



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

HYBRID GOVERNING BOARD MEETING AUGUST 2, 2024

A meeting of the South Coast Air Quality Management District Board will be held at 9:00 a.m. on Friday, August 2, 2024 through a hybrid format of in-person attendance in the Dr. William A. Burke Auditorium at the South Coast AQMD Headquarters, 21865 Copley Drive, Diamond Bar, California, and/or virtual attendance via videoconferencing and by telephone. Please follow the instructions below to join the meeting remotely.

Please refer to South Coast AQMD's website for information regarding the format of the meeting, updates, and details on how to participate at: <http://www.aqmd.gov/home/news-events/meeting-agendas-minutes>.

**Electronic
Participation
Information**
(Instructions provided
at the bottom of the
agenda)

Join Zoom Meeting - from PC, Laptop or Phone

<https://scaqmd.zoom.us/j/93128605044>

Meeting ID: **931 2860 5044** (applies to all)

Teleconference Dial In +1 669 900 6833 or +1 253 215 8782

One tap mobile +16699006833,,93128605044# or

+12532158782,,93128605044#

Spanish Language Only Audience (telephone)

Número Telefónico para la Audiencia que Habla Español

Teleconference Dial In/Numero para llamar: +1 669 900 6833

Meeting ID/Identificación de la reunión: **932 0955 9643**

One tap mobile: +16699006833,,93209559643

**Public Comment Will
Still Be Taken**

Audience will be allowed to provide public comment in person and through Zoom connection or telephone. Comments are limited to three (3) minutes per person for all items on the Consent and Board Calendars and may be further limited by the Chair to ensure all can be heard.

Phone controls for participants:

The following commands can be used on your phone's dial pad while in meeting: *6 (Toggle mute/unmute); *9 - Raise hand

**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 South Coast AQMD 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.

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 South Coast AQMD's Clerk of the Boards Office, 21865 Copley Drive, Diamond Bar, CA 91765 or web page at www.aqmd.gov

Americans with Disabilities Act and Language Accessibility

Disability and language-related accommodations can be requested to allow participation in the Governing Board meeting. The agenda will be made available, upon request, in appropriate alternative formats to assist persons with a disability (Gov. Code Section 54954.2(a)). In addition, other documents may be requested in alternative formats and languages. Any disability or language-related accommodation must be requested as soon as practicable. Requests will be accommodated unless providing the accommodation would result in a fundamental alteration or undue burden to the South Coast AQMD. Please contact the Clerk of the Boards Office at (909) 396-2500 from 7:00 a.m. to 5:30 p.m., Tuesday through Friday, or send the request to cob@aqmd.gov.

A webcast of the meeting is available for viewing at:
<http://www.aqmd.gov/home/news-events/webcast>

CALL TO ORDER

- Pledge of Allegiance
- Roll Call
- Opening Comments: Vanessa Delgado, Chair
Other Board Members
Wayne Nastri, Executive Officer

Staff/Phone (909) 396-

PUBLIC COMMENT PERIOD – (Public Comment on Non-Agenda Items, Pursuant to Government Code Section 54954.3) The public may comment on any subject within the South Coast AQMD’s authority that does not appear on the agenda, during the Public Comment Period. Each speaker addressing non-agenda items may be limited to a total of (3) minutes.

CONSENT AND BOARD CALENDAR (Items 1 through 23)

Note: Consent and Board Calendar items held for discussion will be moved to Item No. 24.

Items 1 and 2 – Action Items/No Fiscal Impact

1. Approve Minutes of June 7, 2024 **Thomas/3268**

2. Set Public Hearing September 6, 2024 to Consider **Nastri/3131**
Adoption of and/or Amendments to South Coast AQMD
Rules and Regulations:

Determine That Proposed Rule 1165 – Control of Emissions from Municipal Solid Waste Incinerators, Is Exempt from CEQA and Adopt Rule 1165 **Krause/2706**

Proposed Rule 1165 (PR 1165) establishes NOx, PM, and CO emission limits from municipal solid waste incinerators. Additionally, PR 1165 will include provisions for housekeeping, monitoring, reporting, and recordkeeping. This action is to adopt the Resolution: 1) Determining that the Proposed Rule 1165 – Control of Emissions from Municipal Solid Waste Incinerators, is exempt from the requirements of the California Environmental Quality Act, and 2) Adopting Rule 1165 – Control of Emissions from Municipal Solid Waste Incinerators. (Reviewed: Stationary Source Committee, August 16, 2024)

Items 3 through 9 – Budget/Fiscal Impact

3. Issue RFP to Replace Electric Vehicle Charging Infrastructure at South Coast AQMD Headquarters **Katzenstein/2219**

South Coast AQMD headquarters’ EV charging infrastructure is outdated and many chargers are no longer repairable. To continue to provide electric vehicle charging to staff and the public it is necessary to upgrade the EV charging infrastructure and add features to include remote monitoring and integrating the charging

network into the building energy management system. This action is to issue an RFP to solicit proposals to replace the EV charging infrastructure at South Coast AQMD headquarters. (Reviewed: Technology Committee, June 21, 2024; Recommended for Approval)

4. Adopt Resolution Recognizing Funds for FY 2023-24 Carl Moyer State Reserve, Enhanced Fleet Modernization Program and Clean Cars 4 All, Reimburse General Funds for Administrative Costs, Issue Program Announcement, Amend Carl Moyer Program Awards and Execute Contract to Deploy Zero Emission Equipment

Katzenstein/2219

This Board item covers three separate programs including the Carl Moyer, the Replace Your Ride Programs (RZR) and the U.S. EPA Targeted AirShed Grant. In April 2024, CARB allocated \$5.9 million in Enhanced Fleet Modernization Program (EFMP) and Clean Cars 4 All (CC4A) to continue implementing the RZR Program. Also, in April, CARB approved allocations for the FY 2023-24 Carl Moyer "Year 26" State Reserve Program to fund zero-emission projects. In July 2019, the Board approved a \$2,100,000 U.S. EPA award under the FY 2018-19 Targeted AirShed Grant to develop and demonstrate battery electric excavators and wheel loaders. In March 2024, U.S. EPA agreed to amend award to utilize unspent project and administrative funds to deploy zero-emission equipment and extend the project to December 2025. These actions are to: 1) recognize up to \$5.9 million in EFMP and CC4A into HEROS II Special Revenue Fund (56); 2) adopt a resolution recognizing up to \$5.3 million in FY 2023-24 Carl Moyer State Reserve funds into Carl Moyer Program Fund (32); 3) reimburse General Fund for administrative costs to implement RZR; 4) issue a Program Announcement for eligible zero-emission off-road projects; 5) execute agreements for eligible projects resulting from the Program Announcement; 6) amend Carl Moyer Program awards approved in February 2024; and 7) execute contract with Volvo Technology of America, LLC in an amount not to exceed \$1,296,388, including \$60,000 of unused administrative fund to develop, demonstrate and deploy up to 13 zero emission off-road equipment from Clean Fuels Program Fund (31). (Reviewed: Technology Committee, June 21, 2024; Recommended for Approval)

5. Adopt Resolution to Recognize Funds and Accept Terms and Conditions of 2022 Port and Freight Infrastructure Program Award from California State Transportation Agency

Katzenstein/2219

In December 2023, the Board recognized an award of \$76,250,003 from California State Transportation Agency (CalSTA) under the 2022 Port and Freight Infrastructure Program (PFIP) to demonstrate a short line hydrogen fuel cell locomotive and deploy direct current fast chargers and hydrogen refueling dispensers for heavy duty trucks. The Board also established the CalSTA Special Revenue Fund (89) to receive the funds. CalSTA requires a resolution of the Board in order to release the funds.

The Board also recognized \$500,000 from the Department of Energy (DOE) through a FY 2023 Congressional Direct Spending Request for the project. These actions are to: 1) Adopt a Resolution to recognize funds, accept terms and conditions of the 2022 PFIP award from CalSTA and authorize the Executive Officer to execute the necessary agreements with CalSTA and the California Department of Transportation (Caltrans) to receive the award; 2) Reimburse the General Fund up to \$24,000 for administering the DOE grant and 3) Temporary loan up to \$10 million from the Clean Fuels Program Fund (31) to the CalSTA Special Revenue Fund (89) until PFIP grant funds are received. (Reviewed: Technology Committee, June 21, 2024; Recommended for Approval)

6. Issue RFP and Execute Contracts for New Go Zero Incentive Program to Incentivize Installation of Zero-Emission Appliances

Krause/2706

The 2022 AQMP includes control measures that are based on accelerated deployment of zero-emission technologies. One hurdle to the implementation is the high upfront costs. To help mitigate the cost, the 2022 AQMP Resolution directed staff to incentivize the installation of zero-emission technologies. Staff is proposing a new incentive pilot program, Go Zero, to provide incentives to consumers, multifamily property owners, and small business owners, with an emphasis on overburdened communities, to install zero-emission appliances. Go Zero will also include outreach and education about zero-emission options, application assistance, and installer training. Go Zero will be initially funded up to \$21 million from mitigation fees collected under the alternative compliance options for residential space heating appliances maintained in the Rule 1111 Air Quality Investment Fund (27). Staff is proposing to release an RFP to solicit proposals to administer Go Zero and to authorize the Executive Officer to execute contracts based on the results of the RFP with the selected contractor(s) to implement the incentive program. These actions are to: 1) Authorize up to \$21 million from the Rule 1111 Air Quality Investment Fund (27) to fund the Go Zero incentive program; 2) Authorize the Procurement Manager, in accordance with South Coast AQMD Procurement Policy and Procedure, to issue RFP #P2025-01 to solicit proposals for third-party contractor(s) to administer Go Zero to incentivize the purchase and installation of zero-emission appliances in the South Coast AQMD, to organize and conduct trainings for installers of zero-emission appliances, provide outreach and education, and to offer application assistance for consumers; and 3) Authorize the Chair, or by the Chair's designation, the Executive Officer, to execute contracts, based on the results of the RFP, with the selected contractor(s) to implement the incentive program. (Reviewed: Stationary Source Committee, June 21, 2024; Recommended for Approval)

7. Execute Contract to Determine Brake and Tire Wear Exposure Concentrations in South Coast Air Basin and Coachella Valley **Rees/2856**

In December 2023, the Board approved \$850,000 from the Clean Fuels Fund for a study on brake and tire wear particulate matter levels in the South Coast AQMD jurisdiction as part of MATES VI. This action is to authorize the Executive Officer to execute a contract with Emissions Analytics, LLC selected with South Coast AQMD's RFP process to conduct the brake and tire wear study in an amount not to exceed \$850,000. (Reviewed: Administrative Committee, June 14, 2024; Recommended for Approval)

8. Appropriate Funds from Undesignated (Unassigned) Fund Balance for Permitting Enhancement Program **Wong/3176**

The Board previously approved \$400,000 to be appropriated and used for retiree assistance. Due to the San Bernardino County Employees Retirement Association limitations and retiree availability, there will be unspent funds of approximately \$100,000, and this amount is requested to be used in FY 2024-25 with an additional \$200,000 requested. This action is to appropriate a total of \$300,000 from the General Fund Undesignated (Unassigned) Fund Balance into Engineering and Permitting's FY 2024-25 Budget for retiree or consultant assistance to reduce the pending permit application inventory. (Reviewed: Administrative Committee, June 14, 2024; Recommended for Approval)

9. Approve Contract Modification as Approved by MSRC **McCallon**

As part of their FYs 2018-21 Work Program, the MSRC approved a contract modification with SCAG. The MSRC seeks Board approval of the contract modification as part of the FYs 2018-21 Work Program. (Reviewed; Mobile Source Air Pollution Reduction Review Committee, June 20, 2024; Recommended for Approval)

Items 10 through 16 – Information Only/Receive and File

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

This report highlights the May and June 2024 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)

11. Hearing Board Report **Ali**

This reports the actions taken by the Hearing Board during the period of May 1 through June 30, 2024. (No Committee Review)

12. Civil Filings and Civil Penalties Report **Gilchrist/3459**
This report summarizes monthly penalties and legal actions filed by the General Counsel's Office from May 1, 2024 through May 31, 2024. An Index of South Coast AQMD Rules is attached with the penalty report. (Reviewed: Stationary Source Committee, June 21, 2024)
13. Intergovernmental Review of Environmental Documents and CEQA Lead Agency Projects **Krause/2706**
This report provides a listing of CEQA documents received by South Coast AQMD between May 1, 2024 and June 30, 2024, and those projects for which South Coast AQMD is acting as lead agency pursuant to CEQA. (Reviewed: Mobile Source Committee, June 21, 2024 for May 1 to May 31, 2024 portion of the report; the June 1 to June 30, 2024 portion of the report had no committee review)
14. Rule and Control Measure Forecast **Rees/2856**
This report highlights South Coast AQMD rulemaking activities and public hearings scheduled for 2024. (No Committee Review)
15. Audit Reports of AB 2766 Fee Revenue Recipients for Fiscal Years Ending June 30, 2020 and 2021 **Jain/2804**
Health and Safety Code 44244.1 requires any agency that receives fee revenues subvended from the Department of Motor Vehicles to be audited once every two years. This audit of South Coast AQMD's share, MSRC's share, and local governments' share of such subvended funds, performed by independent Certified Public Accountants, has been completed. (Reviewed: Administrative Committee, June 14, 2024)
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 South Coast AQMD operations. This action is to provide the monthly status report on major automation contracts and planned projects. (Reviewed: Administrative Committee, June 14, 2024)

Items 17 through 23 -- Reports for Committees and CARB

The June 14, 2024 Legislative Committee was cancelled. The next regularly scheduled Legislative Committee meeting is August 9, 2024

- | | | |
|---|------------------|--------------------|
| 17. Administrative Committee (Receive & File) | Chair: Delgado | Nastri/3131 |
| 18. Investment Oversight Committee (Receive & File) | Chair: Cacciotti | Jain/2804 |
| 19. Mobile Source Committee (Receive & File) | Chair: Kracov | Rees/2856 |
| 20. Stationary Source Committee (Receive & File) | Chair: McCallon | Aspell/2491 |

- | | | |
|--|--------------------|-------------------------|
| 21. Technology Committee (Receive & File) | Chair: Rodriguez | Katzenstein/2219 |
| 22. Mobile Source Air Pollution Reduction Review Committee Report (Receive & File) | Board Rep.: Hagman | Katzenstein/2219 |
| 23. California Air Resources Board Monthly Report (Receive & File) | Board Rep.: Kracov | Thomas/3268 |
| 24. <u>Items Deferred from Consent and Board Calendar</u> | | |

PUBLIC HEARINGS

- | | | |
|--|--|-----------------------|
| 25. Determine That Proposed Amended Rule 1148.1 – Oil and Gas Production Wells, Is Exempt from CEQA and Amend Rule 1148.1 | | Krause/2706 |
| <p>Rule 1148.1 – Oil and Gas Production Wells applies to facilities that operate oil and gas wells. Proposed Amended Rule 1148.1 (PAR 1148.1) will address objectives of the Community Emission Reduction Plan for the AB 617 community, Wilmington, Carson, and West Long Beach. PAR 1148.1 enhances leak detection provisions, establishes NOx limits for equipment that uses produced gas, and establishes requirements for workover rigs. PAR 1148.1 also bans the use of odorants, requires leak notifications, and updates signage requirements. This action is to adopt the Resolution: 1) Determining that Proposed Amended Rule 1148.1 – Oil and Gas Production Wells, is exempt from the requirements of the California Environmental Quality Act, and 2) Amending Rule 1148.1 - Oil and Gas Production Wells. (Reviewed: Stationary Source Committee, May 17, 2024, Reviewed)</p> | | |
| 26. Determine That Proposed Rule 2306 – Freight Rail Yards, Does Not Require a New Environmental Document; Determine That Proposed Rule 316.2 – Fees for Rule 2306, Is Exempt From CEQA; and Adopt Rules 2306 and 316.2 | | MacMillan/3244 |
| <p>Proposed Rule 2306 (PR 2306) establishes emission reductions targets to ensure that NOx reductions from freight rail yards within the South Coast AQMD jurisdiction will be achieved at levels that are proportional or more-than-proportional to reductions throughout California from implementation of state regulations affecting freight rail yard emission sources. PR 2306 further requires facility-reporting on zero emission infrastructure, and for non-federal public agencies to include PR 2306 compliance requirements in contracting with a freight rail yard owner or operator. Proposed Rule 316.2 (PR 316.2) establishes fees to recover reasonable costs for South Coast AQMD in implementing PR 2306. This action is to adopt the Resolution: 1) Determining that Proposed Rule 2306 – Freight Rail Yards is a later activity within the scope of the Final Program Environmental Impact Reports for the 2022 and 2016 AQMPs such that no new environmental document is required; 2) Determining that Proposed Rule 316.2 – Fees for Rule 2306 is exempt from CEQA; 3) Adopting Rule 2306 and Rule 316.2; and 4)</p> | | |

Approving Rule 2306 Calculation Methodology and Data Appendix.
(Reviewed: Mobile Source Committee, January 19, April 19, and
June 21, 2024)

BOARD MEMBER TRAVEL – (No Written Material)

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

CLOSED SESSION -- (No Written Material)

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 South Coast AQMD is a party. The actions are:

- In the Matter of South Coast Air Quality Management District v. Southern California Gas Company, Aliso Canyon Storage Facility, South Coast AQMD Hearing Board Case No. 137-76 (Order for Abatement); People of the State of California, ex rel South Coast Air Quality Management District v. Southern California Gas Company, Los Angeles Superior Court Case No. BC608322; Judicial Council Coordinated Proceeding No.4861;
- South Coast Air Quality Management District, et al. v. EPA, United States Court of Appeals, D.C. Circuit, Case No. 19-1241 (consolidated with Union of Concerned Scientists v. NHTSA, No. 19-1230);
- South Coast Air Quality Management District, et al. v. NHTSA, EPA, et al., United States Court of Appeals, D.C. Circuit, Case No. 20-1173 (consolidated with Competitive Enterprise Institute, et al. v. NHTSA, No. 20-1145);
- Natural Resources Defense Council, et al. v. City of Los Angeles, et al., San Diego Superior Court, Case No. 37-2021-00023385-CU-TT-CTL (China Shipping Case) (transferred from Los Angeles Superior Court, Case No. 20STCP02985); Fourth District Court of Appeal, Division One, No. D080902;
- In the Matter of South Coast Air Quality Management District v. Baker Commodities, South Coast AQMD Hearing Board Case No. 6223-1 (Order for Abatement); Baker Commodities, Inc. v. South Coast Air Quality Management District Hearing Board; South Coast Air Quality Management District; South Coast Air Quality Management District Hearing Board Members: Cynthia Verdugo-Peralta, Robert Pearman, Micah Ali, and Allan Bernstein, DPM MBA, in their official capacities only; and 100 Does and Roes, Los Angeles County Superior Court, Case No. 22STCP03597;
- South Coast Air Quality Management District v. EPA, U.S. District Court for the Central District of California, Case No. 2:23-cv-02646;
- East Yard Communities for Environmental Justice, et al. v. South Coast Air Quality Management District, the Governing Board of the South Coast Air Quality Management District, the California Air Resources Board, and Does 1 through 25, Inclusive, U.S. District Court for the Central District of California, Case No. 2:23-cv-06682;
- Western States Trucking Association, Inc. v. EPA, et al., United States Court of Appeals, D.C. Circuit, Case No. 23-1143 (amicus brief).

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 South Coast AQMD (two cases).

ADJOURNMENT

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

Members of the public are afforded an opportunity to speak on any agenda item before consideration of that item. Persons wishing to speak may do so in person or remotely via Zoom or telephone. To provide public comments via a Desktop/Laptop or Smartphone, click on the “Raise Hand” at the bottom of the screen, or if participating via Dial-in/Telephone Press *9. This will signal to the host that you would like to provide a public comment and you will be added to the list.

All agendas are posted at South Coast AQMD Headquarters, 21865 Copley Drive, Diamond Bar, California, and website, <http://www.aqmd.gov/home/news-events/meeting-agendas-minutes>, at least 72 hours in advance of the meeting. At the beginning of the agenda, an opportunity is also provided for the public to speak on any subject within the South Coast AQMD’s authority. Speakers may be limited to a total of three (3) minutes for the entirety of the Consent Calendar plus Board Calendar, and three (3) minutes or less for each of the 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. Individuals who wish to submit written or electronic comments must submit such comments to the Clerk of the Board, South Coast AQMD, 21865 Copley Drive, Diamond Bar, CA 91765-4178, (909) 396-2500, or to cob@aqmd.gov, on or before 5:00 p.m. on the Tuesday prior to the Board meeting.

ACRONYMS

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

INSTRUCTIONS FOR ELECTRONIC PARTICIPATION

Instructions for Participating in a Virtual Meeting as an Attendee

As an attendee, you will have the opportunity to virtually raise your hand and provide public comment.

Before joining the call, please silence your other communication devices such as your cell or desk phone. This will prevent any feedback or interruptions during the meeting.

For language interpretation:

Click the interpretation Globe icon at the bottom of the screen

Select the language you want to hear (either English or Spanish)

Click "Mute Original Audio" if you hear both languages at the same time.

Para interpretación de idiomas:

Haga clic en el icono de interpretación el globo terráqueo en la parte inferior de la pantalla

Seleccione el idioma que desea escuchar (inglés o español)

Haga clic en "Silenciar audio original" si escucha ambos idiomas al mismo tiempo.

Please note: During the meeting, all participants will be placed on Mute by the host. You will not be able to mute or unmute your lines manually.

After each agenda item, the Chair will announce public comment.

Speakers may be limited to a total of 3 minutes for the entirety of the consent calendar plus board calendar, and three minutes or less for each of the other agenda items.

A countdown timer will be displayed on the screen for each public comment.

If interpretation is needed, more time will be allotted.

Directions to provide public comment on ZOOM from a DESKTOP/LAPTOP or SMARTPHONE:

Click on the "Raise Hand" feature at the bottom of the screen.

This will signal to the host that you would like to provide a public comment and you will be added to the list.

Directions to provide public comment via TELEPHONE:

Dial *9 on your keypad to signal that you would like to comment.

Directions for Spanish Language TELEPHONE line only:

- The call in number is the same (+1 669 900 6833)
- The meeting ID number is 928-3000-3925
- If you would like to make public comment, please dial *9 on your keypad to signal that you would like to comment.

Instrucciones para la línea de TELÉFONO en español únicamente:

- El número de llamada es el mismo (+1 669900 6833 o +1 93209559643)
- El número de identificación de la reunión es 928-3000-3925
- Si desea hacer un comentario público, marque *9 en su teclado para indicar que desea comentar.

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BOARD MEETING DATE: August 2, 2024

AGENDA NO. 1

MINUTES: Governing Board Monthly Meeting

SYNOPSIS: Attached are the Minutes of the June 7, 2024
Board Meeting.

RECOMMENDED ACTION:

Approve the June 7, 2024 Board Meeting Minutes.

Faye Thomas
Clerk of the Boards

FT

FRIDAY, JUNE 7, 2024

Notice having been duly given, the regular meeting of the South Coast Air Quality Management District Board was conducted in a hybrid format (in person and remotely via videoconferencing and telephone). Members present:

Senator Vanessa Delgado (Ret.), Chair
Senate Rules Committee Appointee

Councilmember Michael A. Cacciotti, Vice Chair
Cities of Los Angeles County – Eastern Region

Supervisor Curt Hagman
County of San Bernardino

Gideon Kracov
Governor's Appointee

Mayor Pro Tem Larry McCallon
Cities of San Bernardino County

Board Member Veronica Padilla-Campos
Speaker of the Assembly Appointee

Supervisor V. Manuel Perez
County of Riverside

Councilmember Nithya Raman
City of Los Angeles

Councilmember Carlos Rodriguez
Cities of Orange County

Mayor José Luis Solache
Cities of Los Angeles County – Western Region

Absent: Mayor Patricia Lock Dawson
Cities of Riverside County

Supervisor Andrew Do
County of Orange

Supervisor Holly J. Mitchell
County of Los Angeles

For additional details of the Governing Board Meeting, please refer to the recording of the [Webcast](#) at: [Live Webcast \(aqmd.gov\)](#)

CALL TO ORDER: Chair Delgado called the meeting to order at 9:07 a.m.

- Pledge of Allegiance: Led by Vice Chair Michael Cacciotti
- Roll Call
- Opening Comments

Executive Officer Wayne Nastri recommended changes to the order of the agenda and to shorten the time limit for public comments since there are time-sensitive Public Hearing items. He announced that SB 1054 (Rubio) and SB 1095 (Becker), were being pulled from Agenda Item No. 18; that no Board or Board Committee meetings are scheduled in July; and the duration of this year's Governing Board Internship program.

Councilmember Cacciotti shared photos of events that he participated in over the past month. For additional details, please refer to the [Webcast](#) beginning at 11:22.

Mayor Solache wished everyone a Happy Father's Day and Pride Month.

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

The Public Comment Period on Non-Agenda Items was opened. The following individuals addressed the Board.

Kevin Katz (14:20)
Gurpreet Mattu (Written Comments Submitted) (20:37)
Dr. Melissa Maestas (Written Comments Submitted) (22:22)
Dan Penoyer (25:50)
Cherie Balisi (27:29)
Kaesean Brown on behalf of Nishanth Krishnamurthy (29:24)
Ernan Nava (31:03)
Ben Blackburn (32:31)
Pavan Nami (34:14)
Brian Vlasich (37:54)

The above speakers are South Coast AQMD employees represented by the SC-PEA bargaining unit. They expressed opposition to executive management's proposal to reduce telework days and commented on reasons to preserve the current Telework Policy. For additional details, please refer to the [Webcast](#) beginning at the times shown.

In response to Chair Delgado's inquiry about the Telework Policy, Executive Officer Nastri explained the differences between the current Telework Policy and what is being proposed. For additional details, please refer to the [Webcast](#) beginning at 15:51.

Chris Chavez, Coalition for Clean Air and West Long Beach resident, and Theral Golden, West Long Beach Association, expressed support for the Port ISR and urged for its adoption as quickly as possible. Mr. Chavez highlighted that this is an action in the AB 617 Wilmington, Carson, West Long Beach Community Emission Reduction Plan. For additional details, please refer to the [Webcast](#) beginning at 16:47.

Adrian Martinez, Earthjustice, recognized those attending the meeting in person to express their support for clean air efforts and the important items on today's agenda. Chair Delgado acknowledged that it was exciting to see so many people in the audience and thanked them for supporting air quality efforts. For additional details, please refer to the [Webcast](#) beginning at 18:12.

Brian Veskosky, a member of the public, commented on reporting an incident regarding the conduct and interactions with a South Coast AQMD inspector during an inspection at his facility. Executive Officer Nastri acknowledged that the matter is under investigation and that the Board would be apprised of the outcome. For additional details, please refer to the [Webcast](#) beginning at 23:56

Al Sattler, a member of the public, expressed support to move forward on clean air efforts. For additional details, please refer to the [Webcast](#) beginning at 37:22.

There being no further requests to speak, the Public Comment Period on Non-Agenda items was closed.

Mayor Pro Tem McCallon expressed support for Executive Management's proposed changes to the Telework Policy and commented on his preference for more workdays in the office. For additional details, please refer to the [Webcast](#) beginning at 39:39

Supervisor Perez questioned why the Telework Policy had not been addressed as part of the recent labor negotiations. He inquired about the Telework Policy before the COVID pandemic. He commented on his long-standing support for labor unions but recognized the flexibility of management and that the proposal was reasonable. For additional details, please refer to the [Webcast](#) beginning at 40:04.

Executive Officer Nastri explained that a Telework Policy in combination with ridesharing options existed pre-COVID. In response to COVID, the Telework Policy was expanded, and the ridesharing options were eliminated. He commented on the benefits and reasons for in-person work, assessing whether to reinstitute the rideshare program, and who determines telework eligibility and frequency. He noted that there is still flexibility in the proposed Policy. For additional details, please refer to the [Webcast](#) beginning at 42:21.

Vice Chair Cacciotti concurred with the comments of his fellow Board Members. He recommended that the rideshare program be reinstated. For additional details, please refer to the [Webcast](#) beginning at 45:33.

Written Comments Submitted:

Support Needed for Strong Indirect Source Rules at South Coast Railyards and Ports

- One letter signed on behalf of the following organizations: Ana Gonzalez, Center for Community Action and Environmental Justice; Dori Chandler, Coalition for Clean Air; Yasmine Agelidis and Fernando Gaytan, Earthjustice; Taylor Thomas, East Yard Communities for Environmental Justice; Alison Hahm, Natural Resources Defense Council; Cristhian Tapia-Delgado, Pacific Environment; Ivette Torres, People's Collective for Environmental Justice; Peter Warren, San Pedro & Peninsula Homeowners Coalition; and Yassi Kavezade, Sierra Club

Yorba Linda Public School Project

Karen Lawson



CLOSED SESSION

The Board recessed to closed session at 9:46 a.m., pursuant to Government Code 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 South Coast AQMD is a party. The actions are:

South Coast Air Quality Management District, et al. v. EPA, United States Court of Appeals, D.C. Circuit, Case No. 19-1241 (consolidated with Union of Concerned Scientists v. NHTSA, No. 19-1230); and

South Coast Air Quality Management District v. EPA, U.S. District Court for the Central District of California, Case No. 2:23-cv-02646.

OPEN SESSION

The Board reconvened in open session at 10:29 a.m. General Counsel Bayron Gilchrist announced that a report of any reportable actions taken in closed session will be provided to the Clerk of the Boards.



CONSENT AND BOARD CALENDAR

Items 1 and 2 – Action Items/No Fiscal Impact

1. Approve Minutes of May 3, 2024 Board Meeting
2. Set Public Hearings August 2, 2024 to Consider Adoption of and/or Amendments to South Coast AQMD Rules and Regulations
 - A. Determine That Proposed Amended Rule 1148.1 – Oil and Gas Production Wells, Is Exempt from CEQA and Amend Rule 1148.1

- B. Determine That Proposed Rule 2306 – Freight Rail Yards Does Not Require a New Environmental Document; Determine That Proposed Rule 316.2 – Fees for Rule 2306, Is Exempt From CEQA; and Adopt Proposed Rules 2306 and 316.2

Items 3 through 9 – Budget/Fiscal Impact

3. Recognize Revenue, Appropriate Funds and Issue Solicitation and Purchase Order for Laboratory Equipment
4. Appropriate Funds, Issue Solicitation and Purchase Orders to Meet Operational Needs for Rule 1180 Air Monitoring Program
5. Authorize Purchase of OnBase Software Support
6. Issue RFP for Legislative Representation in Washington, D.C.
7. Appropriate Funds from the General Fund Undesignated (Unassigned) Fund Balance for Administrative and Human Resources Related Expenditures, and Approve Amending Contracts with Outside Labor and Employment Counsel
8. Appoint Regular and Alternate Attorney and Engineer Members to South Coast AQMD Hearing Board for July 1, 2024 to June 30, 2027
9. Approve Contract Modification as Approved by MSRC

Items 10 through 16 – Information Only/Receive and File

10. Legislative, Public Affairs and Media Report
11. Hearing Board Report
12. Civil Filings and Civil Penalties Report
13. Intergovernmental Review of Environmental Documents and CEQA Lead Agency Projects
14. Rule and Control Measure Forecast
15. Report of RFQs/RFPs Scheduled for Release in June
16. Status Report on Major Ongoing and Upcoming Projects for Information Management

Items 17 through 22 – Reports for Committees and CARB

The May 17, 2024 Technology Committee was cancelled. The next regularly scheduled Technology Committee meeting is June 21, 2024.

17. Administrative Committee
18. Legislative Committee
19. Mobile Source Committee
20. Stationary Source Committee
21. Mobile Source Air Pollution Reduction Review Committee
22. California Air Resources Board Monthly Report

23. Items Deferred from Consent and Board Calendar

There were no items deferred.

The public comment period was opened for Agenda Item Nos. 1-22 and the following individuals addressed the Board.

Agenda Item No. 2B

Fernando Gaytan, Earthjustice (1:31:34)

Alicia Aguayo, People's Collective for Environmental Justice (1:33:05)

MaCarmen Gonzalez, People's Collective for EJ (via Spanish interpreter) (1:34:33)

Tania Gonzalez, People's Collective for EJ (1:37:39)

Alondra Mateo, People's Collective for EJ (1:38:44)

Elizabeth Sena, Fontana resident and Center for Community Action and Environmental Justice (CCA EJ) (1:39:56)

Jessica Craven, Los Angeles resident (1:41:38)

Leonardo Penalzoza, San Bernardino resident (1:43:23)

Jasmine Cunningham, Fontana resident (1:45:02)

Chris Chavez, Coalition for Clean Air (1:46:46)

Marven Norman, San Bernardino resident and CCA EJ (1:47:33)

Shane Ysais, Moreno Valley resident (1:53:04)

Jane Williams, California Communities Against Toxics (1:54:19)

Comments from the above speakers regarding PR 2306 include the following topics. For additional details, please refer to the [Webcast](#) beginning at the time shown.

- Urged to adopt the Rail Yard ISR in August and strengthen it to ensure air quality standards are attained and to provide relief to frontline communities burdened with pollution.
- Called for no further delays to an enforceable rule that holds industry accountable for cumulative impacts.
- Emphasized the need for an approach that moves towards the transition to zero-emissions and electrification.
- Expressed support for other regulations aimed at reducing emissions from trains, ships, and boilers and furnaces to drive the transition to zero-emission.

Agenda Item Nos. 2B, 19, and 21

Bobbi Jo Chavarria, Grow Fontana and Sierra Club, expressed support for moving forward with the Rail Yard ISR on August 2. She commented on the adverse effects of climate change and the opportunity that the South Coast AQMD has to stand up for the transition into a green economy and a framework that prioritizes the health and safety of workers and communities impacted by poor air quality. For additional details, please refer to the [Webcast](#) beginning at 1:49:31

Al Sattler, a member of the public, expressed support for Agenda Item No. 2 and commented that strong action is needed from CARB to control mobile sources. For additional details, please refer to the [Webcast](#) beginning at 1:56:04

There being no further requests to speak, the public comment period was closed for Agenda Item Nos. 1 through 22.

Written Comments Submitted Regarding Agenda Item No. 2B

- One letter signed on behalf of the following organizations: Fernando Gaytan and Yasmine Agelidis, Earthjustice; Ann Gonzalez, Center for Community Action and Environmental Justice; Dori Chandler, Coalition for Clean Air; Ivette Torres, People’s Collective for Environmental Justice; Kathleen Woodfield, San Pedro & Peninsula Homeowners Coalition; Bobbi Jo Chavarria, Sierra Club, Kathy Ramirez and Denny Zane, Move LA; Sylvia Betancourt, Long Beach Alliance for Children with Asthma

Written Comments Submitted Regarding PAR 1146.2, PR2306, and PR 317.1

Andrea Alexander
 Danett Abbott-Wicker
 Dana Barraclough
 Judy Curry
 Susan Mattisinko
 Howard Schwid
 Gary Stewart



Board Action (Items 1-22)

MOVED BY MCCALLON AND SECONDED BY CACCIOTTI TO APPROVE AGENDA ITEM NOS. 1 THROUGH 22 AS RECOMMENDED, EXCEPT PULL SB 1054 AND 1095 FROM AGENDA ITEM NO. 18 AS NOTED BELOW, AND TO:

RECEIVE AND FILE THE REPORTS FOR THE BOARD COMMITTEES, MSRC, AND CARB; AND

ADOPT THE POSITIONS ON AB 2851 AND SB 1298, AS SET FORTH BELOW.

Modifications to Agenda Item No. 18 – Legislation pulled from consideration shown in strikethrough text.

<u>Legislation/Agenda Item</u>	<u>Recommended Action</u>
AB 2851 (Bonta) Metal shredding facilities: fenceline air quality monitoring.	Support if Amended
SB 1054 (Rubio) Climate Pollution Reduction in Homes Initiative: natural gas: customer credit.	Support <i>(This item was pulled from consideration, due to a recent amendment that changed the staff recommendation.)</i>
SB 1095 (Becker) Cozy Home Clean Up Act: building standards: gas fuel-burning, appliances	Support <i>(This item was pulled from consideration as it died in committee.)</i>

SB 1298 (Cortese) Certification
of thermal powerplants: data
centers

Oppose

THE MOTION PASSED BY THE FOLLOWING VOTE:

AYES: Cacciotti, Delgado, Hagman, Kracov, McCallon,
Padilla-Campos, Perez, Raman, Rodriguez, and Solache

NOES: None

ABSENT: Lock Dawson, Do, and Mitchell



Disclosure

Board Member Kracov recused himself from Agenda Item No. 24 because of a financial interest in Disney, which is materially affected by this item. He left the room during the discussion and vote on this item. 1:59:00



PUBLIC HEARINGS

24. Determine That Proposed Rule 317.1 – Clean Air Act Nonattainment Fees for 8-Hour Ozone Standards Is Not Considered Subject to CEQA; and Adopt Rule 317.1

Kalam Cheung, Planning & Rules Manger, gave the staff presentation on Agenda Item No. 24. For additional details, please refer to the [Webcast](#) beginning at 1:59:15.

Councilmember Raman commented on the concerns of public facilities and requested that as the rule is implemented, staff take into consideration how to best support Title V facilities that provide essential public services and how to utilize the funds collected from fines that these facilities may have to pay. She offered the Board’s assistance in facilitating communication with the public agencies. For additional details, please refer to the [Webcast](#) beginning at 2:02:15.

Executive Officer Nastri assured the Board that staff will make every effort to address those concerns and that there will be a future public process to determine how to spend potential funds. For additional details, please refer to the [Webcast](#) beginning at 2:03:19.

The public comment period was opened for Agenda Item No. 24 and the following individuals addressed the Board. For additional details, please refer to the [Webcast](#) beginning at the times shown.

David Rothbart, Los Angeles County Sanitation Districts and Clean Water SoCal
(2:04:19)

Martha Tremblay, Los Angeles County Sanitation Districts (2:06:05)

Kris Flaig, City of Los Angeles Bureau of Sanitation (2:17:39)

Steve Jepsen, Clean Water SoCal (2:25:54)

Sarah Delauriers, California Association of Sanitation Agencies (2:27:37)

Alison Torres, Easter Municipal Water District (2:33:27)

Anthony Budicin, Eastern Municipal Water District (2:38:52)

Comments from the above speakers include the following topics.

- Expressed concern that water/wastewater agencies that perform essential public services will be unable to avoid nonattainment penalties.
- Emphasized that Section 185 is intended to penalize facilities responsible for nonattainment and nonattainment is caused by mobile and federal sources regulated by CARB and U.S. EPA but only the major stationary sources will have to pay these penalties.
- Expressed concern that PR 317.1 places an unnecessary burden on the wastewater facilities classified as major stationary sources.
- Significant penalties will be triggered every year until the South Coast Basin achieves attainment with federal ozone standards.
- Recommended adding language to the Exemption section in the rule language to ensure that the penalties will cease if facilities are no longer required to pay nonattainment fees due to changes to the CAA or implementation guidance.
- Expressed concerns that future amendments might be viewed as backsliding and prohibited by Senate Bill (SB) 288.

John Heintz, Regulatory Flexibility Group (2:07:50)

Curtis Coleman, Southern California Air Quality Alliance (2:30:56)

- Recognized that the collection of nonattainment fees are mandated by Section 185 of the CAA and that South Coast AQMD has limited discretion in how to shape the Rule.
- Noted that nonattainment is primarily due to mobile and federal sources and that Section 185 is not intended to penalize individual sources.
- Requested to exclude emissions from PERP equipment in the determination of the CAA Nonattainment Fees.
- Recommended adding language in the Resolution that directs staff to return with a proposal for the collected fees to be used to either generate offsets that would be accessible to Section 185 fee-paying facilities or be used by those facilities to fund emission reduction projects.

Andrea Vidaurre, People's Collective for Environmental Justice (2:09:30)

Nihal Shrinath, Sierra Club (2:11:03)

Frida Murga, Earthjustice (2:12:42)

Paola Vargas, East Yard Communities for Environmental Justice (2:14:20)

Vanessa Vasquez, Earthjustice (2:15:42)

Marven Norman, Center for Community Action & Environmental Justice (2:19:24)

Jane Williams, think about investments for the fees (2:24:07)

Julia May, Communities for a Better Environment (2:29:17)

Comments from the above speakers include the following topics:

- Expressed support for the proposal to collect CAA fees from major polluters.
- Opposed to the equivalency approach that allowed large stationary sources to emit without a fee.
- Urged the Board to adopt the rule and to reject proposals to create exemptions or an automatic mechanism to change the regulation if the CAA is amended in the future.
- Requested that the fees collected be used to benefit communities that have been disproportionately impacted by large stationary sources and incentivize the shift towards zero-emissions equipment.

Mike Hood, Hood Manufacturing (2:20:54)

Brad Bowman, Fiberglass-manufacturing business operator (2:22:26)

Bill LaMarr, California Small Business Alliance (2:35:10)

Commented on the impact the rule will have on well-controlled small businesses that emit well below the Title V applicability threshold. Expressed concerns that the proposal will result in the loss of jobs and that these businesses will not be able to afford to pay the fees and still stay in business in California.

