year-old planning and conservation group focused on the watershed of the Santa Clarita Valley. Chiquita Canyon Landfill, a facility among those listed in the EA to be covered by this rule, is located in our community and adjacent to the Santa Clara River. We have long been concerned with air pollution produced by this facility, especially VOCs NOx and methane (GHG).

As you know, a large expansion was recently permitted for this landfill. The EIR for that expansion stated that the landfill will have to comply with new air quality rules regarding methane and other pollutants. The residents of the nearby town of Val Verde have long claimed that escaping fugitive gas from this landfill blows into their community and makes them sick.

We are therefore writing to support your efforts to enact this rule as quickly as possible, and support certification of the EA.

While, it is not relevant to the accuracy of the EA, we have attached an excerpt from our comments on the Chiquita Expansion EIR related to methane and flares.

Sincerely,

President

Impacts to Greenhouse Gases SCOPE Expansion EIR comments

As stated in the SDEIR at page 12- 3, California is a substantial contributor of global GHGs –the second largest contributor in the United States and the 14th largest contributor in the world in 2007 according to the California Air Resources Board [CARB], 2011). In 2014, human activities in California released 441.5 MMT CO2e, which equaled approximately 6 percent of the United States total. The primary source of GHGs in California is transportation, contributing 42 percent of the state's total GHG emissions. Industrial emissions were the second largest source, contributing 23 percent of the state's GHG emissions (CARB, 2016). 84 percent of California's 2013 GHG emissions (in terms of CO2e) were CO2, 9 percent were CH4, 3 percent were N2O, and 4 percent were high GWP gases. Landfill emissions were 1.9 percent of total California anthropogenic emissions (CARB, 2016).

What this all means is that we MUST drastically reduce our GHG generation in California and the world if we wish to continue to enjoy a habitable planet. While 1.9% does not seem percentage- wise to be a huge amount, it calculates out to 8,379,000 tons of greenhouse gases a year, mostly methane, WITHOUT including gases generated by waste transport.-

Because of this, several new and longstanding rules target the generation of greenhouse gas in the form of methane from landfills.

Senate Bill 1383. SB 1383, signed by the Governor on September 19, 2016, requires CARB, no later than January 1, 2018, to approve and begin implementing a comprehensive strategy to reduce emissions of short-lived climate pollutants to achieve a reduction in methane by 40 percent, hydro fluorocarbon gases by 40 percent, and anthropogenic black carbon by 50 percent below 2013 levels by 2030. The new law also requires reductions of organic waste at landfills to 50 percent below 2014 standards by 2020, and 75 percent below 2014 by 2025. Although these latter targets are aggregate statewide and need not be met by each jurisdiction, everyone obviously has to do something or the targets won't be met. The regulations to achieve these latter targets shall take effect on or after January 1, 2022, and may require local jurisdictions to impose requirements on generators, which are included in the law, including ongoing monitoring requirements exist to ensure the collection and control system is maintained and operated in a manner to minimize methane emissions. (P12-10)

To reduce the impacts of climate change, the County has set a target to reduce GHG emissions from community activities in the unincorporated areas of Los Angeles County by at least 11 percent below 2010 levels by 2020, which is consistent with the recommendations in the AB 32 Scoping Plan for municipalities to support the overall AB 32 reduction targets. According to the CCAP, waste generation accounts for 535,148 metric tons of CO2e (MT CO2e), or 7 percent, of 2010 GHG emissions in unincorporated Los Angeles County. (Page 12-11, previous DEIR). We note that this figure appears to make the waster generation GHG substantially higher than the previous CARB calculations noted above.)

While we are glad to see that the methodology for ascertaining miles traveled in the Transportation, Air Quality and Greenhouse Gas sections of the DEIR has been corrected in response to our first comment letter to more accurately reflect actual miles traveled for trash and transfer trucks, it now seems that a similar sleight of hand has been used to calculate fugitive methane releases and GHG impacts. As one can see above by the substantial amount of legislation aimed at controlling methane and other pollutants in landfills, this sleight of hand is unacceptable. We must get methane under control, not only because of its climate change impacts, but also because of its impacts on human health, especially to the nearby community of Val Verde.

Table 1
Chiquita Canyon Landfill
Landfill Gas Collection Efficiency

Year	LandGEM [1] (standard cubic feet per minute)	Adjusted LandGEM [2] (standard cubic feet per minute)	Actual Flow (standard cubic feet per minute) [3]	Collection Efficiency (%)
2001 – 2002 [4]	2,913	2,870	2,748	96
2002 – 2003 [4]	3,216	3,169	3,348	106
2006 [4]	4,133	4,071	3,955	97
2007 [4]	4,423	4,358	3,851	88
2008 [4]	4,710	4,640	3,631	78
2009 [5]	4,981	4,907	3,769	77
2010 [4]	5,049	4,974	3,784	76
2011 [6]	5,212	5,135	3,968	77
2012 [6]	5,431	5,351	4,161	78
2013 [6]	5,548	5,466	4,098	75
2014 [6]	5,688	5,603	3,983	71
			Average	**83.5**

[1] Average annual flow rate from LandGEM model results (see Attachment 1)

[2] LandGEM model average annual flow rates adjusted to 60°F standard conditions using the AB-32 conversion factor of 99.220616 scfm/Gg-yr

[3] Average annual flow rate based on 365 days per year and normalized to 50% methane

[4] Actual flow rate determined from *Site Specific Characteristic* and *Calendar Year Operating and Compliance Report Summary*, SCS Engineers

[5] Actual flow rate determined from *Heat Input Capacity Report for Chiquita Canyon, Castaic, California*, SCS Engineers

[6] Actual flow rate determined from *Annual Rule 1150.1 Compliance Plan Report for Chiquita Canyon Landfill, Castaic, California*, SCS Engineers

Methane Capture Rate Methodology Error

While the SCAQMD stated that the capture rate for methane at the CCL facility should be averaged at a 75% capture rate, the project proponent hired Golder Associates, to provide a report supporting a current average 81.5% capture rate and a future rate of 85%.

The 85% number is important for compliance with the new laws and tightening requirements for reducing methane releases. However, as in the previous DEIR sections on vehicle miles traveled, we could not understand how the capture rate could be so much higher than that calculated by the SCAQMD, so we delved into the Golder Report found in Appendix H-4.

What we found was an anomaly in the years used to average the methane capture rate. One can see in the following chart that the capture rate is abnormally high for the years 2000 through 2007. In

Table 2
Chiquita Canyon Landfill
Landfill Gas Collection Efficiency
Alternate Approach

Year	LandGEM LFG Generation (standard cubic foot per minute)	LFG Collection (standard cubic foot per minute)	Collection Efficiency (%)
2001 - 2002	2,870	2,748	N/A
2002 – 2003	3,169	3,348	N/A
2006	4,071	3,955	N/A
2007	4,358	3,851	N/A
2008	4,640	3,631	N/A
2009	4,907	3,769	N/A
2010	4,974	3,784	N/A
2011	5,135	3,968	N/A
2012	5,351	4,161	N/A
2013	5,466	4,098	N/A
2014	5,603	3,983	N/A
2001-2014 (11 years)	50,544	41,296	**81.7 (Average of Total LFG Collected Over 11 Years)**

2001-2002 the capture rate is 106%. How could they landfill capture more gas than was supposedly emitted? Was the data inaccurate, monitoring probes not properly calculated? At any rate, capture from 2008 onward is much lower. However using the apparently inaccurate earlier data of course creates a higher average capture rate when those years are included. Whereas, using the later data generates a lower capture rate.

We have not had the time to make public records requests to receive copies of the earlier SCS Engineers reports that generated the apparently inaccurate data, but we strong urge the County to review those reports.

Then in a second table (above), Golder used their own methodology instead of using the methodology required by AQMD Annual rule 1150.1 which calculates fugitive gas amounts from actual data from monitoring devices on flares and landfill probes. The Golder model seems to be based on the area and tonnage of the landfill. Even though this methodology came up with obviously inaccurate numbers in the early years, as did the first chart, Golder and the landfill proponent used these numbers to assert that the capture rate was a higher, 81.5% by including the higher early year capture rates.

As noted in the assumptions listed on page 34 of Appendix H-2, the two existing landfill flares or not included in the project emissions. Why? Excluding these flares understates total emissions.

As stated in our previous comment letter, the choice of methodology affects the calculation of air quality emissions, and greenhouse gas calculations. It appears that the DEIR has again intentionally underestimated and mis-represented a significant GHG impact by over-stating capture rates. The calculations are once again found only in the appendix and not in the body of the EIR. The only information in the EIR itself is a reference to the Golder Report, and does not even mention that the report can be found in the Appendices. None of the SCS Engineers reports are disclosed. Further problems are described under the biogenic gas section of the air pollution comments.

Such critical information does not belong hidden in an appendix. It must be disclosed prominently as a crucial assumption on which DEIR data calculations are based.[1] We believe that these assumptions and the failure to disclose them in the body of the EIR is a serious omission requiring recirculation of the EIR. Further, the DEIR preparer fails to describe the limitations of the model as required by CEQA.

Last, the Golder Report is used to model mitigation that would supposedly bring the landfill into compliance with the 85% capture rate that will be required of it in current legislation. Since the landfill capture rate should really be calculated from a base of 75%, not 81.5%, those mitigation measures will not be sufficient.

Also, one should note that the fugitive methane release is a PERCENTAGE. Therefore, as the landfill is expanded, the actual amount of fugitive landfill gas released will increase. Residents of the neighboring community of Val Verde and other nearby communities as well as the whole Santa Clarita Valley will be subjected to even greater health issues from fugitive gases than they are suffering now. Please see attached article entitled "Morbidity and mortality of people who live
close to municipal waste landfills: a multisite cohort study, Francesca Mataloni, 2016.

[1] "It is buried in an appendix. ...It is not enough for the EIR simply to contain information submitted by the public and experts. Problems raised by the public and responsible experts require a good faith reasoned analysis in response. (*Cleary v. County of Stanislaus* (1981) 118 Cal. App. 3d 348, 357 [173 Cal. Rptr. 390].) The requirement of a detailed analysis in response ensures that stubborn problems or serious criticism are not "swept under the rug." (*Ibid.*)", SCOPE v. County of Los Angeles, 106 Cal. App. 4th 715; 131 Cal. Rptr. 2d 186; 2003 Cal. App. LEXIS 291; 2003 Cal. Daily Op. Service 1767; 2003 Daily Journal DAR 2219

Response to Comment Letter #3

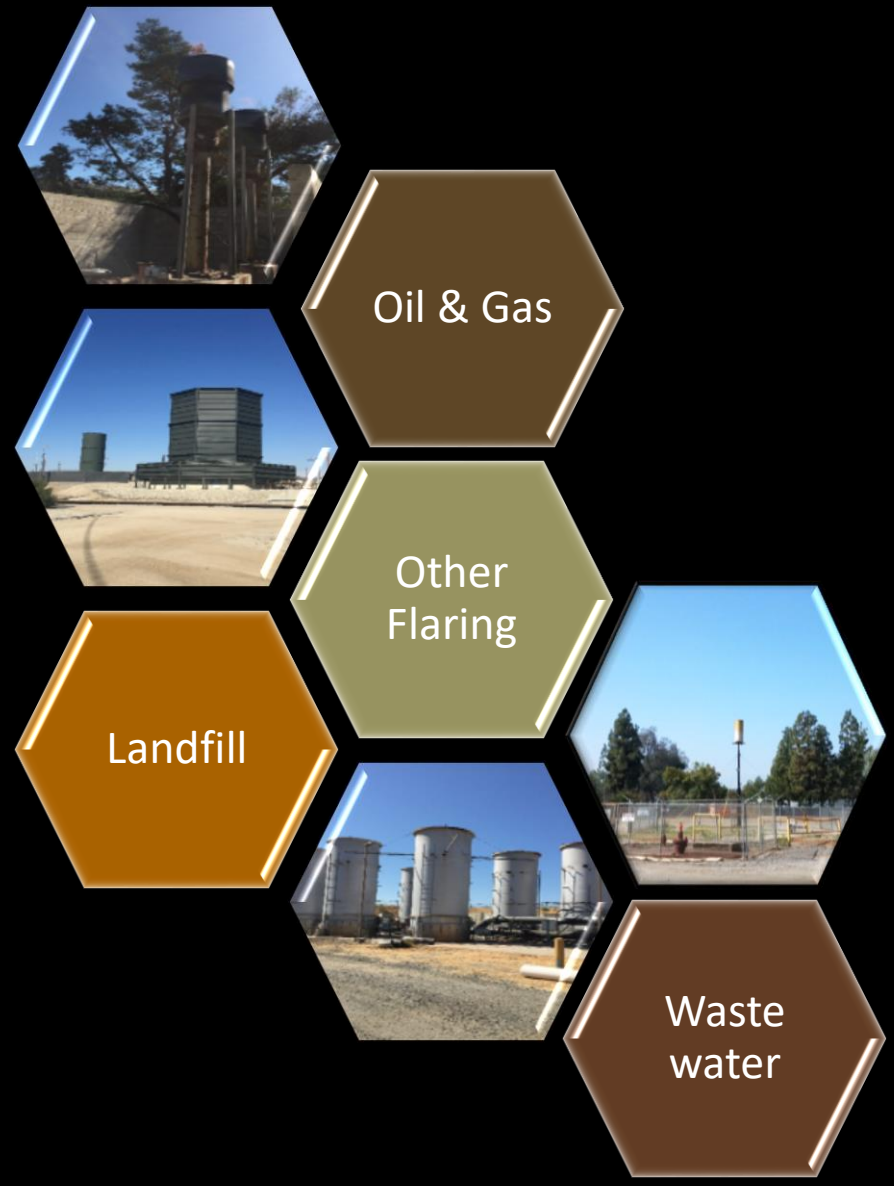
Thank you for your letter supporting the proposed project. This comment does not appear to raise any CEQA issues relative to the analysis in Draft EA or the PR 1118.1 rule language. Further, this comment contains an excerpt from a letter relating to another project, which is not relevant to the analysis in the Draft EA. Therefore, no further response is required.