Mr. LaMarr expressed support to exclude PERP equipment; requested that the fees be placed in a special fund that will be used to return the fees to the facilities or used to subsidize the purchase of process enhancement technologies or emission control equipment; establishing a working group comprised largely of well-controlled businesses to explore how they might operate more efficiently; and that staff modify and include provisions in the rule similar to SJVAPCD's fee equivalency approach for the cessation of fees should U.S. EPA change the CAA.

Rita Loof, RadTech International, urged the Board to recognize the efforts of facilities who have implemented clean technology and achieved voluntary emission reductions. She recommended working through the Stationary Source Committee to determine how the fees collected will be used. For additional details, please refer to the [Webcast](#) beginning at 2:31:54.

Harvey Eder, Public Solar Power Coalition, expressed concern about public agencies and having this covered in the provisions, and commented on other matters unrelated to this item. 2:37:04

There being no further requests to speak, the public comment period was closed for Agenda Item No. 24.

Sarah Rees, Planning, Deputy Executive Officer/Planning, Rule Development and Implementation, commented on the requirements of Section 185 of the CAA that shaped the rulemaking, how the fees generated must be utilized, and the future public process to explore how to spend the fees. She responded to requests to exclude PERP equipment and added language to the rule for exemptions, if there are future amendments to the

CAA. She also commented that the proposed rule is not impacted by SB 288 and explained that facilities that believe their emissions are not accurately characterized can work with staff to address their concerns. For additional details, please refer to the [Webcast](#) beginning at 2:39:45.

Mike Krause, Assistant Deputy Executive Officer/Planning, Rule Development and Implementation, commented on the fee equivalency approach SJVAPCD has implemented and explained that U.S. EPA allows that approach if there is a surplus of fees to reduce emissions. The South Coast AQMD does not have a surplus, due to commitments made for incentives in the 2016 AQMP. Therefore, the fee equivalency approach is not available to South Coast AQMD. For additional details, please refer to the [Webcast](#) beginning at 2:42:39.

Board Member Padilla-Campos expressed support for the proposed rule and commented on the public process to determine how the fees will be utilized, noting the importance of prioritizing public health and projects for emission reductions that benefit overburdened communities. For additional details, please refer to the [Webcast](#) beginning at 2:43:42.

Supervisor Hagman acknowledged that South Coast AQMD must fulfill the obligations of the CAA Section 185 and that public facilities cannot be exempted. He commented on the use of the collected fees for technologies. He inquired about the flexibility of the proposed rule to address future amendments to the CAA and recommended adding language directing that staff report to the Board within six months of any substantial changes to the CAA. For additional details, please refer to the [Webcast](#) beginning at 2:44:49.

Executive Officer Nastri clarified that if the CAA is amended in the future, staff would appropriately amend Rule 317.1. He recommended that appropriate language be incorporated into the Resolution. For additional details, please refer to the [Webcast](#) beginning at 2:46:29.

Mayor Solache expressed support for the proposed rule and acknowledged the need to address concerns of the community to protect public health. He also commented on the concerns of the public agencies and the need to recognize the essential public services they provide. For additional details, please refer to the [Webcast](#) beginning at 2:48:14.

Councilmember Rodriguez asked if the Board could add language in the Rule to address future changes to the CAA. Executive Officer Nastri expressed concerns with including exemptions in the rule language and proposed including language in the Resolution. He recommended that the following language be added to the Resolution for the Board's consideration: "Therefore it be resolved that the Governing Board direct staff to report back to the Stationary Source Committee within six months, if there is a change in the Clean Air Act that affects Rule 317.1." For additional details, please refer to the [Webcast](#) beginning at 2:49:42.

Councilmember Rodriguez inquired about SJVAPCD's fee equivalency approach and whether public essential service providers could be considered exempt if there is a surplus available from the collected fees. He expressed support for establishing a working group to provide input about how to utilize potential funds. For additional details, please refer to the [Webcast](#) beginning at 2:52:37.

Executive Officer Nastri explained that South Coast cannot use its excess credits for the 2016 AQMP and therefore, does not have the option of an alternative compliance plan. For additional details, please refer to the [Webcast](#) beginning at 2:54:12.

Supervisor Hagman agreed with the recommendation to add language to the Resolution but requested that the language direct staff to not only report but to also seek policy direction from the Board within six months of any changes to the CAA. For additional details, please refer to the [Webcast](#) beginning at 2:54:54.



Board Action (Item 24)

MOVED BY HAGMAN AND SECONDED BY SOLACHE TO APPROVE AGENDA ITEM NO 24 AS RECOMMENDED AND ADOPT RESOLUTION NO. 24-14, (WITH THE MODIFICATIONS NOTED BELOW):

- 1) DETERMINING THAT PROPOSED RULE 317.1 – CLEAN AIR ACT NONATTAINMENT FEES FOR 8-HOUR OZONE STANDARDS, IS NOT CONSIDERED SUBJECT TO THE CALIFORNIA ENVIRONMENTAL QUALITY ACT; AND
- 2) ADOPTING RULE 317.1 – CLEAN AIR ACT NONATTAINMENT FEES FOR 8-HOUR OZONE STANDARDS.

Resolution modified to add the following paragraph (on Page 3).

“BE IT FURTHER RESOLVED, that the South Coast AQMD Governing Board directs staff to report back to the Stationary Source Committee within 6 months if there is a change in the CAA that affects Rule 317.1 to seek policy direction on possible changes to Rule 317.1; and”

THE MOTION PASSED BY THE FOLLOWING VOTE:

AYES: Cacciotti, Delgado, Hagman, McCallon, Padilla-Campos, Perez, Raman, and Solache

NOES: Rodriguez

RECUSE: Kracov

ABSENT: Lock Dawson, Do, and Mitchell



25. Certify Final Environmental Assessment for Proposed Amended Rule 463 – Organic Liquid Storage; and Amend Rule 463

The Board agreed to waive the staff presentation on Agenda Item No. 25.

The public comment period was opened for Agenda Item No. 25 and the following individuals addressed the Board.

Jane Williams, California Communities Against Toxics
Julie May, Communities for a Better Environment

The above speakers expressed concern that toxic compounds are emitted into EJ communities from above-ground storage tanks. They suggested that the rule could be stronger but support it in its current form. For additional details, please refer to the [Webcast](#) beginning at 2:57:17.

Ralph Combs, Termo Company, expressed concerns that the implementation of the rule will result in them shutting down some operations, as well as laying off staff because of the cost to conduct biweekly OGI inspections for leak detections. He requested that the Board consider adding a provision to exempt new tanks or additional imaging or control technology. For additional details, please refer to the [Webcast](#) beginning at 2:59:51.

Harvey Eder commented on the potential in storage tanks and crossover to other technologies such as solar, and the need for equity in how the fines are used. He expressed frustration that the staff presentation for this item was waived. For additional details, please refer to the [Webcast](#) beginning at 3:01:28.

Al Sattler, a member of the public, expressed support for the rule but was surprised that the compliance timeframe for facilities to install secondary seals on IFR tanks allowed up to 22 years. For additional details, please refer to the [Webcast](#) beginning at 3:02:54.

There being no further requests to speak, the public comment period was closed for Agenda Item No. 25.

Board Member Padilla-Campos highlighted PAR 463 as a major milestone in reducing NOx emissions and commented on PAR 1146.2. (*Comments regarding PAR 1146.2 were moved under Agenda Item No. 26*). For additional details, please refer to the [Webcast](#) beginning at 3:03:55.

Supervisor Hagman commended staff for taking the time and working with the environmentalists and industry on the rule. He acknowledged that both sides are not happy but considers that an indication that the rule is a good compromise. For additional details, please refer to the [Webcast](#) beginning at 3:05:26.



Board Action (Item 25)

MOVED BY HAGMAN AND SECONDED TO APPROVE AGENDA ITEM NO 25 AS RECOMMENDED AND ADOPT RESOLUTION NO. 24-15:

- 1) CERTIFYING THE FINAL ENVIRONMENTAL ASSESSMENT FOR PROPOSED AMENDED RULE 463 – ORGANIC LIQUID STORAGE; AND
- 2) AMENDING RULE 463 – ORGANIC LIQUID STORAGE.

THE MOTION PASSED BY THE FOLLOWING VOTE:

AYES: Cacciotti, Delgado, Hagman, Kracov, McCallon, Padilla-Campos, Perez, Raman, Rodriguez, and Solache

NOES: None

ABSENT: Lock Dawson, Do, and Mitchell



This item was taken out of order.

27. Determine That South Coast Air Basin Attainment Plan for 2012 Annual PM2.5 Standard Does Not Require a New Environmental Document; and Adopt South Coast Air Basin Attainment Plan for 2012 Annual PM2.5 Standard

The Board agreed to waive the staff presentation on Agenda Item No. 27.

The public comment period was opened for Agenda Item No. 27 and the following individual addressed the Board.

Harvey Eder commented on premature deaths and economic costs associated with PM2.5 emissions. For additional details, please refer to the [Webcast](#) beginning at 3:08:21.

There being no further requests to speak, the public comment period was closed for Agenda Item No. 27.



Board Action (Item 27)

MOVED BY MCCALLON AND SECONDED BY HAGMAN TO APPROVE AGENDA ITEM NO 27 AS RECOMMENDED AND TO ADOPT RESOLUTION NO. 24-16:

- 1) DETERMINING THAT THE DRAFT SOUTH COAST AIR BASIN ATTAINMENT PLAN FOR THE 2012 ANNUAL PM2.5

STANDARD (DRAFT PM2.5 PLAN) IS A LATER ACTIVITY WITHIN THE SCOPE OF THE FINAL PROGRAM ENVIRONMENTAL IMPACT REPORT (EIR) FOR THE 2022 AQMP AND THE FINAL PROGRAM EIR FOR THE 2016 AQMP SUCH THAT NO NEW ENVIRONMENTAL DOCUMENT WILL BE REQUIRED; AND

- 2) ADOPTING THE DRAFT SOUTH COAST AIR BASIN ATTAINMENT PLAN FOR THE 2012 ANNUAL PM2.5 STANDARD AND DIRECTING STAFF TO FORWARD THE DRAFT PM2.5 PLAN TO CARB FOR APPROVAL AND SUBMISSION TO U.S. EPA FOR INCLUSION IN THE SIP.

THE MOTION PASSED BY THE FOLLOWING VOTE:

AYES: Cacciotti, Delgado, Hagman, Kracov, McCallon, Perez, Raman, Rodriguez, and Solache

NOES: None

ABSENT: Lock Dawson, Do, Mitchell, and Padilla-Campos



26. Determine That Proposed Amended Rule 1146.2 – Emissions of Oxides of Nitrogen from Large Water Heaters, Small Boilers and Process Heaters Does Not Require a New Environmental Document; and Amend Rule 1146.2

Heather Farr, Planning and Rules Manager, gave the staff presentation on Agenda Item No. 26. For additional details, please refer to the [Webcast](#) beginning at 3:10:43.

The public comment period was opened for Agenda Item No. 26 and the following individuals addressed the Board. For additional details, please refer to the [Webcast](#) beginning at the times shown.

- Evan Gillespie, Industrious Labs (3:15:37)
- Aura Vasquez, former Los Angeles Department of Water & Power Board Commissioner & Sierra Club Climate Action Committee (3:16:32)
- Jed Holtzman, RMI (3:17:37)
- Kimberly Orbe, Sierra Club (3:19:16)
- Adrian Martinez, Earthjustice (3:22:07)
- Chris Chavez, Coalition for Clean Air (3:23:47)
- Lexi Hernandez, Orange County Climate Coalition (3:24:45)
- Marven Norman, CCAEJ (3:26:18)
- Yvette Grace Liberty, Registered nurse (3:29:30)
- Al Sattler, a member of the public (3:16:32)
- Julia May, Communities for a Better Environment (3:35:13)
- Jane Williams, California Communities Against Toxics (3:38:41)
- Mark Abramowitz, Community Environmental Services (3:41:58)

Comments from the above speakers include the following topics.

- Urged for no delay to adopt PAR 1146.2.

- Commended the rule as it moves towards zero-emissions technologies and phasing out fossil fuels.

John Heintz, Latham & Watkins for Regulatory Flexibility Group (3:20:45)
Sarah Wiltfong, Los Angeles County Business Federation (3:27:56)
Sassan Rahimzadeh, ARYA Cleaners & California Cleaners Association (3:31:06)
Blake Perez, BOMA/Greater Los Angeles (3:32:47)
Curtis Coleman, Southern California Air Quality Alliance (3:36:59)
Jessi Davis, SoCalGas (3:40:19)
Jackie Romero, California Restaurant Association (3:43:40)
Jim Douglas, California Cleaners Association (3:45:14)
Michael Leeming, Parker Boiler Company (3:48:40)
Bill Quinn, California Council for Environmental & Economic Balance (3:50:21)
Fred Sutton, California Apartment Association (3:51:44)

Comments from the above speakers include the following topics.

- Delay adoption of PAR 1146.2 to allow more time to work through issues.
- Extend implementation dates.
- Wait until the technology check-in is completed.
- Direct staff to come back with a proposed amended rule that would include an equivalent compliance plan option.
- Concern with potential economic impacts and feasibility for small businesses.
- Incentives are needed for small businesses.
- Concern that electricity demands and upgrades for associated building infrastructure cannot be met.
- Questioned South Coast AQMD's cost-effectiveness analysis.
- Requested clarification on the percentage of NOx emissions from affected sources.

Harvey Eder commented on the differences between the cost of public power and investor-owned power, and that using solar for hot water was addressed in the 1979 and 1982 AQMP's. For additional details, please refer to the [Webcast](#) beginning at 3:46:47.

There being no further requests to speak, the public comment period was closed for Agenda Item No. 26.

Written Comments Submitted

(See Attachment A)

Chair Delgado thanked staff for their work and commented on the importance of the rule and its broad impact. She acknowledged her request for the Resolution to include language for a progress report to the Stationary Source Committee ahead of the compliance dates regarding the status of the technology. She recommended that staff work to conduct a pilot program in an AB 617 community using incentive funds to evaluate the results. For additional details, please refer to the [Webcast](#) beginning at 3:52:54.

Executive Officer Nastri recommended that staff report back to the appropriate Board committee for further guidance as things move forward. For additional details, please refer to the [Webcast](#) beginning at 3:55:13.

Mr. Krause commented on the extended compliance schedule for large facilities, and the efforts that local and state agencies are taking to address increased energy demand. He clarified that the affected sources are about two percent of the total NOx emissions inventory; however, they represent 10 percent of all the stationary and area sources under the South Coast AQMD's authority. Mr. Krause also mentioned that staff is working on a zero-emission appliance incentive program for residential and small commercial facilities that will focus on overburdened communities. For additional details, please refer to the [Webcast](#) beginning at 3:57:23.

Mayor Pro Tem McCallon requested that staff discuss the compliance deadlines, including the recourse available to facilities, if the deadlines cannot be met, and concerns regarding the costs associated with the rule. For additional details, please refer to the [Webcast](#) beginning at 3:59:19.

Mr. Krause summarized the implementation for different categories of equipment and noted that the rule offers several alternative compliance options, if there is a delay in the compliance schedule. He highlighted the factors that were evaluated in the cost-effective analysis to address potential costs. For additional details, please refer to the [Webcast](#) beginning at 4:02:13.

Supervisor Hagman acknowledged the challenges regarding the practicality and affordability of implementing the rule and inquired about the flexibility of the rule to deal with implementation issues as they arise on a case-by-case basis. For additional details, please refer to the [Webcast](#) beginning at 4:03:13.

Executive Officer Nastri responded that the rule as structured is appropriate, provides safeguard mechanisms, and provides an important market signal. In addition, the technology assessment and progress report to the Stationary Source Committee ahead of the compliance dates regarding the status of the technology, utilities, and costs will provide the Board and the public the needed assurance. For additional details, please refer to the [Webcast](#) beginning at 4:05:49.

Supervisor Perez expressed support for the rule; however, he acknowledged having concerns for how it will affect constituents and small businesses in the Coachella Valley and Palm Springs. He concurred with his fellow Board Members on the importance to ensure that safeguards are in place and ongoing assessments to determine the impacts in implementing the rule. For additional details, please refer to the [Webcast](#) beginning at 4:07:52.

Councilmember Raman commented that this is exciting as it is the first all zero-emission rule. She invited staff to meet with representatives from the City of Los Angeles' Department of Building and Safety to discuss the city's decarbonization efforts. For additional details, please refer to the [Webcast](#) beginning at 4:09:46.

Board Member Padilla-Campos recommended that staff seek opportunities for funding sources to be made available for incentive programs and that South Coast AQMD be a hub where people can apply for incentives in one place. For additional details, please refer to the [Webcast](#) beginning at 3:03:55. She commented on the need for outreach and awareness about the rule as soon as possible. For additional details, please refer to the [Webcast](#) beginning at 4:11:45.

Councilmember Rodriguez asked for clarification on the costs discrepancies received from BizFed and mechanisms in the proposed amended rule to address situations where a dry cleaner, apartment building, or a restaurant for example, experiences costs that are more than 10 percent of what the proposed rule anticipated. For additional details, please refer to the [Webcast](#) beginning at 4:12:25.

Executive Officer Nastri responded that some of the higher cost data received from Bizfed was for larger equipment that was not applicable to Proposed Amended Rule 1146.2 and that is where the discrepancy in cost is. Regarding actual costs, the technology assessment will look at actual costs as well as a number of other parameters. Executive Officer Nastri read suggested resolution language to address the Chair's recommendation to include a demonstration project. For additional details, please refer to the [Webcast](#) beginning at 4:15:23.

Chair Delgado confirmed that the Resolution language was consistent with her recommendation and highlighted the importance of ongoing monitoring of the implementation of Proposed Amended Rule 1146.2. For additional details, please refer to the [Webcast](#) beginning at 4:16:46.

Supervisor Hagman emphasized the need for immediate outreach and notification to local building departments. For additional details, please refer to the [Webcast](#) beginning at 4:17:09.



Board Action (Item 26)

MOVED BY HAGMAN AND SECONDED BY MCCALLON TO APPROVE AGENDA ITEM NO. 26 AND ADOPT RESOLUTION NO. 24-17, (WITH MODIFICATIONS TO THE RESOLUTION NOTED BELOW):

- 1) DETERMINING THAT PROPOSED AMENDED RULE 1146.2 – EMISSIONS OF OXIDES OF NITROGEN FROM LARGE WATER HEATERS AND SMALL BOILERS AND PROCESS HEATERS IS A LATER ACTIVITY WITHIN THE SCOPE OF THE FINAL PROGRAM ENVIRONMENTAL IMPACT REPORT FOR THE 2022 AQMP SUCH THAT NO NEW ENVIRONMENTAL DOCUMENT WILL BE REQUIRED; AND
- 2) AMENDING RULE 1146.2 – EMISSIONS OF OXIDES OF NITROGEN FROM LARGE WATER HEATERS, SMALL BOILERS AND PROCESS HEATERS.

Resolution modified to add the following paragraph (on Page 5):

“BE IT FURTHER RESOLVED, that the Governing Board directs staff to work to conduct a demonstration project with a small commercial facility located in an AB 617 community using incentive funds, if available, and incorporate the results of the demonstration project into the technology assessment; and”

THE MOTION PASSED BY THE FOLLOWING VOTE:

AYES: Cacciotti, Delgado, Hagman, Kracov, McCallon, Padilla-Campos, Perez, Raman, and Solache

NOES: Rodriguez

ABSENT: Lock Dawson, Do, and Mitchell



ADJOURNMENT

There being no further business, Chair Delgado adjourned the meeting at 1:18 p.m.

The foregoing is a true statement of the proceedings held by the South Coast Air Quality Management District Board on June 7, 2024.

Respectfully Submitted,

Faye Thomas
Clerk of the Boards

Date Minutes Approved: _____

Vanessa Delgado, Chair

ACRONYMS

- AQMP = Air Quality Management Plan
- CAA = Clean Air Act
- CARB = California Air Resources Board
- CEQA = California Environmental Quality Act
- FY = Fiscal Year
- IFR = Internal Floating Roof
- LADWP = Los Angeles Department of Water & Power
- MSRC = Mobile Source Air Pollution Reduction Review Committee
- PERP = Portable Equipment Registration Program
- SC-PEA = South Coast Professional Employees Association
- SJVAPCD = San Joaquin Valley Air Pollution Control District

**ATTACHMENT A TO THE MINUTES - JUNE 7, 2024 GOVERNING BOARD MEETING MINUTES
WRITTEN COMMENTS SUBMITTED FOR AGENDA ITEM NO. 26, PAR 1146.2**

- Letter submitted by John Heintz, Latham & Watkins LLP on behalf of the Regulatory Flexibility Group
- One letter signed on behalf of the following organizations: Adrian Martinez, Earthjustice; David Diaz, Active San Gabriel Valley; Jane Williams, California Communities Against Toxics; Robina Suwol, California Safe Schools; Marven Norman, Center for Community Action and Environmental Justice; Lexi Hernandez, Climate Action Campaign; Chris Chavez, Coalition for Clean Air; Julia May, Communities for a Better Environment; Taylor Thomas, East Yard Communities for Environmental Justice; Evan Gillespie, Industrious Labs; Hector Huezo, Jobs to Move America; Richard Parks, Redeemer Community Partners; Jed Holtzman, RMI; Anne Pernick, SAFE Cities at Stand.earth; Peter Warren, San Pedro & Peninsula Homeowners Coalition; Kim Orbe, Sierra Club; Theral Golden, West Long Beach Association
- One letter signed by the following organizations: Los Angeles County Business Federation (LA BizFed); Apartment Association of Orange County; California Cleaners Association; NAIOP of California; Building Owners & Managers Assoc. (BOMA) CA; NAIOP SoCal Chapter; Construction Industry Coalition on Water Quality (CICWQ); CA Building Industry Association CA; CA Manufacturers & Technology Association (CMTA); CA Business Properties Association (CBPA); Construction Industry Air Quality Coalition (CIAQC)
- Letter submitted by Kim Orbe, Sierra Club, on behalf of the following 285 members:
 - Yue Shen, Los Angeles
 - Michael Rochmes, Culver City
 - William Sandercock, Los Angeles
 - Lisa Swanson, Huntington Beach
 - Ashley Craig, Long Beach
 - David Reid, Claremont
 - Jennifer Biswas, Culver City
 - Jennifer Lin, Danville
 - Kathy Monteleone, Lake Elsinore
 - Jeremy Bird-Fremont, Santa Monica
 - Mary Driskill, Mission Viejo
 - Bonnie Robinson, Orange
 - Jason Price, Santa Clarita
 - Dr. Leslie Klein, Los Angeles
 - Dr. Tony Knight, Studio City
 - Max Ryden, Crestline
 - Susann Rizzo, Valencia
 - Paula Ocampo, Whittier
 - Mary Ann Ruiz, Chino
 - Jay Ross, Los Angeles
 - Fred Herrera, Sun Valley
 - Kathy Kahn, Laguna Niguel
 - Joclyn Rabbit-Sire, Huntington Beach
 - Pat Freeman, Laguna Woods
 - Jillian Gallery, Seal Beach
 - Rebecca Newman, Irvine
 - David Sorge, Huntington Beach
 - Lisa Piner, Newport Beach
 - Tina Bowman, Long Beach
 - Jeffrey Wang, Hacienda Heights
 - Jessica Craven, Los Angeles
 - Gary Gabele, Granada Hills
 - Maryam Mortezaiefard, West Hills
 - Julie Neidich, Ladera Ranch
 - Elliot Bronwein, Newhall
 - Mary Lou Rosczyk, Murrieta
 - Serena Palmer, Anaheim
 - Raymond Smith, Ontario
 - Sam Butler, Los Angeles
 - Mark Rhomberg, Pacific Palisades
 - Ed Chesser, Indio
 - Garry Star, Thousand Oaks
 - Morgan Goodwin, North Hollywood
 - Tim Chavez, Hemet
 - Richard Dawson, Los Angeles
 - Jim Stewart, Lakewood
 - Maryellen Redish, Palm Springs
 - William Nash, Long Beach

Julie Adelson, San Pedro
Catherine Ronan, Los Angeles
Erica Silverman, Los Angeles
Peter Berg, Burbank
Alan Bair, Pasadena
Chris Eaton, Los Angeles
Mario Azucena, Los Angeles
A. Srinivasan, Altadena
A.L. Steeiner, Los Angeles
Abbie Bernstein, West Hollywood
Adam Bernstein, Los Angeles
Adriana Nunez, Van Nuys
Alan Chen, Los Angeles
Alexa McMahan, Huntington Beach
Alice Neuhauser, Manhattan Beach
Amy Franz, La Habra Heights
Andy Wilson, San Diego
Anita Wisch, Valencica
Ann Feeney, Del Mar
Arlynn Bottomley, Brea
Ashley Foulk, Long Beach
Barbara Ishida, Altadena
Barry & Tracey Kogan, Long Beach
Benjamin Park, West Hollywood
Benson Hausman, West Hollywood
Bobbi Jo Chavarria, Fontana
Bonnie Cameron, Long Beach
Brenda Haig, Long Beach
Brian Pope, Los Angeles
Bruce Spring, Los Angeles
Candace Rocha, Los Angeles
Carla Zuckerman, Newhall
Cassandra Gardener, Pasadena
Cathy Brandolisio, Sherman Oaks
Cecilia Su'a, Carson
Charles Wolfe, Sylmar
Charles Adelman, Los Angeles
Charles Warner, Fontana
Chris Gilbert, Berkley
Chris Geukens, Northridge
Christine Ney, Anaheim
Christopher Parsons, Los Angeles
Christopher Wong, Irvine
Claude Duss, Calabasas
Claudia Cataldo, Los Angeles
Constance Anderson, Hemet
Corinne van den Heuvel, West Hollywood
Cristina Lee Escudero, Lynwood
Dan Esposito, Manhattan Beach
Daniel Nakashima, Long Beach
Danijel Mikulja, Los Angeles
Darrell Neft, Costa Mesa
Darren Spurr, Whittier
David Gallardo, Alhambra
David Vigus, Laguna Niguel
David Carritte, Colton

Debbie Lee, Los Angeles
Deborah Vinall, Upland
Deborah Burkhart, Pacific Palisades
Dehra Iverson, Costa Mesa
Dena Guerry Henriquez, Glendale
Diana Duncan, Santa Monica
Dominick Falzone, Los Angeles
Donald Sparks, Northridge
Donald Sage Mackay, South Pasadena
Donielle Lemone, Glendale
Doug Bender, Redondo Beach
Douglas McCormick, Trabuco Canyon
Edward Landler, Los Angeles
EJ McConaughy, Mission Viejo
Elizabeth Estes, Pasadena
Ellen Segal, La Crescenta
Eric Swenson, Glendale
Erin Snyder, Riverside
Erlinda Cortez, Long Beach
Eugene Majerowicz, View Park
Evin Mc Dermitt, Fullerton
Flora Rosas, Los Angeles
Fred Schloessinger, Huntington Beach
Gabriel Smalley, Los Angeles
Gail Farina, Los Angeles
Georgia Labey, Palm Desert
Gerald Shaia, Sun Valley
Glenn Garland, Sherman Oaks
Grace Tam, Laguna Hills
Greg Sweel, Santa Monica
Haiching Cheah, Rowland Heights
Hank Schlinger, Glendale
Harry Swope, La Crescenta
Heather Mclarty, Los Angeles
Heidi Bean, Corona
Helene Zimmerman, Santa Monica
Hildy Meyers, Huntington Beach
Holly Burgin, Van Nuys
Holly Isaacson, North Hollywood
Holly Yokoyama, Rancho Cucamonga
Ian Bixby, Long Beach
J. D. Lombardi, North Hollywood
Jamie Nahman, Topanga
Janet Wheeler, Murrieta
Janet Maker, Los Angeles
Jason Nolasco, Bellflower
Javier Del Valle, Montebello
Jegou Julien, Aliso Viejo
Jennifer Tomassi, Los Angeles
Jennifer Gregg, Valencia
Jerry Persky, Santa Monica
Jill Davine, Culver City
Jill Waters, La Canada
Jim Hartung, Santa Monica
Jo Mandrell, Upland
Jo Baxter, Laguna Beach

Jo Ellen Young, Culver City
Joan Licari, Hacienda Heights
Joe McLaughlin, Los Angeles
John St. Clair, Ontario
Joseph Seals Jr, Santa Ana
Joy Allenspach, Irvine
Julie Stein, Arleta
Karen O'Rourke, Canoga Park
Karyn Keze, San Diego
Katherine Footracer, Altadena
Kathleen Fernandez, Yorba Linda
Kay Gallin, Los Angeles
Kelly Ayers, Ontario
Ken Rosen, Beverly Hills
Kent Morris, Fullerton
Kevin O'Brien, Laguna Woods
Kim Orbe, Los Angeles
Kim Nero, Costa Mesa
Kimberly Orbe, Huntington Beach
Kristen Olsson, Los Angeles
Larry Steen, Encino
Laura Strom, Los Angeles
Lawrence Joe, Rosemead
Leonard Herzog, Los Angeles
Linda Howie, West Hills
Lindsay Meagher, Redondo Beach
Lionel Mares, Los Angeles
Lisa Mingear, Dana Point
Livia Ferguson, Manhattan Beach
Lori Kegler, San Pedro
Lusine Harutyunyan, Encino
Lynn Pedersen, Porter Ranch
M Faur, Laguna Woods
Marcia Schwemer, Los Angeles
Margaret Shekell, Los Angeles
Margaret A Finlayson, Foothill Ranch
Maria Molund, Los Angeles
Marilyn Eng, Diamond Bar
Marilyn Carney, North Hollywood
Mark Glasser, Los Angeles
Mark Hadley, San Juan Capistrano
Mary Rojeski, Santa Monica
Mary Lunetta, Idyllwild
Matt Powell, Woodland Hills
Matthew Rivers, Porter Ranch
Matthew Gillespie, Redondo Beach
Maureen Mcdonald, Desert Hot Springs
Melissa Waters, Laguna Niguel
Melissa Yu, San Francisco
Michael Reith, Woodland Hills
Michael Noonan, Laguna Woods
Michael Luebbers, Tustin
Michael Chaskes, Los Angeles
Michael Marciano, North Hollywood
Michelle Trafficante, South Pasadena
Michelle Palladine, Palm Springs

Mike Honda, Santa Ana
Mike Senteovich, Los Alamitos
Miriam Baum, Alta Loma
Misha Askren, Los Angeles
Mox Ruge, Sherman Oaks
Ms. Courtney, Orange
Murray Kaufman, Irvine
N Daye, Los Angeles
Nancy Shrodes, Hermosa Beach
Nanette Pratini, Riverside
Neal Steiner, Los Angeles
Neil Morgan, Torrance
Nia Momin, Mission Viejo
Nigel Jay, Irvine
Norm Stanley, Oak Glen
Norman Goss, Glendale
Ofer Sapir, Woodland Hills
Patricia Gleason, Sanger
Paul Waller, Woodland Hills
Paula Rufener, Torrance
Peter Nielsen, Beverly Hills
Phillip Cripps, Cathedral City
Ralph Smith, Los Angeles
Randy Baker, Placentia
Rebecca Prewitt, West Toluca Lake
Reesha Tuomi, Thousand Oaks
Regalado Geoff, Burbank
Regina Lee, Los Angeles
Renee Klein, Marina Del Rey
Rhetta Alexander, Van Nuys
Richard Blain, Temecula
Richard Miller, Laguna Woods
Richard Bejarano, Lake Elsinore
Rob Seltzer, Malibu
Robert Aronson, Marina Del Rey
Robert Paquette, Pasadena
Robert Rowe, Los Angeles
Robert Bursick, Los Angeles
Robert Leonard, Hawthorne
Robyn Class, Orange
Rosanne Basu, Hermosa Beach
Rosanne Costantino, Los Angeles
Ryan Davis, Burbank
S. Barryte, Rancho Palos Verdes
Sandra Christopher, Burbank
Scott Jung, South Pasadena
Soraya Dosaj, Van Nuys
Stacey Mcdonald, Thousand Oaks
Stephanie Llarro, Woodland Hills
Steve Vicuna, Monterey Park
Susan Watts, Riverside
Susan Hanger, Topanga
Suzi Beaton, Beverly Hills
Tara Strand, North Hollywood
Teresa Hensley, Hemet
Teresa Cheng, Los Angeles

Terrance McNally, Long Beach
Thad Zajdowicz, Altadena
Theresa Corrales, Lake Elsinore
Thomas Gregory, Dana Point
Tia Triplett, Los Angeles
Tim Baumgartner, Torrance
Tonya Cockrell, Corona

Tracey Canziani, San Clemente
Tristan Dunker, Garden Grove
Vic Bostok, Altadena
Victoria Skalland, Los Angeles
Wayne Fellabaum, Palm Springs
William Briggs, Hermosa Beach

- Letter submitted by Kevin Barker, Southern California Gas Company (SoCalGas)
(This letter was received after the June 7, 2024 meeting.)

 [Back to Agenda](#)

BOARD MEETING DATE: August 2, 2024

AGENDA NO. 2

PROPOSAL: Set Public Hearings September 6, 2024 to Consider Adoption of and/or Amendments to South Coast AQMD Rules and Regulations:

Determine That Proposed Rule 1165 – Control of Emissions from Municipal Solid Waste Incinerators, Is Exempt from CEQA and Adopt Rule 1165

Proposed Rule 1165 (PR 1165) establishes NO_x, PM, and CO emission limits from municipal solid waste incinerators. Additionally, PR 1165 will include provisions for housekeeping, monitoring, reporting, and recordkeeping. This action is to adopt the Resolution: 1) Determining that the Proposed Rule 1165 – Control of Emissions from Municipal Solid Waste Incinerators, is exempt from the requirements of the California Environmental Quality Act, and 2) Adopting Rule 1165 – Control of Emissions from Municipal Solid Waste Incinerators. (Reviewed: Stationary Source Committee, June 21, 2024)

The complete text of the proposed rule, staff report and other supporting documents will be available from South Coast AQMD's Public Information Center at (909) 396-2001, or Mr. Derrick Alatorre – Deputy Executive Officer/Public Advisor, South Coast AQMD, 21865 Copley Drive, Diamond Bar, CA 91765, (909) 396-2432, dalatorre@aqmd.gov and on the Internet (www.aqmd.gov) as of August 6, 2024.

RECOMMENDED ACTION:

Set Public Hearing September 6, 2024 to Determine that Proposed Rule 1165 – Control of Emissions from Municipal Solid Waste Incinerators, is exempt from CEQA and Adopt Rule 1165.

Wayne Nastri
Executive Officer

BOARD MEETING DATE: August 2, 2024

AGENDA NO. 3

PROPOSAL: Issue RFP to Replace Electric Vehicle Charging Infrastructure at South Coast AQMD Headquarters

SYNOPSIS: South Coast AQMD headquarters' EV charging infrastructure is outdated and many chargers are no longer repairable. To continue to provide electric vehicle charging to staff and the public it is necessary to upgrade the EV charging infrastructure and add features to include remote monitoring and integrating the charging network into the building energy management system. This action is to issue an RFP to solicit proposals to replace the EV charging infrastructure at South Coast AQMD headquarters.

COMMITTEE: Technology, June 21, 2024; Recommended for Approval

RECOMMENDED ACTIONS:

Issue RFP #2024-13 to replace the electric vehicle charging infrastructure at South Coast AQMD headquarters with new and up-to-date hardware and software and provide maintenance.

Wayne Natri
Executive Officer

AK:MW:VP:JL:BD

Background

South Coast AQMD headquarters' electric vehicle supply equipment (EVSE) (which refers to chargers and all associated infrastructure) can potentially charge up to 94 vehicles using Level 2 chargers. The publicly available charging infrastructure was installed between 2011 and 2017 using DOE and CEC grants along with funding from the Clean Fuels Fund. All chargers are no longer covered by warranty, and many faulty and nonfunctional chargers are over ten years old. To meet EV charging needs for staff and the public, replacing the existing system of 55 EVSE units with a total of 94 charging plugs is necessary. Replacing these EVSE units also enable the charging network to be monitored remotely and improve energy management capabilities to create resilience in the charging network.

Proposal

The RFP seeks the replacement of 55 EVSE units, consisting of 16 single-charging ports and 39 dual-charging ports for a total of 94 Level 2 charging ports, at South Coast AQMD Headquarters. The RFP also seeks to include advanced capabilities such as network communications, access control, cost recovery, and energy management capabilities. Further, the new chargers will include a minimum seven-year warranty for parts and on-site labor to repair or replace any manufacturing defect, ensure optimal station management, remote monitoring of station and proactive repair dispatch so that all EV chargers are in continuous working order with optimal uptime.

Staff proposes to issue RFP #2024-13 to solicit qualified firms to submit proposals to replace the existing EVSE with new and up to date EVSE and provide maintenance. The proposals will be evaluated and scored as described in RFP #2024-13.

Proposals will be due September 20, 2024 at 5:00 pm. Staff will return to the Board with the evaluation panel's recommendation to seek authority to enter into a contract with the recommended vendor. It is anticipated that a contract will be executed by December 2024.

Outreach

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

Additionally, potential bidders may be notified utilizing South Coast AQMD's own electronic listing of certified minority vendors. Notice of the RFP will be mailed to the Black and Latino Legislative Caucuses and various minority chambers of commerce and business associations and placed on South Coast AQMD's website (<http://www.aqmd.gov>) where it can be viewed by making the menu selection "Grants & Bids" or by going directly to the Grants & Bids webpage (<http://www.aqmd.gov/nav/grants-bids>). Information is also available on South Coast AQMD's bidders' 24-hour telephone message line (909) 396-2724.

Bid Evaluation

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

Benefits to South Coast AQMD

This project will provide a new upgraded, reliable charging network, support the adoption of electric vehicles, showcase EVSE technologies, and improve the EV charging network accessibility, convenience, and affordability for EV drivers working at or visiting South Coast AQMD's headquarters. Further, the upgraded EVSE software and network communications capabilities will allow for improved quality assurance, quicker troubleshooting and repairs, and real-time monitoring of the EV charging network.

Resource Impacts

Sufficient funds are available from the Clean Fuels Program (31). The Clean Fuels Program Fund (31) is established as a special revenue fund resulting from the state mandated Clean Fuels Program. The Clean Fuels Program, under Health and Safety Code Sections 40448.5 and 40512 and Vehicle Code Section 9250.1, establishes mechanisms to collect revenues from mobile sources to support projects to increase the utilization of clean fuels. Funds collected from motor vehicles are restricted, by statute, to be used for projects and program activities related to mobile sources that support the objectives of the Clean Fuels Program.

Attachment

RFP #2024-13: Replace Electric Vehicle Charging Infrastructure at South Coast AQMD Headquarters



SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
REQUEST FOR PROPOSALS
REPLACE ELECTRIC VEHICLE CHARGING INFRASTRUCTURE
AT SOUTH COAST AQMD HEADQUARTERS

P2024-13

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

PURPOSE

The purpose of this Request for Proposals (RFP) is to solicit qualified firms to submit proposals to supply, install, and maintain electric vehicle supply equipment (EVSE), interface control software and cloud computing data management portal in a new Plug-In-Hybrid/Electric Vehicle (EV) charging stations network solution at the South Coast AQMD headquarters in Diamond Bar, California. Contractor shall remove and replace existing EV charging hardware equipment with new and up-to-date hardware equipment, replace existing interface control software and cloud computing data management portal solution needed for efficient and reliable EV charging by the public, visitors, South Coast AQMD employees and Board members.

INDEX

The following are contained in this RFP:

Section I	Background/Information
Section II	Contact Person
Section III	Schedule of Events
Section IV	Participation in the Procurement Process
Section V	Statement of Work/Schedule of Deliverables
Section VI	Required Qualifications
Section VII	Proposal Submittal
Section VIII	Proposal Submission
Section IX	Proposal Evaluation/Contractor Selection
Section X	Funding
Section XI	Sample Contract
Attachment A	Participation in the Procurement Process
Attachment B	Certifications and Representations
Attachment C	Electric Vehicle Charging Station Map

SECTION I: BACKGROUND INFORMATION

South Coast AQMD is a regional governmental agency responsible for meeting air quality health standards in the South Coast Air Basin which is made up of Orange County and the urban portions of Los Angeles, Riverside, and San Bernardino Counties.

The current EV charging infrastructure at the South Coast AQMD headquarters has several hardware components that are not functional, dated interface control software, and needs to have a cloud data management portal. In recent years the number of plug-in electric vehicles (EV) has dramatically increased, and the EV owners/users have very high expectations for top quality EV charging and overall experience. However, over the past few years, several of the EV chargers at South Coast AQMD headquarters have experienced extensive down-time and very frequent intermittent operation due to various reasons including loss of data communication signal, loss of power, wear and tear of various components and parts such as burned LED screen displays and burned wiring inside the charger boxes. As shown in Attachment C, currently, there are a total of 94 Level 2 charging ports (39 dual chargers and 16 single chargers) at several allocated spaces at South Coast AQMD's large and multi-sectional parking lot for members of the public, visitors, South Coast AQMD employees and Board members that must be replaced with new hardware equipment, new, updated, and advanced software, and data communication capability. Locations and number of existing EV chargers to be replaced are as follows:

- CC8 Parking Lot: Eight (8) dual and one (1) single Level 2 EVSE (30A max) [six (6) pedestal and three (3) wall mounted units]
- Upper-Level Parking Lot/Front Lobby: Five (5) dual and two (2) single Level 2 EVSE (30A max) [seven (7) pedestal units]
- Upper-Level Parking Lot/Solar Carport: Eight (8) dual and three (3) single Level 2 EVSE (30A max) [eleven (11) wall mounted units]
- Upper-Level Parking Lot/Other and Handicapped area: Eighteen (18) dual and ten (10) single Level 2 EVSE (30A max) [twenty-four (24) wall mounted and four (4) pedestal units]

South Coast AQMD is requesting bids from qualified Contractors to provide services for the following:

1. Preparation, purchase, installation, replacement, and maintenance of multiple Level 2 EVSE (at least 55 charging stations with a total of 94 single/dual charging ports) in a large, multi-sectioned parking lot.
2. Advanced interface control software for the new EVSE charging stations and ports.
3. Robust EVSE chargers network connectivity capabilities with an advanced and enhanced mesh network to ensure uninterrupted, optimal operation and high up-time.

4. Advanced cloud computing data management portal with advanced analytics, visualization and mapping tool.

The bid must also include:

- Removal and proper disposal of existing dated EVSE charging stations and data equipment.
- Comprehensive warranty for components, parts service, repair, replacement and on-site labor.

Other desirable characteristics are the ability to manage power loads to the EVSE to minimize on peak usage, demand charges, time-of-use (TOU) rates management and other energy management needs of the South Coast AQMD building. The technology and charging characteristics of the planned EVSE replacement are further described in Section V and are related to specific parking areas at South Coast AQMD headquarters in Diamond Bar, CA.

SECTION II: CONTACT PERSON

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

Technical:

Berj Der Boghossian, M.Sc.
Air Quality Specialist, Technology Demonstration
South Coast AQMD
21865 Copley Drive
Diamond Bar, CA 91765
(909) 396-2253
bderboghossian@aqmd.gov

Vasileios Papapostolou, Sc.D.
Planning and Rules Manager, Technology Demonstration
South Coast AQMD
21865 Copley Drive
Diamond Bar, CA 91765
(909) 396-2254
vpapapostolou@aqmd.gov

Administrative:

Anish Pathak
Procurement Manager
South Coast AQMD
21865 Copley Drive
Diamond Bar, CA 91765
(909) 396-2430
apathak@aqmd.gov

Building Services:

Brian Roberts
 Building Maintenance Manager
 South Coast AQMD
 21865 Copley Drive
 Diamond Bar, CA 91765
 (909) 396-2278
broberts@aqmd.gov

SECTION III: SCHEDULE OF EVENTS

DATE	EVENT
August 2, 2024	RFP Released
August 23, 2024	Bidders' Conference*
September 20, 2024	Proposals Due to South Coast AQMD - No Later Than 05:00 p.m.
September 23 – September 27, 2024	Proposal Evaluations
October 1 – October 2, 2024	Interviews, if required
November 1, 2024	Governing Board Approval
November 22, 2024	Anticipated Contract Execution

* Participation in the Bidder's Conference is mandatory. Such participation would assist in notifying potential Bidders of any updates or amendments. The Bidder's Conference will be held in Room CC3-5 at South Coast AQMD Headquarters in Diamond Bar, California at 10:00am on Friday, August 23, 2024. Please contact Vasileios Papapostolou at (909) 396-2254 or vpapapostolou@aqmd.gov by close of business on Thursday, August 22, 2024, if you plan to attend.

SECTION IV: PARTICIPATION IN THE PROCUREMENT PROCESS

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

SECTION V: STATEMENT OF WORK/SCHEDULE OF DELIVERABLES

Proposals for this project shall concisely address the information provided in the following statement of work and in the format specified in Section VII: Proposal Submittal. Proposers are encouraged to pay close attention to Section IX: Proposal Evaluation/Contractor Selection criteria to assess how their bids will be evaluated. Proposers shall bid on all parts and sections; each bid will be evaluated on the entire packaged solution that includes comprehensive responses to each and every part and section of this RFP. The information provided should be specific enough for evaluation and scoring purposes, and for inclusion into a binding contract. Proposals shall expand

and provide more complete details based on the requirements and available options in the statement of work outlined below. Please refer to Attachment C for the South Coast AQMD's building parking lot map for the areas where EVSE will be replaced.

Currently, there is electrical infrastructure for a total capacity of 94 Level 2 EVSE (all 30A max), of which there are 39 dual chargers and 16 single chargers installed at several allocated sections at the South Coast AQMD's parking lot. The parking lot is used by members of the public, visitors, South Coast AQMD employees and Board members. In recent years, the chargers have deteriorated, many of which have not been functional for an extended period of time. All EVSE will need to meet specific performance requirements and, if possible, address desirable and optional performance requirements.

Locations and number of vehicle chargers to be replaced are as follows:

- CC8 Parking Lot: Eight (8) dual and one (1) single Level 2 EVSE (30A max) [six (6) pedestal and three (3) wall mounted units]
- Upper-Level Parking Lot/Front Lobby: Five (5) dual and two (2) single Level 2 EVSE (30A max) [seven (7) pedestal units]
- Upper-Level Parking Lot/Solar Carport: Eight (8) dual and three (3) single Level 2 EVSE (30A max) [eleven (11) wall mounted units]
- Upper-Level Parking Lot/Other and Handicapped area: Eighteen (18) dual and ten (10) single Level 2 EVSE (30A max) [four (4) pedestal and twenty-four (24) wall mounted units];
- The existing DC fast charger will not be replaced under this RFP.

Contractor shall install and operate the new EV chargers and work closely with South Coast AQMD, who will serve as the site host and owner of the hardware equipment, to ensure proper operation and compliance with all applicable codes and regulations such as, City of Diamond Bar permitting requirements, EV regulations, and all pertinent building codes.

Installation of EVSE shall comply with universal charging access guidelines in *Zero-Emission Vehicles in California: COMMUNITY READINESS GUIDEBOOK* published by the State of California Governor's Office of Planning and Research (OPR) pertaining to best practices for installation of EVSE https://opr.ca.gov/docs/ZEV_Guidebook.pdf.

Contractor shall obtain all permits required for installation of Level 2 chargers.

Contractor shall be required to do all site preparation work, including but not limited to trenching, boring, conduit runs, concrete cutting, asphalt removal/pour, removal of existing EV chargers, relocation of EV chargers, installation of conduit and electrical wire, replace of existing electrical infrastructure including panel additions and transformers, installation of Level 2 EV chargers, as well as repair and replacement of all hardscape and landscape demolished and/or removed during site preparation. All work related to site preparation and repair/replacement work must be pre-approved by South Coast AQMD.

Contractor shall ensure that the provisions for all safety codes meet or exceed industry standards and will be compliant with all applicable building and electrical codes.

Contractor shall understand and follow installation and accessibility guidelines within the American Disabilities Act.

Contractor shall meet all applicable SB 854 PW-100 requirements for Public Works projects.

Contractor shall comply with all Prevailing Wage requirements.

Contractor shall install necessary signage, wheel stops, and other requirements to ensure compliance with all applicable rules and regulations. All signage and wheel stops must be pre-approved by South Coast AQMD.

Electrical installation shall be completed to ensure proper function, minimizing the risk of damage from vehicles, and installed in an aesthetically pleasing fashion that blends with the existing building architecture. Contractor shall work with the hardware provider to ensure proper positioning and operation once the EV chargers have been installed.

Contractor shall provide a Phasing Plan outlining the specific tasks along with anticipated milestone completion dates. Contractor shall hold routine meetings with South Coast AQMD to provide progress updates in conjunction with the construction schedule. Work shall include a thorough operational test to finalize and confirm the new EVSE operates properly without any issues.

PART A. EQUIPMENT, SOFTWARE AND DATA MANAGEMENT

I. Hardware Requirements

The new EVSE stations should include:

1. Charging cables at least 18 feet in length with appropriate cord management solution.
2. Weatherproofed, fastened, and secured solution
3. Weather protection at the EVSE LED display screens (e.g., shade to minimize/eliminate impact from direct sun-light exposure)
4. Beyond sufficient wireless communication coverage via an enhanced and dense mesh network of very high-performance gateways/routers to ensure continuous, uninterrupted operation and optimal uptime. The specific geography, buildings arrangement and orientation and area land-use must be taken into consideration in developing the over-the-air data communication plan for such large EVSE network in a large multi-sectioned parking lot. The entire new charging network shall be independent from any and all South Coast AQMD wireless and/or hard-wired internet communication systems and shall operate and function as a stand-alone data communication system.

II. Interface Control Software Requirements

The interface control software should include:

1. User-friendly interface with minimal instructions
2. Functionality to lock port/handle when charger not in use
3. Functionality to unlock port/handle, to disconnect from charger box and connect to vehicle, when end-user taps membership card to the designated location on LED display screen

III. Cloud Computing Data Management Portal

The Cloud Computing Data Management Portal should include but not limited to the following specifications, functionalities, and capabilities:

1. Station management capabilities with controls over the entire charging network down to specific charging ports.
2. Real-time monitoring of usage data in a downloadable format including kWh used, number of sessions, total revenue, average revenue per charger in daily/monthly/yearly format.
3. Price planning and editing capabilities with full control over all pricing and fees, including idling fees.
4. Station management and status listings: offline, available, busy, fault/error, disconnected, etc.
5. Charging network summary page with real-time status tallies for all stations/charging ports, listing stations that are online, in use, have errors, have warnings, are offline, etc.
6. High-resolution and accurate charging network satellite image mapping of station locations with selectable icons to display station information and status of each individual charging port in real-time.
7. Data visualization capabilities to display usage time, power, revenue, network status, etc. in a time series or similar with ability to select display timeframe.
8. Ability to set up notifications to notify and update, in real-time, station/charging ports online/offline or experiencing faults/errors.
9. Errors/warnings/alerts summary page with map visualizations, error codes, and error code legend for quick diagnosis.
10. Ability to create reports for a selected date range and selected stations/charging ports.

11. Ability to submit service requests for repairs and maintenance.
12. Ability for South Coast AQMD to utilize charging data to recover Low Carbon Fueling Standard (LCFS) credits from charging sessions.

All existing/replaced EVSE must be removed and disposed of in a proper recycling/environmentally friendly manner.

PART B. SUBSCRIPTION AND WARRANTY

Contractor shall include a minimum seven-year prepaid cloud data management portal plan subscription with station management features such as: Custom video uploads and automatic software updates, driver and fleet management features including: access control and pricing and automatic, payment collection, as well as energy and power management features which include power sharing.

Contractor shall include a comprehensive parts and on-site labor warranty for a minimum period of seven years following installation of EVSE,.. The warranty shall include parts and on-site labor to repair or replace any manufacturing defect and includes station management, remote monitoring of station and proactive repair dispatch. All routine and emergency servicing procedures and protocols for failures and malfunctions shall be documented and attached to the submitted proposal. In the event of an EVSE malfunction that cannot be resolved by routine servicing procedures, Contractor shall agree to place EVSE into proper operating condition within 72 hours after the arrival of service personnel or to provide an operational, equivalent EVSE within the same 72-hour period for use as a substitute until the original EVSE has been repaired or replace with permanent new, equivalent EVSE within a seven day period of notification.

SECTION VI: REQUIRED QUALIFICATIONS

- A. Contractors or firms proposing to bid on this proposal must be qualified and experienced in design, developing, installing and implementing medium/large EVSE networks (50+ charging stations with 90+ single/dual charging ports), in evaluating existing electrical infrastructure to determine appropriate wiring, transformers, conduit, and any other hardware deemed necessary for installation of EVSE. Installers must abide by California Section 740.20 of the Public Utilities Code.
- B. Contractors or firms proposing to bid on this proposal must be qualified and experienced in the development of reliable network communications systems, the development of interface control software and advanced data management portal tools, to integrate to medium/large EV charging networks.
- C. Proposer must submit the following:
 1. Resumes or similar statement of qualifications of person or persons who may be designated as electrical contractors, EVSE hardware engineers, EVSE control software engineers/developers, cloud computing data portal

scientists/engineers/developers and data analysts/engineers and other technical leads working on this project.

2. List of references for work conducted on similar projects as defined in the Statement of Work.
3. Summary of Proposer's general qualifications and experience to meet required qualifications and fulfill the Statement of Work.

SECTION VII: PROPOSAL SUBMITTAL REQUIREMENTS

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

Each proposal must be submitted in three separate volumes:

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

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

- Address and telephone number of office in, or nearest to, Diamond Bar, California.
- Name and title of Firm's representative designated as contact.

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

VOLUME I – TECHNICAL PROPOSAL

DO NOT INCLUDE ANY COST INFORMATION IN THE TECHNICAL VOLUME

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

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

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

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

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

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

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

Conflict of Interest (Section G) - Address possible conflicts of interest with other clients affected by actions performed by the Firm on behalf of South Coast AQMD. South Coast AQMD recognizes that prospective Contractors may be performing similar projects for other clients. Include a complete list of such clients for the past three (3) years with the type of work performed and the total number of years performing such tasks for each client. Although the Proposer will not be automatically disqualified by reason of work performed for such clients, South

Coast AQMD reserves the right to consider the nature and extent of such work in evaluating the proposal.

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

VOLUME II - COST PROPOSAL

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

Cost Proposal - South Coast AQMD anticipates awarding a fixed price contract. Cost information must be provided as listed below

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

VOLUME III - CERTIFICATIONS AND REPRESENTATIONS

(see Attachment B to this RFP)

SECTION VIII: PROPOSAL SUBMISSION

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

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

Due Date - All proposals are due no later than 05:00 p.m., September 20, 2024, and should be directed to:

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

Submittal - Submit five (5) complete copies of the proposal in a sealed envelope, plainly marked in the upper left-hand corner with the name and address of the Proposer and the words "Request for Proposals P2024-13."

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

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

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

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

SECTION IX: PROPOSAL EVALUATION/CONTRACTOR SELECTION CRITERIA

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

Proposal Evaluation Criteria

<u>Special Projects Requiring Unique Knowledge or Abilities</u>	<u>Points</u>
Hardware, Software, Data Communication & Technical Specifications	30
On-Going Costs associated with Transactions (i.e., subscription and credit card transaction fees)	20
Previous Experience on Similar Projects	20
Cost	30
TOTAL	100

<u>Additional Points</u>	<u>Points</u>
Small Business or Small Business Joint Venture	10
DVBE or DVBE Joint Venture	10
Use of DVBE or Small Business Subcontractors	7
Zero or Near-Zero Emission Vehicle Business	5
Local Business (Non-Federally Funded Projects Only)	5
Off-Peak Hours Delivery Business	2
Most Favored Customer	2

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

Self-Certification for Additional Points

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

1. To receive additional points in the evaluation process for the categories of Small Business or Small Business Joint Venture, DVBE or DVBE Joint Venture or Local Business (for non-federally funded projects), the Proposer must submit a self-certification at the time of proposal submission certifying that the Proposer meets the requirements set forth in Attachments A and B. To receive points for the use of DVBE and/or Small Business subcontractors, at least 25 percent of the total contract value must be subcontracted to DVBEs and/or Small Businesses. To receive points as a Zero or Near-Zero Emission Vehicle Business, the Proposer must demonstrate to the Executive Officer, or designee, that supplies and materials delivered to South Coast AQMD are delivered in vehicles that operate on clean-fuels. To receive points as a Local Business, the Proposer must affirm that it has an ongoing business within the South Coast AQMD at the time of bid/proposal submittal and that 90% of the work related to the contract will be performed within the South Coast AQMD. Proposals for legislative representation, such as in Sacramento, California or Washington D.C. are not eligible for local business incentive points. Federally funded projects are not eligible for local business incentive points. To receive points as an Off-Peak Hours Delivery Business, the proposer must submit, at proposal submission, certification of its commitment to delivering supplies and materials to South Coast AQMD between the hours of 10:00 a.m. and 3:00 p.m. To receive points for Most Favored Customer status, the Proposer must submit, at proposal submission, certification of its commitment to provide most favored customer status to the South Coast AQMD. The cumulative points awarded for Small Business, DVBE, use of Small Business or DVBE Subcontractors, Local Business, Zero or Near- Zero Emission Vehicle Business, Off-Peak Hour Delivery Business and Most Favored Customer shall not exceed 17 points.
 2. For procurement of Research and Development (R & D) projects or projects requiring technical or scientific expertise or special projects requiring unique knowledge and abilities, technical factors including past experience shall be weighted at 70 points and cost shall be weighted at 30 points. A proposal must receive at least 56 out of 70 points on R & D projects and projects requiring technical or scientific expertise or special projects requiring unique knowledge and abilities, in order to be deemed qualified for award.
 3. The lowest cost proposal will be awarded the maximum cost points available and all other cost proposals will receive points on a prorated basis. For example, if the lowest cost proposal is \$1,000 and the maximum points available are 30 points, this proposal would receive the full 30 points. If the next lowest cost proposal is \$1,100 it would receive 27 points reflecting the fact that it is 10% higher than the lowest cost (90% of 30 points = 27 points).
- C. During the selection process the evaluation panel may wish to interview some proposers for clarification purposes only. No new material will be permitted at this time. Additional information provided during the bid review process is limited to clarification by the Proposer of information presented in their proposal, upon request by South Coast AQMD.

- D. The Executive Officer or Governing Board may award the contract to a Proposer, other than the Proposer receiving the highest rating, in the event the Executive Officer or Governing Board determines that another Proposer from among those technically qualified would provide the best value to South Coast AQMD considering cost and technical factors. The determination shall be based solely on the Evaluation Criteria contained in the Request for Proposal (RFP), on the evidence provided in the proposal and on any other evidence provided during the bid review process.
- E. Selection will be made based on the above-described criteria and rating factors. The selection will be made by and is subject to Executive Officer or Governing Board approval. Proposers may be notified of the results by letter.
- F. The Governing Board has approved a Bid Protest Procedure, which provides a process for a Bidder or prospective Bidder to submit a written protest to the South Coast AQMD Procurement Manager in recognition of two types of protests: Protest Regarding Solicitation and Protest Regarding Award of a Contract. Copies of the Bid Protest Policy can be secured through a request to the South Coast AQMD Procurement Department.
- G. The Executive Officer or Governing Board may award contracts to more than one Proposer if, in (his or their) sole judgment, the purposes of the contract or award would best be served by selecting multiple proposers.
- H. If additional funds become available, the Executive Officer or Governing Board may increase the amount awarded. The Executive Officer or Governing Board may also select additional proposers for a grant or contract if additional funds become available.
- I. Disposition of Proposals – Pursuant to South Coast AQMD’s Procurement Policy and Procedure, South Coast AQMD reserves the right to reject any or all proposals. All proposals become the property of South Coast AQMD and are subject to the California Public Records Act. One copy of the proposal shall be retained for South Coast AQMD files. Additional copies and materials will be returned only if requested and at the proposer's expense.
- J. **If proposal submittal is for a Public Works project as defined by State of California Labor Code Section 1720, Proposer is required to include Contractor Registration No. in Attachment B. Proposal submittal will be deemed as non-responsive and Bidder may be disqualified if Contractor Registration No. is not included in Attachment B. Proposer is alerted to changes to California Prevailing Wage compliance requirements as defined in Senate Bill 854 (Stat. 2014, Chapter 28), and California Labor Code Sections 1770, 1771, 1725, 1777, 1813 and 1815.**
- K. PERFORMANCE AND PAYMENT BONDS

Before execution of the Contract, the Contractor shall file surety bonds in the amounts and for the purpose specified in the Request for Proposal (RFP). Bonds shall be issued by a surety who is listed in the latest version of U.S. Department of Treasury Circular 570, who is authorized to issue bonds in California, and whose bonding

limitation shown in said circular is sufficient to provide bonds in the amount required by the Contract shall be approved by South Coast AQMD. Bonds from all other sureties shall be accompanied by all of the documents enumerated in the Code of Civil Procedure, Section 995.660a).

Each bond shall incorporate, by reference, the Contract and be signed by both the Bidder and Surety. The signature of the authorized agent of the Surety shall be notarized. The Contractor shall provide 2 good and sufficient surety bonds.

PERFORMANCE BOND

The Performance Bond shall be for 100 percent of the Contract Price to guarantee faithful performance of all work, within the time prescribed, in a manner satisfactory to South Coast AQMD, and that all materials and workmanship will be free from original or developed defects. The bond must remain in effect until the end of all warranty periods as set forth in the Contract Documents.

The selected Contractor shall be required to furnish and pay all bond premiums, costs and incidentals listed below.

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

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

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

PAYMENT BOND

Within fourteen days after execution of the Contract by South Coast AQMD and prior to performing any work under the Contract, the CONTRACTOR shall file with South Coast AQMD a Payment Bond (material and labor bond) in an amount equal to one hundred percent (100%) of the contract price to satisfy claims of material suppliers and of mechanics and laborers employed by the Contractor to perform the work.

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

UNSATISFACTORY SURETIES

Should any Surety, at any time, be deemed unsatisfactory by South Coast AQMD, notice will be given to the Contractor to that effect. No further payments shall be deemed due or will be made under the Contract until a new Surety shall qualify and be accepted by South Coast AQMD.

EFFECT OF CHANGES IN THE WORK/EXTENSIONS OF TIME ON THE SURETY

Changes in the work, or extensions of time, made pursuant to the Contract, shall in no way release the Contractor or the Surety from their obligations under the bond. Notice of such changes or extensions shall be waived by the Surety.

SECTION X: FUNDING

The total one-time funding for the work contemplated by this RFP will be finalized based on the proposals received for the project.

SECTION XI: SAMPLE CONTRACT

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

ATTACHMENT A

PARTICIPATION IN THE PROCUREMENT PROCESS

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

B. Definitions:

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

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

- is owned by one or more disabled veterans; or a joint venture in which at least 51 percent (51%) of the joint venture's management and control and earnings are held by one or more disabled veterans.
- b. the management and control of the daily business operations are by one or more disabled veterans. The disabled veterans who exercise management and control are not required to be the same disabled veterans as the owners of the business.
 - c. is a sole proprietorship, corporation, or partnership with its primary headquarters office located in the United States, which is not a branch or subsidiary of a foreign corporation, firm, or other foreign-based business.
4. "Local business" as used in this policy means a company that has an ongoing business within geographical boundaries of South Coast AQMD at the time of bid or proposal submittal and performs 90 percent (90%) of the work related to the contract within the geographical boundaries of South Coast AQMD and satisfies the requirements of subparagraph H below. Proposals for legislative representation, such as in Sacramento, California or Washington D.C. are not eligible for local business incentive points.
 5. "Small business" as used in this policy means a business that meets the following criteria:
 - a. 1) an independently owned and operated business; 2) not dominant in its field of operation; 3) together with affiliates is either:
 - A service, construction, or non-manufacturer with 100 or fewer employees, and average annual gross receipts of ten million dollars (\$10,000,000) or less over the previous three years, or
 - A manufacturer with 100 or fewer employees.
 - b. "Manufacturer" means a business that is both of the following:
 - 1) Primarily engaged in the chemical or mechanical transformation of raw materials or processed substances into new products.
 - 2) Classified between Codes 311000 and 339000, inclusive, of the North American Industrial Classification System (NAICS) Manual published by the United States Office of Management and Budget, 2007 edition.
 6. "Joint ventures" as defined in this policy pertaining to certification means that one party to the joint venture is a DVBE or small business and owns at least 51 percent (51%) of the joint venture.
 7. "Zero or Near-Zero Emission Vehicle Business" as used in this policy means a company or contractor that uses Zero or Near-Zero emission vehicles in conducting deliveries to South Coast AQMD. Zero or Near-Zero emission vehicles

include vehicles powered by electric, compressed natural gas (CNG), liquefied natural gas (LNG), liquefied petroleum gas (LPG), ethanol, methanol and hydrogen and are certified to 90 percent (90%) or lower of the existing standard.

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

- a Historically Underutilized Business (HUB) Zone Small Business Concern, or a concern under a successor program.
- C. Under Request for Quotations (RFQ), DVBEs, DVBE business joint ventures, small businesses, and small business joint ventures shall be granted a preference in an amount equal to 5 percent (5%) of the lowest cost responsive bid. Zero or Near-Zero Emission Vehicle Businesses shall be granted a preference in an amount equal to 5 percent of the lowest cost responsive bid. Off-Peak Hours Delivery Businesses shall be granted a preference in an amount equal to 2 percent (2%) of the lowest cost responsive bid. Local businesses (if the procurement is not funded in whole or in part by federal grant funds) shall be granted a preference in an amount equal to 2 percent (2%) of the lowest cost responsive bid. Businesses offering Most Favored Customer status shall be granted a preference in an amount equal to 2 percent (2%) of the lowest cost responsive bid.
- D. Under Request for Proposals, DVBEs, DVBE joint ventures, small businesses, and small business joint ventures shall be awarded ten (10) points in the evaluation process. A non-DVBE or large business shall receive seven (7) points for subcontracting at least 25 percent (25%) of the total contract value to a DVBE and/or small business. Zero or Near-Zero Emission Vehicle Businesses shall be awarded five (5) points in the evaluation process. On procurements which are not funded in whole or in part by federal grant funds local businesses shall receive five (5) points. Off-Peak Hours Delivery Businesses shall be awarded two (2) points in the evaluation process. Businesses offering Most Favored Customer status shall be awarded two (2) points in the evaluation process.
- E. South Coast AQMD will ensure that discrimination in the award and performance of contracts does not occur on the basis of race, color, sex, national origin, marital status, sexual preference, creed, ancestry, medical condition, or retaliation for having filed a discrimination complaint in the performance of South Coast AQMD contractual obligations.
- F. South Coast AQMD requires Contractor to be in compliance with all state and federal laws and regulations with respect to its employees throughout the term of any awarded contract, including state minimum wage laws and OSHA requirements.
- G. When contracts are funded in whole or in part by federal funds, and if subcontracts are to be let, the Contractor must comply with the following, evidencing a good faith effort to solicit disadvantaged businesses. Contractor shall submit a certification signed by an authorized official affirming its status as a MBE or WBE, as applicable, at the time of contract execution. South Coast AQMD reserves the right to request documentation demonstrating compliance with the following good faith efforts prior to contract execution.
1. Ensure Disadvantaged Business Enterprises (DBEs) are made aware of contracting opportunities to the fullest extent practicable through outreach and recruitment activities. For Indian Tribal, State and Local Government recipients,

this will include placing DBEs on solicitation lists and soliciting them whenever they are potential sources.

2. Make information on forthcoming opportunities available to DBEs and arrange time frames for contracts and establish delivery schedules, where the requirements permit, in a way that encourages and facilitates participation by DBEs in the competitive process. This includes, whenever possible, posting solicitations for bids or proposals for a minimum of 30 calendar days before the bid or proposal closing date.
 3. Consider in the contracting process whether firms competing for large contracts could subcontract with DBEs. For Indian Tribal, State and Local Government recipients, this will include dividing total requirements when economically feasible into smaller tasks or quantities to permit maximum participation by DBEs in the competitive process.
 4. Encourage contracting with a consortium of DBEs when a contract is too large for one of these firms to handle individually.
 5. Using the services and assistance of the Small Business Administration and the Minority Business Development Agency of the Department of Commerce.
 6. If the prime contractor awards subcontracts, require the prime contractor to take the above steps.
- H. To the extent that any conflict exists between this policy and any requirements imposed by federal and state law relating to participation in a contract by a certified MBE/WBE/DVBE as a condition of receipt of federal or state funds, the federal or state requirements shall prevail.
- I. When contracts are not funded in whole or in part by federal grant funds, a local business preference will be awarded. For such contracts that involve the purchase of commercial off-the-shelf products, local business preference will be given to suppliers or distributors of commercial off-the-shelf products who maintain an ongoing business within the geographical boundaries of South Coast AQMD. However, if the subject matter of the RFP or RFQ calls for the fabrication or manufacture of custom products, only companies performing 90 percent (90%) of the manufacturing or fabrication effort within the geographical boundaries of South Coast AQMD shall be entitled to the local business preference. Proposals for legislative representation, such as in Sacramento, California or Washington D.C. are not eligible for local business incentive points.
- J. In compliance with federal fair share requirements set forth in 40 CFR Part 33, South Coast AQMD shall establish a fair share goal annually for expenditures with federal funds covered by its procurement policy.

ATTACHMENT B
CERTIFICATIONS AND REPRESENTATIONS



South Coast Air Quality Management District

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

Business Information Request

Dear South Coast AQMD Contractor/Supplier:

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

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

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

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

Sincerely,

Sujata Jain
 Chief Financial Officer

DH:nd

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



South Coast Air Quality Management District

21865 Copley Drive, Diamond Bar, CA 91765-4178

(909) 396-2000 • www.aqmd.gov

BUSINESS INFORMATION REQUEST

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

REMITTING ADDRESS INFORMATION

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

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

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

BUSINESS STATUS CERTIFICATIONS

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

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

Statements of certification:

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

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

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

Check all that apply:

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

Percent of ownership: _____ %

Name of Qualifying Owner(s): _____

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

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

NAME

TITLE

TELEPHONE NUMBER

DATE

Definitions

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Request for Taxpayer Identification Number and Certification

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

▶ Go to www.irs.gov/FormW9 for instructions and the latest information.

Print or type. See Specific Instructions on page 3.	1 Name (as shown on your income tax return). Name is required on this line; do not leave this line blank.					
	2 Business name/disregarded entity name, if different from above					
	3 Check appropriate box for federal tax classification of the person whose name is entered on line 1. Check only one of the following seven boxes.	4 Exemptions (codes apply only to certain entities, not individuals; see instructions on page 3):				
	<input type="checkbox"/> Individual/sole proprietor or single-member LLC	<input type="checkbox"/> C Corporation	<input type="checkbox"/> S Corporation	<input type="checkbox"/> Partnership	<input type="checkbox"/> Trust/estate	Exempt payee code (if any) _____
	<input type="checkbox"/> Limited liability company. Enter the tax classification (C=C corporation, S=S corporation, P=Partnership) ▶ _____	Note: Check the appropriate box in the line above for the tax classification of the single-member owner. Do not check LLC if the LLC is classified as a single-member LLC that is disregarded from the owner unless the owner of the LLC is another LLC that is not disregarded from the owner for U.S. federal tax purposes. Otherwise, a single-member LLC that is disregarded from the owner should check the appropriate box for the tax classification of its owner.		Exemption from FATCA reporting code (if any) _____		
	<input type="checkbox"/> Other (see instructions) ▶ _____			(Applies to accounts maintained outside the U.S.)		
	5 Address (number, street, and apt. or suite no.) See instructions.	Requester's name and address (optional)				
6 City, state, and ZIP code						
7 List account number(s) here (optional)						

Part I Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. The TIN provided must match the name given on line 1 to avoid backup withholding. For individuals, this is generally your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the instructions for Part I, later. For other entities, it is your employer identification number (EIN). If you do not have a number, see *How to get a TIN*, later.

Note: If the account is in more than one name, see the instructions for line 1. Also see *What Name and Number To Give the Requester* for guidelines on whose number to enter.

Social security number					
<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 25%; border: 1px solid black; height: 20px;"></td> <td style="width: 5%; text-align: center;">-</td> <td style="width: 25%; border: 1px solid black; height: 20px;"></td> <td style="width: 5%; text-align: center;">-</td> <td style="width: 40%; border: 1px solid black; height: 20px;"></td> </tr> </table>		-		-	
	-		-		
or					
Employer identification number					
<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 25%; border: 1px solid black; height: 20px;"></td> <td style="width: 5%; text-align: center;">-</td> <td style="width: 70%; border: 1px solid black; height: 20px;"></td> </tr> </table>		-			
	-				

Part II Certification

Under penalties of perjury, I certify that:

1. The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me); and
2. I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding; and
3. I am a U.S. citizen or other U.S. person (defined below); and
4. The FATCA code(s) entered on this form (if any) indicating that I am exempt from FATCA reporting is correct.

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

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

General Instructions

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

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

Purpose of Form

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

- Form 1099-INT (interest earned or paid)

- Form 1099-DIV (dividends, including those from stocks or mutual funds)
 - Form 1099-MISC (various types of income, prizes, awards, or gross proceeds)
 - Form 1099-B (stock or mutual fund sales and certain other transactions by brokers)
 - Form 1099-S (proceeds from real estate transactions)
 - Form 1099-K (merchant card and third party network transactions)
 - Form 1098 (home mortgage interest), 1098-E (student loan interest), 1098-T (tuition)
 - Form 1099-C (canceled debt)
 - Form 1099-A (acquisition or abandonment of secured property)
- Use Form W-9 only if you are a U.S. person (including a resident alien), to provide your correct TIN.

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

By signing the filled-out form, you:

1. Certify that the TIN you are giving is correct (or you are waiting for a number to be issued),
2. Certify that you are not subject to backup withholding, or
3. Claim exemption from backup withholding if you are a U.S. exempt payee. If applicable, you are also certifying that as a U.S. person, your allocable share of any partnership income from a U.S. trade or business is not subject to the withholding tax on foreign partners' share of effectively connected income, and
4. Certify that FATCA code(s) entered on this form (if any) indicating that you are exempt from the FATCA reporting, is correct. See *What is FATCA reporting*, later, for further information.

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

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

- An individual who is a U.S. citizen or U.S. resident alien;
- A partnership, corporation, company, or association created or organized in the United States or under the laws of the United States;
- An estate (other than a foreign estate); or
- A domestic trust (as defined in Regulations section 301.7701-7).

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

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

- In the case of a disregarded entity with a U.S. owner, the U.S. owner of the disregarded entity and not the entity;
- In the case of a grantor trust with a U.S. grantor or other U.S. owner, generally, the U.S. grantor or other U.S. owner of the grantor trust and not the trust; and
- In the case of a U.S. trust (other than a grantor trust), the U.S. trust (other than a grantor trust) and not the beneficiaries of the trust.

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

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

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

1. The treaty country. Generally, this must be the same treaty under which you claimed exemption from tax as a nonresident alien.
2. The treaty article addressing the income.
3. The article number (or location) in the tax treaty that contains the saving clause and its exceptions.
4. The type and amount of income that qualifies for the exemption from tax.
5. Sufficient facts to justify the exemption from tax under the terms of the treaty article.

Example. Article 20 of the U.S.-China income tax treaty allows an exemption from tax for scholarship income received by a Chinese student temporarily present in the United States. Under U.S. law, this student will become a resident alien for tax purposes if his or her stay in the United States exceeds 5 calendar years. However, paragraph 2 of the first Protocol to the U.S.-China treaty (dated April 30, 1984) allows the provisions of Article 20 to continue to apply even after the Chinese student becomes a resident alien of the United States. A Chinese student who qualifies for this exception (under paragraph 2 of the first protocol) and is relying on this exception to claim an exemption from tax on his or her scholarship or fellowship income would attach to Form W-9 a statement that includes the information described above to support that exemption.

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

Backup Withholding

What is backup withholding? Persons making certain payments to you must under certain conditions withhold and pay to the IRS 24% of such payments. This is called "backup withholding." Payments that may be subject to backup withholding include interest, tax-exempt interest, dividends, broker and barter exchange transactions, rents, royalties, nonemployee pay, payments made in settlement of payment card and third party network transactions, and certain payments from fishing boat operators. Real estate transactions are not subject to backup withholding.

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

Payments you receive will be subject to backup withholding if:

1. You do not furnish your TIN to the requester,
2. You do not certify your TIN when required (see the instructions for Part II for details),
3. The IRS tells the requester that you furnished an incorrect TIN,
4. The IRS tells you that you are subject to backup withholding because you did not report all your interest and dividends on your tax return (for reportable interest and dividends only), or
5. You do not certify to the requester that you are not subject to backup withholding under 4 above (for reportable interest and dividend accounts opened after 1983 only).

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

Also see *Special rules for partnerships*, earlier.

What is FATCA Reporting?

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

Updating Your Information

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

Penalties

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

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

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

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

Specific Instructions

Line 1

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

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

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

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

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

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

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

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

Line 2

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

Line 3

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

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

Line 4, Exemptions

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

Exempt payee code.

- Generally, individuals (including sole proprietors) are not exempt from backup withholding.
- Except as provided below, corporations are exempt from backup withholding for certain payments, including interest and dividends.
- Corporations are not exempt from backup withholding for payments made in settlement of payment card or third party network transactions.
- Corporations are not exempt from backup withholding with respect to attorneys' fees or gross proceeds paid to attorneys, and corporations that provide medical or health care services are not exempt with respect to payments reportable on Form 1099-MISC.

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

- 1—An organization exempt from tax under section 501(a), any IRA, or a custodial account under section 403(b)(7) if the account satisfies the requirements of section 401(f)(2)
- 2—The United States or any of its agencies or instrumentalities
- 3—A state, the District of Columbia, a U.S. commonwealth or possession, or any of their political subdivisions or instrumentalities
- 4—A foreign government or any of its political subdivisions, agencies, or instrumentalities
- 5—A corporation
- 6—A dealer in securities or commodities required to register in the United States, the District of Columbia, or a U.S. commonwealth or possession
- 7—A futures commission merchant registered with the Commodity Futures Trading Commission
- 8—A real estate investment trust
- 9—An entity registered at all times during the tax year under the Investment Company Act of 1940
- 10—A common trust fund operated by a bank under section 584(a)
- 11—A financial institution
- 12—A middleman known in the investment community as a nominee or custodian
- 13—A trust exempt from tax under section 664 or described in section 4947

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

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

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

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

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

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

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

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

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

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

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

G—A real estate investment trust

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

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

J—A bank as defined in section 581

K—A broker

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

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

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

Line 5

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

Line 6

Enter your city, state, and ZIP code.

Part I. Taxpayer Identification Number (TIN)

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

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

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

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

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

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

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

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

Part II. Certification

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

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

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

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

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

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

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

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

What Name and Number To Give the Requester

For this type of account:	Give name and SSN of:
1. Individual	The individual
2. Two or more individuals (joint account) other than an account maintained by an FFI	The actual owner of the account or, if combined funds, the first individual on the account ¹
3. Two or more U.S. persons (joint account maintained by an FFI)	Each holder of the account
4. Custodial account of a minor (Uniform Gift to Minors Act)	The minor ²
5. a. The usual revocable savings trust (grantor is also trustee)	The grantor-trustee ¹
b. So-called trust account that is not a legal or valid trust under state law	The actual owner ¹
6. Sole proprietorship or disregarded entity owned by an individual	The owner ³
7. Grantor trust filing under Optional Form 1099 Filing Method 1 (see Regulations section 1.671-4(b)(2)(i)(A))	The grantor ⁴

For this type of account:	Give name and EIN of:
8. Disregarded entity not owned by an individual	The owner
9. A valid trust, estate, or pension trust	Legal entity ⁴
10. Corporation or LLC electing corporate status on Form 8832 or Form 2553	The corporation
11. Association, club, religious, charitable, educational, or other tax-exempt organization	The organization
12. Partnership or multi-member LLC	The partnership
13. A broker or registered nominee	The broker or nominee

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

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

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

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

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

***Note:** The grantor also must provide a Form W-9 to trustee of trust.

Note: If no name is circled when more than one name is listed, the number will be considered to be that of the first name listed.

Secure Your Tax Records From Identity Theft

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

To reduce your risk:

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

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

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

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

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

Protect yourself from suspicious emails or phishing schemes. Phishing is the creation and use of email and websites designed to mimic legitimate business emails and websites. The most common act is sending an email to a user falsely claiming to be an established legitimate enterprise in an attempt to scam the user into surrendering private information that will be used for identity theft.

The IRS does not initiate contacts with taxpayers via emails. Also, the IRS does not request personal detailed information through email or ask taxpayers for the PIN numbers, passwords, or similar secret access information for their credit card, bank, or other financial accounts.

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

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

Privacy Act Notice

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

TAXABLE YEAR

CALIFORNIA FORM

2021 Withholding Exemption Certificate

590

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

Withholding Agent Information

Name

Payee Information

Name

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

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

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

State ZIP code

Exemption Reason

Check only one box.

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

Individuals — Certification of Residency:

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

Corporations:

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

Partnerships or Limited Liability Companies (LLCs):

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

Tax-Exempt Entities:

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

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

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

California Trusts:

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

Estates — Certification of Residency of Deceased Person:

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

Nonmilitary Spouse of a Military Servicemember:

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

CERTIFICATE OF PAYEE: Payee must complete and sign below.

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

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

Type or print payee's name and title

Telephone

Payee's signature

Date

2021 Instructions for Form 590

Withholding Exemption Certificate

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

General Information

California Revenue and Taxation Code (R&TC) Section 18662 requires withholding of income or franchise tax on payments of California source income made to nonresidents of California. For more information, See General Information B, Income Subject to Withholding.

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

A Purpose

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

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

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

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

The following are excluded from withholding and completing this form:

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

B Income Subject to Withholding

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

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

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

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

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

C Who Certifies this Form

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

An incomplete certificate is invalid and the withholding agent should not accept it. If the withholding agent receives an incomplete certificate, the withholding agent is required to withhold tax on payments made to the payee until a valid certificate is received. In lieu of a completed exemption certificate, the withholding agent may accept a letter from the payee as a substitute explaining why they are not subject to withholding. The letter must contain all the information required on the certificate in similar language, including the under penalty of perjury statement and the payee's taxpayer identification number (TIN).