ATTACHMENT J

PROPOSED RULE 1118.1 Control of Emissions From Non- Refinery Flares

Governing Board Meeting

January 4, 2019



Background

- Flares combust unused produced gas at landfill, wastewater treatment, oil and gas, and organic liquid handling facilities
- As an alternative to flaring, produced gas can be beneficially used for:
  - Energy production
  - Pipeline injection
  - Transportation fuel
- Objective of Proposed Rule 1118.1 is to reduce NOx emissions from non-refinery flares
- Implements 2016 AQMP Control Measures CMB-03 and CMB-05

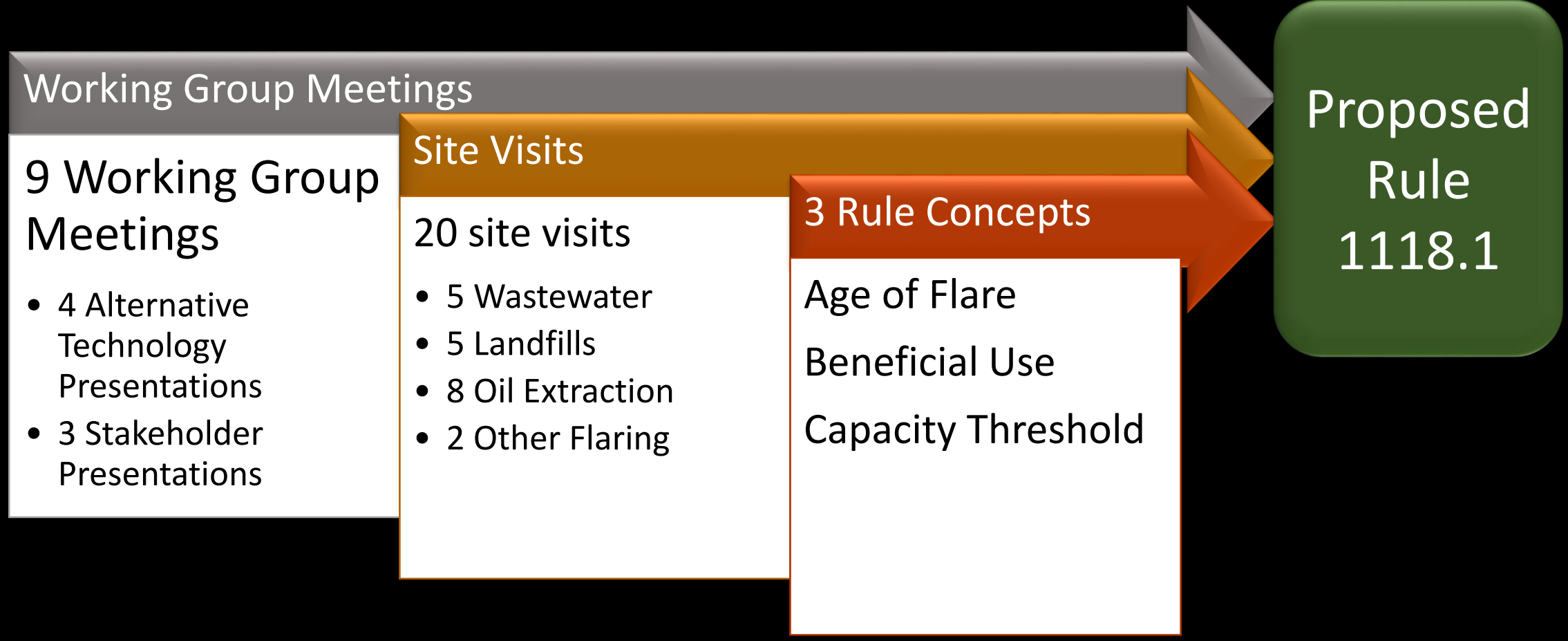
Oil Extraction

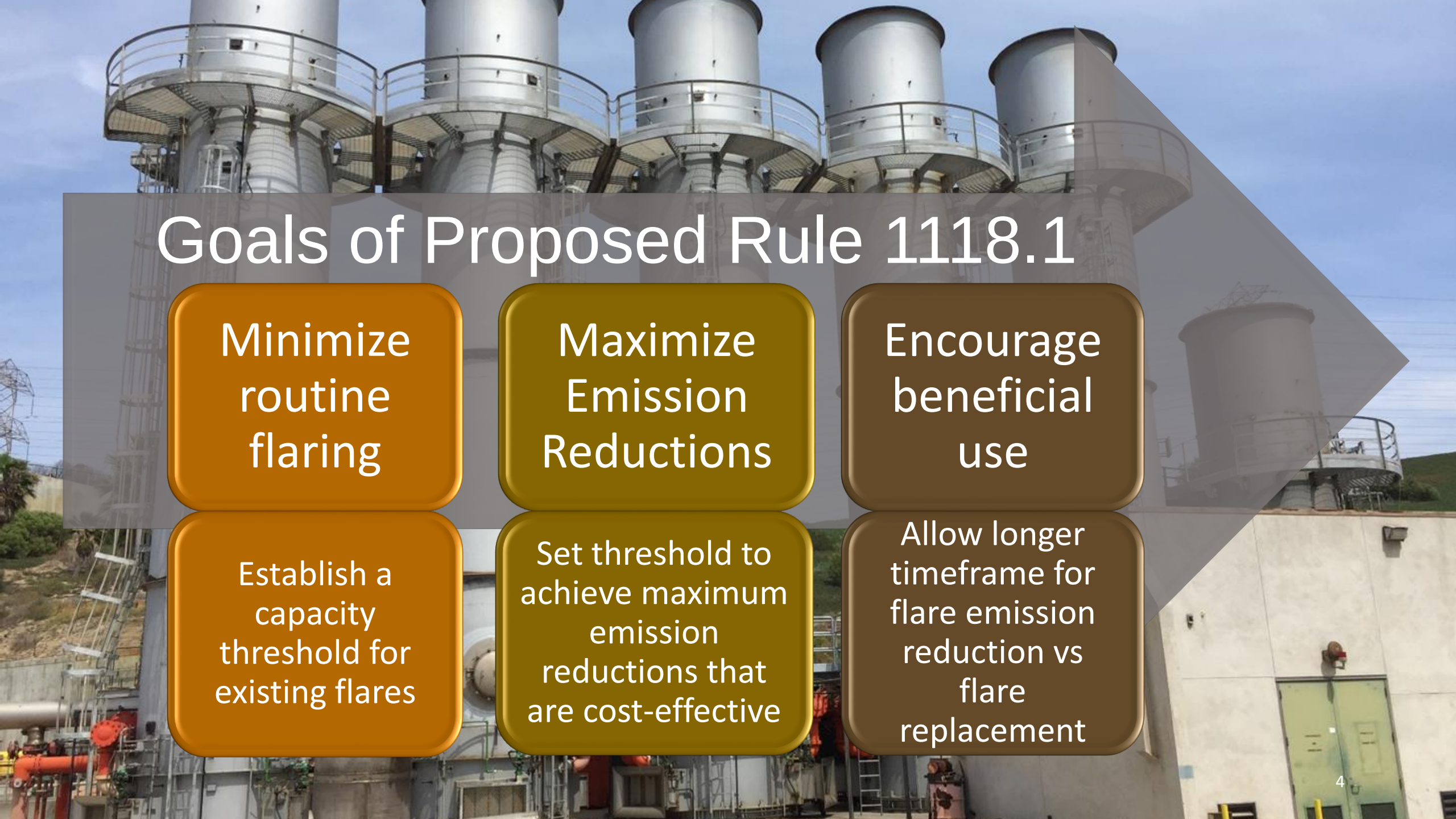
Other Flaring (tank farm)

Wastewater Treatment

Landfill

Rule Development – Initiated June 2017



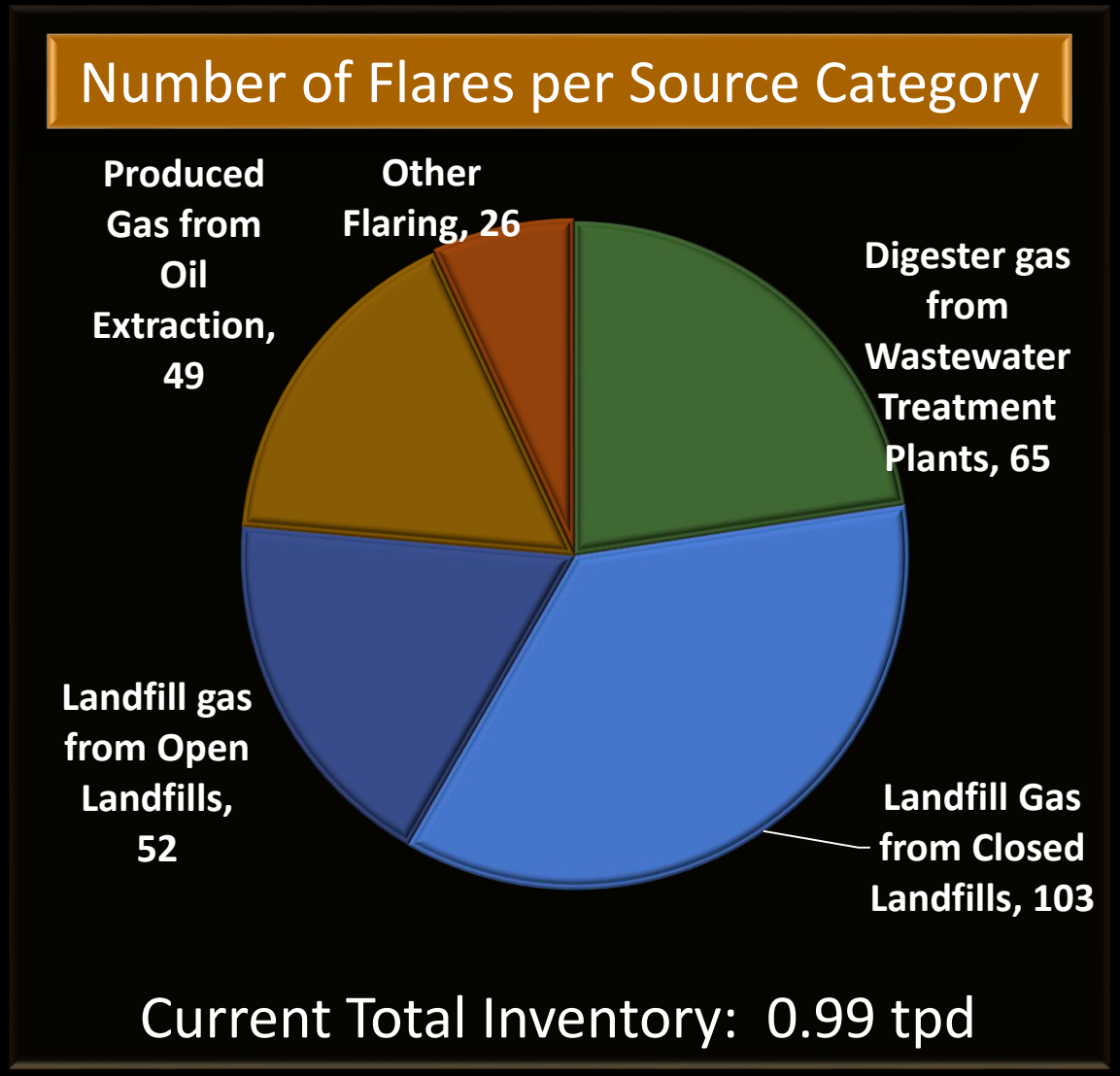


Goals of Proposed Rule 1118.1

Minimize routine flaring	Maximize Emission Reductions	Encourage beneficial use
Establish a capacity threshold for existing flares	Set threshold to achieve maximum emission reductions that are cost-effective	Allow longer timeframe for flare emission reduction vs flare replacement