The certification does not need to be renewed annually. The certification on Form 590 remains valid until the payee's status changes. The withholding agent must retain a copy of the certification or substitute for at least five years after the last payment to which the certification applies. The agent must provide it to the FTB upon request.

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

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

D Definitions

For California nonwage withholding purposes:

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

For more information about determining resident status, get FTB Pub. 1031, Guidelines for Determining Resident Status. Military servicemembers have special rules for residency. For more information see General Information E, Military Spouse Residency Relief Act (MSRRA), and FTB Pub. 1032, Tax Information for Military Personnel.

Permanent Place of Business:

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

E Military Spouse Residency Relief Act (MSRRA)

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

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

Domicile is defined as the one place:

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

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

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

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

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

Specific Instructions

Payee Instructions

Enter the withholding agent's name.

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

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

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

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

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

Withholding Agent Instructions

Do not send this form to the FTB. The certification on Form 590 remains valid until the payee's status changes. The withholding agent must retain a copy of the certificate or substitute for at least five years after the last payment to which the certificate applies. The agent must provide it to the FTB upon request.

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

- The individual payee becomes a nonresident.
- The corporation ceases to have a permanent place of business in California or ceases to be qualified to do business in California.
- The partnership ceases to have a permanent place of business in California.
- The LLC ceases to have a permanent place of business in California.
- The tax-exempt entity loses its tax-exempt status.

If any of these situations occur, then withholding may be required. For more information, get Form 592, Resident and Nonresident Withholding Statement, Form 592-B, Resident and Nonresident Withholding Tax Statement, [Form 592-PTE](#), Pass-Through Entity Annual Withholding Return, Form 592-Q, Payment Voucher for Pass-Through Entity Withholding, and Form 592-V, Payment Voucher for Resident or Nonresident Withholding.

Additional Information

Website: For more information, go to ftb.ca.gov and search for nonwage.

MyFTB offers secure online tax account information and services. For more information, go to ftb.ca.gov and login or register for **MyFTB**.

Telephone: 888.792.4900 or 916.845.4900, Withholding Services and Compliance phone service

Fax: 916.845.9512

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

For questions unrelated to withholding, or to download, view, and print California tax forms and publications, or to access the TTY/TDD numbers, see the Internet and Telephone Assistance section.

Internet and Telephone Assistance

Website: ftb.ca.gov

Telephone: 800.852.5711 from within the United States
916.845.6500 from outside the United States

TTY/TDD: 800.822.6268 for persons with hearing or speech disability
711 or 800.735.2929 California relay service

Asistencia Por Internet y Teléfono

Sitio web: ftb.ca.gov

Teléfono: 800.852.5711 dentro de los Estados Unidos
916.845.6500 fuera de los Estados Unidos

TTY/TDD: 800.822.6268 para personas con discapacidades auditivas o del habla
711 ó 800.735.2929 servicio de relevo de California

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

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

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

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

Typed Name & Title of Authorized Representative

Signature of Authorized Representative Date

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



CAMPAIGN CONTRIBUTIONS DISCLOSURE

In accordance with California law, bidders and contracting parties are required to disclose, at the time the application is filed, information relating to any campaign contributions made to South Coast Air Quality Management District (SCAQMD) Board Members or members/alternates of the MSRC, including: the name of the party making the contribution (which includes any parent, subsidiary or otherwise related business entity, as defined below), the amount of the contribution, and the date the contribution was made. 2 C.C.R. §18438.8(b). Where a proposed rule or proposed amended rule impacts three or fewer facilities, those facilities will be treated in much the same manner as contracting parties and so must also complete this form, disclosing information relating to any campaign contributions made to any SCAQMD Board Members. See Quadri Advice Letter (2002) A-02.096.¹ In the event that a qualifying campaign contribution is made, the Board Member to whom it was made may be disqualified from participating in the actions involving that donor.

California law prohibits a party, or an agent, from making campaign contributions to SCAQMD Governing Board Members or members/alternates of the Mobile Source Air Pollution Reduction Review Committee (MSRC) of more than \$250 while their contract or permit is pending before the SCAQMD; and further prohibits a campaign contribution from being made for twelve (12) months following the date of the final decision by the Governing Board or the MSRC on a donor’s contract or permit. Gov’t Code §84308(d). For purposes of reaching the \$250 limit, the campaign contributions of the bidder or contractor plus contributions by its parents, affiliates, and related companies of the contractor or bidder are added together. 2 C.C.R. §18438.5.

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

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

SECTION I.

Contractor (Legal Name): _____

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

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

¹The information provided on this form does not, and is not intended to, constitute legal advice. To the extent that you may have questions regarding any case law, citations, or legal interpretations provided above please seek the guidance of your own independent counsel.

SECTION II.

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

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

Name of Contributor _____

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

Name of Contributor _____

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

Name of Contributor _____

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

Name of Contributor _____

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

I declare the foregoing disclosures to be true and correct.

By: _____

Title: _____

Date: _____

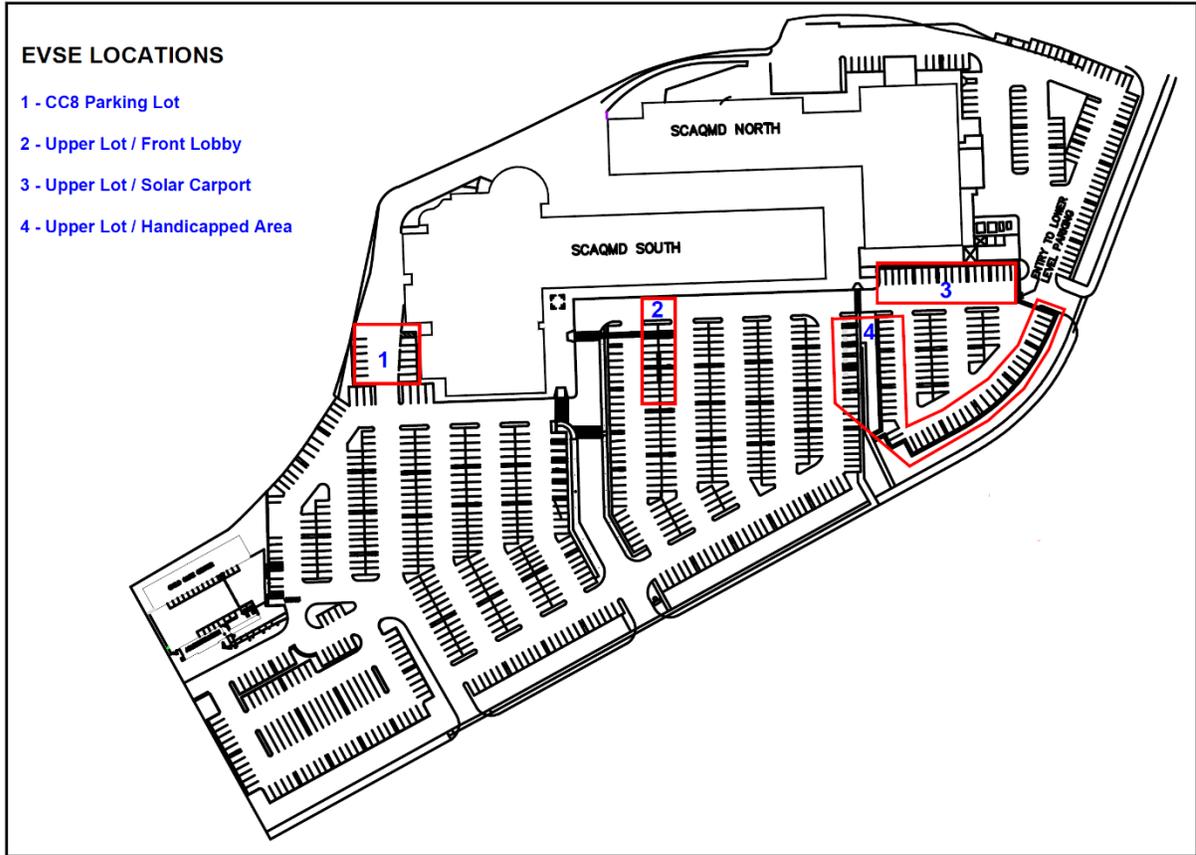
DEFINITIONS

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

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

ATTACHMENT C SOUTH COAST AQMD EV CHARGING STATIONS MAP

Headquarters – Diamond Bar, CA
Parking Lot – Upper Deck and CC8



 [Back to Agenda](#)

BOARD MEETING DATE: August 2, 2024

AGENDA NO. 4

PROPOSAL: Adopt Resolution Recognizing Funds for FY 2023-24 Carl Moyer State Reserve, Enhanced Fleet Modernization Program and Clean Cars 4 All, Reimburse General Funds for Administrative Costs, Issue Program Announcement, Amend Carl Moyer Program Awards and Execute Contract to Deploy Zero Emission Equipment

SYNOPSIS: This Board item covers three separate programs including the Carl Moyer, the Replace Your Ride Programs (RZR) and the U.S. EPA Targeted AirShed Grant. In April 2024, CARB allocated \$5.9 million in Enhanced Fleet Modernization Program (EFMP) and Clean Cars 4 All (CC4A) to continue implementing the RZR Program. Also, in April, CARB approved allocations for the FY 2023-24 Carl Moyer “Year 26” State Reserve Program to fund zero-emission Projects. In July 2019, the Board approved a \$2,100,000 U.S. EPA award under the FY 2018-19 Targeted AirShed Grant to develop and demonstrate battery electric excavators and wheel loaders. In March 2024, U.S. EPA agreed to amend award to utilize unspent project and administrative funds to deploy zero-emission equipment and extend the project to December 2025. These actions are to: 1) recognize up to \$5.9 million in EFMP and CC4A into HEROS II Special Revenue Fund (56); 2) adopt a resolution recognizing up to \$5.3 million in FY 2023-24 Carl Moyer State Reserve funds into Carl Moyer Program Fund (32); 3) reimburse General Fund for administrative costs to implement RZR; 4) issue a Program Announcement for eligible zero-emission off-road projects; 5) execute agreements for eligible projects resulting from the Program Announcement; 6) amend Carl Moyer Program awards approved in February 2024; and 7) execute contract with Volvo Technology of America, LLC in an amount not to exceed \$1,296,388, including \$60,000 of unused administrative fund to develop, demonstrate and deploy up to 13 zero emission off-road equipment from Clean Fuels Program Fund (31).

COMMITTEE: Technology, June 21, 2024; Recommended for Approval

RECOMMENDED ACTIONS:

1. Recognize from CARB, upon receipt, up to \$1.4 million in EFMP from G23-EFMP-01 and up to \$4.5 million in CC4A from G23-CC4A-01 into HEROS II Special Revenue Fund (56);
2. Reimburse the General Fund up to \$210,000 from EFMP and up to \$900,000 from CC4A, from the HEROS II Special Revenue Fund (56) as authorized by the grant agreements for administrative costs necessary to implement RYR;
3. Adopt the attached Resolution and authorize the Executive Officer to accept the terms and conditions of the FY 2023-24 Carl Moyer State Reserve funds and recognize from CARB up to \$5.3 million in Carl Moyer State Reserve funds into Carl Moyer Program Fund (32);
4. Issue, and if necessary, re-issue Program Announcement (PA) #PA2024-05 to solicit zero-emission off-road projects under the Carl Moyer Program Guidelines;
5. Based on the results of the PA, authorize the Chair (or by the Chair's designation, the Executive Officer) to execute agreements with selected applicants for eligible projects from Carl Moyer Program Fund (32) until funds are exhausted;
6. Amend awards, approved in February 2024 and authorize the Chair to execute contracts with Universal City Studios, LLC, Chino Valley Dairy Products, Inc., Betty-G Sportfishing, Inc., King Fio Trucking, LLC, Penske Truck Leasing Co., L.P. and U.S. Gold Cargo, Inc. as shown in Table 1; and
7. Execute contract with Volvo Technology of America, LLC in an amount not to exceed \$1,296,388, including \$60,000 of unused administrative fund to develop, demonstrate and deploy up to 13 zero-emission off-road equipment from the Clean Fuels Program Fund (31).

Wayne Nastri
Executive Office

AK:MW:WS:SC

Background

This Board letter encompasses three separate programs including the Carl Moyer, the Replace Your Ride Programs and an U.S. EPA Targeted AirShed Grant. Although these programs are separate, the overall approach is the recognition of funds from CARB and to execute and amend awards and contracts previously approved by the Board.

Carl Moyer Program State Reserve Funds

The Carl Moyer Memorial Air Quality Standards Attainment Program provides incentive funds to help pay for the incremental cost of purchasing cleaner than required engines, vehicles, and/or equipment. Pursuant to Health and Safety Code Section

44286(d), CARB may reserve up to ten percent of the Carl Moyer Program funds available each year for projects that are eligible for funding. CARB reserves the sole authority to distribute the Carl Moyer Program State Reserve funds (State Reserve funds) each year. For FY 2023-24, approximately \$12.4 million in the State Reserve funds are available.

In April 2024, CARB approved allocations of the FY 2023-24 (Year 26) Carl Moyer Program State Reserve funds based on applications received from participating air districts. For this year, CARB allocated all the State Reserve funds towards the implementation of Carl Moyer Program eligible zero-emission projects. The allocation for the South Coast AQMD is \$5,247,712, including 6.25 percent in administrative funds, which is approximately 42 percent of the total State Reserve funds available. South Coast AQMD intends to use these funds for zero-emission off-road equipment replacement and engine repower projects under the Carl Moyer Program.

Replace Your Ride Program

South Coast AQMD has been implementing an Enhanced Fleet Modernization Program (EFMP), branded as Replace Your Ride (RYR) since 2015. The RYR Program is a vehicle retirement and replacement program which provides incentives to lower income households to scrap and replace their older, high emitting vehicles with newer, cleaner models or other transportation options. Since its inception, South Coast AQMD has provided over \$88 million in EFMP funding and replaced over 11,100 older passenger vehicles with cleaner, newer, and higher fuel-efficient vehicles, e-Bikes and transportation vouchers which has resulted in reducing 33 tons of NOx, 1.8 tons particulate matter (PM), and 45,423 metric tons CO₂e of GHG emissions annually. Approximately 93 percent of the vouchers have been issued to low-income participants residing in disadvantaged communities.

Amend Carl Moyer Program Project Awards

In February 2024, the Board combined and approved awards for “Year 25” and “Year 26” Carl Moyer and SOON programs due to the high number of eligible applications. Staff has identified amendments necessary to proceed with four awards as shown in Table 1 below.

Table 1
Updates to Project Name, Project Category and Award Amount

Applicant Name	Updated Applicant Name	Updated Project Category	Original Award Amount	Updated Award Amount	Case-by-Case Analysis
Universal City Studios, LLC	--	--	\$3,450,360	\$4,014,930	--
Chino Valley Dairy Products, Inc.	Chino Valley Dairy	--	--	--	--
Betty-G Sportfishing, Inc.	Anthony Le DBA Betty-G Sportfishing	--	--	--	--
King Fio Trucking, LLC	--	--	\$472,676	\$724,476	--
Penske Truck Leasing Co., L.P.	--	Zero-Emission Infrastructure	--	--	--
U.S. Gold Cargo, Inc.	--	--	--	--	Yes

Two applicants inadvertently submitted incorrect business names. In addition, calculation errors occurred such that the February 2024 Board Letter incorrectly listed an award for Universal City Studios, LLC as \$3,450,360 instead of \$4,014,930 and for King Fio Trucking, LLC as \$472,676 instead of \$724,476. Also, due to typographic errors, U.S. Gold Cargo, Inc. was missing an asterisk to indicate a case-by-case CARB approval was required, and the project category for Penske Truck Leasing Co., L.P. will need to be amended.

Amend FY2018-19 U.S. EPA Targeted AirShed Grant (TAG) Project

In July 2019, the Board approved \$2,100,000 award under the FY2018-19 Targeted AirShed Grant to Volvo Technology of America, LLC, to develop and demonstrate battery electric excavators and wheel loaders. The project developed and demonstrated multiple pieces of zero-emission off-road equipment, which resulted in the initial launch of the Volvo zero-emission construction equipment in 2022. As the project nears its completion, South Coast AQMD staff recommended to U.S. EPA to allocate the unspent project funds of \$500,000 and administrative funds of \$60,000 to provide incentives for the deployment up to 13 Volvo ZE construction equipment. U.S. EPA concurred with South Coast AQMD’s recommendation and approved the agreement modification and extended the project term to December 2025 to allow time for the deployments.

Proposals

Carl Moyer Program State Reserve Funds

Staff recommends to adopt the attached Resolution recognizing up to \$5.3 million in the FY 2023-24 Carl Moyer Program State Reserve funds from CARB into the Carl Moyer Program Fund (32) and authorize the Executive Officer to accept the terms and conditions of the FY 2023-24 (Year 26) Carl Moyer Program State Reserve grant award.

In addition, staff recommends to issue #PA2024-05 to solicit applications for zero-emission off-road equipment replacement or engine repower projects. Examples of off-road equipment and/or engines eligible under this PA include those operating in construction, agriculture, industrial and cargo handling capacities. Staff also recommends to authorize the Chair, or by the Chair's designation, the Executive Officer, to execute agreements using the Carl Moyer Program Fund (32) for eligible projects under #PA2024-05, until funds are exhausted.

Replace Your Ride Program

Staff recommends to recognize up to \$5.9 million from CARB, consisting of \$1.4 million from EFMP and \$4.5 million from CC4A into the HEROS II Special Revenue Fund (56) to continue implementation of the RYR, and to reimburse the General Fund up to \$210,000 from EFMP and up to \$900,000 from CC4A, from HEROS II Special Revenue Fund (56), for the administrative costs to implement the program.

Amend Carl Moyer Program Project Awards

Staff recommends to amend awards approved under "Year 25" and "Year 26" Carl Moyer and SOON Provision programs with the applicants specified in Table 1 to correct project names and award amounts.

Amend FY2018-19 U.S. EPA TAG Project

Staff recommends that to allocate remaining project and unspent administrative funds in an amount of up to \$1,296,388 be used for development, demonstration and deployment of up to 13 battery electric off-road equipment. Volvo and project partners will provide up to \$393,500 in cost-share. This action is to execute a contract with Volvo Technology of America, LLC in an amount not to exceed \$1,296,388 to develop, demonstrate and deploy up to 13 Volvo zero-emission construction equipment from the Clean Fuels Program Fund (31).

Outreach

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

Additionally, potential applicants may be notified utilizing South Coast AQMD's own electronic listing of certified minority vendors. Notice of the PAs will be emailed to the Black and Latino Legislative Caucuses and various minority chambers of commerce and business associations, and placed on South Coast AQMD's website (<http://www.aqmd.gov>) where it can be viewed by making menu selection "Grants & Bids." South Coast AQMD will post pre-recorded presentations and host meetings to provide program information and application assistance for applicants interested in participating in the Carl Moyer Program. Also, to the extent possible, staff will conduct additional in-person outreach to potential applicants through community outreach and engagement.

Overburdened Communities

The Carl Moyer Program Guidelines and AB 1390 require that at least 50 percent of all funding available for the Carl Moyer Program, including roll-over funds from previous years and any returned funds from projects that fall through, be allocated to projects that will reduce emissions in overburdened communities. Staff will ensure that not less than 50 percent of the funds are appropriated and expended directly in overburdened communities to reduce air contaminants and/or associated public health risks.

Benefits to South Coast AQMD

The additional funds provided by the State Reserve to fund zero-emission off-road equipment replacement and engine repower projects will not only provide surplus emissions reductions of both NO_x and PM as required by the Carl Moyer Program, but the NO_x reductions will further South Coast AQMD's efforts toward achieving ozone attainment under the NAAQS. The zero-emission off-road equipment and engines funded under #PA2024-05 will operate for the life of the contract and beyond, with the emissions reductions providing long-term benefits. In addition, replacement of diesel-powered equipment will reduce diesel particulate emissions which is a carcinogen.

EFMP will continue to provide clean vehicle incentives to qualifying low-income households primarily for those residing in disadvantaged communities and provide emission reduction benefits to these communities and throughout the region.

The successful implementation of the Carl Moyer Program and SOON Provision Program will provide direct emissions reductions for both NO_x and PM as required by the programs. Since the vehicles and equipment funded under these programs will operate for the life of the contract and beyond, the emissions reductions will provide long-term benefits.

The successful implementation of off-road projects will provide reductions of NO_x, PM and GHG emissions. The Volvo equipment funded under the AirShed Grant will help accelerate zero-emission off-road equipment adoption and provide long-term emission reduction benefits.

Resource Impacts

The State Reserve funds, upon receipt from CARB, will be recognized into the Carl Moyer Program Fund (32). Total State Reserve funds for zero-emission off-road projects eligible under #PA2024-05 will not exceed \$5 million.

CARB’s funds of up to \$1.4 million for EFMP from G23-EFMP-01 and \$4.5 million for Clean Cars 4 All from G23-CC4A-01, upon receipt, will be recognized into the HEROS II Special Revenue Fund (56).

The contract with Volvo will not exceed \$1,296,388 from U.S. EPA and a Clean Fuels Program Fund (31) which includes \$60,000 of unspent administrative funds from the grant. Volvo and partners will provide cost-share of up to \$393,500 for the additional deployment.

Attachments

- A. Resolution
- B. Carl Moyer Memorial Air Quality Standards Attainment Program Zero-Emission Off-Road Projects Program Announcement #PA2024-05

Attachment A

RESOLUTION NO. 24-

**A Resolution of the South Coast Air Quality Management District Board
Recognizing Funds and Accepting the Terms and Conditions of the
FY 2023-24 (Year 26) Carl Moyer Program State Reserve Grant Award**

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

WHEREAS, the South Coast AQMD is authorized by Health & Safety Code §§ 40402, 40440, and 40448.5 as well as the Carl Moyer Memorial Air Quality Standards Attainment Program (§ 44275, *et seq.*) to implement programs to reduce transportation emissions, including programs to encourage the use of alternative fuels and low-emission vehicles; to develop and implement other strategies and measures to reduce air contaminants and achieve the state and federal air quality standards; and

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

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

BE IT FURTHER RESOLVED that the Governing Board approves the South Coast AQMD's participation in the State Reserve portion of the FY 2023-24 (Year 26) Carl Moyer Program, and the acceptance of funds allocated and awarded to the South Coast AQMD for eligible projects and program administration; and

THEREFORE, BE IT RESOLVED that the Governing Board, in regular session assembled on August 2, 2024, does hereby accept the terms and conditions of the FY 2023-24 (Year 26) Carl Moyer Program State Reserve grant award and recognize up to \$5.3 million from CARB in the Carl Moyer Program Fund (32) for eligible zero-emission off-road projects under the Carl Moyer Program.

BE IT FURTHER RESOLVED that the Executive Officer is authorized and directed to take all steps necessary to carry out this Resolution.

Date

Faye Thomas, Clerk of the Boards



2024
CARL MOYER MEMORIAL
AIR QUALITY STANDARDS ATTAINMENT PROGRAM
PROGRAM ANNOUNCEMENT
ZERO-EMISSION OFF-ROAD PROJECTS
SOUTH COAST AQMD PROGRAM ANNOUNCEMENT
PA2024-05

The South Coast Air Quality Management District (South Coast AQMD) is pleased to announce the availability of funds for the Carl Moyer Memorial Air Quality Standards Attainment Program, which has played a significant role in incentivizing equipment owners to purchase cleaner-than-required engines, vehicles and equipment.

The Carl Moyer Memorial Air Quality Standards Attainment Program is intended to obtain “surplus” emission reductions of Nitrogen Oxides (NO_x), Particulate Matter (PM₁₀) and Reactive Organic Gases (ROG) from heavy-duty vehicles and other equipment operating in California as early and as cost-effectively as possible. The CMP provides financial incentives to equipment owners to repower, retrofit or replace in-use heavy-duty vehicles and equipment with cleaner-than-required engine and equipment technologies that will achieve emission reductions that are real, surplus, quantifiable and enforceable.

SECTION I – PURPOSE

The purpose of this Program Announcement (PA) is to solicit eligible zero-emission off-road project applications for the 2024 Carl Moyer Memorial Air Quality Standards Attainment Program (hereafter “CMP”). **At least \$5 million is available under this solicitation from the CMP State Reserve and other funds.**

All applications will be evaluated based on the criteria set forth in this PA, the CMP Guidelines, and any subsequent updates and modifications/advisories to the Guidelines. This PA was prepared based on the latest version of the CMP Guidelines approved by the California Air Resources Board (CARB) on April 27, 2017, and all associated updates, which are available at: <https://ww2.arb.ca.gov/guidelines-carl-moyer>.

This PA generally identifies the equipment categories, project options and eligibility criteria to qualify for grant funding under this year’s CMP. Any tax obligation associated with an award is the responsibility of the grantee.

In the preparation of this PA, the words “Applicant” and “Contractor” are used interchangeably. South Coast AQMD staff will evaluate all qualified applications and make recommendations to the Governing Board for final selection of project(s) to be funded. All eligible projects will be processed as it is received based on the cost-effectiveness of NO_x, PM₁₀ and ROG emissions reduced. Please note that depending upon the number of applications received in response to this PA, South Coast AQMD may prioritize the selection of projects to reduce emissions in and around Disadvantaged Communities (DAC) and low-income communities located within the South Coast Air Basin (SCAB). While South Coast AQMD encourages all eligible applications,

this means that some projects may not be selected based on their domicile address, regardless of their cost-effectiveness.

At least 50 percent of South Coast AQMD's CMP funds will be targeted for projects that meet the criteria of a disadvantaged or low-income community projects. Other non-CMP funding sources may have DAC and/or low-income status requirements that may limit South Coast AQMD's ability to award such funding to projects that do not meet applicable geographic or income requirements. The Office of Environmental Health Hazard Assessment (OEHHA) in the California Environmental Protection Agency (CalEPA) has developed the California Communities Environmental Health Screening Tool: CalEnviroScreen Version 4.0 (CalEnviroScreen 4.0). The CalEnviroScreen 4.0 tool will be used by South Coast AQMD to identify projects that qualify as a DAC, which is defined as scoring in the top 25th percentile and will strive to maximize the benefits to these communities. All applications will be assessed with the CalEnviroScreen tool to identify and verify if the project will benefit a DAC within the 25th percentile. This tool is available at: <https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-40>

South Coast AQMD's CMP is administered locally through its Technology Advancement Office. The South Coast AQMD reserves the right to allocate its CMP funds among the program categories or to specific projects in accordance with South Coast AQMD priorities. Applicants may only be offered partial funding due to cost-effectiveness or funding category limitations (i.e., caps), and not all applications that meet the cost-effectiveness criteria may be funded.

SECTION II – LEGAL UPDATES AND DEFINITIONS

CONFLICT OF INTEREST

Applicant must address any potential conflicts of interest with other clients affected by actions performed by the firm on behalf of the South Coast AQMD. Although the applicant will not be automatically disqualified by reason of work performed for such firms, the South Coast AQMD reserves the right to consider the nature and extent of such work in evaluating the application. Conflicts of interest will be screened on a case-by-case basis by the South Coast AQMD General Counsel's Office. Conflict of interest provisions of the state law, including the Political Reform Act, may apply to work performed pursuant to this contract. An example of a conflict of interest may occur when a consultant applying on behalf of an applicant for funding under the Carl Moyer Program is also contracted with South Coast AQMD.

COMPLIANCE WITH APPLICABLE LAWS

Applicants must comply with all federal, state, and local laws, ordinances, codes and regulations. If the application is eligible for funding, all vehicles and/or equipment to be purchased, or installed must be compliant with all applicable federal, state, and local air quality rules and regulations, and will maintain compliance for the full Contract term.

COMPLIANCE WITH LABOR LAWS

If an application is deemed eligible, the applicant will be required to provide any labor violations that have occurred within the last three years to be further considered for an award. If awarded, the contractor will be required to notify South Coast AQMD in writing if they have been found by a court or federal or state agency to have violated labor laws. As part of their annual report, the contractor will complete a yearly certification in which they will either state that they have not been found by a court or federal or state agency to have violated labor laws or, if such violations have been found, the contractor will give South Coast AQMD details about those violations in the certification. If the contractor has previously provided that information to the South Coast AQMD, they will be required to reattach that previous notification to the certification and provide any additional details about those violations that have not previously been provided. The contractor's yearly certification will be due at the same time as the annual progress reports. South Coast AQMD reserves the right to terminate the contract with a contractor that has been found to have violated labor laws, and the contractor may be required to return any and all contract funds, as determined by South Coast AQMD. The contractor will also ensure that these requirements are included in all subcontracts.

STATEMENT OF COMPLIANCE

Government Code Section 12990 and California Administrative Code, Title II, Division 4, Chapter 5, require employers to agree not to unlawfully discriminate against any employee or applicant because of race, religion, color, national origin, ancestry, physical handicap, medical condition, marital status, sex, or age. A statement of compliance with this clause is included in all South Coast AQMD contracts.

ECONOMIC SANCTIONS (RUSSIA/UKRAINE)

On March 4, 2022, Governor Gavin Newsom issued Executive Order N-6-22 (EO) regarding sanctions in response to Russian aggression in Ukraine. Applicants who are considered eligible for Carl Moyer Program funds under this Program Announcement and received executed contracts from South Coast AQMD, are obligated to comply with existing economic sanctions imposed by the U.S. government in response to Russia's actions in Ukraine.

DEFINITIONS

Alternative Fuel

Alternative fuels include compressed natural gas (CNG), liquefied natural gas (LNG), hydrogen (H₂), propane (LPG) and electric technologies. Experimental technologies and fuels will be referred to CARB for evaluation and possible eligibility in the Program.

Equipment Replacement

Equipment replacement means the replacement of an older vehicle or piece of equipment that still has remaining useful life with newer equipment with zero-emission technologies. For equipment replacement project types, applicant must have owned and operated the old (i.e., existing) equipment in California for the previous two years from date of application.

Engine Repower

Engine repower means the replacement of an in-use engine with zero-emission technology within an existing vehicle or equipment.

South Coast AQMD Jurisdiction

The South Coast AQMD is the air pollution control agency for all of Orange County and the urban portions of Los Angeles, Riverside and San Bernardino counties. This area of 10,743 square miles is home to approximately 17 million people—about half the population of the state of California. It is the second most populated urban area in the United States and one of the smoggiest. Visit <http://www.aqmd.gov/nav/about/jurisdiction> for more information.

SECTION III – FUNDING CATEGORY

Project equipment must be domiciled within the SCAB and operate a minimum of 75% of the time within the boundaries of the SCAB. Below is the specific project category identified for funding under this PA:

Project Category*	Examples
Off-Road Equipment	<ul style="list-style-type: none">• Construction Equipment• Industrial Equipment• Agricultural Mobile Equipment (loaders, tractors, water pulls, etc.)• Cargo Handling Equipment

*To be eligible for funding, all projects must be compliant with all applicable federal, state, and local air quality rules and regulations.

OFF-ROAD COMPRESSION-IGNITION EQUIPMENT

This category includes off-road, mobile compression ignition equipment with engines greater than 25 horsepower. Off-road heavy-duty equipment/engines include, but are not limited to, construction equipment, agricultural equipment, marine engines, ship-side shore power and locomotive equipment. Portable equipment is not eligible for CMP funding. The following off-road equipment projects may be eligible for funding:

- Equipment Replacement: The purchase of new or used equipment with zero-emission technology to replace an older, fully functional piece of equipment to be scrapped.
- Repower: The replacement of an existing engine with a zero-emission system instead of rebuilding the existing engine to its original specifications.

Diesel Construction Equipment

According to CARB’s In-Use Off-Road Diesel Vehicle Regulation (Off-Road Regulation), the construction fleets are categorized as follows:

Fleet Size	Horsepower Range
Small	Less than or equal to 2,500 HP
Medium	Between 2,500 HP and 5,000 HP
Large	Greater than 5,000 HP

On November 17, 2022, CARB approved amendments to the Off-Road Regulation. Actions adopted by CARB has limited the eligibility of off-road equipment for CMP funding and as a result, potential funding for zero-emission replacements and repowers will be available for the existing Tiers until the following dates:

Potential Funding	Large Fleets	Medium Fleets	Small Fleets
Tier 0	Not allowed	Not allowed	12/31/2025
Tier 1	Not allowed	12/31/2024	12/31/2027
Tier 2	12/31/2024	12/31/2026	12/31/2029

Tier 3 and Tier 4 Interim equipment may be replaced or repowered without restriction to zero-emission technologies. In all cases, large and medium fleets must meet final compliance requirements and small fleets must meet final compliance requirements by December 31, 2026 to be eligible for funding. They must also demonstrate eligibility with the most current Off-Road Regulations & CMP Guidelines.

Applicants must submit information regarding fleet size and compliance status. **This must include the Diesel Off-Road On-line Reporting System (DOORS) ID of the fleet, the DOORS Compliance Snapshot, the DOORS equipment list, and the DOORS Equipment Identification Number (EIN) of the funded equipment.** All documentation submitted must be signed and dated by the applicant and include language certifying that the fleet list provided is accurate and complete.

Cargo Handling Equipment

Cargo handling equipment (CHE) is any motorized vehicle used to handle cargo delivered by ship, train, or truck or used for scheduled routine maintenance activities at a port or intermodal rail yard. Equipment that handles cargo containers includes yard trucks, top handlers, side handlers, reach stackers, forklifts, and rubber-tired gantry (RTG) cranes.

Applicants must be in compliance with the CHE Regulations and equipment utilizing regulatory extensions are not eligible for funding. Cargo handling equipment located at other locations such as distribution warehouses must be in compliance with the off-road diesel regulation.

Agricultural Equipment

Diesel agricultural equipment are not subject to the off-road regulation. However, a statement of how the equipment will be used and what percentage of the time the equipment will be used for agricultural purposes is required in order to be eligible for the CMP funding. Agricultural equipment must be operated over 50% of the time in agricultural operations. Agricultural operations include, but are not limited to, activities such as the raising and harvesting of crops from soil, the raising of fowl or animals, logging, and forestry operations. A majority of the off-road vehicles used in facilities such as wineries, dairies, logging operations, farms, ranches, and wholesale are considered “agricultural operations”.

Large Spark-Ignition Equipment

LSI engines or alternative fuel-powered LSI internal combustion engines are designed for powering, but not limited to powering, forklift trucks, sweepers, generators, and industrial

equipment. In order to be eligible for CMP funding, LSI fleets must have met the final compliance requirements. To be eligible for funding LSI fleets must have at least three years of emission reductions surplus to the LSI Fleet Regulation. If you have a large fleet of four or more forklift units or four or more units consisting of sweepers/scrubber, ground support equipment (GSE), and industrial tow tractors you must meet final LSI Regulation average emissions to be eligible for funding.

Forklifts

Forklift replacement projects for construction, CHE and agricultural operations must replace forklifts with lift capacities of less than or equal to 8,000 lbs.

SECTION IV – APPLICATION SUBMITTAL REQUIREMENTS

Applicants must apply for CMP funding using the South Coast AQMD's CMP Online Grant Management System (GMS) which will be available on and after August 6, 2024 at www.aqmd.gov/moyer. In addition, all Business Information Forms including Conflict of Interest and Project Cost information, as described below, must also be submitted with the application. It is the responsibility of the applicant to ensure that all information submitted is accurate and complete. **Paper applications will not be accepted.**

PROJECT COST

Applicants must provide cost information that specifies the amount of funding requested and the basis for that request by attaching vendor quotes to the application. The vendor quotes must be dated within 90 days of the application submittal date. **Applicants need to inform vendors of the time frame of the award process so that they can estimate prices based on the future/projected order/purchase date.**

Purchase orders or other purchase commitments shall not be placed until after the date of award approval by the South Coast AQMD Governing Board. Purchase orders may be placed after South Coast AQMD Governing Board approval and in advance of a fully executed contract, but these orders/commitments are placed at the applicant's own risk.

The CMP will fund only a percentage of the cost of the zero-emission technology based on the type of project. The proposed zero-emission technology must be certified, verified or approved by CARB in most cases. No administrative or operational costs will be funded.

All project costs must be clearly indicated in the application. In addition, applicants must disclose all sources of co-funding, including the name of the funding source and amount of funding in the application. **Applicants are cautioned that the project life period used in calculating emissions reductions will be used to determine the length of their annual reporting obligation.** In other words, a project applicant using a ten-year life for the emissions reduction calculations will be required to operate, track and report activity for the project vehicle for the full ten years. The contract term will also be ten years.

Applicants are not required to calculate a project's cost-effectiveness. Methodologies for calculating cost-effectiveness are provided in the CARB Moyer Guidelines at: https://www.arb.ca.gov/msprog/moyer/guidelines/2017gl/2017_gl_appendix_c.pdf.

APPLICATION SUBMISSION

All online applications must be submitted according to specifications set forth herein. Failure to adhere to these specifications may be cause for rejection of the application without evaluation.

Grounds for Rejection: An application may be immediately rejected if:

- Does not include correct documentation and other forms required.
- All applications are not signed by an individual authorized to represent the firm.

Staff Contact Information: South Coast AQMD staff contacts are listed under South Coast AQMD Staff Contacts and Additional Resources below. Applicants may contact South Coast AQMD staff to discuss their project prior to submitting an online application to ensure program eligibility.

Business Information Forms: All business information forms **must** be completed and submitted with the online application. Please note, if recommended for an award, you will be required to submit an updated Campaign Contribution Disclosure form at a later date. Download these forms at www.aqmd.gov/moyer. These business forms will also be available on the Carl Moyer Program GMS.

Electronic Submittal: A link to access South Coast AQMD’s Carl Moyer Program GMS will be available on August 6, 2024 at: www.aqmd.gov/moyer. The Carl Moyer Program GMS allows applicants to submit applications electronically to the South Coast AQMD and track the progress of their application(s). **Applications must be submitted through the Carl Moyer Program GMS by October 15, 2024 at 11:59 PM, or when South Coast AQMD reaches \$5 million in eligible applications, whichever comes first.** The GMS will not allow applications to be **submitted after the due date and time.** South Coast AQMD “Business Information Forms” requiring signatures must be scanned and uploaded to the electronic application in PDF format.

First-time users must register as a new user to access the system. Applicants will receive a confirmation email after all required documents have been successfully uploaded. A tutorial of the system will be provided at the pre-application workshops or online and you may contact staff if you would like additional assistance.

Third parties assisting in applications may create their own account on the Carl Moyer Program GMS that can be linked through the primary user account.

Missing Information – Within thirty (30) business days of the online application submittal due date of October 15, 2024, South Coast AQMD will email letters to applicants regarding the missing or incomplete information. Applicants will have seven (7) business days to provide any missing information requested in the letter. It will be the applicant’s responsibility to submit the missing or incomplete information within the time specified by South Coast AQMD staff. Only complete applications can move forward in the evaluation process.

Disposition of Applications - The South Coast AQMD reserves the right to reject any or all applications. All responses become the property of the South Coast AQMD. A copy of each

application not selected for funding shall be retained for one year. Additional copies and materials will be returned only if requested and at the applicant's expense.

SECTION V – WORK STATEMENT/SCHEDULE OF DELIVERABLES

Prior to submitting the application, applicants must sign and agree to the terms and conditions of the requirements for submittal of additional project information to finalize a contract and that all vehicles, engines or equipment shall be in operation within eighteen (18) months of contract execution.

SCOPE OF WORK

The scope of work will describe tasks and deliverables that demonstrate compliance with the requirements of the CMP as administered by CARB and the South Coast AQMD. The project applicant is responsible for developing detailed project plans and ordering equipment that complies with the program criteria and guideline requirements. In addition, alternative fuel project applicants must discuss their plan for refueling the proposed vehicles/equipment, and if appropriate, should provide a letter of agreement from their fuel provider (see Application forms).

At a minimum, any contract for funding the proposed project must meet the following criteria:

- Provide emission reductions that are real, surplus, quantifiable and enforceable in accordance with CMP guideline requirements.
- Project equipment must be domiciled within the boundaries of the SCAB.
- Meet the cost-effectiveness limit, as described in this PA and the CMP Guidelines, and subsequent CMP Advisories.
- For repower and replacement projects, the new engine must achieve an annual NO_x emissions benefit of at least 15 percent to receive any funding.
- Commit that project engines or equipment operate in service for the full project life and at least 75 percent of annual operation must occur within the South Coast AQMD.
- The cost-effectiveness calculation is based on the percent operation within the South Coast AQMD boundary. Project life is the number of years used to determine the cost-effectiveness and is equal to the contract term. The contract will include the percent operation as a minimum requirement (75% for off-road projects).
- Commit that all vehicles/engines/equipment are in operation within 18 months of contract execution.
- Provide for appropriate recordkeeping during the project life (i.e., annual mileage, fuel consumption and/or hours of operation), including submission of annual reports as detailed below.
- Ensure that the project complies with all applicable rules and regulations, and the resulting emission reductions from the project are not required as a mitigation measure to reduce adverse environmental impacts that are identified in an environmental document prepared in accordance with the California Environmental Quality Act or the National Environmental Policy Act.
- If requested, contractor must provide a financial statement and bank reference, or other evidence of financial ability to fulfill contract requirements.

- If requested, contractor must make all equipment and records available to the South Coast AQMD or CARB for audit and inspections.

PAYMENT TERMS

For all projects except shore power projects, full payment will be made upon installation and commencement of operation of the funded equipment. For shore power projects, a progress payment schedule may be established that allows payment upon completion of key milestones, as delineated in the contract.

DELIVERABLES

The contract will describe how the project will be monitored and what type of information must be submitted as part of the reporting requirements. At a minimum, the South Coast AQMD expects to receive an annual report for each year during the full contract term, or project life, which provides the annual miles, -fuel consumption or hours of operation, where the vehicle or equipment was operated, and operational and maintenance issues encountered and how they were resolved. South Coast AQMD reserves the right to verify the information provided.

Annual reporting forms are available online at: www.aqmd.gov/moyer

SECTION VI – APPLICATION EVALUATION/RECIPIENT SELECTION CRITERIA

South Coast AQMD staff will evaluate all off-road zero-emission project applications and make funding recommendations for eligible projects. Each project will be evaluated based on two primary criteria: (1) the cost-effectiveness of NO_x, PM₁₀ and ROG reduced, and (2) the project's status with respect to the disadvantaged community and low-income criteria prescribed by CARB.

PROJECT COST-EFFECTIVENESS

The CMP award amount shall not exceed the project's incremental cost, applicable funding caps and/or cost-effectiveness limit(s). The "Step 1" cost-effectiveness limit, \$34,000 per weighted ton of emissions reduced, applies to projects that bring vehicles and equipment up to current standards. The "Step 2" cost-effectiveness limit of a maximum of \$522,000 per weighted ton of emissions reduced applies to projects that are zero-emission or meet the cleanest certified optional standard applicable. Project cost-effectiveness is subject to change to meet additional program requirements.

All projects must meet the criteria stated in this PA and the CMP Guidelines in effect at the time of contract execution. A project's cost-effectiveness is determined based on the annualized cost of the project and the amount of NO_x, ROG and PM₁₀ emission reductions that will be achieved by the project. Project cost-effectiveness is currently calculated according to the following formula:

$$\frac{\text{Annualized Cost (\$/year)}}{[\text{NOx reduction} + \text{ROG reduction} + (20 \times \text{combustion PM10 reduction})] \text{ (tons/year)}}$$

For projects that involve advanced technologies, the cost-effectiveness will be calculated using the CMP's two-step calculation approach. Detailed guidance for the new two-step calculation approach, as well as all CMP emissions reduction and cost-effectiveness calculations is available at: https://www.arb.ca.gov/msprog/moyer/guidelines/2017gl/2017_gl_appendix_c.pdf.

SECTION VII – IMPORTANT PROGRAM INFORMATION

- Applicants **must** provide proof of ownership with their online application. This may include vehicle/equipment title, bill of sale, maintenance logs for a minimum of two years, or tax depreciation records. Equipment must be owned a minimum of two years from the date of application submittal.
- Project equipment must be domiciled within the SCAB and operate a minimum of 75% of the time within the boundaries of the SCAB.
- Applicants must provide vendor quotes with their application to document the cost of the new replacement vehicle/equipment project (or engine for repower project). Applicants may be awarded up to the designated percentage of total cost for the specified type of project, subject to funding caps and program cost-effectiveness limits. All quotes must have been obtained within 90 days prior to the application submittal date.
- Applicants must provide legible engine tag photos of the baseline engine(s) or manufacturer specifications that document the engine serial number, horsepower, model year and engine family number, emissions certification level and CARB Executive Order (if controlled).
- Applications for fuel and engine technologies that are not certified, verified or approved by CARB, or falling outside the categories specifically discussed in this PA, may be referred to CARB for determination of CMP eligibility on a case-by-case basis. Please discuss these projects with South Coast AQMD staff prior to application submittal. Projects submitted for CARB case-by-case review will require the applicant to provide additional justification and documentation regarding the project and the applicant's justification for such consideration.
- A number of the CARB fleet rules and air quality regulations impact CMP eligibility. Compliance with existing CARB regulations is a pre-requisite for CMP funding. Only emission reductions in excess of regulatory requirements can be considered for CMP funding. If applicants are applying for CMP funds to reduce emissions before the required compliance date (i.e., early reductions), the equipment must demonstrate sufficient years of operation before the regulatory compliance deadline. Applicants are responsible for ensuring that they are in full compliance with all applicable regulations and that vehicle/equipment requests under the CMP provide surplus emission reductions. As noted earlier, applicants must provide documentation of their regulatory compliance status.

- Any tax obligation or liabilities associated with the award is the responsibility of the grantee. Please consult your tax advisor on the tax liabilities of receiving a grant award under the Carl Moyer Program.
- No third-party contracts will be executed.
- Pre-, post- and destruction inspections of all vehicles/engines/equipment approved for funding will be conducted, as required. Inspections of all vehicles/engines/equipment may be conducted in-person or virtually via remote inspections. Applicants must make all equipment available for in-person or remote inspections during contract preparation, or through updates from South Coast AQMD. Documentation of compliance with existing regulatory requirements is required at the time of pre-inspection.
- The usage for off-road equipment projects will be based on hours. The applicant must provide the historical usage records for the equipment as part of the application for the previous two years. Fleet averages cannot be used.
- It is the applicant's responsibility to ensure that the most current information and requirements are reflected in a submitted project application. Applicants should check the CARB website for updates and advisories to the guidelines (www.arb.ca.gov/msprog/moyer/moyer.htm).
- In cases of conflict between CARB guidelines and South Coast AQMD criteria, the more stringent criteria will prevail. South Coast AQMD will post any new information and requirements on its CMP Web page at www.aqmd.gov/moyer.
- Projects subject to CARB regulations must submit a copy of the most recent CARB compliance report(s) or other documentation that provides South Coast AQMD with clear understanding of the fleet's compliance status.
- All emission reductions resulting from funded projects will be credited to the Carl Moyer Program. A grant shall not be made that provides the applicant with funds in excess of the maximum eligible amount, in accordance with CMP guidelines.
- A project may be leveraged with other funding sources. The applicant must disclose all funding sources at the time of application and will be required to report all funding sources prior to invoice payment. Other funding sources may include but are not limited to state and federal funding programs that reduce greenhouse gas (GHG) emissions, funding provided by the Alternative and Renewable Fuel and Vehicle Technology Program, Air Quality Improvement Program, or CARB's Low Carbon Transportation Investment funds to reduce GHG emissions. The sum of all grants and other funds applied toward the project shall (1) not exceed the total project cost for public agency applicants and (2) not exceed 85% of the total project cost for non-public agency applicants. In other words, the grantee must pay at least 15 percent of the project cost from non-public sources.
- The emission reductions paid for by the CMP shall not be claimed by the other funding sources.

SECTION VIII – SCHEDULE OF EVENTS

Issue PA2024-05	August 2, 2024
Applications Open	August 6, 2024
All Applications Due by 11:59 pm (or when South Coast AQMD reaches \$5 million in applications, whichever comes first)	Wednesday, October 15, 2024
Contract Execution	October 2024 thru March 2025

**ALL APPLICATIONS MUST BE RECEIVED VIA SOUTH COAST AQMD'S
CMP ONLINE GRANT MANAGEMENT SYSTEM
NO LATER THAN TUESDAY, October 15, 2024 at 11:59 PM
(DEADLINE TO SUBMIT MAY CLOSE EARLY IF SOUTH COAST AQMD REACHES \$5 MILLION IN
APPLICATIONS)**

Access to South Coast AQMD's CMP Online GMS is provided at: www.aqmd.gov/moyer

SOUTH COAST AQMD STAFF CONTACTS AND ADDITIONAL RESOURCES

The South Coast AQMD staff contacts are listed in Table 1 by project category. Copies of the Program Announcement, Business Information Forms and a sample South Coast AQMD CMP contract may be accessed at: www.aqmd.gov/moyer.

Table 1: CMP Staff Contacts

Project Category	Staff Contact	Phone Number	Email
Off-Road Equipment	Alyssa Yan	(909) 396-2024	ayan@aqmd.gov
	Darren Ha	(909) 396-2548	dha@aqmd.gov
	Kevin Perozo	(909) 396-2522	kperozo@aqmd.gov
	Greg Ushijima	(909) 396-3301	gushijima@aqmd.gov
	Alan Wang	(909) 396-2853	awang@aqmd.gov

CONTACT FOR ADDITIONAL INFORMATION

Questions regarding the content or intent of this PA, procedural matters or locations of workshops should be addressed to: carlmoyer@aqmd.gov

WEBSITE LINKS TO CARB RULES THAT AFFECT CMP ELIGIBILITY

CARB Regulation	Website
In-Use Off-Road	http://www.arb.ca.gov/msprog/ordiesel/ordiesel.htm
Cargo Handling Equipment	http://www.arb.ca.gov/ports/cargo/cargo.htm

BOARD MEETING DATE: August 2, 2024

AGENDA NO. 5

PROPOSAL: Adopt Resolution to Recognize Funds and Accept Terms and Conditions of the 2022 Port and Freight Infrastructure Program Award from the California State Transportation Agency

SYNOPSIS: In December 2023, the Board recognized an award of \$76,250,003 from California State Transportation Agency (CalSTA) under the 2022 Port and Freight Infrastructure Program (PFIP) to demonstrate a short line hydrogen fuel cell locomotive and deploy direct current fast chargers and hydrogen refueling dispensers for heavy duty trucks. The Board also established the CalSTA Special Revenue Fund (89) to receive the funds. CalSTA requires a Resolution of the Board in order to release the funds. The Board also recognized \$500,000 from DOE through a FY 2023 Congressional Direct Spending Request for the project. These actions are to: 1) Adopt a Resolution to recognize funds, accept terms and conditions of the 2022 PFIP award from CalSTA and authorize the Executive Officer to execute the necessary agreements with CalSTA and California Department of Transportation to receive the award; 2) Reimburse the General Fund up to \$24,000 for administering the DOE grant and 3) Temporary loan up to \$10 million from the Clean Fuels Program Fund (31) to the CalSTA Special Revenue Fund (89) until PFIP grant funds are received.

COMMITTEE: Technology; June 21, 2024; Recommended for Approval

RECOMMENDED ACTIONS:

- 1) Adopt a Resolution to recognize funds, accept terms and conditions of the 2022 Port and Freight Infrastructure Program (PFIP) award from California State Transportation Agency (CalSTA) and to authorize the Executive Officer to execute the necessary agreements with CalSTA and California Department of Transportation (Caltrans) to receive the funds;
- 2) Reimburse the General Fund for up to \$24,000 for administering the DOE grant; and

- 3) Temporary loan up to \$10 million from the Clean Fuels Program Fund (31) to the CalSTA Special Revenue Fund (89) until PFIP grant funds are received.

Wayne Natri
Executive Officer

AK:MW:VP:MH

Background

South Coast AQMD partnered with Prologis Mobility, LLC and Wabtec Corporation to submit a Freight Air Quality Solutions (FAQS) proposal to CalSTA under the 2022 PFIP. The proposed projects included the deployment of direct current fast chargers (DCFC) and hydrogen refueling dispensers at seven locations to support zero emission drayage fleets and the demonstration of a short-line fuel cell locomotive that will transport cargo in and around the San Pedro ports. CalSTA awarded a PFIP grant to South Coast AQMD for these projects in July 2023. In December 2023, the Board recognized \$76,250,003 from CalSTA under the PFIP award and \$500,000 from DOE, established CalSTA Special Revenue Fund (89) to receive the funds, and authorized the execution of contracts with Prologis Mobility, LLC and Wabtec Corporation. Caltrans, which is administering the PFIP award for CalSTA, requires a Resolution from the Board to recognize funds, accept the terms and conditions and authorize the execution of necessary agreements with CalSTA and Caltrans to receive the funds.

The PFIP grant funds will be paid to South Coast AQMD on a reimbursement basis. A temporary loan of up to \$10 million from the Clean Fuels Program Fund (31) to the CalSTA Special Revenue Fund (89) is necessary to ensure sufficient funds are available for the projects. The loaned amount will be returned to Fund 31 as reimbursements from the PFIP grant are received.

Proposal

This action is for the Board to adopt the Resolution to recognize funds, accept the terms and conditions and authorize the execution of necessary agreements with CalSTA and Caltrans to receive the funds. In addition, this action is to authorize the reimbursement of the General Fund of up to \$24,000 for administering the DOE grant. Finally, this action is to temporary loan up to \$10 million from the Clean Fuels Program Fund (31) to the CalSTA Special Revenue Fund (89) until PFIP grant funds are received.

Benefits to South Coast AQMD

South Coast Air Basin is classified as an “extreme” nonattainment area for ozone under the Federal Clean Air Act. Successful deployment of chargers and fuel dispensers and the demonstration of fuel cell locomotives will help reduce Ozone and PM2.5 air

pollution. The project supports the Technology Advancement Office Clean Fuel Program 2023 Plan Update under the categories of “Electric/Hybrid Technologies,” “Hydrogen/Mobile Fuel Cell Technologies,” and “Zero Emission Infrastructure.” Estimated annual emission reductions of 632 tons of NOx, 1.7 tons of PM2.5 and 147,104 tons of CO2 may be expected from these projects.

Resource Impacts

Sufficient funds are available in the Clean Fuels Program Fund (31) for the temporary loan to CalSTA Special Revenue Fund (89) until PFIP grant funds are received.

Attachment

Resolution

**A Resolution of the South Coast Air Quality Management District Board
Recognizing Funds and Accepting the Terms and Conditions of the
California State Transportation Agency
2022 Port and Freight Infrastructure Program Award**

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

WHEREAS, the South Coast AQMD is authorized by Health & Safety Code §§ 40402, 40404, 40440, and 40448.5 to implement programs to reduce transportation emissions, including programs to encourage the use of alternative fuels and low-emission vehicles; to develop and implement other strategies and measures to reduce air contaminants and achieve the state and federal air quality standards;

WHEREAS, the South Coast AQMD is designated as an extreme non-attainment area for ozone and as such is required to utilize all feasible measures to meet national ambient air quality standards;

WHEREAS, the South Coast AQMD has been awarded up to \$76,250,003 million from the California State Transportation Agency (CalSTA) 2022 Port and Freight Infrastructure Program (PFIP) for eligible projects and program administration through the California Department of Transportation (Caltrans);

WHEREAS, the South Coast AQMD is eligible to receive Federal and/or State funding for certain transportation projects, through Caltrans; and

WHEREAS, Master Agreements, Program Supplemental Agreements, Fund Exchange Agreements and/or Fund Transfer Agreements need to be executed with CalSTA and/or Caltrans before such funds can be claimed;

NOW, THEREFORE BE IT RESOLVED that the Executive Officer is authorized to execute all Master Agreements, Program Supplemental Agreements, Fund Exchange Agreements, Fund Transfer Agreements and any amendments thereto with CalSTA and/or Caltrans or its designee;

BE IT FURTHER RESOLVED that the Governing Board, in regular session assembled on August 2, 2024, does hereby accept the terms and conditions of the CalSTA 2022 PFIP award and recognize up to \$76,250,003 million in the CalSTA Special Revenue Fund (89) for eligible projects; and

BE IT FURTHER RESOLVED that the Executive Officer is authorized and directed to take all steps necessary to carry out this Resolution.

BOARD MEETING DATE: August 2, 2024

AGENDA NO. 6

PROPOSAL: Issue RFP and Execute Contracts for New Go Zero Incentive Program to Incentivize Installation of Zero-Emission Appliances

SYNOPSIS: The 2022 AQMP includes control measures that are based on accelerated deployment of zero-emission technologies. One hurdle to the implementation is the high upfront cost. To help mitigate the cost, the 2022 AQMP Resolution directed staff to incentivize the installation of zero-emission technologies. Staff is proposing a new incentive pilot program, Go Zero, to provide incentives to consumers, multifamily property owners, and small business owners, with an emphasis on overburdened communities, to install zero-emission appliances. Go Zero will also include outreach and education about zero-emission options, application assistance, and installer training. Go Zero will be initially funded up to \$21 million from mitigation fees collected under the alternative compliance options for residential space heating appliances maintained in the Rule 1111 Air Quality Investment Fund (27). Staff is proposing to release an RFP to solicit proposals to administer Go Zero and to authorize the Executive Officer to execute contracts based on the results of the RFP with the selected contractor(s) to implement the incentive program.

COMMITTEE: Stationary Source, June 21, 2024; Recommended for Approval

RECOMMENDED ACTIONS:

1. Authorize up to \$21 million from the Rule 1111 Air Quality Investment Fund (27) to fund the Go Zero incentive program;
2. Authorize the Procurement Manager, in accordance with South Coast AQMD Procurement Policy and Procedure, to issue RFP #P2025-01 to solicit proposals for third-party contractor(s) to administer Go Zero to incentivize the purchase and installation of zero-emission appliances in the South Coast AQMD, to organize and conduct trainings for installers of zero-emission appliances, provide outreach and education, and to offer application assistance for consumers; and

3. Authorize the Chair, or by the Chair's designation, the Executive Officer, to execute contracts, based on the results of the RFP, with the selected contractor(s) to implement the incentive program.

Wayne Natri
Executive Officer

SR:MK:HF:YZ:EY

Background

The 2022 AQMP was adopted in December 2022 and includes control measures for industrial, commercial, and residential sectors that are based on deployment of zero-emission technologies, wherever feasible. South Coast AQMD is developing zero-emission NO_x standards for space heating and water heating equipment and will conduct a BARCT assessment on zero-emission NO_x standards for various residential and commercial building appliances.

One challenge for the widespread implementation of zero-emission residential and commercial building appliances is the cost, particularly for residents in disproportionately impacted areas. Through the 2022 AQMP Resolution, the Board directed staff to work with stakeholders to develop concepts for a funding program to incentivize the transition to zero-emission technologies with a strong emphasis on incentivizing zero-emission technologies in overburdened communities. Substantial incentive funds and programs are needed to address the potentially significant cost of adopting zero-emission appliances for these communities to implement zero-emission technologies in an equitable way. Staff is proposing a new pilot incentive program, Go Zero, to provide incentives to consumers, multifamily property owners, and small business owners to install zero-emission appliances; outreach and education about zero-emission options; application assistance; and installer training. Go Zero will place a strong emphasis on those entities in overburdened communities. Information obtained from the Go Zero pilot program will be used to expand Go Zero.

Proposal

Staff is proposing to issue RFP #P2025-01 to solicit bids from qualified applicants to serve as third-party contractor(s) to: assist in outreach, education, and promotion of zero-emission appliances; receive and process rebate applications; facilitate the integration of other federal, state, and local rebate programs (e.g., TECH Clean California); track program data (e.g., application distribution and fund dispensation) and make them available on a public website; provide installer training; and conduct specific outreach and application assistance to residents. The program will emphasize overburdened communities, providing greater incentives, outreach, and workforce training in these communities.

The objectives of the program are divided into five sub-projects. A third-party contractor can submit a bid for any or all sub-projects, which include: (1) Rebate program for single family zero-emission space and water heating appliances, or other single family zero-emission appliances included in future modified phase(s); (2) Rebate program for multifamily zero-emission space and water heating appliances, or other multifamily zero-emission appliances included in future modified phase(s); (3) Rebate program for small business zero-emission water heating appliances, or other small business zero-emission appliances included in future modified phase(s); (4) Training program for installers of zero-emission space and water heating appliances; and (5) Targeted outreach, education, incentive, and rebate integration information from other entities, and application assistance with the primary focus on residents in overburdened communities.

Staff recommends funding the first phase of the Go Zero incentive program with up to \$21 million from the Rule 1111 Air Quality Investment Fund (27), the Rule 1111 mitigation fund. The \$21 million will be allocated as follows: \$9 million will be allocated to single family rebates and administration; \$5 million will be allocated to multifamily rebates and administration; \$5 million will be allocated to small business rebates and administration; \$1 million will be allocated to installer training; and \$1 million will be allocated to outreach and assistance for residents, with the primary focus on overburdened communities. The allocated fundings include administrative cost of the selected contractor(s). Staff recommends allocating at least 75 percent of the rebate funding (single family, multifamily, and small business rebates) to those applying from overburdened communities, identified under Senate Bill 535 (De León, Statutes of 2012) (<https://oehha.ca.gov/calenviroscreen/sb535>).

The bids will be due on September 13, 2024. Following the results of the RFP, staff anticipates the selection of the contractor(s) and execution of contract(s) to occur by November 2024. The contractor(s) will be selected based on the best combination of qualifications and well-balanced administration cost, with criteria specified in the RFP. To expedite implementation of the Go Zero incentive program, staff requests that the Chair, or by the Chair's designation, the Executive Officer, execute contracts with qualified contractor(s) of the RFP, based upon recommendations of the evaluation panel.

Bid Evaluation

Proposals will be evaluated by a panel consisting of South Coast AQMD staff members and an outside expert. Proposals will be evaluated based on: bidder's experience and background; how the contractor will administer and/or stack the rebate with other programs; how the contractor will conduct outreach; the ability to provide data and statistics on where and by whom the rebates are being used; and the administration fees. The panel will make recommendations on the final selection of a third-party contractor(s).

Outreach

In accordance with South Coast AQMD's Procurement Policy and Procedure, a public notice advertising the RFP and inviting bids will be published in the Los Angeles Times, the Orange County Register, the San Bernardino Sun, and Riverside County's Press Enterprise newspapers.

Additionally, potential bidders will be notified utilizing South Coast AQMD's own electronic listing of certified minority vendors. Notice of the RFP will be emailed to the Black and Latino Legislative Caucuses and various minority chambers of commerce and business associations and placed on South Coast AQMD's website (<http://www.aqmd.gov>).

Benefits to South Coast AQMD

The Go Zero pilot incentive program will provide incentive funding to consumers, multifamily property owners, and small businesses replacing traditional NOx emission appliances with zero-emission appliances; provide training to installers to help educate the workforce; and provide targeted outreach and assistance to residents. Go Zero will primarily focus on entities located in overburdened communities. Initiating the pilot incentive program will help implement 2022 AQMP control measures for widespread adoption of zero-emission appliances, which is necessary to reduce NOx emissions and to meet the National Ambient Air Quality Standards for ozone.

Resource Impacts

Sufficient funds are available in Rule 1111 Air Quality Investment Fund (27). As the program will be administrated by selected contractor(s) with administration fees included in the allocated \$21 million funding, no administrative cost will be required for staff.

Attachment

RFP # P2025-01



SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
REQUEST FOR PROPOSALS

Administration of the Go Zero Incentive Program for Zero-Emission Appliances in Residential and Commercial Buildings

P2025-01

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

PURPOSE

The purpose of this RFP is to obtain proposals from potential Contractors with appropriate expertise and capabilities to administer a new incentive program for zero-emission building appliances, which includes: conducting program outreach and receiving and processing rebate applications from consumers purchasing zero-emission building appliances; facilitating the integration of other local and state rebate programs for building appliances (e.g., TECH Clean California); tracking program data such as the amount and percentage of funds dispensed for projects located in overburdened communities; and making the program data available on a public website. The Go Zero incentive program, considered in full, will have five components, with each component considered as a sub-project. Section V provides more details regarding each sub-project. Applicants can submit proposals for any or all of these sub-projects. The rebate program will begin on the contract execution date with the selected Contractor(s)¹ and end on the date listed below.

Equipment Category	Rebate End Date
Zero-Emission Appliances, Primarily All-Electric Heat Pump for Space and Water Heating	January 1, 2029, or until funding is exhausted

¹ There may be a backlog of rebate applications due to the time differential between the beginning of the rebate program and the date on which the Contractor takes action on the program.

INDEX - The following are contained in this RFP:

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

Attachment A - Participation in the Procurement Process

Attachment B - Certifications and Representations

SECTION I: BACKGROUND/INFORMATION

The South Coast AQMD is a regional government agency responsible for clean air in Orange County and the non-desert portions of Los Angeles, Riverside and San Bernardino counties. Despite great strides in cleaning the air over the past several decades, the region is still exceeding federal public health standards for both ozone and particulate matter (PM); therefore, emission reductions, including NO_x reductions, are needed to achieve compliance with the ambient air quality standards. Combustion sources in residential and commercial buildings are one of the many sources of NO_x emissions in the region. South Coast AQMD currently has the following rules regulating appliances in residential and commercial buildings.

Rule 1111 - Reduction of NO_x Emissions from Natural-Gas-Fired, Fan-Type Central Furnaces, reduces emissions of NO_x from residential and some commercial gas-fired fan-type space heating furnaces with a rated heat input capacity of less than 175,000 Btu per hour or, for combination heating and cooling units, a cooling rate of less than 65,000 Btu per hour. This rule applies to manufacturers, distributors, sellers, and installers of such furnaces and currently requires the 14 ng/J NO_x limit for all furnaces except for downflow and large units (≥100 kBtu/hr) in high altitude areas that are subject to the 40 ng/J NO_x limit. Space heating furnaces with a rated heat input capacity between 175,000 and 2,000,000 Btu per hour are mainly used in commercial buildings. These units are currently exempt from South Coast AQMD NO_x rules but are addressed in the 2022 Air Quality Management Plan (AQMP) and are being proposed for inclusion in currently proposed amendments to Rule 1111.

Rule 1121 - Control of Nitrogen Oxides from Residential Type, Natural-Gas-Fired Water Heaters, applies to manufacturers, distributors, retailers, and installers of natural gas-fired water heaters with heat input rates less than 75,000 Btu per hour. This type of water heater is typically a tank type for residential water heating. Rule 1121, last amended in 2004, requires the implementation of a 10 ng/J NO_x emission limit, which currently remains one of most stringent NO_x standards for this appliance in the nation.

Rule 1146.2 - Emissions of Oxides of Nitrogen from Large Water Heaters and Small Boilers and Process Heaters, applies to manufacturers, distributors, retailers, resellers, installers, owners, and operators of units with a rating at or less than 2,000,000 Btu per hour, excluding

units regulated by Rule 1121. The NO_x emissions limits of Rule 1146.2 were amended in 2006 to require 14 ng/J (20 ppm), except for Type 1 units rated up to 400,000 Btu per hour installed prior to January 1, 2012, and pool heaters for which the NO_x limit was 55 ppm, and Type 2 units rated between 400,000 and 2,000,000 Btu per hour installed prior to January 1, 2010, for which the NO_x limit was 30 ppm. Rule 1146.2 was amended in June 2024 to require zero-emission limits based on future effective compliance dates.

The 2022 AQMP was adopted in December 2022 and includes control measures for industrial, commercial, and residential sectors that are based on accelerated deployment of the cleanest possible technologies available. For residential and commercial buildings, the South Coast AQMD would develop and propose zero-NO_x emission standards, wherever feasible, for space heating, water heating, and cooking appliances for installation in new buildings and replacement at the end of useful life for units in existing buildings.

The South Coast AQMD is currently developing amendments to Rules 1111 and 1121 to require zero-NO_x emission standards, wherever deemed feasible, for space and water heaters at future effective dates. One hurdle for the residential and commercial building appliances control measures is the upfront cost of zero-emission technologies. The costs associated with widespread adoption are significant, and substantial incentives or other approaches will be needed to implement these measures. Additional costs may be partially offset by utility companies and state agencies who have proposed incentives for heat pumps or electric panel upgrades, as well as federal tax credits. South Coast AQMD is also proposing incentive programs to further lower the upfront cost. The 2022 AQMP notes the inequity concern for communities that are disproportionately impacted by pollution and are more vulnerable to the adverse health effects of pollution. Substantial incentive funds and programs are needed to address the potentially significant cost of adopting zero-emission appliances for these communities and implement zero-emission technologies in an equitable way.

Through the 2022 AQMP Resolution, the Board directed staff to work with stakeholders to develop concepts for a potential funding program to incentivize the installation and operation of zero-emission technology and seek opportunities to provide incentives to deploy zero-emission technologies in environmental justice and overburdened communities.

In 2018, South Coast AQMD developed the Clean Air Furnace Rebate Program with a focus on lower or zero-emission residential space heating appliances associated with Rule 1111 compliance. Electric & Gas Industries Association (EGIA) was selected through a public process (RFP #P2018-05) as a third-party Contractor to implement the program utilizing an online rebate processing platform (<https://www.cleanairfurnacerebate.com/>). The program had two implementation phases. The first phase (2018-2019) was focused on incentivizing early deployment of 14 ng/J NO_x furnaces with the Board-authorized \$3,000,000 fund. The second phase started in September 2020, with a focus on incentivizing zero-emission heat pump deployment to replace NO_x emitting furnaces in existing homes with the Board-authorized \$3,500,000 fund. The Clean Air Furnace Rebate Program funding was exhausted in 2023, which concluded the program.

This RFP is for administrating a new program funding rebates to consumers replacing traditional NO_x-emitting appliances with zero-emission appliances at single-family and multifamily buildings and small businesses, with the first phase focusing on space and water

heating appliances. The incentive program will also provide funds to organize and conduct training for installers of zero-emission appliances and for application assistance for consumers in overburdened communities. Depending on performance in the first phase, South Coast AQMD will consider providing additional funding for more phases of implementation and adjust the program as needed.

Staff is proposing the first phase of the Go Zero incentive program to be funded with \$21 million to incentivize consumers replacing traditional NOx emitting space and water heating appliances with zero-emission appliances at residential buildings and small businesses; fund an installer training program; and fund outreach and assistance for residents in overburdened communities. The \$21 million will be allocated as follows: \$9 million will be allocated to single family rebates and administration; \$5 million will be allocated to multifamily rebates and administration; \$5 million will be allocated to small business rebates and administration; \$1 million will be allocated to installer training; and \$1 million will be allocated for outreach and assistance for residents in overburdened communities to maximize outreach in the four-county jurisdiction. Staff recommends allocating at least 75 percent of the rebate funding (single family, multifamily, and small business rebates) to those applying from overburdened communities, identified under Senate Bill 535 (De León, Statutes of 2012) (<https://oehha.ca.gov/calenviroscreen/sb535>).

SECTION II: CONTACT PERSON

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

Emily Yen, Air Quality Specialist
 Planning, Rule Development and Implementation
 South Coast Air Quality Management District
 21865 Copley Drive
 Diamond Bar, CA 91765-4182
 (909) 396-3206
 EYen@aqmd.gov

SECTION III: SCHEDULE OF EVENTS

Date	Event
August 2, 2024	RFP Released
August 28, 2024	Bidder's Conference*
September 13, 2024	Proposals Due to South Coast AQMD - No Later Than 1:00 pm PST
September 17– September 27, 2024	Proposal Evaluations
November 1, 2024	Governing Board Consideration of Approval of Contractor Selection (if needed)
November 2024	Anticipated Contract Execution

* Participation in the Bidder's Conference is optional. Such participation would assist in notifying potential Bidders of any updates or amendments. The Bidders Conference will be virtual, on Zoom at 1:00 p.m. on Wednesday, August 28, 2024. Meeting information will be provided at least two weeks prior to the Bidders Conference. Please contact Emily Yen at EYen@aqmd.gov or (909) 396-3206 by close of business on Friday, August 9, 2024, if you would like to be notified.

SECTION IV: PARTICIPATION IN THE PROCUREMENT PROCESS

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

SECTION V: STATEMENT OF WORK/SCHEDULE OF DELIVERABLES

A. Objective

The objective of the proposed project shall be to (1) receive and process rebate applications submitted by consumers, or installers representing consumers, who have replaced traditional NOx emitting appliances with zero-emission appliances at single-family or multifamily buildings or small businesses, with a focus on space and water heating appliances; and (2) assist in the promotion of zero-emission appliances.

The program may be adjusted for future phase(s) by providing new funding, revising rebate amounts, expanding applicable appliances, or any adjustments approved by the South Coast AQMD.

Contractors may bid on one or more sub-projects, and one or more contractor(s) may be awarded funding for sub-project 5 depending on the needs of the program and the area(s) or counties in which the contractor(s) are able to serve within the South Coast AQMD.

B. Statement of Work

The proposed project consists of five sub-projects:

- Sub-project 1: Rebate program for single-family zero-emission space and water heating appliances, or other zero-emission single-family appliances included in future modified phase(s);
- Sub-project 2: Rebate program for multifamily zero-emission space and water heating appliances, or other multifamily zero-emission appliances included in future modified phase(s);
- Sub-project 3: Rebate program for small business zero-emission water heating appliances, or other small business zero-emission appliances included in future modified phase(s);

- Sub-project 4: Training program for installers of zero-emission space and water heating appliances; and
- Sub-project 5: Outreach program specifically designed to reach and assist residential applicants from overburdened areas in the rebate application.

Sub-project 3 should apply to small businesses as defined by South Coast AQMD Rule 102 – Definition of Terms:

SMALL BUSINESS means a business which is independently owned and operated and meets the following criteria, or if affiliated with another concern, the combined activities of both concerns shall meet these criteria:

- (A) *the number of employees is 10 or less; and*
- (B) *the total gross annual receipts are \$500,000 or less; or*
- (C) *not-for-profit training center.*

Tasks for Sub-Projects 1, 2, 3

Sub-projects 1, 2, and 3 should, at a minimum, include the tasks below.

Program Promotion

Program promotions will be conducted by both the South Coast AQMD and the selected Contractor(s), collaborating with the selected contractor(s) for sub-project 5. The selected Contractor(s) are expected to:

1. Develop a plan to promote the program with an emphasis on promoting the program in overburdened communities, including, but not limited to residents in mobile home parks; residents that are identified as living in disadvantaged community California Senate Bill 535 (CalEnviroScreen), and residents in AB 617 communities. The outreach may be conducted through distribution of point of purchase material, informational bulletins, written copy of program information to media including television, radio, newspaper and health/environmental advocacy groups, or others, provided that any written outreach information, including camera-ready originals, are submitted to South Coast AQMD for approval prior to distribution. South Coast AQMD resources (i.e., list serves, newsletters, and website) may also be used, as determined to be appropriate, to help promote the program.
2. Outreach shall be conducted in English and other languages spoken in the area, including but not limited to, Spanish for sub-projects 1,2, and 5, and Spanish and Korean for sub-project 3.

Rebate Funding Forms Design

Rebate funding forms will be used by the selected Contractor(s) to bundle and summarize the applications received and request funds from the South Coast AQMD to process those applications (see Task #5). The forms must:

1. Show a clear distinction between single family residential, multifamily residential, and small business rebates.
2. Be approved by South Coast AQMD for the format prior to program implementation.

3. At a minimum, document:
 - a. If the customer is qualified for a product rebate after the Contractor’s evaluation of the application;
 - b. The rebate category the customer qualifies for (single family, multifamily, or small business) and any other rebates the customer may be applying for or have applied for;
 - c. If the installation occurred in an overburdened community;
 - d. Information on the appliance being replaced, including product name, model number, serial number, capacity, manufactured date, or justification for missing any of that information;
 - e. The date of new installation and the date of rebate application;
 - f. Information on the new zero-emission appliance including product name, model number, serial number, capacity, and efficiency;
 - g. Installation address;
 - h. The owner/occupant’s signature and contact information; and
 - i. The installer’s signature and contact information.

Program Design and Implementation

1. Design a rebate receiving and processing program for consumers and contractors. Implementation is expected to be initiated at the time of contract execution. Preliminary rebate amounts will reflect the following guide (Final proposed rebate amounts and other details will be listed in the contract):

Proposed Single Family Amounts	
Heat pump to replace gas or propane HVAC systems	\$1,500 per heat pump for general (any) \$3,000 per heat pump for overburdened communities Include additional \$500 for Energy Star or other efficiency metric (variable or inverter driven)
Heat pump to replace gas or propane water heating systems	\$1,000 per heat pump for general (any) \$2,000 per heat pump for overburdened communities

	Include additional \$500 for Energy Star or other efficiency metric (variable or inverter driven)
Proposed Multifamily HVAC Amounts	
Split or packaged rooftop/multi-position heat pump (ducted or ductless) to replace gas or propane systems, serving individual apartments	\$2,000 per heat pump
Packaged terminal heat pumps, single package vertical heat pump, or unitary through the wall/ceiling heat pump to replace gas or propane systems, serving individual apartments	\$1,000 per heat pump that is variable capacity/inverter-driven; \$500 per heat pump that is single or two-stage compressor
Heat pump to replace gas or propane systems, serving multiple apartments	\$1,000 per apartment served
Split or packaged rooftop/multi-position heat pump (ducted or ductless) to replace gas or propane systems, serving common areas	\$1,800 per heat pump
Packaged Terminal Heat Pumps, Single Package Vertical Heat Pump, or unitary through the wall/ceiling heat pump to replace gas or propane systems, serving common areas	\$800 per heat pump that is variable capacity/inverter-driven; \$300 per heat pump that is single or two-stage compressor
Proposed Multifamily Water Heating Amounts	
Heat pump to replace gas or propane systems larger than or equal to 55 gallons, serving individual apartments	\$2,100 per heat pump

Heat pump to replace gas or propane systems smaller than 55 gallons, serving individual apartments	\$1,400 per heat pump
Heat pump to replace gas or propane systems larger than or equal to 17 gallons per bedroom served, serving multiple apartments	\$1,800 per apartment served
Heat pump to replace gas or propane systems smaller than 17 gallons per bedroom served, serving multiple apartments	\$1,200 per apartment served
Proposed Small Business Amount	
Heat pump to replace gas or propane water heating systems	\$4,000 per heat pump

For multifamily rebates, the total cap for each property will be \$300,000 or 30 percent of project cost for non-overburdened communities and 50 percent of project cost for overburdened communities.

There will be a reservation system for multifamily rebates and owners or contractors will submit applications prior to installation to reserve funds. The owners or contractors will submit increments of progress (e.g., purchase invoices, building permit applications) to hold their reserved funding. Funds will be made available to the owners or contractors upon completion. Reserved funding will return to the pool after a specified number of months if there is no progress on installation.

2. If an online tool is to be developed and launched more than one month after the contract execution, a manual process should be in place prior to the launch of the online tool.
3. The implementation, at a minimum, involves:
 - a. Receiving applications including sales receipts and any signatures required on the reimbursement forms;
 - b. Verifying or auditing installations;
 - c. An element to disincentivize contractor upcharging;
 - d. For the multifamily rebates, implementing a reservation system to hold funds with subsequent increments of progress reports on the zero-emission technology installation;
 - e. List on the online tool the anonymized lowest contractor rates for this program and other comparable programs if the information is available;
 - f. Assisting applicants in understanding and applying for other applicable rebates; and

- g. Issuing rebates.

Rebate Funding and Administration Fee

1. Monitor the volume of applications received and communicate with South Coast AQMD to ensure that the applications to be processed will be funded.
2. Bundle the rebate funding forms and sales receipts for submittal to South Coast AQMD for funding in groups of at least 50 rebates or once a month.
3. Request for administration fee payment along with the submittal of the rebate funding forms.

Reporting

1. Prepare a report every three months that includes a spreadsheet summarizing the:
 - a. Date of installation or invoice date/number;
 - b. Cost of installation;
 - c. Equipment(s) installed;
 - d. Installation address;
 - e. Zip code; and
 - f. County.
2. The final report shall also include a discussion on topics about public acceptance of the program as specified and comments/suggestions for future program improvement.
3. The report should be made available to the public in an easily downloadable format.

Tasks for Sub-Project 4

Sub-project 4 should, at a minimum, include the following tasks.

Training Program Development

1. Develop a training program designed for a technically proficient audience of qualified installers of space and water heating appliances. The program should focus on differences in operation and installation of heat pump units, or other market available zero-emission units, compared with conventional gas combustion equipment.
2. Propose a schedule of classes, with at least one class every three months, to be held at the South Coast AQMD headquarters in Diamond Bar or at a location within the South Coast AQMD region provided by the Contractor. Classes should cover installation of different equipment types such as heat pump space and water heating for residential and commercial buildings, as well as best practices for permitting especially for heat pump water heaters.
3. The proposed training program shall, at a minimum, detail the:
 - a. Estimated total number of individuals that can be trained;

- b. Estimated class size;
- c. Mode of training (in-person, hybrid, or online); and
- d. Estimated number of training classes.

Trainer Hiring

1. Hire at least one qualified trainer to teach the program. Qualifications should include:
 - a. Relevant contractor licenses;
 - b. Experience installing the equipment applicable to the rebate program; and
 - c. Prior experience in teaching training classes.

Program Promotion

1. Develop a plan to promote the program with an emphasis on promoting the program in overburdened communities, including, but not limited to, residents in mobile home parks; residents near petroleum refineries and/or other chemical or industrial facilities; residents that are identified as living in a disadvantaged community per California Senate Bill 535 (CalEnviroScreen); and residents in AB 617 communities. The outreach may be conducted through distribution of informational bulletins, written copy of program information to media including television, radio, newspaper, trade publications and health/environmental advocacy groups, or others, provided that any written outreach information, including camera-ready originals, are submitted to South Coast AQMD for approval prior to distribution. South Coast AQMD resources (i.e., list serves, newsletters, and website) may also be used, as determined to be appropriate, to help promote the program.
2. Outreach shall be conducted in English and other languages spoken in the area, including but not limited to, Spanish.

Hold Classes

1. Hold at least two classes within six months after contract execution.
2. Classes should continue at a cadence of at minimum one every three months until funds are exhausted.