Affected Facilities and Source Categories

- 153 facilities with total of 295 flares
- Landfills have the greatest number of flares, gas throughput, and NOx emissions
- “Other flaring” includes organic liquid handling:
  - Loading marine vessels, trucks and railcars
  - Tank farms and pipeline breakout stations
- Estimated emission reductions: 0.2 tpd



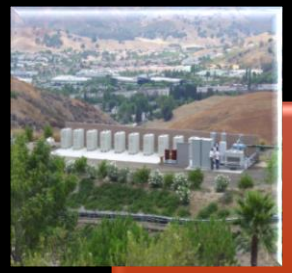
General Approach for PR 1118.1

- Different provisions for new and existing flares
- Designed to:
  - Provide compliance options that encourage beneficial use rather than flare replacement
    - Extended timeframe for flare reduction (e.g. increased beneficial use)
  - Accounts for different operational constraints for different source categories
  - Cost-effective by design

Flare Replacement

Install within 18 months of permit issuance

Potential 12 month extension

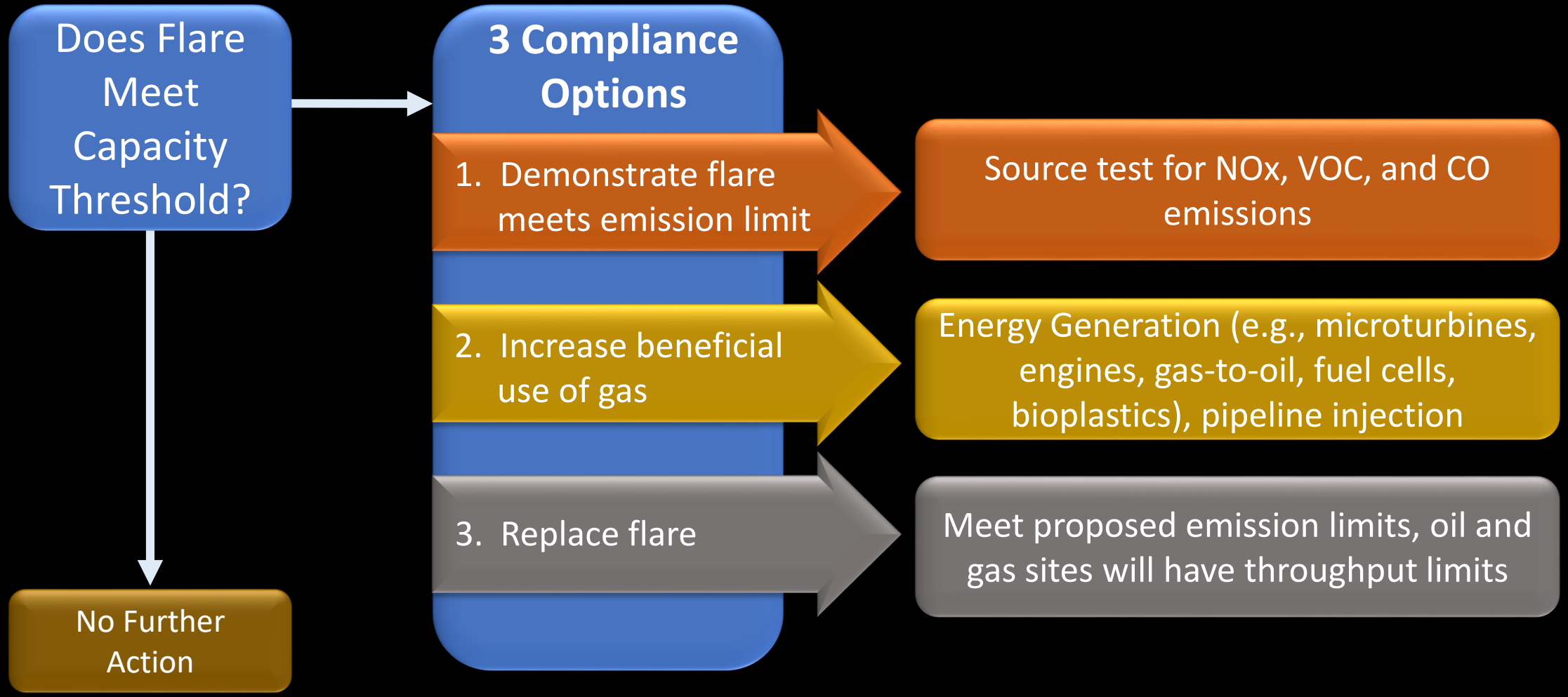


Flare Reduction

36 months from 2nd consecutive year surpassing threshold

Potential 24 month extension

General Approach for PR 1118.1



Other Rule Requirements

- Source Testing
  - Every 5 years to be consistent with current industry requirements
  - Required for flare subject to emission limit or low-emitting exemption
- Monitoring, Recordkeeping, and Reporting
  - Fuel meters required for flares with capacity threshold
  - Monitor throughput and percent capacity on monthly basis
- Exemptions
  - Low-use and low-emitting
  - Closed landfills generating less than 2,000 MMscf/year
  - Flares subject to other SCAQMD rules

Key Issue

- Comment: At the December Stationary Source Committee, California Independent Petroleum Association questioned SCAQMD's authority to establish a throughput limit for new or replaced flares that represent Best Available Control Technology – could be a regulatory taking
- Response:
  - Establishing a limit in PR 1118.1 is within SCAQMD's authority
  - Not a violation of the "Takings Clause" - allows for "reasonable use" of property
  - Limit is based on past throughput levels plus 10 percent for growth
  - Operators can use gas beneficially to minimize flaring

Resolution Language

Commitment to conduct technology assessments for:

- Flares receiving biogas derived from advanced and/or organic waste digestion
  - ✓Report back to Stationary Source Committee within 12 months
- Various technologies and associated costs to beneficially use gas to reduce flaring from oil and gas production sites
  - ✓Report back to the Stationary Source Committee within 24 months

Staff Recommendations

Certify the Final Environmental Assessment for Proposed Rule 1118.1 – Control of Emissions from Non-Refinery Flares

Adopt the Resolution

Adopt Proposed Rule 1118.1 – Control of Emissions from Non-Refinery Flares

Back to Agenda

BOARD MEETING DATE: January 4, 2019 AGENDA NO. 24

PROPOSAL: Determine that Proposed Amendments to Rule 1325 – Federal PM2.5 New Source Review Program Are Exempt from CEQA and Amend Rule 1325

SYNOPSIS: Rule 1325 establishes requirements for new and modified sources to ensure compliance with federal PM2.5 NSR requirements. Rule 1325 was amended in 2016 to expand the definition of "precursors" to include VOC and ammonia (NH3), as required under U.S. EPA's 2016 implementation rule for PM2.5 State Implementation Plans and a court decision requiring states to regulate PM2.5 under the same part of the Federal Clean Air Act as PM10. The 2016 amendment expanded the definition of "precursors," however, it did not expand the definition of "regulated NSR pollutant" to explicitly reference the PM2.5 precursors VOC and NH3. Proposed Amended Rule 1325 will address this deficiency by referencing "precursors" in the definition of "regulated NSR pollutant." In addition, other revisions are made to improve clarity.

COMMITTEE: Stationary Source, November 16, 2018, Reviewed

RECOMMENDED ACTIONS:
Adopt the attached Resolution:
1. Determining that the proposed amendments to Rule 1325 - Federal PM2.5 New Source Review Program are exempt from the California Environmental Quality Act; and
2. Amending Rule 1325 – Federal PM2.5 New Source Review Program.

Wayne Nastri
Executive Officer

PF:SN:MK:HF:NS

This Board letter is intended to serve as the staff report for this proposed amendment to Rule 1325.

Background
Rule 1325 was adopted on June 3, 2011 to incorporate U.S. EPA requirements for PM2.5 into Regulation XIII – New Source Review (NSR). The rule mirrors federal requirements, including offset ratios, Lowest Achievable Emission Rate (LAER) compliance, and control of PM2.5 precursors.

In 2016, the SCAQMD requested that U.S. EPA reclassify the South Coast Air Basin from a "moderate" to a "serious" nonattainment area for the 2006 PM2.5 24-hour National Ambient Air Quality Standards. That reclassification necessitated an amendment to the Rule 1325 definition of "major polluting facility" to align with the associated major source emission threshold for serious areas, which is 70 tons per year for PM2.5 and PM2.5 precursors, compared to 100 tons per year for moderate areas.

Rule 1325 was amended in 2016 to expand the definition of "precursors" to add VOC and ammonia (NH3) to the existing list of PM2.5 precursors (oxides of nitrogen and sulfur dioxide). However, the definition of "regulated NSR pollutant" was not expanded to explicitly reference VOC and NH3.

Proposal
PAR 1325 will address the deficiency by referencing "precursors" in the definition of "regulated NSR pollutant." In addition, the proposed amendment will clarify rule language, remove outdated language, and enhance formatting.

Public Process
A public workshop was held on October 24, 2018.

Key Issues
The proposed amendment to Rule 1325 is an administrative correction and does not change the effect of the rule. Staff is not aware of any issues.

California Environmental Quality Act
Pursuant to the California Environmental Quality Act (CEQA) and SCAQMD Rule 110, the SCAQMD, as lead agency for the proposed project, has reviewed PAR 1325 pursuant to: 1) CEQA Guidelines Section 15002(k) - General Concepts, the three-step process for deciding which document to prepare for a project subject to CEQA; and 2) CEQA Guidelines Section 15061 - Review for Exemption, procedures for determining if a project is exempt from CEQA. Because the proposed changes are administrative and procedural in nature as required by the U.S. EPA, and would not cause any physical changes that would affect any environmental topic area, SCAQMD staff has determined that it can be seen with certainty that there is no possibility that the proposed project may have a significant adverse effect on the environment. Therefore, the project is

considered to be exempt from CEQA pursuant to CEQA Guidelines Section 15061(b)(3) – Activities Covered by General Rule. Additionally, because the SCAQMD is revising the definition of "regulated NSR pollutant" per U.S. EPA direction, the project is considered to be ministerially exempt from CEQA pursuant to CEQA Guidelines Section 15268 – Ministerial Projects. Furthermore, the proposed amendments to Rule 1325 are categorically exempt because they are considered actions to protect or enhance the environment pursuant to CEQA Guidelines Section 15308 – Actions by Regulatory Agencies for Protection of the Environment. Further, SCAQMD staff has determined that there is no substantial evidence indicating that any of the exceptions to the categorical exemptions apply to the proposed project pursuant to CEQA Guidelines Section 15300.2 – Exceptions. A Notice of Exemption will be prepared pursuant to CEQA Guidelines Section 15062 - Notice of Exemption. If the proposed project is approved, the Notice of Exemption will be filed with the county clerks of Los Angeles, Orange, Riverside and San Bernardino counties.

Socioeconomic Impact Assessment

The proposed amendments for Rule 1325 are administrative in nature and will not impose any additional costs to facilities or result in other socioeconomic impacts. The proposed amendments do not significantly affect air quality or emission limitations or establish an emission limit or standard, and therefore, no socioeconomic analysis is required under California Health and Safety Code Sections 40440.8 and 40728.5.

Comparative Analysis

Health & Safety Code Section 40727.2 (g) is applicable because the proposed amended rule does not impose a new or more stringent emissions limit or standard, or other air pollution control monitoring, reporting, or recordkeeping requirements. As a result, a comparative analysis is not required.

AQMP and Legal Mandates

The California Health and Safety Code requires the SCAQMD to adopt an Air Quality Management Plan (AQMP) to meet state and federal ambient air quality standards in the South Coast Air Basin. In addition, the California Health and Safety Code requires the SCAQMD to adopt rules and regulations that carry out the objectives of the AQMP but the proposed amendments are not the result of an AQMP control measure. Furthermore, this proposed amendment addresses a deficiency identified by the U.S. EPA detailed in "Revisions to California State Implementation Plan; South Coast Air Quality Management District; Stationary Source Permit," 83 Fed. Reg. 39012.

Resource Impacts

The amendment is administrative in nature, no additional resource impacts to implement Proposed Amended Rule 1325.