Reporting and Administration Fee

1. Prepare a report to be submitted to the AQMD after each class.
2. Report shall include:
 - a. Number of participants;
 - b. Names of participants and the license(s) of each participant;
 - c. Company or organization of participants; and
 - d. Contact information of each participant.
3. Request for administration fee payment for the reported training class(es).

Tasks for Sub-Project 5

Sub-project 5 should, at a minimum, include the following tasks.

Solicitation of Applicants

1. Reach out to overburdened communities identified with CalEnviroScreen, including, but not limited to, residents in mobile home parks and residents in AB 617 communities. Contractor should outline how this outreach will be conducted. Contractor should outline which area(s) or counties the contractor will serve within the South Coast AQMD, if their area of focus is not for the entire jurisdiction of South Coast AQMD.
2. Outreach shall be conducted at a minimum in English and Spanish as well as other major languages spoken in the area.
3. Coordinate with Contractor for sub-projects 1 and 2 to inform applicants of the application assistance program through outreach materials (website, fliers, etc.) and coordinate with Contractor for sub-project 3 to inform applicants of the program through outreach materials (website, fliers, etc.).

Application Assistance

1. Offer application assistance in, at a minimum, English and Spanish for the application. Assistance should include individual sessions with the applicant(s) to resolve questions, help with filling out rebate forms, and seeking out equipment that meets the needs of the applicant and fulfills the requirements of the rebate program.
2. Application assistance should be provided to both applicants sought out through the solicitation process and applicants who learn of the assistance program through outreach materials.

Seek Out Other Rebates

1. Compile list of other applicable rebates, refunds, and/or programs that can be used in conjunction with the proposed Go Zero rebate program.
2. Inform applicants about other applicable rebates, refunds, and/or programs that can be used in conjunction with the proposed Go Zero rebate program.
3. Track upcoming applicable rebates, refunds, and/or programs that may be used in conjunction with the proposed Go Zero rebate program after deployment.

C. Schedule of Deliverables

In addition to any deliverables set forth in the above referenced Specific Tasks, successful bidders for sub-projects 1, 2, or 3, *following contract execution with South Coast AQMD*, are expected to adhere to the master schedule included below.

Task Number:	Task Name	Schedule/Deliverable
1	Program Promotion	Begin preparation of outreach material at the time of contract execution.

		Submit written outreach materials to South Coast AQMD for approval no later than 14 calendar days before distribution. Initial distribution of outreach materials shall occur within six weeks after contract execution.
2	Rebate Funding Forms Design	Submit project Rebate Funding forms to South Coast AQMD for approval no later than 14 days after contract execution.
3	Program Design and Implementation	Subsequent to successful completion of Task 2.
4	Application Monitoring	Provide updates within five days of a South Coast AQMD request.
5	Rebate Funding and Administration Fee	No sooner than the collection of at least 50 reimbursement forms and the accompanying sales receipts, or once a month.
6	Reporting	Every three months with the first report on February 1, 2025; The final report due no later than 45 days following notification by South Coast AQMD that all funding has been expended or the rebate end dates, whichever is earlier.

Successful bidders for sub-project 4, *following contract execution with South Coast AQMD*, are expected to adhere to the master schedule included below.

Task Number:	Task Name	Schedule/Deliverable
1	Training Program Development	Prepare outline of training program and submit program to the South Coast AQMD for approval within four weeks after contract execution.
2	Trainer Hiring	Provide qualifications of the trainer(s) hired subsequent to completion of Task 1.
3	Program Promotion	Begin preparation of outreach material at the time of contract execution. Submit written outreach materials to South Coast AQMD for approval no later than 14 calendar days before distribution. Initial distribution of outreach materials shall occur within six weeks after contract execution.
4	Hold Classes	Hold classes at minimum once every three months.
5	Reporting and Administration Fee	Within one week after each class.

Successful bidders for sub-project 5, *following contract execution with South Coast AQMD*, are expected to adhere to the master schedule included below.

Task Number:	Task Name	Schedule/Deliverable
1 – Solicitation of Applicants	Program Promotion	Begin preparation of outreach material at the time of contract execution. Submit written outreach materials to South Coast AQMD for approval no later than 14 calendar days before distribution. Initial distribution of outreach materials shall occur within six weeks after contract execution.
1 – Application Assistance	Application Outreach and Assistance Development	Prepare outline of application outreach and assistance and submit outline to the South Coast AQMD for approval within four weeks after contract execution. Submit any written outreach materials to South Coast AQMD for approval no later than 14 calendar days before distribution. Initial distribution of outreach materials shall occur within six weeks after contract execution.
2 – Application Assistance	Application Outreach and Assistance Progress	Provide summary of number of applicants assisted each month.
3 – Seek Out Other Rebates	Summary	Provide summary each quarter of upcoming applicable rebates, refunds, and/or programs that may be used in conjunction with the proposed rebate program after deployment.

SECTION VI: REQUIRED QUALIFICATIONS

- A. South Coast AQMD requests submittal of detailed expertise and capabilities from Proposers who meet a combination of the technical qualifications listed below. Proposers may elect to bid for one or more sub-projects or bid for the project in its entirety. Individuals can team up to submit a joint bid if they have complementary expertise and qualifications that collectively meet the requirements. Statements of qualifications should include evidence documenting experience, expertise, and capabilities wherever possible.
- B. Bidder(s) will be selected for contract award based on the best combinations of qualifications. Qualifications that are of importance to this project include expertise and experience in public outreach and rebate administration for household appliances.

SECTION VII: PROPOSAL SUBMITTAL REQUIREMENTS

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

Each proposal must be submitted in three separate volumes:

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

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

1. Address and telephone number of office in, or nearest to, Diamond Bar, California.
2. Name and title of Firm's representative designated as contact.

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

VOLUME I - TECHNICAL PROPOSAL

DO NOT INCLUDE ANY COST INFORMATION IN THE TECHNICAL VOLUME

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

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

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

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

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

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

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

Conflict of Interest (Section G) - Address possible conflicts of interest with other clients affected by actions performed by the Firm on behalf of South Coast AQMD. South Coast AQMD recognizes that prospective Contractors may be performing similar projects for other clients. Include a complete list of such clients for the past three (3) years with the type of work performed and the total number of years performing such tasks for each client. Although the Proposer will not be automatically disqualified by reason of work performed for such clients, South Coast AQMD reserves the right to consider the nature and extent of such work in evaluating the proposal.

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

VOLUME II - COST PROPOSAL

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

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

1. Detail must be provided by the following categories:
 - A. Labor – The Cost Proposal must list the fully-burdened hourly rates and the total number of hours estimated for each level of professional and administrative staff to be used to perform the tasks required by this RFP. Costs should be estimated for each of the components of the work plan.
 - B. Subcontractor Costs - List subcontractor costs and identify subcontractors by name. Itemize subcontractor charges per hour or per day.

- C. Travel Costs - Indicate amount of travel cost and basis of estimate to include trip destination, purpose of trip, length of trip, airline fare or mileage expense, per diem costs, lodging, and car rental.
- D. Other Direct Costs -This category may include such items as postage and mailing expense, printing, and reproduction costs, etc. Provide a basis of estimate for these costs.
- E. Fixed-Percentage Cost – Not withstanding above categories A, B, C, and D, Proposer may provide overall cost on a fixed percentage of the rebate processed.
2. It is the policy of South Coast AQMD to receive at least as favorable pricing, warranties, conditions, benefits and terms as other customers or clients making similar purchases or receiving similar services. South Coast AQMD will give preference, where appropriate, to vendors who certify that they will provide “most favored customer” status to South Coast AQMD. To receive preference points, Proposer shall certify that South Coast AQMD is receiving “most favored customer” pricing in the Business Status Certifications page of Volume III, Attachment B – Certifications and Representations.

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

SECTION VIII: PROPOSAL SUBMISSION

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

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

Due Date - **All proposals are due no later than 1:00 p.m. PDT, September 13th, 2024, and should be directed to:**

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

Submittal - Submit four (4) complete copies of the proposal in a sealed envelope, plainly marked in the upper left-hand corner with the name and address of the Proposer and the words "Request for Proposals P2025-01." In addition, submit one (1) electronic copy of the proposal on a flash drive inside an envelope.

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

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

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

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

SECTION IX: PROPOSAL EVALUATION/CONTRACTOR SELECTION CRITERIA

- A. Proposals will be evaluated by a panel of two (2) to five (5) South Coast AQMD staff members familiar with the subject matter of the project. The panel shall be appointed by the Executive Officer or his designee. In addition, the evaluation panel may include such outside public sector or academic community expertise as deemed desirable by the Executive Officer. The panel will make a recommendation to the Executive Officer and/or the Governing Board of South Coast AQMD for final selection of a Contractor and negotiation of a contract.
- B. Each member of the evaluation panel shall be accorded equal weight in his or her rating of proposals. The evaluation panel members shall evaluate the proposals according to the specified criteria and numerical weightings set forth below.

1. Proposal Evaluation Criteria

(a) R&D Projects Requiring Technical or Scientific Expertise, or Special Projects

Requiring Unique Knowledge or Abilities

Experience/Background	20
Administration Approach	20
Outreach	20
Accountability and Statistics of Similar Projects	10
Administration Fees	<u>30</u>
TOTAL	100

(b) Additional Points

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

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

Self-Certification for Additional Points

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

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

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

3. For procurement of Research and Development (R&D) projects or projects requiring technical or scientific expertise or special projects requiring unique knowledge and abilities, technical factors including past experience shall be weighted at 70 points and cost shall be weighted at 30 points. A proposal must receive at least 56 out of 70 points on R&D projects and projects requiring technical or scientific expertise or special projects requiring unique knowledge and abilities, in order to be deemed qualified for award.

4. The lowest cost proposal will be awarded the maximum cost points available and all other cost proposals will receive points on a prorated basis. For example, if the lowest cost proposal is \$1,000 and the maximum points available are 30 points, this proposal would receive the full 30 points. If the next lowest cost proposal is \$1,100 it would receive 27 points reflecting the fact that it is 10% higher than the lowest cost (90% of 30 points = 27 points).
- C. During the selection process the evaluation panel may wish to interview some Proposers for clarification purposes only. No new material will be permitted at this time. Additional information provided during the bid review process is limited to clarification by the Proposer of information presented in his/her proposal, upon request by South Coast AQMD.
- D. The Executive Officer or Governing Board may award the contract to a Proposer other than the Proposer receiving the highest rating in the event the Governing Board determines that another Proposer from among those technically qualified would provide the best value to South Coast AQMD considering cost and technical factors. The determination shall be based solely on the Evaluation Criteria contained in the Request for Proposal (RFP), on evidence provided in the proposal and on any other evidence provided during the bid review process.
- E. Selection will be made based on the above-described criteria and rating factors. The selection will be made by and is subject to Executive Officer or Governing Board approval. Proposers may be notified of the results by letter.
- F. The Governing Board has approved a Bid Protest Procedure which provides a process for a Bidder or prospective Bidder to submit a written protest to South Coast AQMD Procurement Manager in recognition of two types of protests: Protest Regarding Solicitation and Protest Regarding Award of a Contract. Copies of the Bid Protest Policy can be secured through a request to South Coast AQMD Procurement Department.
- G. The Executive Officer or Governing Board may award contracts to more than one Proposer if in (his or their) sole judgment the purposes of the (contract or award) would best be served by selecting multiple Proposers.
- H. If additional funds become available, the Executive Officer or Governing Board may increase the amount awarded. The Executive Officer or Governing Board may also select additional Proposers for a grant or contract if additional funds become available.
- I. Disposition of Proposals – Pursuant to South Coast AQMD's Procurement Policy and Procedure, South Coast AQMD reserves the right to reject any or all proposals. All proposals become the property of South Coast AQMD and are subject to the California Public Records Act. One copy of the proposal shall be retained for South Coast AQMD files. Additional copies and materials will be returned only if requested and at the Proposer's expense.
- J. **If proposal submittal is for a Public Works project as defined by State of California Labor Code Section 1720, Proposer is required to include Contractor Registration No. in Attachment B. Proposal submittal will be deemed as non-responsive and Bidder may be disqualified if Contractor Registration No. is not included in Attachment B. Proposer is alerted to changes to California Prevailing Wage compliance requirements as defined in Senate Bill 854 (Stat. 2014, Chapter 28), and California Labor Code Sections 1770, 1771, 1725, 1777, 1813 and 1815.**

SECTION X: FUNDING

Total available funding for this RFP is a fixed amount of \$21,000,000 for rebates and the third-party administration fee for the first phase. The bidders may propose their administration fee structure, which will be subject to the proposal evaluation for cost specified in Section X. Depending on the performance, staff may consider requesting additional funding for more phases of implementation if needed. The funding for the five sub-projects are listed in the following table:

Sub-Project	Rebate Population	Funding amount (Rebates and Third-Party Administration Fee)
1	Single-family	\$9,000,000
2	Multifamily	\$5,000,000
3	Small Business	\$5,000,000
4	Training	\$1,000,000
5	Application Assistance	\$1,000,000

The rebate amount for each installation may vary depending on the type of appliance. Heating, ventilation, and air conditioning (HVAC) systems will have higher rebates as they are more expensive than water heating systems. The preliminary proposal for single-family rebates is \$1,500 - \$3,000 for the zero-emission HVAC system, \$1,000 - \$2,000 for the zero-emission water heaters, and other specified amounts for multifamily. At least 75 percent of the total funding will be allocated for overburdened communities identified under California Senate Bill 535, and higher rebates will be provided to those communities. The final proposed rebate amounts and other details will be listed in the contract.

SECTION XI: SAMPLE CONTRACT

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

ATTACHMENT A

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

B. Definitions:

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

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

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

9. "Benefits Incentive Business" as used in this policy means a company or Contractor that provides janitorial, security guard or landscaping services to South Coast AQMD and commits to providing employee health benefits (as defined below in Section VIII.D.2.d) for full time workers with affordable deductible and co-payment terms.
10. "Minority Business Enterprise" as used in this policy means a business that is at least 51 percent owned by one or more minority person(s), or in the case of any business whose stock is publicly held, at least 51 percent of the stock is owned by one or more or minority persons.
- a. a business whose management and daily business operations are controlled by one or more minority persons.
 - b. a business which is a sole proprietorship, corporation, or partnership with its primary headquarters office located in the United States, which is not a branch or subsidiary of a foreign corporation, foreign firm, or other foreign-based business.
 - c. "Minority person" for purposes of this policy, means a Black American, Hispanic American, Native-American (including American Indian, Eskimo, Aleut, and Native Hawaiian), Asian-Indian (including a person whose origins are from India, Pakistan, and Bangladesh), Asian-Pacific-American (including a person whose origins are from Japan, China, the Philippines, Vietnam, Korea, Samoa, Guam, the United States Trust Territories of the Pacific, Northern Marianas, Laos, Cambodia, and Taiwan).
11. "Most Favored Customer" as used in this policy means that South Coast AQMD will receive at least as favorable pricing, warranties, conditions, benefits and terms as other customers or clients making similar purchases or receiving similar services.
12. "Disadvantaged Business Enterprise" as used in this policy means a business that is an entity owned and/or controlled by a socially and economically disadvantaged individual(s) as described by Title X of the Clean Air Act Amendments of 1990 (42 U.S.C. 7601 note) (10% statute), and Public Law 102-389 (42 U.S.C. 4370d)(8% statute), respectively;
- a Small Business Enterprise (SBE);
 - a Small Business in a Rural Area (SBRA);
 - a Labor Surplus Area Firm (LSAF); or
 - a Historically Underutilized Business (HUB) Zone Small Business Concern, or a concern under a successor program.
- C. Under Request for Quotations (RFQ), DVBEs, DVBE business joint ventures, small businesses, and small business joint ventures shall be granted a preference in an amount equal to 5% of the lowest cost responsive bid. Low-Emission Vehicle Businesses shall be granted a preference in an amount equal to 5 percent of the lowest cost responsive bid. Off-Peak Hours Delivery Businesses shall be granted a preference in an amount equal to 2 percent of the lowest cost responsive bid. Local businesses (if the procurement is not funded in whole or in part by federal grant funds) shall be granted a preference in an amount

equal to 2% of the lowest cost responsive bid. Businesses offering Most Favored Customer status shall be granted a preference in an amount equal to 2 percent of the lowest cost responsive bid.

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

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

ATTACHMENT B

South Coast Air Quality Management District

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

Business Information Request

Dear South Coast AQMD Contractor/Supplier:

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

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

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

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

Sincerely,

Sujata Jain
Chief Financial Officer

AP:kb

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



South Coast Air Quality Management District

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

BUSINESS INFORMATION REQUEST

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

REMITTING ADDRESS INFORMATION

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

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

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

BUSINESS STATUS CERTIFICATIONS

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

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

Statements of certification:

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

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

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

Check all that apply:

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

Percent of ownership: _____ %

Name of Qualifying Owner(s): _____

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

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

NAME

TITLE

TELEPHONE NUMBER

DATE

Definitions

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Request for Taxpayer Identification Number and Certification

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

▶ Go to www.irs.gov/FormW9 for instructions and the latest information.

Print or type. See Specific Instructions on page 3.	1 Name (as shown on your income tax return). Name is required on this line; do not leave this line blank.	
	2 Business name/disregarded entity name, if different from above	
	3 Check appropriate box for federal tax classification of the person whose name is entered on line 1. Check only one of the following seven boxes.	4 Exemptions (codes apply only to certain entities, not individuals; see instructions on page 3):
	<input type="checkbox"/> Individual/sole proprietor or single-member LLC <input type="checkbox"/> C Corporation <input type="checkbox"/> S Corporation <input type="checkbox"/> Partnership <input type="checkbox"/> Trust/estate	Exempt payee code (if any) _____
	<input type="checkbox"/> Limited liability company. Enter the tax classification (C=C corporation, S=S corporation, P=Partnership) ▶ _____ Note: Check the appropriate box in the line above for the tax classification of the single-member owner. Do not check LLC if the LLC is classified as a single-member LLC that is disregarded from the owner unless the owner of the LLC is another LLC that is not disregarded from the owner for U.S. federal tax purposes. Otherwise, a single-member LLC that is disregarded from the owner should check the appropriate box for the tax classification of its owner.	Exemption from FATCA reporting code (if any) _____
	<input type="checkbox"/> Other (see instructions) ▶ _____	(Applies to accounts maintained outside the U.S.)
	5 Address (number, street, and apt. or suite no.) See instructions.	Requester's name and address (optional)
6 City, state, and ZIP code		
7 List account number(s) here (optional)		

Part I Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. The TIN provided must match the name given on line 1 to avoid backup withholding. For individuals, this is generally your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the instructions for Part I, later. For other entities, it is your employer identification number (EIN). If you do not have a number, see *How to get a TIN*, later.

Note: If the account is in more than one name, see the instructions for line 1. Also see *What Name and Number To Give the Requester* for guidelines on whose number to enter.

Social security number											
				-			-				
or											
Employer identification number											
				-							

Part II Certification

Under penalties of perjury, I certify that:

- The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me); and
- I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding; and
- I am a U.S. citizen or other U.S. person (defined below); and
- The FATCA code(s) entered on this form (if any) indicating that I am exempt from FATCA reporting is correct.

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

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

General Instructions

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

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

Purpose of Form

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

- Form 1099-INT (interest earned or paid)

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

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

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

By signing the filled-out form, you:

1. Certify that the TIN you are giving is correct (or you are waiting for a number to be issued),
2. Certify that you are not subject to backup withholding, or
3. Claim exemption from backup withholding if you are a U.S. exempt payee. If applicable, you are also certifying that as a U.S. person, your allocable share of any partnership income from a U.S. trade or business is not subject to the withholding tax on foreign partners' share of effectively connected income, and
4. Certify that FATCA code(s) entered on this form (if any) indicating that you are exempt from the FATCA reporting, is correct. See *What is FATCA reporting*, later, for further information.

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

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

- An individual who is a U.S. citizen or U.S. resident alien;
- A partnership, corporation, company, or association created or organized in the United States or under the laws of the United States;
- An estate (other than a foreign estate); or
- A domestic trust (as defined in Regulations section 301.7701-7).

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

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

- In the case of a disregarded entity with a U.S. owner, the U.S. owner of the disregarded entity and not the entity;
- In the case of a grantor trust with a U.S. grantor or other U.S. owner, generally, the U.S. grantor or other U.S. owner of the grantor trust and not the trust; and
- In the case of a U.S. trust (other than a grantor trust), the U.S. trust (other than a grantor trust) and not the beneficiaries of the trust.

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

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

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

1. The treaty country. Generally, this must be the same treaty under which you claimed exemption from tax as a nonresident alien.
2. The treaty article addressing the income.
3. The article number (or location) in the tax treaty that contains the saving clause and its exceptions.
4. The type and amount of income that qualifies for the exemption from tax.
5. Sufficient facts to justify the exemption from tax under the terms of the treaty article.

Example. Article 20 of the U.S.-China income tax treaty allows an exemption from tax for scholarship income received by a Chinese student temporarily present in the United States. Under U.S. law, this student will become a resident alien for tax purposes if his or her stay in the United States exceeds 5 calendar years. However, paragraph 2 of the first Protocol to the U.S.-China treaty (dated April 30, 1984) allows the provisions of Article 20 to continue to apply even after the Chinese student becomes a resident alien of the United States. A Chinese student who qualifies for this exception (under paragraph 2 of the first protocol) and is relying on this exception to claim an exemption from tax on his or her scholarship or fellowship income would attach to Form W-9 a statement that includes the information described above to support that exemption.

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

Backup Withholding

What is backup withholding? Persons making certain payments to you must under certain conditions withhold and pay to the IRS 24% of such payments. This is called "backup withholding." Payments that may be subject to backup withholding include interest, tax-exempt interest, dividends, broker and barter exchange transactions, rents, royalties, nonemployee pay, payments made in settlement of payment card and third party network transactions, and certain payments from fishing boat operators. Real estate transactions are not subject to backup withholding.

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

Payments you receive will be subject to backup withholding if:

1. You do not furnish your TIN to the requester,
2. You do not certify your TIN when required (see the instructions for Part II for details),
3. The IRS tells the requester that you furnished an incorrect TIN,
4. The IRS tells you that you are subject to backup withholding because you did not report all your interest and dividends on your tax return (for reportable interest and dividends only), or
5. You do not certify to the requester that you are not subject to backup withholding under 4 above (for reportable interest and dividend accounts opened after 1983 only).

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

Also see *Special rules for partnerships*, earlier.

What is FATCA Reporting?

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

Updating Your Information

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

Penalties

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

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

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

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

Specific Instructions

Line 1

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

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

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

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

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

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

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

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

Line 2

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

Line 3

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

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

Line 4, Exemptions

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

Exempt payee code.

- Generally, individuals (including sole proprietors) are not exempt from backup withholding.
- Except as provided below, corporations are exempt from backup withholding for certain payments, including interest and dividends.
- Corporations are not exempt from backup withholding for payments made in settlement of payment card or third party network transactions.
- Corporations are not exempt from backup withholding with respect to attorneys’ fees or gross proceeds paid to attorneys, and corporations that provide medical or health care services are not exempt with respect to payments reportable on Form 1099-MISC.

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

- 1—An organization exempt from tax under section 501(a), any IRA, or a custodial account under section 403(b)(7) if the account satisfies the requirements of section 401(f)(2)
- 2—The United States or any of its agencies or instrumentalities
- 3—A state, the District of Columbia, a U.S. commonwealth or possession, or any of their political subdivisions or instrumentalities
- 4—A foreign government or any of its political subdivisions, agencies, or instrumentalities
- 5—A corporation
- 6—A dealer in securities or commodities required to register in the United States, the District of Columbia, or a U.S. commonwealth or possession
- 7—A futures commission merchant registered with the Commodity Futures Trading Commission
- 8—A real estate investment trust
- 9—An entity registered at all times during the tax year under the Investment Company Act of 1940
- 10—A common trust fund operated by a bank under section 584(a)
- 11—A financial institution
- 12—A middleman known in the investment community as a nominee or custodian
- 13—A trust exempt from tax under section 664 or described in section 4947

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

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

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

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

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

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

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

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

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

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

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

G—A real estate investment trust

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

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

J—A bank as defined in section 581

K—A broker

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

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

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

Line 5

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

Line 6

Enter your city, state, and ZIP code.

Part I. Taxpayer Identification Number (TIN)

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

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

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

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

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

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

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

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

Part II. Certification

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

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

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

1. Interest, dividend, and barter exchange accounts opened before 1984 and broker accounts considered active during 1983.

You must give your correct TIN, but you do not have to sign the certification.

2. Interest, dividend, broker, and barter exchange accounts opened after 1983 and broker accounts considered inactive during 1983.

You must sign the certification or backup withholding will apply. If you are subject to backup withholding and you are merely providing your correct TIN to the requester, you must cross out item 2 in the certification before signing the form.

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

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

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

What Name and Number To Give the Requester

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

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

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

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

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

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

*Note: The grantor also must provide a Form W-9 to trustee of trust.

Note: If no name is circled when more than one name is listed, the number will be considered to be that of the first name listed.

Secure Your Tax Records From Identity Theft

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

To reduce your risk:

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

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

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

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

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

Protect yourself from suspicious emails or phishing schemes.

Phishing is the creation and use of email and websites designed to mimic legitimate business emails and websites. The most common act is sending an email to a user falsely claiming to be an established legitimate enterprise in an attempt to scam the user into surrendering private information that will be used for identity theft.

The IRS does not initiate contacts with taxpayers via emails. Also, the IRS does not request personal detailed information through email or ask taxpayers for the PIN numbers, passwords, or similar secret access information for their credit card, bank, or other financial accounts.

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

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

Privacy Act Notice

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

2024 Withholding Exemption Certificate**590****The payee completes this form and submits it to the withholding agent. The withholding agent keeps this form with their records.****Withholding Agent Information**

Name _____

Payee InformationName _____ SSN or ITIN FEIN CA Corp no. CA SOS file no.

Address (apt./ste., room) _____

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

Exemption Reason**Check only one box.**

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

 Individuals — Certification of Residency:

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

 Corporations:

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

 Partnerships or Limited Liability Companies (LLCs):

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

 Tax-Exempt Entities:

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

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

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

 California Trusts:

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

 Estates — Certification of Residency of Deceased Person:

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

 Nonmilitary Spouse of a Military Servicemember:

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

CERTIFICATE OF PAYEE: Payee must complete and sign below.Our privacy notice can be found in annual tax booklets or online. Go to ftb.ca.gov/privacy to learn about our privacy policy statement, or go to ftb.ca.gov/forms and search for **1131** to locate FTB 1131 EN-SP, Franchise Tax Board Privacy Notice on Collection. To request this notice by mail, call 800.338.0505 and enter form code **948** when instructed.

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

Type or print payee's name and title _____ Telephone _____

Payee's signature ► _____ Date _____

2024 Instructions for Form 590

Withholding Exemption Certificate

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

General Information

California Revenue and Taxation Code (R&TC) Section 18662 requires withholding of income or franchise tax on payments of California source income made to nonresidents of California. For more information, See General Information B, Income Subject to Withholding.

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

A Purpose

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

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

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

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

The following are excluded from withholding and completing this form:

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

B Income Subject to Withholding

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

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

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

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

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

C Who Certifies this Form

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

An incomplete certificate is invalid and the withholding agent should not accept it. If the withholding agent receives an incomplete certificate, the withholding agent is required to withhold tax on payments made to the payee until a valid certificate is received. In lieu of a completed exemption certificate, the withholding agent may accept a letter from the payee as a substitute explaining why they are not subject to withholding. The letter must contain all the information required on the certificate in similar language, including the under penalty of perjury statement and the payee's taxpayer identification number (TIN).

The certification does not need to be renewed annually. The certification on Form 590 remains valid until the payee's status changes. The withholding agent must retain a copy of the certification or substitute for at least five years after the last payment to which the certification applies. The agent must provide it to the FTB upon request.

If an entertainer (or the entertainer's business entity) is paid for a performance, the entertainer's information must be provided.

Do not submit the entertainer's agent or promoter information.

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

D Definitions

For California nonwage withholding purposes:

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

For more information about determining resident status, get FTB Pub. 1031, Guidelines for Determining Resident Status. Military servicemembers have special rules for residency. For more information see General Information E, Military Spouse Residency Relief Act (MSRRA), and FTB Pub. 1032, Tax Information for Military Personnel.

Permanent Place of Business:

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

E Military Spouse Residency Relief Act (MSRRA)

Generally, for tax purposes you are considered to maintain your existing residence or domicile. The MSRRA provides:

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

Domicile is defined as the one place:

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

A military servicemember's nonmilitary spouse is considered a nonresident for tax

purposes if the spouse is domiciled outside of California and the spouse is in California solely to be with the servicemember who is serving in compliance with Permanent Change of Station orders. (Note: California may require nonmilitary spouses of military servicemembers to provide proof that they meet the criteria for California personal income tax exemption as set forth in the MSRRA).

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

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

Specific Instructions

Payee Instructions

Enter the withholding agent's name.

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

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

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

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

Withholding Agent Instructions

Do not send this form to the FTB. The certification on Form 590 remains valid until the payee's status changes. The withholding agent must retain a copy of the certificate or substitute for at least five years after the last payment to which the certificate applies. The agent must provide it to the FTB upon request.

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

- The individual payee becomes a nonresident.
- The corporation ceases to have a permanent place of business in California or ceases to be qualified to do business in California.
- The partnership ceases to have a permanent place of business in California.
- The LLC ceases to have a permanent place of business in California.
- The tax-exempt entity loses its tax-exempt status.

If any of these situations occur, then withholding may be required. For more information, get Form 592, Resident and Nonresident Withholding Statement, Form 592-B, Resident and Nonresident Withholding Tax Statement, Form 592-PTE, Pass-Through Entity Annual Withholding Return, Form 592-Q, Payment Voucher for Pass-Through Entity Withholding, and Form 592-V, Payment Voucher for Resident or Nonresident Withholding.

Additional Information

Website: For more information, go to **ftb.ca.gov** and search for **nonwage**.

MyFTB offers secure online tax account information and services. For more information, go to **ftb.ca.gov** and login or register for MyFTB.

Telephone: **888.792.4900** or **916.845.4900**, Withholding Services and Compliance phone service

Fax: 916.845.9512

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

For questions unrelated to withholding, or to download, view, and print California tax forms and publications, or to access the California Relay Service, see the Internet and Telephone Assistance section.

Internet and Telephone Assistance

Website: **ftb.ca.gov**

Telephone: 800.852.5711 from within the United States
916.845.6500 from outside the United States

California Relay Service:

711 or 800.735.2929 for persons with hearing or speaking limitations.

Asistencia Por Internet y Teléfono

Sitio web: **ftb.ca.gov**

Teléfono: 800.852.5711 dentro de los Estados Unidos
916.845.6500 fuera de los Estados Unidos

Servicio de Retransmisión de California:

711 o 800.735.2929 para personas con limitaciones auditivas o del habla.

Certification Regarding Debarment, Suspension, and Other Responsibility Matters

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

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

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

Typed Name & Title of Authorized Representative

Signature of Authorized Representative Date

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



CAMPAIGN CONTRIBUTIONS DISCLOSURE: PROJECT PARTICIPANTS

In accordance with California law, a person or entity with a financial interest in a proceeding or particular governmental decision, who is not a party but who actively supports or opposes a particular decision, qualifies as a “participant” in that proceeding for purposes of California Code of Regulations Section 84308. Participants are prohibited from contributing more than \$250 to an officer of the agency while the proceeding is pending and for 12 months thereafter. A “financial interest” in a proceeding generally means that it is reasonably foreseeable that the proceeding or governmental decision within the proceeding, will have a material financial effect (of a positive or negative nature) on one or more of your economic interests. Relevant economic interests include your interest in business entities, real property, sources of income, sources of gifts, and personal finances. A material financial effect may include a change in revenue or expenses, or it may achieve, defeat, aid, or hinder a purpose or goal of the source of income and the participant or their spouse receives or is promised the income for achieving the purpose or goal. For additional information, please consult the Fair Political Practices Commission. *See [Parties, Participants, Agents, and Section 84308 \(ca.gov\)](#) and [Informal Advice \(ca.gov\)](#)*. A participant has both a financial interest in the proceeding and communicates with the agency or an officer of the agency for purposes of influencing the proceeding.

In addition, SCAQMD Board Members or members/alternates of the MSRC or MSRC-TAC must abstain from voting on a contract or permit if they have received a campaign contribution from a party or participant to the proceeding, or agent, totaling more than \$250 in the 12-month period prior to the consideration of the item by the Governing Board or the MSRC or MSRC-TAC. Gov’t Code §84308(c).¹

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

SECTION I.

Contractor (Legal Name): _____

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

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

¹ The information provided on this form does not, and is not intended to, constitute legal advice. To the extent that you may have questions regarding any case law, citations, or legal interpretations provided above please seek the guidance of your own independent counsel.
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SECTION II.

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

Yes No

If YES, complete Section II below and then sign and date the form.

If NO, sign and date below. Include this form with your submittal.

Name(s) of Contributor(s) or Person(s) who Directed or Controlled this Contribution:

Governing Board Member or MSRC or MSRC-TAC Member/Alternate Amount of Contribution Date of Contribution

Name(s) of Contributor(s) or Person(s) who Directed or Controlled this Contribution:

Governing Board Member or MSRC or MSRC-TAC Member/Alternate Amount of Contribution Date of Contribution

Name(s) of Contributor(s) or Person(s) who Directed or Controlled this Contribution:

Governing Board Member or MSRC or MSRC-TAC Member/Alternate Amount of Contribution Date of Contribution

Name(s) of Contributor(s) or Person(s) who Directed or Controlled this Contribution:

Governing Board Member or MSRC or MSRC-TAC Member/Alternate Amount of Contribution Date of Contribution

I declare the foregoing disclosures to be true and correct.

By: _____

Title: _____

Date: _____

DEFINITIONS

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

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



South Coast Air Quality Management District

21865 Copley Drive, Diamond Bar, CA 91765-4178

(909) 396-2000 • www.aqmd.gov

STEP 1: Please check all the appropriate boxes

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

STEP 2: Payee Information

Last Name		First Name		Middle Initial	Title
Vendor/Contractor Business Name (if applicable)					
Address				Apartment or P.O. Box Number	
City		State	Zip	Country	
Taxpayer ID Number		Telephone Number		Email Address	

Authorization

- I authorize South Coast Air Quality Management District (South Coast AQMD) to direct deposit funds to my account in the financial institution as indicated below. I understand that the authorization may be rejected or discontinued by South Coast AQMD at any time. If any of the above information changes, I will promptly complete a new authorization agreement. If the direct deposit is not stopped before closing an account, funds payable to me will be returned to South Coast AQMD for distribution. This will delay my payment.
- This authorization remains in effect until South Coast AQMD receives written notification of changes or cancellation from you.
- I hereby release and hold harmless South Coast AQMD for any claims or liability to pay for any losses or costs related to insufficient fund transactions that result from failure within the Automated Clearing House network to correctly and timely deposit monies into my account.

STEP 3:

You must verify that your bank is a member of an Automated Clearing House (ACH). Failure to do so could delay the processing of your payment. You must attach a voided check or have your bank complete the bank information and the account holder must sign below.

To be Completed by your Bank

Staple Voided Check Here	Name of Bank/Institution				
	Account Holder Name(s)				
	<input type="checkbox"/> Saving <input type="checkbox"/> Checking		Account Number		Routing Number
	Bank Representative Printed Name		Bank Representative Signature		Date
	ACCOUNT HOLDER SIGNATURE:				Date

For South Coast AQMD Use Only

Input By _____

Date _____

[↑ Back to Agenda](#)

BOARD MEETING DATE: August 2, 2024

AGENDA NO. 7

PROPOSAL: Execute Contract to Determine Brake and Tire Wear Exposure Concentrations in South Coast Air Basin and Coachella Valley

SYNOPSIS: In December 2023, the Board approved \$850,000 from the Clean Fuels Fund for a study on brake and tire wear particulate matter levels in the South Coast AQMD jurisdiction as part of MATES VI. This action is to execute a contract with Emissions Analytics, LLC selected with South Coast AQMD's competitive RFP process to conduct a brake and tire wear study in an amount not to exceed \$850,000.

COMMITTEE: Administrative, June 14, 2024; Recommended for Approval

RECOMMENDED ACTIONS:

Authorize the Executive Officer to execute a contract with Emissions Analytics, LLC to conduct a brake and tire wear study in an amount not to exceed \$850,000 from the General Fund (01).

Wayne Natri
Executive Officer

SR:SE:NS

Background

South Coast AQMD experiences some of the highest pollutant levels in the nation. Mountain ranges act as barriers to limit ventilation and persistent clear and calm conditions enhance photochemical reactions, contributing to high pollutant concentrations such as particle mass (particulate matter, including PM2.5 and PM10) and the highest ozone concentrations in the nation. Air toxic pollutant emissions are also high within the South Coast AQMD, with many emission sources including goods movement (one third of United States containerized cargo is moved through the region), 10 million vehicles, and 28,000 permitted stationary sources.

South Coast AQMD has studied air toxic pollution and the associated health risks to the 17 million residents living in the region through MATES. Since the 1980s, five MATES campaigns have tracked progress in reducing air toxic exposures and health risks (<https://www.aqmd.gov/home/air-quality/air-quality-studies/health-studies>). MATES VI is currently underway and will use comprehensive ambient measurements and regional modeling to estimate air toxic exposures and health risks, with a special focus on non-exhaust mobile source emissions (NEE) for the first time. As emissions from most sources decrease, NEE are becoming a larger fraction of total air toxic emissions, a trend that is predicted to continue in the next decades. Some of the most important components of NEE due to the associated health risks are brake wear particles (BWP) and tire and road wear particles (TRWP). In December 2023, the Board approved \$850,000 for a study on brake and tire wear particulate matter levels and the transfer of those funds from the Clean Fuels Program Fund to the General Fund to support the MATES VI program. South Coast AQMD released RFP #P2024-09 to solicit bids to quantify BWP and TRWP exposure concentrations due to emissions from vehicles and roads in coordination with MATES VI. South Coast AQMD staff will use the exposure concentrations developed through this study to estimate health risks of BWP and TRWP exposure.

Outreach

In accordance with South Coast AQMD'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 County Sun, and Riverside County's Press Enterprise newspapers to leverage the most cost-effective method of outreach throughout the region.

Additionally, potential bidders were notified utilizing South Coast AQMD's own electronic listing of certified minority vendors. Notice of the RFP was emailed to the Black and Latino Legislative Caucuses and various minority chambers of commerce and business associations and placed on South Coast AQMD's website (<http://www.aqmd.gov>). In addition, staff reached out to potential qualified bidders whose work has been cited in related literature or referred to staff by other subject experts.

Bid Evaluation

Four proposals were received by the 2:00 p.m. deadline on March 2, 2024 in response to the RFP #P2024-09. The Attachment reflects the evaluation of the four proposals that were submitted by:

- University of California Riverside (UCR) with Georgia Institute of Technology as a subcontractor
- Aerodyne Research, Inc
- University of California, Los Angeles (UCLA)
- Emissions Analytics, LLC with University of California, Irvine (UCI) and University of Southern California (USC) as subcontractors

Using the prescribed evaluation criteria to consider technical and cost qualifications, proposals from UCR with Georgia Institute of Technology; UCLA; and Emissions Analytics, LLC with UCI and USC were scored as technically qualified. The proposal from Emissions Analytics, LLC with UCI and USC received the highest score.

The important factors noted by the review panel that contributed to Emissions Analytics, LLC with UCI and USC's score are: collaborative approach that will complement the MATES VI campaign, experience in air quality measurements and analysis to be performed in the study, work plan that includes determination of PM10 brake wear particles, tire particles, and road dust, extensive sample collection, and modeling approach that will deliver exposure surfaces along with model-ready emissions.

Panel Composition

The evaluation panel consisted of an Air Quality Specialist from the Planning, Rule Development and Implementation Division; a Program Supervisor from the Technology Advancement Office; an Atmospheric Measurements Manager from the Monitoring and Analysis Division; and a Climate Change Mitigation & Emissions Research Section Manager from CARB. Of the four panel members, two are Asian Pacific American, and one is Caucasian. All four panel members are male.

Summary Of Proposal

This action is to authorize the Executive Officer to execute a contract with Emissions Analytics, LLC to conduct the brake and tire wear study in an amount not to exceed \$850,000 from the General Fund (01). Emissions Analytics will sample 24-hour PM10 at MATES VI measurement stations during the MATES VI campaign. Data will be analyzed using gas chromatography and mass spectrometry with pyrolysis sample introduction to determine organic compound concentrations and then the data will be used along with a database of tire composition fingerprints to calculate the PM10 tire tread concentration. UC Irvine will determine brake emission composition fingerprints by testing several brake systems on a dynamometer and will then use the data along with South Coast AQMD ICP-MS analysis for MATES VI samples to calculate the PM10 brake particle concentration in the samples. The contractor will also calculate the PM10 from road dust using a similar method. The contractor will then use the calculated concentrations along with model data from South Coast AQMD and other data to calculate 2 km resolution exposure concentrations for brake wear particles and tire and road wear particles.

Benefits to South Coast AQMD

The MATES campaigns conducted by South Coast AQMD provide essential information on air toxics levels in the South Coast AQMD's jurisdiction and present a unique opportunity to evaluate long-term trends in air toxics and their health impacts. South Coast AQMD continues to work toward reducing air toxics emissions through supporting cleaner technologies (including cleaner diesel technologies), rulemaking to address toxic emissions from mobile and stationary sources, and implementing air toxics monitoring and enforcement initiatives. The MATES VI program complements these efforts and provides information to track progress on reducing air toxics in the region along with the identification of sources contributing to the air pollution health risk, of which exposure to BWP and TRWP emissions may play a key role. As emissions from most sources decrease, non-exhaust emissions including BWP and TRWP are becoming a larger fraction of air toxics, a trend that is predicted to continue in the next decades.

Resource Impacts

The contract with Emissions Analytics, LLC with UCI and USC as subcontractors will not exceed \$850,000 from the General Fund (01). In December 2023, the Board approved the transfer of sufficient funds from the Clean Fuels Program Fund to the General Fund to support the MATES VI program. The tire and brake wear study is included in the MATES VI campaign.

Attachment

Evaluation of Proposals for RFP #P2024-09

ATTACHMENT

Evaluation of Proposals for RFP #P2024-09

Brake and Tire Wear Exposure Concentrations in the South Coast Air Basin and Coachella Valley

Proposal	Affiliation	Cost	Cost Points	Technical Points	Additional Points*	Total Points
1	UCR and Georgia Institute of Technology	\$849,603.00	9.57	75.75	0	85
2	Aerodyne Research, Inc	\$814,613.00	10.00	49.75	10	70
3	UCLA	\$850,000.00	9.57	81.50	0	91
4	Emissions Analytics, UCI, and USC	\$850,000.00	9.57	81.00	15	106

*Additional points awarded for Small Businesses and Local Businesses according to South Coast AQMD Procurement Policies

BOARD MEETING DATE: August 2, 2024

AGENDA NO. 8

PROPOSAL: Appropriate Funds from Undesignated (Unassigned) Fund Balance for Permitting Enhancement Program

SYNOPSIS: The Board previously approved \$400,000 to be appropriated and used for retiree assistance. Due to the San Bernardino County Employees Retirement Association limitations and retiree availability, there will be unspent funds of approximately \$100,000, and this amount is requested to be used in FY 2024-25 with an additional \$200,000 requested. This action is to appropriate a total of \$300,000 from the General Fund Undesignated (Unassigned) Fund Balance into Engineering and Permitting's FY 2024-25 Budget for retiree or consultant assistance to reduce the pending permit application inventory.

COMMITTEE: Administrative, June 14, 2024; Recommended for Approval

RECOMMENDED ACTION:

Appropriate a total of \$300,000 from the General Fund Undesignated (Unassigned) Fund Balance to Engineering and Permitting's FY 2024-25 Budget, Services & Supplies Major Object for assistance from retirees and consultants to reduce the pending permit application inventory.

Wayne Natri
Executive Officer

SN:JA:JW

Background

One of the Chair's Initiatives is the Permitting Enhancement Program, which includes efforts focused on reducing the permit application inventory. Due to recent staff turnover and retirements, the majority of staff in the Engineering and Permitting division have less than five years of experience in their current roles. Retirees with permit processing experience are a great resource to help reduce the permit inventory and train newer engineers. Nine retirees initially returned to Engineering and Permitting in 2022, with contracts that concluded at the end of calendar year 2023. Four retirees

were approved by the San Bernardino County Employees Retirement Association (SBCERA) to extend their initial contracts to continue working in FY 2023-24. Two additional retirees have returned, and their contracts are scheduled to end in January and March 2025.

Staff released RFP# P2022-14 on June 3, 2022 to seek consultant assistance, on an as-needed basis. Two consultants (Castle Environmental Consulting and William Walters Air Quality Consulting) were selected as qualified consultants for a total contract amount of \$100,000 (\$50,000 to each consultant). The assistance from consultants has been necessary to review permit applications received and development of streamlined permitting approaches. These efforts were effective in reducing the pending permit application inventory.

Proposal

Due to the limitations placed by SBCERA and the availability limitations of the retirees, there will be unspent funds of more than \$100,000 from the \$400,000 previously approved by the Board to be appropriated from the Undesignated Fund Balance into Engineering and Permitting’s budget.

Staff is requesting that the unspent \$100,000 approved in a prior budget and an additional \$200,000 be appropriated from the Undesignated Fund Balance to Engineering and Permitting’s FY 2024-25 Budget, Services & Supplies Major Object to be used for either retiree or consultant assistance.

As staff are trained in their new positions and continue to gain experience, there is a temporary need to continue to use retirees and consultants to supplement staff’s efforts in reducing the pending permit application inventory and meeting the division’s Goals and Objectives.

Resource Impacts

Sufficient funding is available in the General Fund Undesignated (Unassigned) Fund Balance.

BOARD MEETING DATE: August 2, 2024

AGENDA NO. 9

PROPOSAL: Approve Contract Modification as Approved by MSRC

SYNOPSIS: As part of their FYs 2018-21 Work Program, the MSRC approved a contract modification with SCAG. The MSRC seeks Board approval of the contract modification as part of the FYs 2018-21 Work Program.

COMMITTEE: Mobile Source Air Pollution Reduction Review Committee, April 18 and June 20, 2024; Recommended for Approval

RECOMMENDED ACTIONS:

1. Approve reallocation of \$1,417,043 to augment funding for the New Bern Transport Corporation project, as well as modification of scope of the Zeem Solutions project to specify the procurement of 42 zero-emission electric vehicles and installation of 42 dual-port fast chargers instead of the procurement of 72 zero-emission vehicles, one mobile charger, 13 fast chargers, and 12 Level II chargers, under contract #MS21005 with SCAG, under the Last Mile component of the MSRC's Regional Goods Movement Program, as part of approval of the FYs 2018-21 Work Program, as described in this letter; and
2. Authorize the Chair (or by the Chair's designation, the Executive Officer) to execute the contract under the FYs 2018-21 Work Program, as described above and in this letter.

Larry McCallon
Chair, MSRC

MMM:CR

Background

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

Proposals

At its April 28, 2024 and June 20, 2024 meetings, the MSRC considered recommendations from its MSRC Technical Advisory Committee (MSRC-TAC) and approved the following:

FYs 2018-21 Last Mile Freight Program

The Last Mile component of the MSRC's Regional Goods Movement Program focuses on reducing emissions from transportation of goods following departure from distribution centers. In August 2020, the MSRC approved a sole-source contract award to SCAG in an amount not to exceed \$10,000,000 to implement the Last Mile Freight Program on behalf of the MSRC. Contract #MS21005 was executed to effectuate the award, and in November 2021, the MSRC approved SCAG's proposed project list awarding the original \$10,000,000 to 26 projects across the region. Subsequently, the MSRC approved the allocation of additional funding, the addition of six more projects from SCAG's contingency list, the reallocation of funding from withdrawn projects to increase the scope of existing projects on the list, and modifications to the scope of specific projects.

In late 2023 SCAG indicated that three approved projects, which had a total incentive funding allocation of \$225,000, had withdrawn. Additionally, SCAG indicated they were recommending that \$1,192,043 originally awarded to Gonzalez Logistics, Inc. (GLI) be reallocated, due to GLI's loss of most of their co-funding. SCAG requested the MSRC reserve the combined total \$1,417,043 for a reallocation request to be brought forward by SCAG for consideration at a future meeting. The MSRC considered and approved this request at their April 18, 2024 meeting.

SCAG subsequently requested the MSRC to reallocate the \$1,417,043 to augment the New Bern Transport Corporation project, with a corresponding increase in the scope of the project from 10 to 20 Class 8 zero-emission tractors. Additionally, SCAG requested a modified scope for the Zeem Solutions project. Zeem had been awarded funding towards the procurement of 72 zero-emission vehicles and one mobile charger to be deployed in Inglewood, as well as 13 fast chargers and 12 Level II chargers to be installed in Santa Ana. Zeem has not been able to secure the specified Santa Ana site. SCAG requested to modify the Zeem project to the procurement of 42 zero-emission electric vehicles operating among the Inglewood and Long Beach locations and installation of 42 dual-port fast chargers at the Long Beach location. At their June 20, 2024 meeting, the MSRC considered and approved SCAG's requested contract modifications.

At this time, the MSRC requests the South Coast AQMD Board approve the contract modification as part of approval of the FYs 2018-21 AB 2766 Discretionary Fund Work Program as outlined above.

Resource Impacts

South Coast AQMD acts as fiscal administrator for the AB 2766 Discretionary Fund Program (Health & Safety Code Section 44243). Money received for this program is recorded in a special revenue fund (Fund 23) and the contracts specified herein will be drawn from this fund.

BOARD MEETING DATE: August 2, 2024

AGENDA NO. 10

REPORT: Legislative, Public Affairs and Media Report

SYNOPSIS: This report highlights the May and June 2024 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, Small Business Assistance, Media Relations, and Outreach to Community Groups and Federal, State and Local Governments.

COMMITTEE: No Committee Review

RECOMMENDED ACTION:
Receive and file.

Wayne Nastri
Executive Officer

AL:DS:bel:cb:sr

BACKGROUND

This report summarizes the activities of the Legislative, Public Affairs and Media Office for May and June. The report includes Major Events, Community Events/Public Meetings, Environmental Justice (EJ) Update, Speakers Bureau/Visitor Services, Communications Center, Public Information Center, Small Business Assistance, Media Relations, and Outreach to Community Groups and Governments.

MAJOR EVENTS (HOSTED AND SPONSORED)

Each year, staff engage in hosting and sponsoring several major events throughout South Coast AQMD's four-county jurisdiction to promote, educate, and provide important information to the public regarding reducing air pollution, protecting public health, and improving air quality while minimizing economic impacts.

Working with Communities

On May 18, South Coast AQMD commemorated Clean Air Month by partnering with Habitat for Humanity, Riverside's Brush with Kindness event. Volunteers worked together to paint a home for a family in need.

Working with Communities

On June 29, in celebration of World Environment Day, South Coast AQMD partnered with Habitat for Humanity, Greater Los Angeles to help build eight new homes in Southeast Los Angeles' AB 617 community. The homes will have drought tolerant landscaping, energy efficient heating systems, insulation made of recycled content, low flow plumbing fixtures, and solar energy systems.

COMMUNITY EVENTS/PUBLIC MEETINGS

Staff engaged with residents and stakeholders of diverse communities to provide information about the agency, incentive programs, and ways individuals can help reduce air pollution through events and meetings sponsored by South Coast AQMD or in partnership with others. Attendees typically receive information regarding the following:

- Tips on reducing their exposure to smog and its negative health effects;
- How to file a complaint;
- Clean air technologies and their deployment;
- Invitations to or notices of conferences, seminars, workshops, and other public events;
- South Coast AQMD incentive programs;
- Funding/grant opportunities by South Coast AQMD and partner agencies;
- Ways to participate in South Coast AQMD's rules and policy development; and
- Assistance in resolving air pollution-related problems.

Staff attended and/or provided information and updates at the following May and June events and meetings:

City of Riverside

On May 7, staff attended the City of Riverside's City Council meeting and announced the upcoming public hearing for Proposed Amended Rule 1146.2 Control of Oxides of Nitrogen from Large Water Heaters, Small Boilers and Process Heaters.

South Bay Association of Chambers of Commerce

On May 7, staff participated in the South Bay Association of Chambers of Commerce meeting to share information on compliance training courses, Clean Air Choice Incentives, and upcoming Regional Public Hearings for the Draft PM2.5 Plan.

Lake Arrowhead Chamber of Commerce

On May 7, staff participated in the Lake Arrowhead Chamber of Commerce's Government Affairs Committee meeting to share information on Rule 2305 Warehouse Actions and Investments to Reduce Emissions (WAIRE) and Proposed Rule 2306 Freight Railyards.

Healthy Jurupa Valley

On May 7, staff attended the Healthy Jurupa Valley meeting to provide information on the upcoming Public Hearing for Proposed Amended Rule 1146.2 Control of Oxides of Nitrogen from Large Water Heaters, Small Boilers and Process Heaters.

Irvine Chamber of Commerce

On May 8, staff attended the Irvine Chamber of Commerce's Business Advocacy Speaker series to share information about South Coast AQMD's Small Business Assistance program.

South Pasadena Chamber of Commerce

On May 8, staff participated in the South Pasadena Chamber of Commerce's Legislative Affairs Committee meeting to provide updates on South Coast AQMD's Commercial Electric Lawn & Garden Equipment Incentive and Exchange (eL&G) Program, the Joint Office of Energy and Transportation's Communities Taking Charge Accelerator federal funding opportunity, and shared resources to assist during the summer air quality season.

San Gabriel Valley Council of Governments

On May 8, staff attended the San Gabriel Valley Council of Government's Energy, Environment & Natural Resources Committee meeting to provide information on compliance training courses.

Foothill Gold Line Extension Construction Authority

On May 9, staff took part in the Foothill Gold Line Extension Construction Authority Board Meeting to provide updates on funding opportunities for the California Clean Energy Planning Program.

Fountain Valley Chamber of Commerce

On May 9, staff attended the Fountain Valley Chamber of Commerce's meeting to share information on the Small Business Assistance program and to provide copies of the latest South Coast AQMD Advisor.

Upland Chamber of Commerce

On May 9, staff participated in the Upland Chamber of Commerce's Government Affairs meeting to provide information on Rule 2305 WAIRE and Proposed Rule 2306 Freight Railyards.

El Segundo Environmental Committee

On May 10, staff participated in the El Segundo Environmental Committee meeting to provide updates on Compliance Training courses, Clean Air Choices incentives, and the upcoming Regional Public Hearings for the Draft PM2.5 Plan.

Greater Riverside Chambers of Commerce

On May 10, staff attended the Greater Riverside Chambers of Commerce's Government Affairs Committee meeting to provide an update on the upcoming Public Hearing for Proposed Amended Rule 1146.2 Control of Oxides of Nitrogen (NOx) from Large Water Heaters, Small Boilers and Process Heaters.

Harbor Association of Industry and Commerce

On May 16, staff attended the Harbor Association of Industry and Commerce's Government Affairs meeting to provide updates the Volkswagen Environmental Mitigation Trust, public workshop for South Coast AQMD's Draft 2024 Annual Air Quality Monitoring Network Plan, and CARB's Technical Working Group for Commercial Harbor Craft Regulation.

Glendale Environmental Coalition

On May 19, staff presented at the Glendale Environmental Coalition to provide an overview on regional air quality, incentive programs for community members and businesses, educational programs for students and teachers, and tools and resources available on our website.

San Gabriel Valley Economic Partnership

On May 22, staff attended the San Gabriel Valley Economic Partnership's Legislative Action Committee meeting to provide updates on current funding opportunities such as CARB's Innovative Small E-Fleet.

South Bay Cities Council of Governments

On May 23, staff attended the South Bay Cities Council of Governments' board meeting to share information about compliance training programs and the California Energy Commission's Zero Emissions School Bus and Infrastructure Investment Project incentive opportunity.

Orange County Business Council

On June 4, staff participated in the Orange County Business Council's Infrastructure Committee meeting to share how the City of Irvine has partnered with South Coast AQMD to participate in and promote the Residential Electric Lawn Mower Rebate and eL&G programs.

Healthy Jurupa Valley

On June 4, staff participated in the Healthy Jurupa Valley meeting to share how to file complaints through the South Coast AQMD Mobile App.

Open House

On June 5, staff participated in San Bernardino County Supervisor Curt Hagman's Open House. Staff demonstrated a clean air vehicle and provided information on how to file complaints.

City of Bell

On June 12, staff met with the City of Bell to provide an overview on air quality issues and share information on Assembly Bill (AB) 2766, Replace Your Ride, the Residential Electric Lawn Mower Rebate and eL&G programs, and compliance training courses.

Casa Blanca Community Action Group - Riverside

On June 12, staff participated in the Casa Blanca Community Action Group meeting to share how to file complaints via 1-800-CUT-SMOG, online, and through the South Coast AQMD Mobile App.

METRO

On June 14, staff attended the Metro South Bay Service Council meeting to share information on CARB's HVIP Innovative Small E-Fleet program, U.S. EPA's Clean Heavy-Duty Vehicles Grant program, and Volkswagen Environmental Mitigation Trust infrastructure projects.

Santa Fe Springs Chamber of Commerce

On June 20, staff attended the Santa Fe Springs Chamber of Commerce networking lunch to provide updates on the Replace Your Ride program and Small Business Assistance program.

South Bay Cities Council of Governments

On June 27, staff participated in the Board of Directors meeting for the South Bay Cities Council of Governments. Staff shared wildfire season safety tips and updates on the Replace Your Ride program.

ENVIRONMENTAL JUSTICE UPDATE

The following are key EJ-related activities in which staff participated during May and June. These events and meetings involve communities affected disproportionately from adverse air quality impacts.

California Air Resources Board

On May 1, staff participated in CARB's public meeting for the California e-Bike Incentive project. This project will provide rebates to reduce the purchase price of e-bikes for low-income consumers throughout California.

Pacoima Community Initiative

On May 10, staff attended Pacoima Community Initiative's monthly meeting to provide updates on residential incentive programs and how to file complaints.

Environmental Justice Advisory Group

South Coast AQMD hosted the second quarterly Environmental Justice Advisory Group meeting on May 24. Staff presented on Assembly Constitutional Amendment (ACA) 16 (Bryan) - Environmental Rights, the WAIRE program, AB 617 implementation, and the 10th Annual Environmental Justice Conference.

Community-Led Air Quality Projects

On May 28, staff participated in the Community-Led Air Quality Projects webinar hosted by Sonoma Technology. The webinar included speakers from Central California Environmental Justice Network, Tree Fresno, University of California, Davis and CARB.

SoCal Urban Lead Symposium

On May 29, staff participated in the SoCal Urban Lead Symposium which was attended by community-based organizations, as well as local, state, and tribal agencies. Discussion focused on the impact of lead on communities, especially those that are low-income and disadvantaged communities.

White House Environmental Justice Advisory Council

On June 5 and 6, staff participated virtually in the White House Environmental Justice Advisory Council meeting. There was a panel presentation on the White House Interagency Council on Climate, Planning, Preparedness, Response, Recovery, and Impacts Recommendations and updates on the Council on Environmental Quality.

SPEAKERS BUREAU/VISITOR SERVICES

South Coast AQMD 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. South Coast AQMD also hosts visitors from around the world who meet with staff on a wide range of air quality issues.

California State University, Fullerton

On May 10, staff hosted a laboratory tour for students from California State University, Fullerton. Students learned about South Coast AQMD, air quality issues and potential career opportunities.

Korea Environment Corporation

On May 31, South Coast AQMD hosted the Korea Environment Corporation. Staff presentations included an overview on South Coast AQMD and air quality issues, SIPS, and RECLAIM. They also toured the laboratory.

Green Energy Solutions

On June 28, staff hosted a laboratory tour for three members of the public from Green Energy Solutions Holdings.

COMMUNICATION CENTER STATISTICS

The Communication Center handles calls on South Coast AQMD’s main line, 1-800-CUT-SMOG®, the Spanish line, and after-hours calls to those lines. Total calls received in May and June are summarized below:

Calls to South Coast AQMD’s Main Line and 1-800-CUT-SMOG®	5,109
Calls to South Coast AQMD’s Spanish Line	58
Clean Air Connections	5
Total Calls	5,172

PUBLIC INFORMATION CENTER STATISTICS

The Public Information Center (PIC) handles phone calls and assists individuals who walk in for general information. Email advisories provide information on upcoming meetings and events, program announcements and alerts on time-sensitive issues. Information for May and June are summarized below:

Calls Received by PIC	118
Calls to Automated System	402
Total Calls	520
Visitor Transactions	291
Email Advisories Sent	62,214

SMALL BUSINESS ASSISTANCE

South Coast AQMD notifies local businesses of proposed regulations so they can participate in the agency’s rule development process. South Coast AQMD works with other agencies and governments to identify efficient, cost-effective ways to reduce air pollution and shares that information broadly. Staff provided personalized assistance to small businesses over the telephone, at South Coast AQMD headquarters and via virtual on-site consultation, as summarized below for May and June.

- Provided permit application assistance to 502 companies, and
- Processed 241 Air Quality Permit Checklists.

Types of business assisted:

- | | | |
|--------------------|--------------------------|-------------|
| Architecture Firms | Dry Cleaners | Warehouses |
| Auto Body Shops | Engineering Firms | Restaurants |
| Beauty Salons | Manufacturing Facilities | |
| Construction Firms | Offices | |

MEDIA RELATIONS

The Media Office handles all South Coast AQMD outreach and communications with television, radio, newspapers and all other publications, and media operations. The May and June report is listed below:

Major Media Interactions	388
Press Releases	32
News Carousel	7

Major Media Topics:

- **Air Quality in Coachella Valley:** The Palm Springs Post inquired about Windblown Dust Advisories and overall air quality in Palm Springs/Coachella Valley. Response was provided.
- **F.I.N.D.:** A businessperson inquired about availability in F.I.N.D. of 2023 Annual Emissions Reporting Emissions report data for a facility. Response was provided.
- **Olympics:** Politico requested to speak with agency on impacts to the upcoming Olympics in relation to recent heavy-duty truck actions by U.S. EPA. Asked reporter to clarify interview request.
- **Lead Pollution from Long Beach Airport:** Freelance reporter from Seal Beach requested information about lead pollution surrounding the Long Beach Airport and a nearby elementary school. Response was provided.
- **Clean Air Award Article:** University of California, Riverside inquired about a quote for a news article about receiving a Clean Air Award this year. Response was provided.
- **Residential Air Filtration Program:** Desert Sun inquired if any additional events have been confirmed for the Residential Air Filtration program in Coachella Valley. Response was provided. Dates for events were changed by the organizer. Reached out to reporter to update story.
- **South Gate Odors:** LA Public Press inquired about information on several businesses in South Gate that have caused residents to complain about a continuous foul smell. Working on a response.
- **Baker Settlement:** Law 360 requested a copy of the settlement agreement between the District and Baker Commodities. Document was sent.
- **China Shipping:** Random Lengths News requested a comment on the China shipping decision made in the San Diego Superior Court. Response was provided.
- **U.S. EPA Risk Assessment:** ProPublica inquired about U.S. EPA's formaldehyde risk assessment process and why the data EPA cites is different from what our data shows for the Fontana monitoring site. Working on a response.
- **Baker Commodities Press Release:** Pitched to local media outlets.
- **Summer Smog Season Press Release:** Pitched to local media outlets.
- **Windblown Dust Advisory (5/3, 5/15, 5/17, 5/19,5/23, 6/1, 6/13, 6/14, 6/17 & 6/23):** Pitched to media.

News Releases:

- **Baker Commodities to Pay \$400,000 and Stop Animal Rendering – May 1, 2024 (English and Spanish)** - Informed the public of the finalized settlement with Baker Commodities.
- **Summer Smog Season is Starting - Protect Your Health by Staying Informed of Local Air Quality Conditions - May 2, 2024 (English and Spanish)** - Informed the public of the start of summer ozone season in Greater Los Angeles.
- **South Coast AQMD Issues Windblown Dust Advisory for the San Geronio Pass area and the Coachella Valley - May 3, 2024 (English and Spanish)** – Informed the public of a PM10 Dust Advisory caused by high winds.
- **South Coast AQMD Issues Windblown Dust Advisory for the Coachella Valley – May 15, 17 & 19, 2024 (English and Spanish)** – Informed the public of a PM10 Dust Advisory caused by high winds.
- **South Coast AQMD Issues Windblown Dust Advisory for the Coachella Valley and Banning Pass – May 23, 2024 (English and Spanish)** – Informed the public of a PM10 Dust Advisory caused by high winds.
- **South Coast AQMD Approves Rule to Accelerate the Transition to Zero-Emission for Building Water Heaters – June 7, 2024 (English and Spanish)** - Informed the public of updates to Rule 1146.2, that will require new and existing buildings to transition to zero-emission residential and commercial building water heaters.
- **South Coast AQMD Issues and Extends a Windblown Dust Advisory for the Coachella Valley and Banning Pass – June 1, 13-14, 17, and 23, 2024 (English and Spanish)** – Informed the public of a PM10 Dust Advisories and its extension caused by high winds.
- **South Coast AQMD Issues and Extends a Wildfire Smoke Advisory for the Santa Clarita and Castaic Area – June 15-16, 2024 (English and Spanish)** – Informed the public of a smoke advisory and its extension caused by wildfire.
- **South Coast AQMD Issues Ozone Advisory Due to Heat Wave – June 20, 2024 (English and Spanish)** – Informed the public of a multi-day extreme ozone (smog) event due to the heat wave affecting the region.
- **South Coast AQMD Issues a Smoke Advisory for the City of Riverside County due to Round Fire – June 29, 2024 (English and Spanish)** – Informed the public of a smoke advisory caused by wildfire.
- **South Coast AQMD Issues a Smoke Advisory for the City of Fontana due to Sierra Fire – June 30, 2024 (English and Spanish)** – Informed the public of a smoke advisory caused by wildfire.

Social Media Posts:

[Windblown Dust Advisory \(5/3\)](#): 5,152 Twitter Impressions

--RT by @NWSSanDiego, @CodeRed001Blue

[AQ Forecast \(5/12\)](#): 5,407 Twitter Impressions

--RT by @CodeRed001Blue, @NWSSanDiego, @LAFDtalk

[Windblown Dust Advisory \(5/17\)](#): 4,414 Twitter Impressions

--RT by @NWSSanDiego, @CodeRed001Blue

[AQ Forecast \(5/29\)](#): 7,109 Twitter Impressions

--RT by @OurSantaMonica, @CodeRed001Blue, @NWSSanDiego,
@NWSLosAngeles

[Windblown Dust Advisory \(6/1\)](#): 4,916 Twitter Impressions

--RT by @NWSSanDiego, @CodeRed001Blue

[AQ Forecast \(6/6\)](#): 3,501 Twitter Impressions

--RT by @NWSSanDiego

[Post Fire Smoke Advisory \(6/16\)](#): 12,093 Twitter Impressions

--RT by @ReadyLA, @SCV_Incidents, @RubyGonzales2, @santaclarita,
@LACOFD

[Heat Wave Ozone Advisory \(6/20\)](#): 25,023 Twitter Impressions

--RT by @LongBeachCity, @ReadyLA, @LoriMills4CA42, @cayimby,
@DiamondBarCity, @kaceymontoya, @NWSLosAngeles, @bellgardenscity,
@SoCal_RedCross, @LAFDtalk, @SBCounty, @OurSantaMonica,
@Angeles_NF, @CodeRed001Blue, @CountyofLA, @NWSSanDiego

News Carousel:

- **For Asthma and Allergy Awareness week, see our tips for reducing asthma triggers in and around your home (5/8)** – Linked to Reducing Asthma fact sheet.
- **Keep up with the Latest News from South Coast AQMD (5/15)** – Linked to the Advisor webpage.
- **Get up to \$240,000 to upgrade your old truck to zero-emission technology! Learn more about Class 8 Freight and Port Drayage Truck funding (5/22)** – Linked to the Volkswagen Mitigation Trust webpage.
- **Participate in the Multiple Air Toxics Exposure Study VI (MATES VI) Advisory Group meeting on May 30th, 8:00 a.m. (5/29)** – Linked to the MATES VI webpage.
- **Celebrate World Environment Day – learn more about global sustainable development goals (6/5)** – Linked to the World Environment Day webpage.
- **Choose a Low-VOC paint for your summer home projects – See our Green Painter’s Guide for tips** – Linked to our Green Painter’s Guide webpage.
- **Initial site information reports are due July 1 for Phase 3 WAIRE facilities 100,000 sq. ft. and above (6/26)** – Linked to WAIRE program webpage.

OUTREACH TO COMMUNITY GROUPS AND FEDERAL, STATE AND LOCAL GOVERNMENTS

Communication was conducted in May and June with elected officials and/or staff from the following state and federal offices:

- U.S. Senator Laphonza Butler
- U.S. Senator Alex Padilla
- U.S. Representative Pete Aguilar
- U.S. Representative Nanette Diaz Barragán
- U.S. Representative Ken Calvert
- U.S. Representative Tony Cárdenas
- U.S. Representative Judy Chu
- U.S. Representative Lou Correa
- U.S. Representative Mike Garcia
- U.S. Representative Robert Garcia
- U.S. Representative Jimmy Gomez
- U.S. Representative Sydney Kamlager-Dove
- U.S. Representative Young Kim
- U.S. Representative Mike Levin
- U.S. Representative Ted Lieu
- U.S. Representative Grace Napolitano
- U.S. Representative Jay Obernolte
- U.S. Representative Katie Porter
- U.S. Representative Raul Ruiz, M.D.
- U.S. Representative Linda T. Sánchez
- U.S. Representative Adam Schiff
- U.S. Representative Brad Sherman
- U.S. Representative Michelle Steel
- U.S. Representative Mark Takano
- U.S. Representative Norma Torres
- U.S. Representative Maxine Waters
- Senator Ben Allen
- Senator Steven Bradford
- Senator Brian Dahle
- Senator Maria Elena Durazo
- Senator Steven Glazer
- Senator Lena Gonzalez
- Senator Melissa Hurtado
- Senator Caroline Menjivar
- Senator Josh Newman
- Senator Janet Nguyen
- Senator Richard Roth
- Senator Kelly Seyarto
- Senator Nancy Skinner
- Assemblymember Tasha Boerner
- Assemblymember Mia Bonta
- Assemblymember Lisa Calderon
- Assemblymember Wendy Carrillo
- Assemblymember Sabriana Cervantes
- Assemblymember Laurie Davies
- Assemblymember Diane Dixon
- Assemblymember Bill Essayli
- Assemblymember Laura Friedman
- Assemblymember Eloise Gomez Reyes
- Assemblymember Tina McKinnor
- Assemblymember Al Muratsuchi
- Assemblymember Cottie Petrie-Norris
- Assemblymember Tri Ta
- Assemblymember Rick Chavez Zbur

Outreach was conducted personally and virtually in May and June to communicate with elected officials or staff from the following cities:

Agoura Hills	Fontana	Montebello
Alhambra	Fountain Valley	Monterey Park
Anaheim	Gardena	Moreno Valley
Arcadia	Glendale	Murrieta
Artesia	Glendora	Newport Beach
Avalon	Hawaiian Gardens	Norco
Banning	Hawthorne	Norwalk
Azusa	Hemet	Ontario
Baldwin Park	Hermosa Beach	Palos Verdes Estates
Banning	Hidden Hills	Paramount
Beaumont	Highland	Pasadena
Bell	Huntington Park	Perris
Bell Gardens	Industry	Pico Rivera
Bellflower	Inglewood	Pomona
Beverly Hills	Irvine	Rancho Palos Verdes
Big Bear Lake	Irwindale	Redondo Beach
Bradbury	Jurupa Valley	Rialto
Buena Park	La Cañada Flintridge	Riverside
Burbank	La Habra	Rolling Hills
Calabasas	La Habra Heights	Rolling Hills Estates
Calimesa	La Mirada	Rosemead
Canyon Lake	La Palma	San Bernardino
Carson	La Puente	San Dimas
Cerritos	La Verne	San Fernando
Chino	Laguna Beach	San Gabriel
Chino Hills	Lake Elsinore	San Jacinto
Claremont	Lakewood	San Marino
Colton	Lawndale	Santa Clarita
Commerce	Loma Linda	Santa Fe Springs
Compton	Lomita	Santa Monica
Corona	Long Beach	Seal Beach
Covina	Los Alamitos	Signal Hill
Cudahy	Los Angeles	Sierra Madre
Culver City	Lynwood	South El Monte
Dana Point	Malibu	South Gate
Diamond Bar	Manhattan Beach	South Pasadena
Downey	Maywood	Temecula
Duarte	Menifee	Temple City
Eastvale	Mission Viejo	Torrance
El Monte	Monrovia	Upland
El Segundo	Montclair	Vernon

Walnut
West Covina
West Hollywood

Westlake Village
Whittier
Wildomar

Yucaipa

Staff represented South Coast AQMD in May and June and/or provided updates or a presentation to the following governmental agencies and business organizations:

Alhambra Chamber of Commerce
Anaheim Chamber of Commerce
Arcadia Chamber of Commerce
Azusa Chamber of Commerce
Baldwin Park Business Association
California Department of Forestry and Fire Protection
California Department of Insurance
California Department of Resources Recycling and Recovery
Carson Chamber of Commerce
Chino Valley Chamber of Commerce
Claremont Chamber of Commerce
Clean Power Alliance
Climate Mayors
Costa Mesa Chamber of Commerce
Covina Chamber of Commerce
Cypress Chamber of Commerce
Dana Point Chamber of Commerce
Duarte Chamber of Commerce
El Monte/South El Monte Chamber of Commerce
Foothill Gold Line Construction Authority
Foothill Transit
Foothill Valley Chamber of Commerce
Fountain Valley Chamber of Commerce
Gardena Valley Chamber of Commerce
Gateway Cities Council of Governments
Glendora Chamber of Commerce
Greater Irvine Chamber of Commerce
Greater Monterey Park Chamber of Commerce
Greater Ontario Business Council
Harbor Association of Industry and Commerce
Hermosa Beach Chamber of Commerce
Huntington Beach Chamber of Commerce
Industry Business Council
Inglewood Airport Area Chamber of Commerce
Inland Action
Inland Economic Growth & Opportunity
Inland Empire Regional Chamber of Commerce

Inland Empire Fire Safe Alliance
Inland Empire Health Plan
Inland Empire Resource Conservation District
Inland Valley Development Agency
Irvine Chamber of Commerce
Irwindale Chamber of Commerce
Kaiser Permanente
La Cañada Flintridge Chamber of Commerce and Community Association
La Verne Chamber of Commerce
League of California Cities, Orange County Division
Lomita Chamber of Commerce
Long Beach Area Chamber of Commerce
Los Angeles Area Chamber of Commerce
Los Angeles County Department of Public Health
Los Angeles County Economic Development Corporation
Los Angeles County Sanitation Districts
Manhattan Beach Chamber of Commerce
METRO
METRO Gold Line Foothill Extension Construction Authority
Metropolitan Water District of Southern California
Monrovia Chamber of Commerce
National Park Service
Newport Beach Chamber of Commerce
North Orange County Chamber of Commerce
Omnitrans
Ontario International Airport
Orange County Business Council
Orange County Council of Governments
Orange County Transportation Authority
Palos Verdes Peninsula Chamber of Commerce
Pasadena Chamber of Commerce
Pomona Chamber of Commerce
Port of Long Beach
Port of Los Angeles
Redondo Beach Chamber of Commerce
Regional Chamber of Commerce – San Gabriel Valley
Rosemead Chamber of Commerce
San Bernardino Area Chamber of Commerce
San Bernardino County Transportation Authority
San Bernardino International Airport
San Bernardino Municipal Water Department
San Clemente Chamber of Commerce
San Dimas Chamber of Commerce
San Gabriel and Lower Los Angeles Rivers and Mountains Conservancy

San Gabriel Basin Water Quality Authority
San Gabriel Chamber of Commerce
San Gabriel Valley Council of Governments
San Gabriel Valley Economic Partnership
San Gabriel Valley Mosquito and Vector Control District
San Juan Capistrano Chamber of Commerce
San Marino Chamber of Commerce
San Pedro Chamber of Commerce
Santa Ana Chamber of Commerce
Santa Clarita Chamber of Commerce
Santa Fe Springs Chamber of Commerce
SCAG
Sierra Madre Chamber of Commerce
South Bay Association of Chambers of Commerce
South Bay Cities Council of Governments
South Pasadena Chamber of Commerce
Southern California Association of Governments
Southern California Edison
Temple City Chamber of Commerce
Torrance Area Chamber of Commerce
Tustin Chamber of Commerce
U.S. Chamber of Commerce
U.S. Fire Administration
U.S. National Park Service
Upland Chamber of Commerce
Upper San Gabriel Valley Municipal Water District
Valley Industry and Commerce Association
Vietnamese American Chamber of Commerce
Western Riverside Council of Governments

In May and June, staff represented South Coast AQMD and/or provided updates or a presentation to the following community and educational groups and organizations:

Alhambra Civic Center Library
Alhambra Unified School District
Alvord Unified School District
Arcadia Unified School District
Azusa Unified School District
Baldwin Park Unified School District
Banning Unified School District
Bassett Unified School District
Beaumont Unified School District
Bellflower Unified School District
Bonita Unified School District

Boys and Girls Club of Greater Redlands-Riverside
Burbank Unified School District
California State University, Fullerton
California State University, Northridge
California State University, San Bernardino
Casa Blanca Community Action Group - Riverside
Castaic Union School District
Center for Sustainable Energy
Citrus College
Claremont Unified School District
Coachella Valley Unified School District
Coalition for Clean Air
College of the Canyons
Corona-Norco Unified School District
Covina-Valley Unified School District
Downey Unified School District
Duarte Unified School District
El Monte Union High School District
East Yard Communities for Environmental Justice
Glendale Environmental Coalition
Glendora Unified School District
Habitat for Humanity of Greater Los Angeles
Habitat for Humanity of Orange County
Habitat for Humanity of Riverside
Habitat for Humanity of San Bernardino Area
Hacienda La Puente Unified School District
Hemet Unified School District
Jurupa Unified School District
La Cañada Unified School District
Laguna Beach Unified School District
Lake Elsinore Unified School District
Long Beach Unified School District
Los Angeles Unified School District
Menifee Union School District
Monrovia Unified School District
Montebello Unified School District
Moreno Valley Unified School District
Mt. San Antonio College
Murrieta Valley Unified School District
Newhall School District
Norwalk-La Mirada Unified School District
Nuview Union Elementary School District
Paramount Community and Environment Initiative
Pasadena City College

Pasadena Unified School District
Perris Union High School District
Pomona Unified School District
Reach Out
Riverside Community College District
Riverside Unified School District
Romoland School District
Rosemead Unified School District
Rowland Unified School District
Saban Community Clinic
San Gabriel Mountains Community Collaborative
San Gabriel Unified School District
San Jacinto Unified School District
San Marino Unified School District
Saugus Union School District
South Pasadena Unified School District
Sulphur Springs Union School District
Temecula Valley Unified School District
Temple City Unified School District
The Energy Coalition
Trust for Public Land
University of California, Los Angeles
University of La Verne
University of Redlands
Upland Unified School District
Val Verde Unified School District
Walnut Valley Unified School District
West Covina Unified School District
West Valley Family YMCA
William S. Hart Union High School District

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BOARD MEETING DATE: August 2, 2024

AGENDA NO. 12

REPORT: Civil Filings and Civil Penalties Report

SYNOPSIS: This report summarizes monthly penalties and legal actions filed by the General Counsel's Office from May 1 through May 31, 2024. An Index of South Coast AQMD Rules is attached with the penalty report.

COMMITTEE: Stationary Source, June 21, 2024, Reviewed

RECOMMENDED ACTION:
Receive and file.