Draft Findings Under the California Health and Safety Code
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 hearing. The draft findings are as follows:

Necessity – Proposed Amended Rule 1325 – Federal $PM_{2.5}$ New Source Review Program, is necessary to correct a deficiency identified by the U.S. EPA preventing the approval of the 2016 State Implementation Plan submittal for Rule 1325.

Authority - 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, and 42504.

Clarity - The SCAQMD Governing Board has determined that Proposed Amended Rule 1325 – Federal PM2.5 New Source Review Program, is written and displayed so that the meaning can be easily understood by persons directly affected by them.

Consistency - The SCAQMD Governing Board has determined that Proposed Amended Rule 1325 – Federal PM2.5 New Source Review Program, is in harmony with, and not in conflict with or contradictory to, existing statutes, court decisions, federal or state regulations.

Non-Duplication - The SCAQMD Governing Board has determined that Proposed Amended Rule 1325 – Federal PM2.5 New Source Review Program, does not impose the same requirement as any existing state or federal regulation, and the proposed amendments are necessary and proper to execute the powers and duties granted to, and imposed upon, the SCAQMD.

Reference - In adopting this regulation, the SCAQMD Governing Board references the following statutes, which the SCAQMD hereby implements, interprets, or makes specific: California Health and Safety Code Sections 40001, 40440, and 40702, 42300 et seq., and Federal Clean Air Act Sections 172, 173, and 189.

Attachments
A. Rule Language for Proposed Amended Rule 1325
B. Resolution
C. Notice of Exemption
D. Board Meeting Presentation

ATTACHMENT A

(Adopted June 3, 2011)(Amended December 5, 2014)(Amended November 4, 2016)
(PAR 1325 January 4, 2019)

PROPOSED AMENDED RULE 1325. FEDERAL $PM_{2.5}$ NEW SOURCE REVIEW PROGRAM

(a) Applicability

This rule applies to any new major polluting facility, major modifications to a major polluting facility, and any modification to an existing facility that would constitute a major polluting facility in and of itself that will emit $PM_{2.5}$ or its precursors, as defined herein; located in areas federally designated pursuant to Title 40 of the Code of Federal Regulations (40 CFR) 81.305 as non-attainment for $PM_{2.5}$.

With respect to major modifications, this rule applies on a pollutant-specific basis to emissions of $PM_{2.5}$ and its precursors in areas federally-designated as nonattainment for $PM_{2.5}$, for which (1) the source is major, (2) the modification results in a significant increase, and (3) the modification results in a significant net emissions increase.

(b) Definitions

For the purposes of this rule, the definitions in Title 40 CFR 51.165(a)(1)~~, as it exists on November 4, 2016,~~ shall apply, unless the same term is defined below, then the defined term below shall apply:

(1) BASELINE ACTUAL EMISSIONS means the rate of emissions, in tons per year, of a regulated NSR pollutant, as determined in accordance with the following:

(A) For any existing electric utility steam generating unit, baseline actual emissions means the average rate, in tons per year, at which the unit actually emitted the pollutant during any consecutive 24-month period selected by the owner or operator within the 5-year period immediately preceding when the owner or operator begins actual construction of the project. The Executive Officer shall allow the use of a different time period upon a determination that it is more representative of normal source operation.

(i) The average rate shall include fugitive emissions to the extent quantifiable, and emissions associated with startups, shutdowns, and malfunctions.

(ii) The average rate shall be adjusted downward to exclude any non-compliant emissions that occurred while the source was operating above any emission limitation that was legally enforceable during the consecutive 24-month period.

(iii) For a regulated NSR pollutant, when a project involves multiple emissions units, only one consecutive 24-month period must be used to determine the baseline actual emissions for the emissions units being changed. A different consecutive 24-month period can be used for each regulated NSR pollutant.

(iv) The average rate shall not be based on any consecutive 24-month period for which there is inadequate information for determining annual emissions, in tons per year, and for adjusting this amount if required by clause (b)(1)(A)(ii) above.

(B) For an existing emissions unit (other than an electric utility steam generating unit), baseline actual emissions means the average rate, in tons per year, at which the emissions unit actually emitted the pollutant during any consecutive 24-month period selected by the owner or operator within the 10-year period immediately preceding either the date the owner or operator begins actual construction of the project, or the date a complete permit application is received by the Executive Officer for a permit required under NSR or Prevention of Significant Deterioration (PSD), whichever is earlier, except that the 10-year period shall not include any period earlier than November 15, 1990.

(i) The average rate shall include fugitive emissions to the extent quantifiable, and emissions associated with startups, shutdowns, and malfunctions.

(ii) The average rate shall be adjusted downward to exclude any non-compliant emissions that occurred while the source was operating above an emission limitation that was legally enforceable during the consecutive 24-month period.

(iii) The average rate shall be adjusted downward to exclude any emissions that would have exceeded an emission limitation with which the major polluting facility must currently

comply, had such major polluting facility been required to comply with such limitations during the consecutive 24-month period.

(iv) For a regulated NSR pollutant, when a project involves multiple emissions units, only one consecutive 24-month period must be used to determine the baseline actual emissions for all the emissions units being changed. A different consecutive 24-month period can be used for each regulated NSR pollutant.

(v) The average rate shall not be based on any consecutive 24-month period for which there is inadequate information for determining annual emissions, in tons per year, and for adjusting this amount if required by clauses (b)(1)(B)(ii) and (b)(1)(B)(iii) above.

(C) For a new emissions unit, the baseline actual emissions for purposes of determining the emissions increase that will result from the construction and operation of such unit shall equal zero; and thereafter, for all other purposes, shall equal the unit's potential to emit.

(D) For a Plantwide Applicability Limitation (PAL) for a major polluting facility, the baseline actual emissions shall be calculated for existing electric utility steam generating units in accordance with the procedures contained in subparagraph (b)(1)(A), for other existing emissions units in accordance with the procedures contained in subparagraph (b)(1)(B), and for a new emissions unit in accordance with the procedures contained in subparagraph (b)(1)(C).

(2) FACILITY means any source or group of sources or other air contaminant-emitting activities which are located on one or more contiguous properties within the District, in actual physical contact or separated solely by a public roadway or other public right-of-way, and are owned or operated by the same person (or by persons under common control), or an outer continental shelf (OCS) source as determined in 40 CFR 55.2. Such above-described groups, if noncontiguous, but connected only by land carrying a pipeline, shall not be considered one facility. Sources or installations involved in

crude oil and gas production in Southern California Coastal or OCS Waters and transport of such crude oil and gas in Southern California Coastal or OCS Waters shall be included in the same facility which is under the same ownership or use entitlement as the crude oil and gas production facility on-shore.

(3) MAJOR MODIFICATION means:

(A) Any physical change in or change in the method of operation of a major polluting facility that would result in: a significant emissions increase of a regulated NSR pollutant; and a significant net emissions increase of that pollutant from the major polluting facility.

(B) A physical change or change in the method of operation shall not include:

(i) Routine maintenance, repair, and replacement;

(ii) Use of an alternative fuel or raw material by reason of an order under section 2 (a) and (b) of the Energy Supply and Environmental Coordination Act of 1974 (or any superseding legislation) or by reason of a natural gas curtailment plan pursuant to the Federal Power Act;

(iii) Use of an alternative fuel by reason of an order or rule under section 125 of the Energy Supply and Environmental Coordination Act;

(iv) Use of an alternative fuel at a steam generating unit to the extent that the fuel is generated from municipal solid waste;

(v) Use of an alternative fuel or raw material by a polluting facility which:

(A) The source was capable of accommodating before January 6, 1975, unless such change would be prohibited under any federally enforceable permit condition which was established after January 6, 1975, pursuant to 40 CFR 52.21 or under regulations approved pursuant to 40 CFR subpart I or 40 CFR 51.166; or

(B) The source is approved to use under any permit issued under 40 CFR 51.165;

(vi) An increase in the hours of operation or in the production rate, unless such change would be prohibited under any federally enforceable permit condition which was established after January 6, 1975 pursuant to 40 CFR 52.21 or under regulations approved pursuant to 40 CFR subpart I or 40 CFR 51.166;

(vii) Any change in ownership at a polluting facility.

(C) This definition shall not apply with respect to a particular regulated NSR pollutant when the major polluting facility is complying with the requirements under subdivision (e) of this rule for a Plantwide Applicability Limit (PAL) for that pollutant. Instead, the definition in subparagraph (e)(2)(H) shall apply.

(4) MAJOR POLLUTING FACILITY means, on a pollutant specific basis, any emissions source located in areas federally designated pursuant to 40 CFR 81.305 as non-attainment for $PM_{2.5}$, including the South Coast Air Basin (SOCAB) which has actual emissions of, or the potential to emit $PM_{2.5}$, or its precursors at or above ~~the following levels:~~

~~(A) 100 tons per year per pollutant until August 14, 2017 or until the effective date of U.S. EPA's approval of the November 4, 2016 amendments to this rule, whichever is later; and,~~

~~(B)~~ 70 tons per year per pollutant ~~after August 14, 2017 or upon the effective date of U.S. EPA's approval of the November 4, 2016 amendments to this rule, whichever is later~~.

A facility is considered to be a major polluting facility only for the specific pollutant(s) with a potential to emit at or above the level~~s~~ specified.

(5) MAJOR SOURCE as used in any definition found in 40 CFR 51.165(a)(1), means the same as Major Polluting Facility, as defined in this rule.

(6) OXIDES OF NITROGEN (NOx) means nitric oxide and nitrogen dioxide.

(7) PLANTWIDE APPLICABILITY LIMITATION (PAL) means an emissions limitation as defined in 40 CFR 51.165(f)(2)(v).

(~~7~~8) $PM_{2.5}$ means airborne particulate matter with a nominal aerodynamic diameter of 2.5 micrometers or less as measured by the reference test

methods in subdivision (h). Gaseous emissions which condense to form $PM_{2.5}$ at ambient temperatures shall also be included as $PM_{2.5}$.

(~~8~~9) PRECURSORS mean~~s~~, for the purposes of this rule, ~~nitrogen oxides (~~NOx~~),~~ ~~and~~ sulfur dioxide (SO_2), ~~and, effective August 14, 2017 or the effective date of U.S. EPA's approval of the November 4, 2016 amendments to this rule, whichever is later,~~ ~~V~~volatile ~~O~~organic ~~C~~compounds (VOC), and ~~A~~ammonia (NH_3).

(~~9~~10) PROJECTED ACTUAL EMISSIONS means the maximum annual rate, in tons per year, at which an existing emissions unit is projected to emit a regulated NSR pollutant in any one of the 5 years (12-month period) following the date the unit resumes regular operation after the project, or in any one of the 10 years following that date, if the project involves increasing the emissions unit's design capacity or its potential to emit that regulated NSR pollutant and full utilization of the unit would result in a significant emissions increase or a significant net emissions increase at the major polluting facility. In determining the projected annual emissions before beginning actual construction, the owner or operator of the major polluting facility:

(A) Shall consider all relevant information, including but not limited to, historical operational data, the company's own representations, the company's expected business activity and the company's highest projections of business activity, the company's filings with the State or Federal regulatory authorities, and any compliance plans; and

(B) Shall include fugitive emissions to the extent quantifiable, and emissions associated with startups, shutdowns, and malfunctions; and,

(C) Shall exclude, in calculating any increase in emissions that results from the particular project, that portion of the unit's emissions following the project that an existing unit could have accommodated during the consecutive 24-month period used to establish the baseline actual emissions and that are also unrelated to the particular project, including any increased utilization due to product demand growth.

(~~10~~11) REGULATED NSR POLLUTANT means for the purpose of this rule any of the following pollutants: $PM_{2.5}$ and its precursors~~Nitrogen oxides (NOx), and sulfur dioxide (SO_2) as $PM_{2.5}$ precursors, and $PM_{2.5}$~~.

(~~1~~12) REVIEWING AUTHORITY as used in any definition found in 40 CFR 51.165(a)(1), means the same as Executive Officer, as defined in District Rule 102.

(~~12~~13) SIGNIFICANT means, in reference to a net emissions increase or the potential of a source to emit any of the following pollutants, a rate of emissions that would equal or exceed any of the following rates:

Pollutant	**Emissions Rate (tons per year)**
NO_x	40
SO_2	40
VOC	40
NH_3	40
$PM_{2.5}$	10

~~Nitrogen oxides: 40 tons per year~~
~~Sulfur dioxide: 40 tons per year~~
~~Volatile Organic Compounds: 40 tons per year~~
~~Ammonia: 40 tons per year~~
~~$PM_{2.5}$: 10 tons per year~~

(~~13~~14) SOURCE means, any permitted individual unit, piece of equipment, article, machine, process, contrivance, or combination thereof, which may emit or control an air contaminant. This includes any permitted unit at any non-RECLAIM facility and any device at a RECLAIM facility.

(15) VOLATILE ORGANIC COMPOUND (VOC) is as defined in Rule 102 – Definition of Terms.

(c) Requirements

(1) The Executive Officer shall deny the Permit for a new major polluting facility; or major modification to a major polluting facility; or any modification to an existing facility that would constitute a major polluting facility in and of itself, unless each of the following requirements is met:

(A) Lowest Achievable Emission Rate (LAER) is employed for the new or relocated source or for the actual modification to an existing source; and

(B) Emission increases shall be offset at an offset ratio of 1.1:1 for $PM_{2.5}$ and the ratio required in Regulation XIII or Rule 2005 for NO_x and SO_2 as applicable; and

(C) Certification is provided by the owner/operator that all major sources, as defined in the jurisdiction where the facilities are located, that are owned or operated by such person (or by any entity controlling, controlled by, or under common control with such person) in the State of California are subject to emission limitations and are in compliance or on a schedule for compliance with all applicable emission limitations and standards under the Clean Air Act; and

(D) An analysis is conducted of alternative sites, sizes, production processes, and environmental control techniques for such proposed source and demonstration made that the benefits of the proposed project outweigh the environmental and social costs associated with that project.

(2) At such time that a particular source or a source undergoing modification becomes a major polluting facility or major modification solely by virtue of a relaxation in any enforcement limitation which was established after June 3, 2011 on the capacity of the polluting facility or modification otherwise to emit $PM_{2.5}$ or its precursors to avoid applicability of this rule, such as a restriction on hours of operation, then the requirements of this rule shall apply to the source or modification as though construction had not yet commenced on the source or modification.

(3) Approval to construct shall not relieve any owner or operator of the responsibility to comply fully with applicable provisions of the permit and any other requirements under local, State, or Federal law.

(d) Emission Calculations

(1) Except as provided in subdivision (e) of this rule, and consistent with the definition of a major modification, a project is a major modification for a regulated NSR pollutant if it causes two types of emission increases—a

significant emissions increase and a significant net emissions increase. The procedure for calculating whether a significant emissions increase will occur at the major polluting facility depends on the type of emissions units being modified, according to paragraphs (d)(2) through (d)(5). The procedure for calculating whether a significant net emissions increase will occur at the major polluting facility is contained in the definition of the term Net Emission Increase.

(2) Actual-to-projected-actual applicability tests for projects that only involve existing emissions units. A significant emissions increase of a regulated NSR pollutant is projected to occur if the sum of the difference between the projected actual emissions and the baseline actual emissions [as defined in subparagraph (b)(1)(A) and (b)(1)(B), as applicable] for each existing emissions unit, equals or exceeds the significant amount for that pollutant.

(3) Actual-to-potential tests for projects that only involve construction of a new emissions unit(s). A significant emissions increase of a regulated NSR pollutant is projected to occur if the sum of the difference between the potential to emit from each new emissions unit following completion of the project and the baseline actual emissions (as defined in subparagraph (b)(1)(C)) of these units before the project equals or exceeds the significant amount for that pollutant.

(4) Hybrid tests for projects that involve multiple types of emissions units. A significant emissions increase of a regulated NSR pollutant is projected to occur if the sum of the emissions increases for each emissions unit, using the method specified in paragraphs (d)(2) and (d)(3) as applicable with respect to each emissions units for each type of emissions unit equals or exceeds the significant amount for that pollutant.

(5) In lieu of using the method set out in paragraph (d)(2), the owner or operator of a major polluting facility may elect to use the emissions unit's potential to emit, in tons per year to determine if a significant emissions increase is projected to occur. For this purpose, the unit's potential to emit shall include fugitive emissions (to the extent quantifiable).

(e) Plantwide Applicability Limitation (PAL)

(1) Applicability

(A) The Executive Officer may approve the use of an actuals PAL for any existing major polluting facility if the PAL meets the requirements in paragraphs (e)(1) through (15) of this rule. The term "PAL" shall mean "actuals PAL" throughout subdivision (e) of this rule.

(B) Any physical change in or change in the method of operation of a major polluting facility that maintains its total source-wide emissions below the PAL level, meets the requirements in paragraphs (e)(1) through (e)(15) of this rule, and complies with the PAL permit:

(i) Is not a major modification for the PAL pollutant;

(ii) Is not subject to the provisions in subdivision (c) of this rule; and

(iii) Is not subject to the provisions in paragraph (c)(2) of this rule.

(C) Except as provided under clause (e)(1)(B)(iii), a major polluting facility shall continue to comply with all applicable Federal or State requirements, emission limitations, and work practice requirements that were established prior to the effective date of the PAL.

(2) Definitions.

The following definitions in subparagraphs (e)(2)(A) through (K) apply for the purposes of subdivision (e) of this rule. When a term is not defined below, it shall have the meaning given in paragraph (b)(1) of this rule or in the Clean Air Act.

(A) ACTUALS PAL FOR A MAJOR POLLUTING FACILITY means a PAL based on the baseline actual emissions, of all emissions units at the source, that emit or have the potential to emit the PAL pollutant.

(B) ALLOWABLE EMISSIONS means "allowable emissions" as defined in 40 CFR 51.165(a)(1)(xi), except as this definition is modified according to clauses (e)(2)(B)(i) and (ii).

(i) The allowable emissions for any emissions unit shall be calculated considering any emission limitations that are enforceable as a practical matter on the emissions unit's potential to emit.

(ii) An emissions unit's potential to emit shall be determined using the definition in 40 CFR 51.165(a)(1)(iii), except that the words "or enforceable as a practical matter" should be added after "federally enforceable."

(C) SMALL EMISSIONS UNIT means an emissions unit that emits or has the potential to emit the PAL pollutant in an amount less than the significant level for that PAL pollutant, as defined in paragraph (b)(12) of this rule or in the Clean Air Act, whichever is lower.

(D) MAJOR EMISSIONS UNIT means:

(i) Any emissions unit that emits or has the potential to emit 100 tons per year or more of the PAL pollutant in an attainment area; or

(ii) Any emissions unit that emits or has the potential to emit the PAL pollutant in an amount that is equal to or greater than the major source threshold for the PAL pollutant as defined by the Clean Air Act for non-attainment areas.

(E) PLANTWIDE APPLICABILITY LIMITATION (PAL) means an emission limitation expressed in tons per year, for a pollutant at a major polluting facility, that is enforceable as a practical matter and established source-wide in accordance with paragraphs (e)(1) through (e)(15) of this rule.

(F) PAL EFFECTIVE DATE generally means the date of issuance of the PAL permit. The PAL effective date for an increased PAL is the date any emissions unit which is part of the PAL major modification becomes operational and begins to emit the PAL pollutant.

(G) PAL EFFECTIVE PERIOD means the period beginning with the PAL effective date and ending 10 years later.

(H) PAL MAJOR MODIFICATION means any physical change in or change in the method of operation of the PAL source that causes it to emit the PAL pollutant at a level equal to or greater than the PAL.

(I) PAL PERMIT means the major NSR permit, the minor NSR permit, or the Title V permit issued by the Executive Officer that establishes a PAL for a major polluting facility.

(J) PAL POLLUTANT means the pollutant for which a PAL is established at a major polluting facility.

(K) SIGNIFICANT EMISSIONS UNIT means an emissions unit that emits or has the potential to emit a PAL pollutant in an amount that is equal to or greater than the significant level (as defined in paragraph (b)(12) of this rule or in the Clean Air Act, whichever is lower) for that PAL pollutant, but less than the amount that would qualify the unit as a major emissions unit as defined in subparagraph (e)(2)(D) of this rule.

(3) Permit ~~a~~Application R~~r~~equirements

As part of a permit application requesting a PAL, the owner or operator of a major polluting facility shall submit the following information to the Executive Officer for approval:

(A) A list of all emissions units at the source designated as small, significant or major based on their potential to emit. In addition, the owner or operator of the source shall indicate which, if any, Federal or State applicable requirements, emission limitations or work practices apply to each unit.

(B) Calculations of the baseline actual emissions (with supporting documentation). Baseline actual emissions are to include emissions associated not only with operation of the unit, but also emissions associated with startup, shutdown and malfunction.

(C) The calculation procedures that the major polluting facility owner or operator proposes to use to convert the monitoring system data to monthly emissions and annual emissions based on a 12-month rolling total for each month as required by subparagraph (e)(13)(A) of this rule.

(4) General ~~r~~Requirements for ~~e~~Establishing PALs

(A) The Executive Officer may establish a PAL at a major polluting facility, provided that at a minimum, the requirements in subparagraph (e)(4)(A) of this rule are met.

(i) The PAL shall impose an annual emission limitation, in tons per year, that is enforceable as a practical matter, for the entire major polluting facility. For each month during the PAL effective period after the first 12 months of establishing a PAL, the major polluting facility owner or operator shall show that the sum of the monthly emissions from each

emissions unit under the PAL for the previous 12 consecutive months is less than the PAL (a 12-month average, rolled monthly). For each month during the first 11 months from the PAL effective date, the major polluting facility owner or operator shall show that the sum of the preceding monthly emissions from the PAL effective date for each emissions unit under the PAL is less than the PAL.

(ii) The PAL shall be established in a PAL permit that meets the public participation requirements in paragraph (e)(5) of this rule.

(iii) The PAL permit shall contain all the requirements of paragraph (e)(7) of this rule.

(iv) The PAL shall include fugitive emissions, to the extent quantifiable, from all emissions units that emit or have the potential to emit the PAL pollutant at the major polluting facility.

(v) Each PAL shall regulate emissions of only one pollutant.

(vi) Each PAL shall have a PAL effective period of 10 years.

(vii) The owner or operator of the major polluting facility with a PAL shall comply with the monitoring, recordkeeping, and reporting requirements provided in paragraphs (e)(12) through (14) of this rule for each emissions unit under the PAL through the PAL effective period.

(B) At no time (during or after the PAL effective period) are emissions reductions of a PAL pollutant, which occur during the PAL effective period, creditable as decreases for purposes of generating offsets unless the level of the PAL is reduced by the amount of such emissions reductions and such reductions would be creditable in the absence of the PAL.

(5) Public ~~p~~Participation R~~r~~equirement for PALs

Prior to the issuance of a new, renewed or increased PAL, the Executive Officer shall comply with the public participation requirements of District Rule 212, subdivision (g). The Executive Officer must address all material comments before taking final action on the permit.

(6) Setting the 10-year ~~a~~Actuals PAL L~~l~~evel

(A) Except as provided in subparagraph (e)(6)(B) of this rule, the actuals PAL level for a major polluting facility shall be established as the sum of the baseline actual emissions of the PAL pollutant for each emissions unit at the source; plus an amount equal to the applicable significant level for the PAL pollutant under paragraph (b)(12) of this rule or under the Act, whichever is lower. When establishing the actuals PAL level, for a PAL pollutant, only one consecutive 24-month period must be used to determine the baseline actual emissions for all existing emissions units. However, a different consecutive 24-month period may be used for each different PAL pollutant. Emissions associated with units that were permanently shut down after this 24-month period must be subtracted from the PAL level. The Executive Officer shall specify a reduced PAL level(s) (in tons/yr) in the PAL permit to become effective on the future compliance date(s) of any applicable Federal or State regulatory requirement(s) that the Executive Officer is aware of prior to issuance of the PAL permit.

(B) For newly constructed units (which do not include modifications to existing units) on which actual construction began after the 24-month period, in lieu of adding the baseline actual emissions as specified in subparagraph (e)(6)(A) of this rule, the emissions must be added to the PAL level in an amount equal to the potential to emit of the units.

(7) Contents of the PAL ~~p~~Permit

The PAL permit shall contain, at a minimum, the following information.

(A) The PAL pollutant and the applicable source-wide emission limitation in tons per year.

(B) The PAL permit effective date and the expiration date of the PAL (PAL effective period).

(C) Specification in the PAL permit that if a major polluting facility owner or operator applies to renew a PAL in accordance with paragraph (e)(10) of this rule before the end of the PAL effective period, then the PAL shall not expire at the end of the PAL effective period. It shall remain in effect until a revised PAL permit is issued by the Executive Officer.

(D) A requirement that emission calculations for compliance purposes include emissions from startups, shutdowns and malfunctions.

(E) A requirement that, once the PAL expires, the major polluting facility is subject to the requirements of paragraph (e)(9) of this rule.

(F) The calculation procedures that the major polluting facility owner or operator shall use to convert the monitoring system data to monthly emissions and annual emissions based on a 12-month rolling total for each month as required by subparagraph (e)(13)(A) of this rule.

(G) A requirement that the major polluting facility owner or operator monitor all emissions units in accordance with the provisions under paragraph (e)(12) of this rule.

(H) A requirement to retain the records required under paragraph (e)(13) of this rule on site. Such records may be retained in an electronic format.

(I) A requirement to submit the reports required under paragraph (e)(14) of this rule by the required deadlines.

(J) Any other requirements that the Executive Officer deems necessary to implement and enforce the PAL.

(8) PAL ~~e~~Effective ~~p~~Period and ~~r~~Reopening of the PAL ~~p~~Permit

The PAL shall include the following information:

(A) PAL effective period. The Executive Officer shall specify a PAL effective period of 10 years.

(B) Reopening of the PAL permit.

(i) During the PAL effective period, the plan shall require the Executive Officer to reopen the PAL permit to:

(A) Correct typographical/calculation errors made in setting the PAL or reflect a more accurate determination of emissions used to establish the PAL.

(B) Reduce the PAL if the owner or operator of the major polluting facility creates creditable emissions reductions for use as offsets.

(C) Revise the PAL to reflect an increase in the PAL as provided under paragraph (e)(11) of this rule.

(ii) The Executive Officer may reopen the PAL permit for the following:

(A) Reduce the PAL to reflect newly applicable Federal requirements (for example, New Source Performance Standard) with compliance dates after the PAL effective date.

(B) Reduce the PAL consistent with any other requirement, that is enforceable as a practical matter, and that the State may impose on the major polluting facility under the District rules.

(C) Reduce the PAL if the Executive Officer determines that a reduction is necessary to avoid causing or contributing to a NAAQS or PSD increment violation, or to an adverse impact on an air quality related value that has been identified for a Federal Class I area by a Federal Land Manager and for which information is available to the general public.

(iii) Except for the permit reopening in subclause (e)(8)(B)(i)(A) of this rule for the correction of typographical/calculation errors that do not increase the PAL level, all other re-openings shall be carried out in accordance with the public participation requirements of paragraph (e)(5) of this rule.

(9) Expiration of a PAL

Any PAL which is not renewed in accordance with the procedures in paragraph (e)(10) of this rule shall expire at the end of the PAL effective period, and the requirements in paragraph (e)(9) shall apply.

(A) Each emissions unit (or each group of emissions units) that existed under the PAL shall comply with an allowable emission limitation under a revised permit established according to the following procedures:

(i) Within the time frame specified for PAL renewals in subparagraph (e)(10)(B), the major polluting facility shall submit a proposed allowable emission limitation for each emissions unit (or each group of emissions units, if such a distribution is more appropriate as decided by the Executive

Officer) by distributing the PAL allowable emissions for the major polluting facility among each of the emissions units that existed under the PAL. If the PAL had not yet been adjusted for an applicable requirement that became effective during the PAL effective period, as required under subparagraph (e)(10)(E) of this rule, such distribution shall be made as if the PAL had been adjusted.

(ii) The Executive Officer shall decide whether and how the PAL allowable emissions will be distributed and issue a revised permit incorporating allowable limits for each emissions unit, or each group of emissions units, as the Executive Officer determines is appropriate.

(B) Each emissions unit shall comply with the allowable emission limitation on a 12-month rolling basis. The Executive Officer may approve the use of monitoring systems (source testing, emission factors, etc.) other than CEMS (Continuous emissions monitoring system), CERMS (Continuous emissions rate monitoring system), PEMS (Predictive emissions monitoring system) or CPMS (Continuous parameter monitoring system) to demonstrate compliance with the allowable emission limitation.

(C) Until the Executive Officer issues the revised permit incorporating allowable limits for each emissions unit, or each group of emissions units, as required under clause (e)(9)(A)(i) of this rule, the source shall continue to comply with a source-wide, multi-unit emissions cap equivalent to the level of the PAL emission limitation.

(D) Any physical change or change in the method of operation at the major polluting facility will be subject to the nonattainment major NSR requirements if such change meets the definition of major modification in paragraph (b)(3) of this rule.

(E) The major polluting facility owner or operator shall continue to comply with any State or Federal applicable requirements (BACT, RACT, NSPS, etc.) that may have applied either during the PAL effective period or prior to the PAL effective period except for those emission limitations that had been established pursuant to 40 CFR 51.165 (a)(5)(ii), but were eliminated by the PAL in accordance with the provisions in clause (e)(1)(B)(iii) of this rule.

(10) Renewal of a PAL

(A) The Executive Officer shall follow the procedures specified in paragraph (e)(5) of this rule in approving any request to renew a PAL for a major polluting facility, and shall provide both the proposed PAL level and a written rationale for the proposed PAL level to the public for review and comment. During such public review, any person may propose a PAL level for the source for consideration by the Executive Officer.

(B) Application ~~d~~Deadline~~.~~

The plan shall require that a major polluting facility owner or operator shall submit a timely application to the Executive Officer to request renewal of a PAL. A timely application is one that is submitted at least 6 months prior to, but not earlier than 18 months from, the date of permit expiration. If the owner or operator of a major polluting facility submits a complete application to renew the PAL within this time period, then the PAL shall continue to be effective until the revised permit with the renewed PAL is issued.

(C) Application ~~r~~Requirements~~.~~

The application to renew a PAL permit shall contain the information required in clauses (e)(10)(C)(i) through (iv) of this rule.

(i) The information required in subparagraphs (e)(3)(A) through (C) of this rule.

(ii) A proposed PAL level.

(iii) The sum of the potential to emit of all emissions units under the PAL (with supporting documentation).

(iv) Any other information the owner or operator wishes the Executive Officer to consider in determining the appropriate level for renewing the PAL.

(D) PAL ~~a~~Adjustment~~.~~

In determining whether and how to adjust the PAL, the Executive Officer shall consider the options outlined in clauses (e)(10)(D)(i) and (ii) of this rule. However, in no case may any such adjustment fail to comply with clause (e)(10)(D)(iii) of this rule.

(i) If the emissions level calculated in accordance with paragraph (e)(6) of this rule is equal to or greater than 80 percent of the PAL level, the Executive Officer may renew

the PAL at the same level without considering the factors set forth in clause (e)(10)(D)(ii) of this rule; or

(ii) The Executive Officer may set the PAL at a level that it determines to be more representative of the source's baseline actual emissions, or that it determines to be appropriate considering air quality needs, advances in control technology, anticipated economic growth in the area, desire to reward or encourage the source's voluntary emissions reductions, or other factors as specifically identified by the Executive Officer in its written rationale.

(iii) Notwithstanding clauses (e)(10)(D)(i) and (ii) of this rule,

(A) If the potential to emit of the major polluting facility is less than the PAL, the Executive Officer shall adjust the PAL to a level no greater than the potential to emit of the source; and

(B) The Executive Officer shall not approve a renewed PAL level higher than the current PAL, unless the major polluting facility has complied with the provisions of paragraph (e)(11) of this rule.

(E) If the compliance date for a State or Federal requirement that applies to the PAL source occurs during the PAL effective period, and if the Executive Officer has not already adjusted for such requirement, the PAL shall be adjusted at the time of PAL permit renewal or title V permit renewal, whichever occurs first.

(11) Increasing a PAL ~~d~~During the PAL ~~e~~Effective P~~p~~eriod

(A) The plan shall require that the Executive Officer may increase a PAL emission limitation only if the major polluting facility complies with the provisions in clauses (e)(11)(A)(i) through (e)(11)(A)(iv) of this rule.

(i) The owner or operator of the major polluting facility shall submit a complete application to request an increase in the PAL limit for a PAL major modification. Such application shall identify the emissions unit(s) contributing to the increase in emissions so as to cause the major polluting facility's emissions to equal or exceed its PAL.

(ii) As part of this application, the major polluting facility owner or operator shall demonstrate that the sum of the baseline actual emissions of the small emissions units, plus the sum of the baseline actual emissions of the significant and major emissions units assuming application of BACT equivalent controls, plus the sum of the allowable emissions of the new or modified emissions unit(s) exceeds the PAL. The level of control that would result from BACT equivalent controls on each significant or major emissions unit shall be determined by conducting a new BACT analysis at the time the application is submitted, unless the emissions unit is currently required to comply with a BACT or LAER requirement that was established within the preceding 10 years. In such a case, the assumed control level for that emissions unit shall be equal to the level of BACT or LAER with which that emissions unit must currently comply.

(iii) The owner or operator obtains a major NSR permit for all emissions unit(s) identified in clause (e)(11)(A)(i) of this rule, regardless of the magnitude of the emissions increase resulting from them. These emissions unit(s) shall comply with any emissions requirements resulting from the nonattainment major NSR program process (for example, LAER), even though they have also become subject to the PAL or continue to be subject to the PAL.

(iv) The PAL permit shall require that the increased PAL level shall be effective on the day any emissions unit that is part of the PAL major modification becomes operational and begins to emit the PAL pollutant.

(B) The Executive Officer shall calculate the new PAL as the sum of the allowable emissions for each modified or new emissions unit, plus the sum of the baseline actual emissions of the significant and major emissions units (assuming application of BACT equivalent controls as determined in accordance with clause (e)(11)(A)(ii), plus the sum of the baseline actual emissions of the small emissions units.

(C) The PAL permit shall be revised to reflect the increased PAL level pursuant to the public notice requirements of paragraph (e)(5) of this rule.

(12) Monitoring ~~r~~Requirements for PALs

(A) General ~~r~~Requirements~~.~~

(i) Each PAL permit must contain enforceable requirements for the monitoring system that accurately determines plantwide emissions of the PAL pollutant in terms of mass per unit of time. Any monitoring system authorized for use in the PAL permit must be based on sound science and meet generally acceptable scientific procedures for data quality and manipulation. Additionally, the information generated by such system must meet minimum legal requirements for admissibility in a judicial proceeding to enforce the PAL permit.

(ii) The PAL monitoring system must employ one or more of the four general monitoring approaches meeting the minimum requirements set forth in clause (e)(12)(B)(i) through (iv) of this rule and must be approved by the Executive Officer.

(iii) Notwithstanding clause (e)(12)(A)(ii) of this rule, a major polluting facility may also employ an alternative monitoring approach that meets clause (e)(12)(A)(i) of this rule if approved by the Executive Officer.

(iv) Failure to use a monitoring system that meets the requirements of this rule renders the PAL invalid.

(B) Minimum Performance Requirements for Approved Monitoring Approaches~~.~~

The following are acceptable general monitoring approaches when conducted in accordance with the minimum requirements in subparagraphs (e)(12)(C) through (I) of this rule:

(i) Mass balance calculations for activities using coatings or solvents;

(ii) CEMS;

(iii) CPMS or PEMS; and

(iv) Emission Factors.

(C) Mass Balance Calculations.

An owner or operator using mass balance calculations to monitor PAL pollutant emissions from activities using coating or solvents shall meet the following requirements:

(i) Provide a demonstrated means of validating the published content of the PAL pollutant that is contained in or created by all materials used in or at the emissions unit;

(ii) Assume that the emissions unit emits all of the PAL pollutant that is contained in or created by any raw material or fuel used in or at the emissions unit, if it cannot otherwise be accounted for in the process; and

(iii) Where the vendor of a material or fuel, which is used in or at the emissions unit, publishes a range of pollutant content from such material, the owner or operator must use the highest value of the range to calculate the PAL pollutant emissions unless the Executive Officer determines there is site-specific data or a site-specific monitoring program to support another content within the range.

(D) CEMS.

An owner or operator using CEMS to monitor PAL pollutant emissions shall meet the following requirements:

(i) CEMS must comply with applicable Performance Specifications found in 40 CFR part 60, appendix B; and

(ii) CEMS must sample, analyze and record data at least every 15 minutes while the emissions unit is operating.

(E) CPMS or PEMS.

An owner or operator using CPMS or PEMS to monitor PAL pollutant emissions shall meet the following requirements:

(i) The CPMS or the PEMS must be based on current site-specific data demonstrating a correlation between the monitored parameter(s) and the PAL pollutant emissions across the range of operation of the emissions unit; and

(ii) Each CPMS or PEMS must sample, analyze, and record data at least every 15 minutes, or at another less frequent interval approved by the Executive Officer, while the emissions unit is operating.

(F) Emission Ff~~f~~actors~~.~~

An owner or operator using emission factors to monitor PAL pollutant emissions shall meet the following requirements:

(i) All emission factors shall be adjusted, if appropriate, to account for the degree of uncertainty or limitations in the factors' development;

(ii) The emissions unit shall operate within the designated range of use for the emission factor, if applicable; and

(iii) If technically practicable, the owner or operator of a significant emissions unit that relies on an emission factor to calculate PAL pollutant emissions shall conduct validation testing to determine a site-specific emission factor within 6 months of PAL permit issuance, unless the Executive Officer determines that testing is not required.

(G) A source owner or operator must record and report maximum potential emissions without considering enforceable emission limitations or operational restrictions for an emissions unit during any period of time that there is no monitoring data, unless another method for determining emissions during such periods is specified in the PAL permit.

(H) Notwithstanding the requirements in subparagraphs (e)(12)(C) through (G) of this rule, where an owner or operator of an emissions unit cannot demonstrate a correlation between the monitored parameter(s) and the PAL pollutant emissions rate at all operating points of the emissions unit, the Executive Officer shall, at the time of permit issuance:

(i) Establish default value(s) for determining compliance with the PAL based on the highest potential emissions reasonably estimated at such operating point(s); or

(ii) Determine that operation of the emissions unit during operating conditions when there is no correlation between monitored parameter(s) and the PAL pollutant emissions is a violation of the PAL.

(I) Re-validation~~.~~

All data used to establish the PAL pollutant must be re-validated through performance testing or other scientifically valid means

approved by the Executive Officer. Such testing must occur at least once every 5 years after issuance of the PAL.

(13) Recordkeeping R~~r~~equirements

(A) The PAL permit shall require an owner or operator to retain a copy of all records necessary to determine compliance with any requirement of subdivision (e) of this rule and of the PAL, including a determination of each emissions unit's 12-month rolling total emissions, for 5 years from the date of such record.

(B) The PAL permit shall require an owner or operator to retain a copy of the following records for the duration of the PAL effective period plus 5 years:

(i) A copy of the PAL permit application and any applications for revisions to the PAL; and

(ii) Each annual certification of compliance pursuant to title V and the data relied on in certifying the compliance.

(14) Reporting and N~~n~~otification R~~r~~equirements~~.~~

The owner or operator shall submit semi-annual monitoring reports and prompt deviation reports to the Executive Officer in accordance with the applicable title V operating permit program. The reports shall meet the requirements in subparagraphs (e)(14)(A) through (C).

(A) Semi-Annual Report~~.~~

The semi-annual report shall be submitted to the Executive Officer within 30 days of the end of each reporting period. This report shall contain the information required in clauses (e)(14)(A)(i) through (vii) of this rule.

(i) The identification of owner and operator and the permit number.

(ii) Total annual emissions (tons/year) based on a 12-month rolling total for each month in the reporting period recorded pursuant to subparagraph (e)(13)(A) of this rule.

(iii) All data relied upon, including, but not limited to, any Quality Assurance or Quality Control data, in calculating the monthly and annual PAL pollutant emissions.

(iv) A list of any emissions units modified or added to the major polluting facility during the preceding 6-month period.

(v) The number, duration, and cause of any deviations or monitoring malfunctions (other than the time associated with zero and span calibration checks), and any corrective action taken.

(vi) A notification of a shutdown of any monitoring system, whether the shutdown was permanent or temporary, the reason for the shutdown, the anticipated date that the monitoring system will be fully operational or replaced with another monitoring system, and whether the emissions unit monitored by the monitoring system continued to operate, and the calculation of the emissions of the pollutant or the number determined by method included in the permit, as provided by subparagraph (e)(12)(G) of this rule.

(vii) A signed statement by the responsible official (as defined by the applicable title V operating permit program) certifying the truth, accuracy, and completeness of the information provided in the report.

(B) Deviation ~~r~~Report~~.~~

The major polluting facility owner or operator shall promptly submit reports of any deviations or exceedance of the PAL requirements, including periods where no monitoring is available. A report submitted pursuant to 40 CFR 70.6(a)(3)(iii)(B) shall satisfy this reporting requirement. The deviation reports shall be submitted within the time limits prescribed by District Rule 3004(g)(4). The reports shall contain the following information:

(i) The identification of owner and operator and the permit number;

(ii) The PAL requirement that experienced the deviation or that was exceeded;

(iii) Emissions resulting from the deviation or the exceedance; and

(iv) A signed statement by the responsible official (as defined by the applicable title V operating permit program) certifying the truth, accuracy, and completeness of the information provided in the report.

(C) Re-validation R~~r~~esults~~.~~

The owner or operator shall submit to the Executive Officer the results of any re-validation test or method within 3 months after completion of such test or method.

(15) Transition R~~r~~equirements

(A) The Executive Officer may not issue a PAL that does not comply with the requirements in paragraphs (e)(1) through (15) of this rule after the EPA has approved this rule as part of the California State Implementation Plan.

(f) Two Year Limit on Facility Exemption

Any facility, with accumulated emission increases at or above ~~the levels specified in paragraphs (f)(1) or (f)(2)~~70 tons per year of $PM_{2.5}$~~, whichever is applicable,~~ due to permit actions within any two-year period after June 3, 2011, shall offset the total emission increases during such period to zero.

~~(1) 100 tons per year until August 14, 2017 or until the effective date of U.S. EPA's approval of the November 4, 2016 amendments to this rule, whichever is later.~~

~~(2) 70 tons per year after August 14, 2017 or upon the effective date of U.S. EPA's approval of the November 4, 2016 amendments to this rule, whichever is later.~~

(g) Recordkeeping Requirements

(1) If an owner or operator uses the calculation methods specified in paragraphs (d)(2) or (d)(4) of this rule to calculate projected actual emissions, and where there is a reasonable possibility, within the meaning of paragraph (g)(6) of this rule, that a project that is not a part of a major modification may result in a significant emissions increase of such pollutant, then before beginning actual construction of the project, the owner or operator shall document and maintain a record of the following information:

(A) A description of the project;

(B) Identification of the emissions unit(s) whose emissions of a regulated NSR pollutant could be affected by the project; and

(C) A description of the applicability test used to determine that the project is not a major modification for any regulated NSR pollutant, including the baseline actual emissions, the projected actual emissions, the amount of emissions excluded under subparagraph

(b)(9)(C) of this rule and an explanation for why such amount was excluded, and any netting calculations, if applicable.

(2) If the emissions unit is an existing electric utility steam generating unit, before beginning actual construction, the owner or operator shall provide a copy of the information set out in paragraph (g)(1) to the Executive Officer. Nothing in this paragraph shall be construed to require the owner or operator of such a unit to obtain any determination from the Executive Officer before beginning actual construction.

(3) The owner or operator shall monitor the emissions of any regulated NSR pollutant that could increase as a result of the project and that is emitted by any emissions units identified in subparagraph (g)(1)(B); and calculate and maintain a record of the annual emissions, in tons per year on a calendar year basis, for a period of 5 years following resumption of regular operations after the change, or for a period of 10 years following resumption of regular operations after the change if the project increases the design capacity or potential to emit of that regulated NSR pollutant at such emissions unit.

(4) If the unit is an existing electric utility steam generating unit, the owner or operator shall submit a report to the Executive Officer within 60 days after the end of each year during which records must be generated under paragraph (g)(3) setting out the unit's annual emissions.

(5) If the unit is an existing unit other than an electric utility steam generating unit, the owner or operator shall submit a report to the Executive Officer if the annual emissions, in tons per year, from the project identified in paragraph (g)(1), exceed the baseline actual emissions (as documented and maintained pursuant to subparagraph (g)(1)(C), by a significant amount (as defined in paragraph (b)(12) of this rule) for that regulated NSR pollutant, and if such emissions differ from the preconstruction projection as documented and maintained pursuant to subparagraph (g)(1)(C). Such report shall be submitted to the Executive Officer within 60 days after the end of such year. The report shall contain the following:

(A) The name, address and telephone number of the major polluting facility;

(B) The annual emissions as calculated pursuant to paragraph (g)(3); and

(C) Any other information that the owner or operator wishes to include in the report (e.g., an explanation as to why the emissions differ from the preconstruction projection).

(6) A "reasonable possibility" occurs when the owner or operator calculates the project to result in either:

(A) A projected actual emissions increase of at least 50 percent of the amount that is a "significant emissions increase," as defined under paragraph (b)(12) of this rule (without reference to the amount that is a significant net emissions increase), for the regulated NSR pollutant; or

(B) A projected actual emissions increase that, added to the amount of emissions excluded under subparagraph (b)(9)(C), sums to at least 50 percent of the amount that is a "significant emissions increase," as defined under paragraph (b)(12) of this rule (without reference to the amount that is a significant net emissions increase), for the regulated NSR pollutant. For a project for which a reasonable possibility occurs only within the meaning of subparagraph (g)(6)(B) of this rule, and not also within the meaning of subparagraph (g)(6)(A) of this rule, then provisions of paragraphs (g)(2) through (5) do not apply to the project.

(h) Test Methods

For the purpose of this rule only, testing for point sources of $PM_{2.5}$ shall be in accordance with U.S. EPA Test Methods 201A and 202.

(i) Exclusions

The provisions of Rule 1304 – Exemptions, Rule 1309.1 – Priority Reserve, and Rule 1315 – Federal New Source Review Tracking System do not apply for the purposes of this rule.

(j) Offset Exemptions for Regulatory Compliance

Upon approval by the Executive Officer or designee, an exemption from the offset requirements of this rule shall be allowed for a source installed or modified solely to comply with District, state, or federal air pollution control laws, rules, regulations

or orders, as approved by the Executive Officer or designee, and provided there is no increase in maximum rating.

ATTACHMENT B

RESOLUTION NO. 19-_____

A Resolution of the Governing Board of the South Coast Air Quality Management District (SCAQMD) determining that Proposed Amended Rule 1325 – Federal $PM_{2.5}$ New Source Review Program is exempt from the requirements of the California Environmental Quality Act (CEQA).

A Resolution of the SCAQMD Governing Board amending Rule 1325 – Federal $PM_{2.5}$ New Source Review Program.

WHEREAS, the SCAQMD Governing Board finds and determines that Proposed Amended Rule 1325 is considered a "project" pursuant to CEQA per CEQA Guidelines Section 15002(k) – General Concepts, the three-step process for deciding which document to prepare for a project subject to CEQA; and

WHEREAS, the SCAQMD has had its regulatory program certified pursuant to Public Resources Code Section 21080.5 and CEQA Guidelines Section 15251(l), and has conducted a CEQA review and analysis of Proposed Amended Rule 1325 pursuant to such program (SCAQMD Rule 110); and

WHEREAS, the SCAQMD Governing Board finds and determines after conducting a review of the proposed project in accordance with CEQA Guidelines Section 15002(k) - General Concepts, the three-step process for deciding which document to prepare for a project subject to CEQA, and CEQA Guidelines Section 15061 - Review for Exemption, procedures for determining if a project is exempt from CEQA, that Proposed Amended Rule 1325 is determined to be exempt from CEQA; and

WHEREAS, the SCAQMD Governing Board finds and determines that it can be seen with certainty that there is no possibility that the proposed project may have any significant effects on the environment, because the proposed changes are administrative and procedural in nature as required by the United States Environmental Protection Agency (U.S. EPA), and would not cause any physical changes that would affect any environmental topic area, and is therefore, exempt from CEQA pursuant to CEQA Guidelines Section 15061(b)(3) – Activities Covered By General Rule; and

WHEREAS, the SCAQMD Governing Board finds and determines that the proposed project is also exempt from CEQA pursuant to CEQA Guidelines Section 15268 – Ministerial Projects because the project consists of a revision to the definition of "regulated NSR pollutant" in Rule 1325 per U.S. EPA direction; and

WHEREAS, the SCAQMD Governing Board finds and determines that the proposed project is also categorically exempt from CEQA pursuant to CEQA Guidelines Section 15308 – Actions by Regulatory Agencies for Protection of the Environment, because Proposed Amended Rule 1325 is designed to further protect or enhance the environment; and

WHEREAS, the SCAQMD Governing Board has considered whether the proposed project may have significant environmental impacts due to unusual circumstances, as set forth in CEQA Guidelines Section 15300.2, and has determined that none exist for the proposed project; and

WHEREAS, the SCAQMD staff has prepared a Notice of Exemption for the proposed project that is completed in compliance with CEQA Guidelines Section 15062 – Notice of Exemption; and

WHEREAS, Proposed Amended Rule 1325, the January 4, 2019 SCAQMD Governing Board letter, including the Notice of Exemption and other supporting documentation, 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 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 Proposed Amended Rule 1325 since the Notice of Public Hearing was published add clarity that meets the same air quality objective and are not so substantial as to significantly affect the meaning of the proposed amended rule within the meaning of Health and Safety Code 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 rule, (c) the changes are consistent with the information contained in the notice of public hearing, and (d) the consideration of the range of CEQA alternatives is not applicable because Proposed Amended Rule 1325 is exempt from CEQA; and

WHEREAS, Proposed Amended Rule 1325 will be submitted for inclusion into the State Implementation Plan; and

WHEREAS, the SCAQMD staff conducted a public workshop regarding Proposed Amended Rule 1325 on October 24, 2018; and

WHEREAS, Health and Safety Code Section 40727 requires that prior to adopting, amending or repealing a rule or regulation, the SCAQMD Governing Board shall make findings of necessity, authority, clarity, consistency, non-duplication, and reference based on relevant information presented at the public hearing and in the Final Staff Report; and

WHEREAS, the SCAQMD Governing Board has determined that a need exists to amend Rule 1325 – Federal $PM_{2.5}$ New Source Review Program to correct a deficiency identified by U.S. EPA; and

WHEREAS, the SCAQMD Governing Board obtains its authority to adopt, amend, or repeal rules and regulations from Sections 39002, 40000, 40001, 40440, 40702, and 42504 of the Health and Safety Code; and

WHEREAS, the SCAQMD Governing Board has determined that Rule 1325, as proposed to be amended, is written and displayed so that its meaning can be easily understood by persons directly affected by it; and

WHEREAS, the SCAQMD Governing Board has determined that Rule 1325, as proposed to be amended, is in harmony with, and not in conflict with or contradictory to, existing statutes, court decisions, or state or federal regulations; and

WHEREAS, the SCAQMD Governing Board has determined that Rule 1325, as proposed to be amended, does not impose the same requirements as any existing state or federal regulations, and the proposed amended rule is necessary and proper to execute the powers and duties granted to, and imposed upon, the SCAQMD; and

WHEREAS, the SCAQMD Governing Board has determined that there is a problem that Proposed Amended Rule 1325 will alleviate which corrects a deficiency identified by the U.S. EPA in the definition of "regulated NSR pollutant," and the proposed amendment will promote the attainment or maintenance of state or federal ambient air quality standards pursuant to Health and Safety Code Section 40001 (c); and

WHEREAS, the SCAQMD Governing Board, in amending the regulation, references the following statutes which the SCAQMD hereby implements, interprets or makes specific: Health and Safety Code Sections 40001 (rules and regulations), 40440 (adoption of rules and regulations), 40702 (rules and regulations), 42300 et seq. (permits), and Federal Clean Air Act Sections 172 (nonattainment plan provisions), 173 (permit requirements), and 189 (plan provisions and schedules for plan submissions); and

WHEREAS, the SCAQMD Governing Board has determined that a Socioeconomic Impact Assessment is not required, pursuant to Health and Safety Code Section 40440.8 or 40728.5, because Proposed Amended Rule 1325 is administrative in nature and will not have a significant impact on air quality or emissions limitations; and

WHEREAS, the public hearing has been properly noticed in accordance with all provisions of Health and Safety Code Section 40725; and

WHEREAS, the SCAQMD Governing Board has held a public hearing in accordance with all provisions of law; and

WHEREAS, the SCAQMD specifies the Manager for Rule 1325 as the custodian of the documents or other materials which constitute the record of proceedings upon which the adoption of the proposed amendments are based, which are located at the South Coast Air Quality Management District, 21865 Copley Drive, Diamond Bar, California; and

NOW, THEREFORE BE IT RESOLVED, that the SCAQMD Governing Board does hereby determine, pursuant to the authority granted by law, that Proposed Amended Rule 1325 is exempt from CEQA pursuant to CEQA Guidelines Section 15061(b)(3) – Activities Covered by General Rule, CEQA Guidelines Section 15268 – Ministerial Projects, and CEQA Guidelines Section 15308 – Actions by Regulatory Agencies for Protection of the Environment. No exception to the application of a categorical exemption set forth in CEQA Guidelines Section 15300.2, including the "unusual circumstances" exception, applies to Proposed Amended Rule 1325. This information has been 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 1325; and

BE IT FURTHER RESOLVED, that the SCAQMD Governing Board does hereby adopt, pursuant to the authority granted by law, Proposed Amended Rule 1325 as set forth in the attached, and incorporated herein by this reference.

Attachment

DATE: _____ _____

CLERK OF THE BOARDS

ATTACHMENT C

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

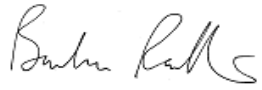
SUBJECT: **NOTICE OF EXEMPTION FROM THE CALIFORNIA ENVIRONMENTAL QUALITY ACT**

PROJECT TITLE: **PROPOSED AMENDED RULE 1325 – FEDERAL PM2.5 NEW SOURCE REVIEW PROGRAM**

Pursuant to the California Environmental Quality Act (CEQA) Guidelines, the South Coast Air Quality Management District (SCAQMD) is the Lead Agency and has prepared a Notice of Exemption for the project identified above. SCAQMD staff has reviewed the proposed project pursuant to: 1) CEQA Guidelines Section 15002(k) – General Concepts, the three-step process for deciding which document to prepare for a project subject to CEQA; and 2) CEQA Guidelines Section 15061 - Review for Exemption, procedures for determining if a project is exempt from CEQA. SCAQMD staff is proposing to amend Rule 1325 to correct a deficiency identified by the United States Environmental Protection Agency (U.S. EPA). Rule 1325 was amended in 2016 to expand the definition of "precursors" to add volatile organic compounds and ammonia to the existing list of PM2.5 precursors (oxides of nitrogen and sulfur dioxide). However, the definition of "regulated NSR pollutant" was not expanded to add reference to volatile organic compounds and ammonia. Proposed Amended Rule 1325 will amend the definition of a "regulated NSR pollutant" to reference PM2.5 and its precursors, as defined in the current rule. The proposed amendments to Rule 1325 will also clarify rule language, remove outdated language and enhance formatting.

Because the proposed changes are administrative and procedural in nature as required by the U.S. EPA, and would not cause any physical changes that would affect any environmental topic area, SCAQMD staff has determined that it can be seen with certainty that there is no possibility that the proposed project may have a significant adverse effect on the environment. Therefore, the project is considered to be exempt from CEQA pursuant to CEQA Guidelines Section 15061(b)(3) – Activities Covered by General Rule. Additionally, because the SCAQMD is revising the aforementioned definition in Rule 1325 per U.S. EPA direction, the project is considered to be ministerially exempt from CEQA pursuant to CEQA Guidelines Section 15268 – Ministerial Projects. Furthermore, the proposed amendments to Rule 1325 are categorically exempt because they are considered actions to protect or enhance the environment pursuant to CEQA Guidelines Section 15308 – Actions by Regulatory Agencies for Protection of the Environment. Further, SCAQMD staff has determined that there is no substantial evidence indicating that any of the exceptions to the categorical exemptions apply to the proposed project pursuant to CEQA Guidelines Section 15300.2 – Exceptions. Therefore, the proposed project is exempt from CEQA. A Notice of Exemption will be prepared pursuant to CEQA Guidelines Section 15062 – Notice of Exemption. If the proposed project is approved, the Notice of Exemption will be filed with the county clerks of Los Angeles, Orange, Riverside and San Bernardino counties.

Any questions regarding this Notice of Exemption should be sent to Luke Eisenhardt (c/o Planning, Rule Development and Area Sources) at the above address. Mr. Eisenhardt can also be reached at (909) 396-2324. Ms. Nicole Silva is also available at (909) 396-3384 to answer any questions regarding the proposed amended rule.

Date: December 4, 2018 **Signature:** 

Barbara Radlein
Program Supervisor, CEQA Section
Planning, Rules, and Area Sources

Reference: California Code of Regulations, Title 14

NOTICE OF EXEMPTION

To: County Clerks
Counties of Los Angeles, Orange,
Riverside and San Bernardino

From: South Coast Air Quality Management District
21865 Copley Drive
Diamond Bar, CA 91765

Project Title: Proposed Amended Rule 1325 – Federal PM2.5 New Source Review Program.

Project Location: The SCAQMD has jurisdiction over the four-county South Coast Air Basin (all of Orange County and the non-desert portions of Los Angeles, Riverside and San Bernardino counties), and the Riverside County portions of the Salton Sea Air Basin (SSAB) and Mojave Desert Air Basin (MDAB).

Description of Nature, Purpose, and Beneficiaries of Project: SCAQMD staff is proposing to amend Rule 1325 to correct a deficiency identified by the United States Environmental Protection Agency (U.S. EPA). Rule 1325 was amended in 2016 to expand the definition of "precursors" to add volatile organic compounds and ammonia to the existing list of PM2.5 precursors (oxides of nitrogen and sulfur dioxide). However, the definition of "regulated NSR pollutant" was not expanded to add reference to volatile organic compounds and ammonia. Proposed Amended Rule 1325 will amend the definition of a "regulated NSR pollutant" to reference PM2.5 and its precursors, as defined in the current rule. The proposed amendments to Rule 1325 will also clarify rule language, remove outdated language and enhance formatting.

Public Agency Approving Project:
South Coast Air Quality Management District

Agency Carrying Out Project:
South Coast Air Quality Management District

Exempt Status:
CEQA Guidelines Section 15061(b)(3) – Activities Covered by General Rule
CEQA Guidelines Section 15268 – Ministerial Projects
CEQA Guidelines Section 15308 – Actions By Regulatory Agencies For Protection Of The Environment

Reasons why project is exempt: SCAQMD staff has reviewed the proposed amendments to Rule 1325 pursuant to: 1) CEQA Guidelines Section 15002(k) – General Concepts, the three-step process for deciding which document to prepare for a project subject to CEQA; and 2) CEQA Guidelines Section 15061 - Review for Exemption, procedures for determining if a project is exempt from CEQA. Because the proposed changes are administrative and procedural in nature as required by the U.S. EPA, and would not cause any physical changes that would affect any environmental topic area, SCAQMD staff has determined that it can be seen with certainty that there is no possibility that the proposed project may have a significant adverse effect on the environment. Therefore, the project is considered to be exempt from CEQA pursuant to CEQA Guidelines Section 15061(b)(3) – Activities Covered by General Rule. Additionally, because the SCAQMD is revising the definition of "regulated NSR pollutant" per U.S. EPA direction, the project is considered to be ministerially exempt from CEQA pursuant to CEQA Guidelines Section 15268 – Ministerial Projects. Furthermore, the proposed amendments to Rule 1325 are categorically exempt because they are considered actions to protect or enhance the environment pursuant to CEQA Guidelines Section 15308 – Actions by Regulatory Agencies for Protection of the Environment. Further, SCAQMD staff has determined that there is no substantial evidence indicating that any of the exceptions to the categorical exemptions apply to the proposed project pursuant to CEQA Guidelines Section 15300.2 – Exceptions. Therefore, the proposed project is exempt from CEQA. A Notice of Exemption will be prepared pursuant to CEQA Guidelines Section 15062 – Notice of Exemption. If the proposed project is approved, the Notice of Exemption will be filed with the county clerks of Los Angeles, Orange, Riverside and San Bernardino counties.

Date When Project Will Be Considered for Approval (subject to change):
SCAQMD Governing Board Hearing: January 4, 2019; SCAQMD Headquarters

CEQA Contact Person:	**Phone Number:**	**Email:**	**Fax:**
Mr. Luke Eisenhardt	(909) 396-2324	leisenhardt@aqmd.gov	(909) 396-3982
Rule Contact Person:	**Phone Number:**	**Email:**	**Fax:**
Ms. Nicole Silva	(909) 396-3384	nsilva@aqmd.gov	(909) 396-3807

Date Received for Filing: _____ **Signature:** *(Signed Upon Board Approval)*

Barbara Radlein
Program Supervisor, CEQA Section
Planning, Rule Development & Area Sources

ATTACHMENT D

Proposed Amended Rule 1325: Federal PM2.5 New Source Review Program

GOVERNING BOARD MEETING

January 4, 2019

Background

2016 Amendment

- SCAQMD requested the U.S. EPA to reclassify the South Coast Air Basin from a "moderate" to a "serious" nonattainment area for the 2006 PM2.5 24-hour NAAQS
- Modified the "Major Polluting Facility" definition
  - Aligned the associated major source emission threshold from 100 to 70 tons per year for PM2.5 and PM2.5 precursors
- Specifically identified volatile organic compounds (VOC) and ammonia (NH3) within the precursors definition

Current Proposed Amendment

2016 Amendment

Modified definition of "Precursors" to include:

- NOx
- SO2
- VOC; and
- Ammonia

Deficiency

Definition of "Regulated NSR Pollutant" included:

- NOx
- SO2
- Did not list:
  - VOC; and
  - Ammonia

Proposed Amendment

Modify definition of "Regulated NSR Pollutant" to reference "PM2.5 and its precursors"

Staff Recommendations

- Determine that Proposed Amendments to Rule 1325 – Federal PM2.5 New Source Review Program are exempt from CEQA
- Adopt the Resolution
- Amend Rule 1325 - Federal PM2.5 New Source Review Program are exempt from CEQA