Bayron T. Gilchrist
General Counsel

BTG:cr

	<u>Civil Filings</u>	<u>Violations</u>
1.	Roberto's Pool Service County of Orange Superior Court – Small Claims Case No.: 30-2024-01397155-SC-SC-CJC; Filed 5.01.24 (CL) NOV No.: P69931 R. 403 – Fugitive Dust California Health and Safety Code § 42402	1
2.	Jewel City Cleaners County of Los Angeles Superior Court – Small Claims Case No.: 24PDSC01245; Filed 5.13.24 (CL) NOV No.: P73154 R. 1421 – Control of Perchloroethylene Emissions from Dry Cleaning Systems California Health and Safety Code § 42402	1
		2 Violations

Attachments

May 2024 Penalty Report

Index of South Coast AQMD Rules and Regulations

**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
General Counsel's Office
Settlement Penalty Report (05/01/2024 - 05/31/2024)**

Total Penalties

Civil Settlement: \$712,525.75
Hearing Board Settlement: \$206,415.25
MSPAP Settlement: \$131,590.50

Total Cash Settlements: \$1,050,531.50

Total SEP Value: \$0.00

Fiscal Year through 05/31/2024 Cash Total: \$5,997,737.00

Fiscal Year through 05/31/2024 SEP Value Only Total: \$668,125.00

Fac ID	Company Name	Rule Number	Settled Date	Init	Notice Nbrs	Total Settlement
Civil						
180945	ALLTECH, INC.	203, 1155	05/21/2024	SP	P73912	\$40,000.00
195097	ASHISH PATEL (AMERICAS BEST VALUE INN)	1403, 40 CFR 61.145	05/02/2024	RM	P70143	\$850.00
800016	BAKER COMMODITIES, INC.	415, 2004, 3002	05/08/2024	DH/ND	P63824, P65291, P65293, P67318, P67319, P67321, P72855, P72866, P72871, P72872	\$400,000.00
174544	BREITBURN OPERATING, LP	2004, 3002	05/22/2024	JL	P67379, P69280, P74356	\$12,700.00
195737	CARMART INC.	203	05/07/2024	EC	P78699	\$1,000.00
42086	CITY OF UPLAND-UPLAND LANDFILL	1403, 40 CFR 61.145	05/17/2024	SH	P76122	\$2,500.00
187429	DECKERS BRANDS	2305	05/24/2024	JL	O15005	\$9,000.00
194292	E&B NATURAL RESOURCES MANAGEMENT CORP.	1166	05/22/2024	RM	P73208	\$6,900.00
156741	HARBOR COGENERATION CO, LLC	2004, 2012, 2012 Appendix A, 3002	05/22/2024	DH	P66124, P66138, P66139, P76052, P76076	\$34,650.00
9115	JCI JONES CHEMICALS, INC.	203	05/02/2024	RL	P78321	\$1,032.00
193011	KERR FLOORS, INC.	1403, 40 CFR 61.145	05/01/2024	ND	P65545	\$2,200.00
193248	P&M OIL CO.	203, 463, 1148.1, 1173	05/01/2024	KCM	P73331, P74353, P74376, P75657	\$8,100.00
193847	RA JOHNSON COMPANY	1403, 40 CFR 61.145	05/08/2024	JL	P73632	\$2,500.00
800325	TIDELANDS OIL PRODUCTION, CO.	2004, 3002, 3004	05/08/2024	DH	P63837, P66840	\$10,493.75

Fac ID	Company Name	Rule Number	Settled Date	Init	Notice Nbrs	Total Settlement
149881	TIDELANDS OIL PRODUCTION CO/PIER A WEST	1173	05/08/2024	DH	P74372	\$4,800.00
800026	ULTRAMAR, INC.	1118, 3002, 40 CFR 63.670	05/21/2024	DH	P75061	\$175,800.00
Total Civil Settlements: \$712,525.75						
Hearing Board						
140373	AMERESCO CHIQUITA ENERGY, LLC	203, 431.1, 3002	05/21/2024	KER	6143-4	\$1,600.00
119219	CHIQUITA CANYON, LLC	402	05/16/2024	KER/MR	6177-4	\$204,815.25
Total Hearing Board Settlements: \$206,415.25						
MSPAP						
198952	220W 17TH ST, INC.	461, H&S 41960.2	05/24/2024	VB	P78773	\$3,276.00
38429	A & A READY MIXED CONCRETE, INC.	403	05/03/2024	CL	P75314	\$1,774.00
151507	A & P CORPORATION/ PORTOLA CHEVRON	461	05/03/2024	CL	P79067	\$1,084.00
200428	ALADDIN MOBILE HOME PARK	1403	05/24/2024	CR	P78508	\$1,513.00
188324	AMAZON.COM SERVICES, LLC	203	05/03/2024	VB	P79307	\$1,942.00
176666	AMAZON.COM SERVICES, LLC	203	05/03/2024	CL	P79308	\$971.00
121448	AMERICAN SERVICES GROUP OF CA, INC.	1403	05/03/2024	VB	P80307	\$3,327.00
183387	ANTHONY TORRES DEMOLITION CORP	1403, 40 CFR 61.145	05/03/2024	VB	P79152	\$7,476.00
177982	APRO LLC (DBA "UNITED OIL #176")	461, H&S 41960.2	05/17/2024	SW	P79076	\$1,513.00
29349	ARCHIE'S TIRE & TOWING	461	05/24/2024	VB	P70495	\$2,990.00
174643	ARCO (#42110)	461, H&S 41960.2	05/10/2024	VB	P77732	\$929.00
183282	ARNACO INDUSTRIAL COATING, INC.	203, 1147	05/24/2024	CL	P80403	\$3,573.00
13618	BARRY AVE PLATING CO., INC.	1426, 1469	05/03/2024	CL	P75263, P75272	\$3,388.00
181055	CANYON CARWASH PETROLEUMM, INC.	461	05/24/2024	CR	P79084	\$847.00
148782	CANYON FOOD & MINI MART	461, H&S 41960.2	05/24/2024	VB	P80555	\$1,111.00
200968	CFT NV DEVELOPMENTS, LLC	222	05/10/2024	CL	P78034	\$2,342.00
107071	CHARLIE'S AUTO CENTER, INC.	201	05/17/2024	CR	P79361	\$1,009.00
181204	CITY OF SAN GABRIEL - PUBLIC WORKS FACILITY	203, 461	05/17/2024	CL	P79851	\$5,339.00
200277	DSJ CONCRETE PUMPING	203	05/03/2024	CL	P78357	\$632.00
186718	EATON ALTADENA GOLF, LLC	203, 461	05/03/2024	VB	P75953	\$1,171.00
199446	ENVIRONMENTAL REMEDIES, INC.	1403	05/10/2024	CR	P72947	\$959.00
105510	ETIWANDA SCHOOL DISTRICT - MAINTENANCE YARD	461	05/03/2024	CL	P78453, P71024	\$2,018.00
189790	FLEISCHMANN'S VINEGAR COMPANY, INC.	3002	05/24/2024	CL	P80405	\$3,022.50
159986	FREEMAN MEDICAL BUILDING, LLC	203	05/03/2024	CL	P78406	\$7,144.00

Fac ID	Company Name	Rule Number	Settled Date	Init	Notice Nbrs	Total Settlement
197130	G&M OIL, CO. (#128)	461	05/17/2024	CL	P69887, P78756	\$3,177.00
199489	G&M OIL, CO. (#213)	201	05/24/2024	CR	P80604	\$2,218.00
168073	GAT AIRLINE GROUND SUPPORT	203	05/17/2024	CL	P62790	\$1,021.00
194097	GRACE TO YOU	203	05/03/2024	CL	P67749	\$971.00
163901	GVD-GUFFEY RIMFOREST, CLP	461	05/03/2024	CR	P76198	\$1,579.00
96767	LA CITY - RECREATION & PARKS DEPT.	461	05/24/2024	VB	P76548	\$2,302.00
173904	LAPEYRE INDUSTRIAL SANDS, INC.	2004, 2012	05/10/2024	CL	P68665, P68673, P68679	\$6,045.00
200978	LARGO CONSTRUCTION INC.	1403, 40 CFR 61.145	05/24/2024	CL	P78612	\$1,438.00
167525	LOMA LINDA UNI MEDICAL CENTER	1146	05/10/2024	CL	P78401	\$7,282.00
169613	LOS FELIZ OIL, INC. (DBA "ARCO LOS FELIZ OIL")	461	05/17/2024	CL	P73131, P80559	\$3,082.00
104004	MICROMETALS, INC.	3002	05/17/2024	CL	P75613	\$6,045.00
27704	MILE SQUARE GOLF COURSE	203, 461	05/24/2024	VB	P78591	\$5,824.00
58495	MOBIL DLR	203, 461	05/24/2024	VB	P77713	\$1,492.00
120181	NARMS BABA CORP - ALPINE SHELL & SUBWAY	201	05/17/2024	CL	P70489	\$825.00
118089	ORANGE CARWASH, INC.	461, H&S 41960.2	05/17/2024	CL	P79062	\$4,134.00
114598	ORANGE TREE FRESH FRUIT & NUTS INC.	203	05/10/2024	VB	P76185, P76200	\$3,627.00
167819	PALM TERRACE CARE CENTER	203	05/10/2024	CL	P74189	\$3,177.00
202109	PRO MANAGEMENT COMPANY, INC.	1403	05/17/2024	CL	P75878	\$2,913.00
42499	RABI, INC, (DBA "LOW P")	461	05/17/2024	CL	P79093	\$1,976.00
190684	RADC ENTERPRISES, INC.	203	05/10/2024	VB	P76195	\$906.00
9961	RIVERSIDE CITY, WATER QUALITY CONTROL	203	05/24/2024	VB	P76132	\$959.00
800113	ROHR, INC.	2004	05/03/2024	CL	P75323	\$922.00
89710	ROYAL CABINETS	3002	05/24/2024	CL	P73159	\$1,588.00
116895	THE HOME DEPOT U.S.A. INC	203	05/24/2024	VB	P78011	\$2,018.00
126198	TMP CORPORATION	461, H&S 41960	05/24/2024	VB	P75743	\$2,789.00
190376	VAN NUYS CHEVRON	203, 461	05/03/2024	CL	P74826	\$2,342.00
109963	WORLD OIL MARKETING CO. (SS #60)	461, H&S 41960.2	05/17/2024	CL	P77743	\$1,588.00
Total MSPAP Settlements: \$131,590.50						

**SOUTH COAST AQMD'S RULES AND REGULATIONS INDEX
FOR MAY 2024 PENALTY REPORT**

REGULATION II - PERMITS

- Rule 201 Permit to Construct
- Rule 203 Permit to Operate
- Rule 222 Filing Requirements for Specific Emission Sources Not Requiring a Written Permit Pursuant to Regulation II.

REGULATION IV - PROHIBITIONS

- Rule 402 Nuisance
- Rule 403 Fugitive Dust
- Rule 415 Odors from Rendering Facilities
- Rule 431.1 Sulfur Content of Gaseous Fuels
- Rule 461 Gasoline Transfer and Dispensing
- Rule 463 Storage of Organic Liquids

REGULATION XI - SOURCE SPECIFIC STANDARDS

- Rule 1118 Emissions from Refinery Flares
- Rule 1146 Emissions of Oxides of Nitrogen from Industrial, Institutional and Commercial Boilers, Steam Generators,
- Rule 1147 NOx Reductions from Miscellaneous Sources
- Rule 1148.1 Oil and Gas Production Wells
- Rule 1155 Particulate Matter Control Devices
- Rule 1166 Volatile Organic Compound Emissions from Decontamination of Soil
- Rule 1173 Fugitive Emissions of Volatile Organic Compounds

REGULATION XIV - TOXICS

- Rule 1403 Asbestos Emissions from Demolition/Renovation Activities
- Rule 1426 Emissions from Metal Finishing Operations
- Rule 1469 Hexavalent Chromium Emissions from Chrome Plating and Chromic Acid Anodizing Operations

REGULATION XX - REGIONAL CLEAN AIR INCENTIVES MARKET (RECLAIM)

- Rule 2004 Requirements
- Rule 2012 Requirements for Monitoring, Reporting, and Recordkeeping for Oxides of Nitrogen (NOx) Emissions
- Rule 2012
- Appendix A Protocol for Monitoring, Reporting, and Recordkeeping for Oxides of Nitrogen (NOx) Emissions

**SOUTH COAST AQMD'S RULES AND REGULATIONS INDEX
FOR MAY 2024 PENALTY REPORT**

REGULATION XXIII - FACILITY BASED MOBILE SOURCE MEASURES

Rule 2305 Warehouse Indirect Source Rule – Warehouse Actions and Investments to Reduce Emissions (Waire) Program

REGULATION XXX - TITLE V PERMITS

Rule 3002 Requirements

Rule 3004 Permit Types and Content

CODE OF FEDERAL REGULATIONS

40 CFR 61.145 Standard for Demolition and Renovation

40 CFR 63.670 Requirements for flare control devices

CALIFORNIA HEALTH AND SAFETY CODE

41960 Certification of Gasoline Vapor Recovery System

41960.2 Gasoline Vapor Recovery

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BOARD MEETING DATE: August 2, 2024

AGENDA NO. 13

REPORT: Intergovernmental Review of Environmental Documents and CEQA Lead Agency Projects

SYNOPSIS: This report provides a listing of environmental documents prepared by other public agencies seeking review by South Coast AQMD between May 1, 2024 and June 30, 2024, and proposed projects for which South Coast AQMD is acting as lead agency pursuant to CEQA.

COMMITTEE: Mobile Source, June 21, 2024, Reviewed the May 1– May 31, 2024 portion of the report; June 1 – June 30, 2024 portion had no committee review

RECOMMENDED ACTION:
Receive and file.

Wayne Nastri
Executive Officer

SR:MK:BR:SW:ET

Background

The California Environmental Quality Act (CEQA) Statute and Guidelines require public agencies, when acting in their lead agency role, to provide an opportunity for other public agencies and members of the public to review and comment on the analysis in environmental documents prepared for proposed projects. A lead agency is when a public agency has the greatest responsibility for supervising or approving a proposed project and is responsible for the preparation of the appropriate CEQA document.

Each month, South Coast AQMD receives environmental documents, which include CEQA documents, for proposed projects that could adversely affect air quality. South Coast AQMD fulfills its intergovernmental review responsibilities, in a manner that is consistent with the Board's 1997 Environmental Justice Guiding Principles and

Environmental Justice Initiative #4, by reviewing and commenting on the adequacy of the air quality analysis in the environmental documents prepared by other lead agencies.

The status of these intergovernmental review activities is provided in this report in two sections: 1) Attachment A lists all of the environmental documents prepared by other public agencies seeking review by South Coast AQMD that were received during the reporting period; and 2) Attachment B lists the active projects for which South Coast AQMD has reviewed or is continuing to conduct a review of the environmental documents prepared by other public agencies. Further, as required by the Board's October 2002 Environmental Justice Program Enhancements for fiscal year (FY) 2002-03, each attachment includes notes for proposed projects which indicate when South Coast AQMD has been contacted regarding potential air quality-related environmental justice concerns. The attachments also identify for each proposed project, as applicable: 1) the dates of the public comment period and the public hearing date; 2) whether staff provided written comments to a lead agency and the location where the comment letter may be accessed on South Coast AQMD's website; and 3) whether staff testified at a hearing.

In addition, the South Coast AQMD will act as lead agency for a proposed project and prepare a CEQA document when: 1) air permits are needed; 2) potentially significant adverse impacts have been identified; and 3) the South Coast AQMD has primary discretionary authority over the approvals. Attachment C lists the proposed air permit projects for which South Coast AQMD is lead agency under CEQA.

Attachment A – Log of Environmental Documents Prepared by Other Public Agencies and Status of Review, and Attachment B – Log of Active Projects with Continued Review of Environmental Documents Prepared by Other Public Agencies

Attachment A contains a list of all environmental documents prepared by other public agencies seeking review by South Coast AQMD that were received pursuant to CEQA or other regulatory requirements. Attachment B provides a list of active projects, which were identified in previous months' reports, and which South Coast AQMD staff is continuing to evaluate or prepare comments relative to the environmental documents prepared by other public agencies. The following table provides statistics on the status of review¹ of environmental documents for the current reporting period for Attachments A and B combined²:

¹ The status of review reflects the date when this Board Letter was prepared. Therefore, Attachments A and B may not reflect the most recent updates.

² Copies of all comment letters sent to the lead agencies are available on South Coast AQMD's website at: <http://www.aqmd.gov/home/regulations/ceqa/commenting-agency>.

Statistics for Reporting Period from May 1, 2024 to June 30, 2024	
Attachment A: Environmental Documents Prepared by Other Public Agencies and Status of Review	155
Attachment B: Active Projects with Continued Review of Environmental Documents Prepared by Other Public Agencies (which were previously identified in the April 2024 report)	7
Total Environmental Documents Listed in Attachments A & B	162
<i>Comment letters sent</i>	28
<i>Environmental documents reviewed, but no comments were made</i>	124
<i>Environmental documents currently undergoing review</i>	10

Staff focuses on reviewing and preparing comments on environmental documents prepared by other public agencies for proposed projects: 1) where South Coast AQMD is a responsible agency under CEQA (e.g., when air permits are required but another public agency is lead agency); 2) that may have significant adverse regional air quality impacts (e.g., special event centers, landfills, goods movement); 3) that may have localized or toxic air quality impacts (e.g., warehouse and distribution centers); 4) where environmental justice concerns have been raised; and 5) which a lead or responsible agency has specifically requested South Coast AQMD review.

If staff provided written comments to a lead agency, then a hyperlink to the “South Coast AQMD Letter” is included in the “Project Description” column which corresponds to a notation in the “Comment Status” column. In addition, if staff testified at a hearing for a proposed project, then a notation is included in the “Comment Status” column. Copies of all comment letters sent to lead agencies are available on South Coast AQMD’s website at: <http://www.aqmd.gov/home/regulations/ceqa/commenting-agency>. Interested parties seeking information regarding the comment periods and scheduled public hearings for projects listed in Attachments A and B should contact the lead agencies for further details as these dates are occasionally modified.

In January 2006, the Board approved the Clean Port Initiative Workplan (Workplan). One action item of the Workplan 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 accordance with this action item, Attachments A and B organize the environmental documents received according to the following categories: 1) goods movement projects; 2) schools; 3) landfills and wastewater projects; 4) airports; and 5) general land use projects. In response to the action item relative to mitigation, staff maintains a compilation of mitigation measures presented as a series of tables relative to off-road engines; on-road engines; harbor craft; ocean-going vessels; locomotives; fugitive dust; and greenhouse gases which are available on South Coast AQMD’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 such as ground support equipment.

Attachment C – Proposed Air Permit Projects for Which South Coast AQMD is CEQA Lead Agency

The CEQA lead agency is responsible for determining the type of environmental document to be prepared if a proposal requiring discretionary action is considered to be a “project” as defined by CEQA. South Coast AQMD periodically acts as lead agency for its air permit projects and the type of environmental document prepared may vary depending on the potential impacts. For example, an Environmental Impact Report (EIR) is prepared when there is substantial evidence that the project may have significant adverse effects on the environment. Similarly, a Negative Declaration (ND) or Mitigated Negative Declaration (MND) may be prepared if a proposed project will not generate significant adverse environmental impacts, or the impacts can be mitigated to less than significance. The ND and MND are types of CEQA documents which analyze the potential environmental impacts and describe the reasons why a significant adverse effect on the environment will not occur such that the preparation of an EIR is not required.

Attachment C of this report summarizes the proposed air permit projects for which South Coast AQMD is lead agency and is currently preparing or has prepared environmental documentation pursuant to CEQA. As noted in Attachment C, South Coast AQMD is lead agency for three air permit projects during May and June 2024.

Attachments

- A. Environmental Documents Prepared by Other Public Agencies and Status of Review
- B. Active Projects with Continued Review of Environmental Documents Prepared by Other Public Agencies
- C. Proposed Air Permit Projects for Which South Coast AQMD is CEQA Lead Agency

ATTACHMENT A
ENVIRONMENTAL DOCUMENTS PREPARED BY OTHER PUBLIC AGENCIES AND STATUS OF REVIEW
May 1, 2024 to June 30, 2024

SOUTH COAST AQMD LOG-IN NUMBER PROJECT TITLE	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
Warehouse & Distribution Centers RVC240508-03 OLC3 Ramona Expressway and Perris Boulevard Commercial Warehouse Project	The project consists of three components: constructing a 774,419 square foot warehouse, using a 4.7-acre commercial portion to the south of the warehouse for retail and restaurant purposes, and using a 4.8-acre commercial portion to the west of the warehouse for future retail and restaurant purposes. Construction is anticipated to last 11 months and will encompass a 46-acre site. The project is located near the northeast corner of Perris Boulevard and Ramona Expressway. Reference RVC230913-03 and RVC220712-06 Staff previously provided comments on the Notice of Preparation for the project, which can be accessed at: http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2022/july/RVC220712-06.pdf . https://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2024/june-2024/rvc240508-03-nop-olc3-ramona-expressway-and-perris-boulevard-commercial-warehouse-project.pdf Comment Period: 5/3/2024- 6/3/2024 Public Hearing: 5/15/2024	Notice of Preparation	City of Perris	Comment letter sent on 6/4/2024
Warehouse & Distribution Centers RVC240515-05 Conditional Use Permit No. 22-05023	The project consists of constructing a 350,000 square foot warehouse and two business park buildings totaling 14,000 square feet on 19.16 acres. The project is located on the southwest corner of Mapes Road and Trumble Road. Reference RVC231004-04, RVC230809-01, RVC230329-04, and RVC220215-04 Comment Period: N/A Public Hearing: 5/28/2024	Final Mitigated Negative Declaration	City of Perris	Document reviewed - No comments sent
Warehouse & Distribution Centers RVC240515-07 Perris DC 11 Project	The project consists of constructing a 551,922 square foot warehouse on 29.5 acres and offsite infrastructure improvements encompassing approximately 0.29 acres within Webster Avenue and Ramona Expressway. The project is located near the southeast corner of Ramona Expressway and Webster Avenue. Reference RVC231025-07 and RVC231004-05 https://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2024/june-2024/rvc240515-07-deir-perris-dc-11-project.pdf Comment Period: 5/10/2024- 6/24/2024 Public Hearing: N/A	Notice of Availability of a Draft Environmental Impact Report	City of Perris	Comment letter sent on 6/26/2024
Warehouse & Distribution Centers RVC240522-01 Serrano Commerce Center	The project consists of future development of 489.45 acres property with up to 6,472,000 square feet use of industrial uses on 3375.11 acres, open space on 87.77 acres, and major roadways on 29.57 acres. The project is located on the southeast corner of Temescal Canyon Road and Interstate 15 in the Temescal Canyon area of unincorporated area in Riverside County. https://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2024/june-2024/rvc240522-01-nop-serrano-commerce-center-project.pdf Comment Period: 5/17/2024- 6/16/2024 Public Hearing: 6/3/2024	Notice of Preparation	County of Riverside	Comment letter sent on 6/14/2024

Key:

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Project Notes:

1. Disposition may change prior to Governing Board Meeting
2. Documents received by the CEQA Intergovernmental Review program but not requiring review are not included in this report.

ATTACHMENT A
ENVIRONMENTAL DOCUMENTS PREPARED BY OTHER PUBLIC AGENCIES AND STATUS OF REVIEW
May 1, 2024 to June 30, 2024

SOUTH COAST AQMD LOG-IN NUMBER PROJECT TITLE	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
Transportation LAC240529-10 California High-Speed Rail System Palmdale to Burbank Project Section	The project consists of constructing a 38-mile rail track for passenger services between Palmdale Station in the Palmdale and Burbank Airport Station in Burbank. Reference LAC220901-10, LAC211102-03, LAC200526-01, and LAC140729-05 Staff previously provided comments on the Preliminary Review for the project, which can be accessed at http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2022/november/LAC220901-10.pdf . Comment Period: N/A Public Hearing: 6/26/2024	Final Environmental Impact Report/ Environmental Impact Statement	California High-Speed Rail Authority	Document reviewed - No comments sent
Transportation RVC240501-11 McCall Boulevard Road Widening CIP No. 22-03	The project consists of widening McCall Boulevard from Oak Hurst Avenue to Menifee Road (0.75 mile) with a new eastbound and westbound traffic lane and widening the two-lane segment of McCall Boulevard to four lanes. The project also consists of installing traffic signals, street lighting, sidewalks, curb and gutter, ADA ramps, and a retaining wall. The project is located along the existing McCall Boulevard, between Oak Hurst Avenue and Menifee Road. Comment Period: 5/1/2024 - 5/7/2024 Public Hearing: 5/8/2024	Notice of Intent to Adopt a Mitigated Negative Declaration	City of Menifee	Document reviewed - No comments sent
Transportation RVC240524-02 I-10 Facility Restoration Project	The project consists of: 1) replacing and grinding lanes; 2) conducting a random slab replacement; 3) replacing outside shoulders; 4) reconstructing the median, cold plane and overlay; 5) upgrading metal beam guard rails; 6) upgrading curb ramps to Americans with Disability Act (ADA) standards; 7) constructing a Gross Solids Removal Device (GSRD)/trash capture device; 8) installing fiber optic cable systems; and 9) improving roadside safety in gore areas. The project is located along Interstate 10 from Post Mile (PM) 0.0 to PM 4.40. Comment Period: 5/24/2024 - 6/24/2024 Public Hearing: N/A	Notice of Intent to Adopt a Mitigated Negative Declaration	California Department of Transportation (Caltrans)	Document reviewed - No comments sent

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May 1, 2024 to June 30, 2024

SOUTH COAST AQMD LOG-IN NUMBER PROJECT TITLE	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
Retail LAC240507-02 Palm and Pepper Commercial Development	The project consists of removing existing onsite buildings and constructing three new quick-serve food-related buildings (a Starbucks, a Raising Cane's, and a Panda Express) totaling 7,053 square feet with 121 parking spaces on 2.7 acres. The project is located at 126, 132, and 146 South Palm Avenue, 127 South Raymond Avenue, and 1028 Teagarden Lane. Comment Period: 5/3/2024- 6/3/2024 Public Hearing: 6/3/2024	Notice of Intent to Adopt a Mitigated Negative Declaration	City of Alhambra	Document reviewed - No comments sent
Retail RVC240515-01 PEN23-0103 (Conditional Use Permit)	The project consists of building a self-storage facility on 4.37 acres. The project is located at the southwest corner of Alessandro Boulevard and Moreno Beach Drive. Comment Period: 5/15/2024- 5/23/2024 Public Hearing: 5/23/2024	Other	City of Moreno Valley	Document reviewed - No comments sent
Retail RVC240516-01 Planning Case PR-2021-001049 (Conditional Use Permit and Design Review)	The project consists of constructing a 2,350 square foot drive-through restaurant (Ono Hawaiian BBQ) with 30 parking stalls and landscape improvements on 0.85 acres. The project is located at 3765 La Sierra Avenue, on the southeast corner of La Sierra Avenue and Magnolia Avenue. Comment Period: 5/16/2024- 5/30/2024 Public Hearing: N/A	Other	City of Riverside	Document reviewed - No comments sent
Retail RVC240516-02 HOME2SUITES – Plot Plan (PP) No. PLN23-0069 and Conditional Use Permit (CUP) No. PLN23-0070	The project consists of constructing a 65,463 square foot hotel on two acres with 106 rooms and 106 parking spaces. This project is located north of La Piedra Road, east of Interstate 215, south of Newport Road, and west of Antelope Road. Reference RVC240201-02 Comment Period: 5/15/2024- 6/3/2024 Public Hearing: 6/12/2024	Notice of Intent to Adopt a Mitigated Negative Declaration	City of Menifee	Document reviewed - No comments sent

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May 1, 2024 to June 30, 2024

SOUTH COAST AQMD LOG-IN NUMBER PROJECT TITLE	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
Warehouse & Distribution Centers LAC240611-01 5910 Cherry Avenue Industrial Building Project	The project consists of demolishing an existing office building and eight ancillary structures and constructing a 303,342 square foot industrial building on 14.16 acres. The project is located at 5910 Cherry Avenue and is north to the intersection of Cherry Avenue and East Hungerford Street. Reference LAC240319-02, LAC231010-03 Comment Period: N/A Public Hearing: 6/20/2024	Other	City of Long Beach	Document reviewed - No comments sent
Warehouse & Distribution Centers LAC240612-11 5910 Cherry Avenue Industrial Building Project	The project consists of demolishing an existing office building and eight ancillary structures and constructing a 303,342 square foot industrial building on 14.16 acres. The project is located at 5910 Cherry Avenue and is north to the intersection of Cherry Avenue and East Hungerford Street. Reference LAC240611-01, LAC240319-02, LAC231010-03 Comment Period: N/A Public Hearing: 6/20/2024	Final Environmental Impact Report	City of Long Beach	Document reviewed - No comments sent
Warehouse & Distribution Centers RVC240604-05 Murrieta Road Warehouse Project	The project consists of constructing a 517,720 square foot warehouse, 409 automobile parking spaces, and 192 truck trailer parking spaces. The project is located near the northwest corner of McLaughlin Road and Murrieta Road. Reference RVC231108-01 https://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2024/june-2024/rvc240604-05-draft-eir-murrieta-road-warehouse-project.pdf Comment Period: 5/24/2024 - 7/8/2024 Public Hearing: N/A	Notice of Availability of a Draft Environmental Impact Report	City of Menifee	Comment letter sent on 6/28/2024
Warehouse & Distribution Centers RVC240604-06 Lilac Logistics Center Project	The project consists of annexing 11.18 acres into the city limits, pre-zoning the property as manufacturing, and constructing a 158,112 square foot warehouse. The project is located north of West 4th Street, south of State Route 60, and west of Potrero Boulevard at 36711 Highway 60. Reference RVC240220-01 Staff previously provided comments on the Site Plan for the project, which can be accessed at: https://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2024/february/RVC240220-01.pdf Comment Period: 5/28/2024 - 6/26/2024 Public Hearing: 6/5/2024	Notice of Preparation of a Draft Environmental Impact Report	City of Beaumont	Document reviewed - No comments sent

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SOUTH COAST AQMD LOG-IN NUMBER PROJECT TITLE	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
Warehouse & Distribution Centers SBC240626-04 Ninth and Vineyard Development Project	The project consists of constructing three warehouses totaling 982,096 square feet on 45.97 acres. The project is located near the southeast corner of East Ninth Street and Vineyard Avenue. Reference SBC220317-05 Comment Period: 6/20/2024- 8/5/2024 Public Hearing: N/A	Notice of Availability of a Recirculated Draft Environmental Impact Report	City of Rancho Cucamonga	Under review, may submit comments
Airports RVC240604-07 Meridian D1-Gateway Aviation Center Project	The project consists of constructing an Air Cargo Center Component and an Off-Site Component totaling approximately 46 acres. The Air Cargo Center Component will include the construction of a 180,800 square foot cargo building on 34 acres and the Off-Site Component will include the construction of taxiway and taxilane, widening, and realignment; storm-drain extensions; and a perimeter patrol road with security fencing within March Air Reserve Base (ARB) on 12 acres. The project is located near the southwest of the corner of Heacock Street and Krameria Avenue in the city of Moreno Valley. Reference RVC210401-14 Staff previously provided comments on the Notice of Preparation for the project, which can be accessed at: https://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2021/april/RVC210401-14.pdf . Comment Period: 5/23/2024- 7/9/2024 Public Hearing: N/A	Notice of Availability of a Draft Environmental Impact Report	March Joint Powers Authority	Document reviewed - No comments sent
Airports RVC240618-05 Meridian D1-Gateway Aviation Center Project	The project consists of constructing an Air Cargo Center Component and an Off-Site Component on approximately 46 acres. The Air Cargo Center Component will include the construction of a 180,800 square foot cargo building on 34 acres and the Off-Site Component will include the construction of taxiway and taxilane, widening, and realignment; storm-drain extensions; and a perimeter patrol road with security fencing within March Air Reserve Base (ARB) on 12 acres. The project also consists of requiring a zoning designation and a plot plan approval. The project is located near the southwest of the corner of Heacock Street and Krameria Avenue in the city of Moreno Valley. Reference RVC240604-07 and RVC210401-14 Comment Period: N/A Public Hearing: 6/18/2024	Other	March Joint Powers Authority	Document reviewed - No comments sent

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May 1, 2024 to June 30, 2024

SOUTH COAST AQMD LOG-IN NUMBER PROJECT TITLE	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
<i>Industrial and Commercial</i> RVC240604-16 West Campus Upper Plateau Project	The project consists of demolishing 14 military bunkers, and constructing 65.32 acres of business park uses, 143.31 acres of industrial uses, 42.22 acres of commercial and retail uses, 37.91 acres of public streets, 60.28 acres of recreational uses, 17.72 acres of open space, 2.84 acres of public facilities, and 445.43 acres of conservation uses on 817.90 acres. The project is located on the southwest corner of Meridian Parkway and Alessandro Boulevard in Riverside. Reference RVC231206-08, RVC230111-04, and RVC211123-02 Staff previously provided comments on the Recirculated Draft Environmental Impact Report for the project, which can be accessed at: https://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2024/february/RVC231206-08.pdf . Comment Period: N/A Public Hearing: 6/12/2024	Response to Comments	March Joint Powers Authority	Document reviewed - No comments sent
<i>Industrial and Commercial</i> RVC240605-02 West Campus Upper Plateau Project	The project consists of proposing a General Plan Amendment, Specific Plan Amendment, Zone Change, Plot Plan Proposals, Tentative Tract Map, and Development Agreement for future development of 60.28 acres of recreational uses, 42.22 acres of commercial and retail uses, 65.32 acres of business park uses, 143.31 acres of industrial uses, 37.91 acres of streets, 2.84 acres of public facilities, 7.72 acres of open space, and 445.43 acres of conservation uses on 817.90 acres. The project also consists of constructing two industrial buildings. Building 1 will be a 1,250,000 square foot distribution warehouse on 59.55 acres located at 20133 Cactus Avenue. Building 2 will be a 587,000 square foot distribution warehouse on 27.58 acres located at 20600 Cactus Avenue. The project is located on the southwest corner of Meridian Parkway and Alessandro Boulevard in the City of Moreno Valley. Reference RVC240604-16, RVC231206-08, RVC230111-04 and RVC211123-02 Comment Period: N/A Public Hearing: 6/12/2024	Other	March Joint Powers Authority	Document reviewed - No comments sent
<i>Industrial and Commercial</i> RVC240605-07 Crystal Windows West Coast Headquarters Project	This project consists of constructing two light industrial buildings on 18.6 acres. Building 1 consists of 196,800 square feet and would be constructed on Site 1 (PEN23-0113) and Building 2 consists of 168,600 square feet and would be constructed on Site 2 (PEN23-0114). This project is located northeast of Moreno Beach Drive, east of Petit Avenue, and south of Eucalyptus Avenue. https://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2024/june-2024/rvc240605-07-nop-crystal-windows-west-coast-headquarters-project.pdf Comment Period: 5/29/2024- 6/29/2024 Public Hearing: 6/12/2024	Notice of Preparation of a Draft Environmental Impact Report	City of Moreno Valley	Comment letter sent on 6/28/2024

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May 1, 2024 to June 30, 2024

SOUTH COAST AQMD LOG-IN NUMBER	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
PROJECT TITLE				
<i>Industrial and Commercial</i> RVC240605-13 Hemet Logistics West Project	The project consists of constructing four warehouse buildings totaling approximately 1,101,894 square feet on 60.86 acres. The project is located southwest of the intersection of West Acacia Avenue and Cawston Avenue. Comment Period: 5/29/2024 - 6/28/2024 Public Hearing: 6/13/2024	Notice of Preparation of a Draft Environmental Impact Report	City of Hemet	Document reviewed - No comments sent
<i>Industrial and Commercial</i> RVC240618-02 Hemet Logistics West Project	The project consists of constructing four warehouse buildings totaling approximately 1,101,894 square feet on 60.86 acres. The project is located southwest of the intersection of West Acacia Avenue and Cawston Avenue. Reference RVC240605-13 Comment Period: 5/29/2024 - 7/12/2024 Public Hearing: 6/13/2024	Revised Notice of Preparation of a Draft Environmental Impact Report/Other	City of Hemet	Under review, may submit comments
<i>Industrial and Commercial</i> RVC240621-02 Planning Case PR-2024-001644 (CUP, LDR)	The project consists of requesting approval for a Conditional Use Permit and Landscape Design Review to establish a vehicle impound yard with associated site improvements on 1.38 acres. The project is located west of Rutland Avenue between Philip Avenue and Cypress Avenue at 6200 Rutland Avenue. Comment Period: N/A Public Hearing: N/A	Site Plan	City of Riverside	Document reviewed - No comments sent
<i>Waste and Water-related</i> LAC240604-12 Alamitos Bay Water Quality Enhancement Project	The project consists of installing a new “fish-friendly” pump system that is separate from power generating operations within the intake channel of the AES Alamitos Unit 6 as well as on land. The project is located in the water area between the Cerritos Channel and the San Gabriel River within the AES Alamitos Generating Station, located at 690 North Studebaker Road in the City of Long Beach. Comment Period: 5/30/2024 - 7/1/2024 Public Hearing: 6/13/2024	Notice of Preparation of a Draft Environmental Impact Report	City of Long Beach	Document reviewed - No comments sent

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May 1, 2024 to June 30, 2024

SOUTH COAST AQMD LOG-IN NUMBER	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
PROJECT TITLE				
<i>General Land Use (residential, etc.)</i> RVC240612-01 Menifee Innovation District Specific Plan	The project consists of proposing a Specific Plan for mixed use on approximately 299 acres. The project is located at the City’s southern gateway area, north of Keller Road, east of Howard Way, south of Scott Road, and west of the Interstate 215 Freeway. Comment Period: N/A Public Hearing: 6/25/2024	Other	City of Menifee	Document reviewed - No comments sent
<i>General Land Use (residential, etc.)</i> RVC240612-06 JD Ranch Residential Project	The project consists of proposing a General Plan Amendment, a Zone Change, and a Tentative Tract Map for future development of 68 residential units on approximately 27.57 acres. The project is located along River Road between Bluff Street and Sundance Lane. Reference RVC230628-11 Comment Period: 6/6/2024- 7/22/2024 Public Hearing: N/A	Notice of Availability of a Draft Environmental Impact Report	City of Norco	Document reviewed - No comments sent
<i>General Land Use (residential, etc.)</i> RVC240618-03 Habitat II – 6 Town Home Project	The project consists of constructing an approximately 10,550 square foot building with six residential units on 0.46 acre. The project also consists of proposing a Tentative Tract Map to subdivide six residential lots from two existing lots. The project is located at 28725 and 28731 Pujol Street. Comment Period: N/A Public Hearing: N/A	Other	City of Temecula	Document reviewed - No comments sent

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**ATTACHMENT C
PROPOSED AIR PERMIT PROJECTS FOR
WHICH SOUTH COAST AQMD IS CEQA
LEAD AGENCY THROUGH JUNE 30, 2024**

PROJECT DESCRIPTION	PROPONENT	TYPE OF DOCUMENT	STATUS	CONSULTANT
<p>Quemetco is proposing to modify existing South Coast AQMD 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.</p>	<p>Quemetco</p>	<p>Environmental Impact Report (EIR)</p>	<p>The Draft EIR was released for a 124-day public review and comment period from October 14, 2021 to February 15, 2022 and approximately 200 comment letters were received.</p> <p>South Coast AQMD held two community meetings, on November 10, 2021 and February 9, 2022, which presented an overview of the proposed project, the CEQA process, detailed analysis of the potentially significant environmental topic areas, and the existing regulatory safeguards. Response to written comments submitted relative to the Draft EIR and oral comments made at the community meetings are currently being prepared by the consultant.</p> <p>After the Draft EIR public comment and review period closed, Quemetco submitted additional applications for other permit modifications. South Coast AQMD staff is evaluating the effect of these new applications on the EIR process.</p>	<p>Trinity Consultants</p>
<p>Sunshine Canyon Landfill is proposing to modify its South Coast AQMD permits for its active landfill gas collection and control system to accommodate the increased collection of landfill gas. The proposed project will: 1) install two new low emission flares with two additional 300-horsepower electric blowers; and 2) increase the landfill gas flow limit of the existing landfill gas collection system.</p>	<p>Sunshine Canyon Landfill</p>	<p>Subsequent Environmental Impact Report (SEIR)</p>	<p>South Coast AQMD staff reviewed and provided comments on the preliminary air quality analysis, health risk assessment (HRA), and Preliminary Draft SEIR which are currently being addressed by the consultant.</p>	<p>Castle Environmental Consulting</p>
<p>Tesoro is proposing to modify its Title V permit to: 1) add gas oil as a commodity that can be stored in three of the six new crude oil storage tanks at the Carson Crude Terminal (previously assessed in the May 2017 Final EIR); and 2) drain, clean and decommission Reservoir 502, a 1.5-million-barrel concrete lined, wooden-roof topped reservoir used to store gasoil.</p>	<p>Tesoro Refining & Marketing Company, LLC (Tesoro)</p>	<p>Addendum to the Final Environmental Impact Report (EIR) for the May 2017 Tesoro Los Angeles Refinery Integration and Compliance Project (LARIC)</p>	<p>South Coast AQMD staff review of the revised Draft Addendum is complete. South Coast AQMD staff is preparing the Draft Title V Permit Revision for review by the United States Environmental Protection Agency.</p>	<p>Environmental Audit, Inc.</p>

[↑ Back to Agenda](#)

BOARD MEETING DATE: August 2, 2024

AGENDA NO. 14

REPORT: Rule and Control Measure Forecast

SYNOPSIS: This report highlights South Coast AQMD rulemaking activities and public hearings scheduled for 2024.

COMMITTEE: No Committee Review

RECOMMENDED ACTION:
Receive and file.

Wayne Natri
Executive Officer

SLR:MK:IM:JA:ZS

2024 MASTER CALENDAR

The 2024 Master Calendar provides a list of proposed or proposed amended rules for each month, with a brief description, and a notation in the third column indicating if the rulemaking is for an AQMP, either the 2016 AQMP or 2022 AQMP, when adopted, Toxics, AB 617 (for BARCT) or measures identified in an AB 617 Community Emission Reduction Plan (CERP), SIP to address comments or actions from U.S. EPA for a rule that is in an approved SIP, or Other. Rulemaking efforts that are noted for implementation of the 2016 AQMP or 2022 AQMP when adopted, Toxics, and AB 617 are either statutorily required and/or are needed to address a public health concern. 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, will reduce criteria pollutants, or is part of the RECLAIM transition. Symbols have been added to indicate the following:

- * *This rulemaking may have a substantial number of public comments.*
- + *This rulemaking will reduce criteria air contaminants and assist toward attainment of ambient air quality standards.*
- # *This rulemaking is part of the transition of RECLAIM to a command-and-control regulatory structure.*

The following table provides a list of changes since the previous Rule Forecast Report.

1445	Control of Toxic Emissions from Laser Arc Cutting
Proposed Rule 1445 is being moved from September to November 2024 to allow additional time for a demonstration project and to work with stakeholders to resolve outstanding issues and concerns.	
1401	New Source Review of Toxic Air Contaminants
Proposed Amended Rule 1401 is being moved from November to Second Quarter 2025 to allow staff to work with stakeholders on VOC rules that would be impacted by the amendments to Rule 1401.	
1159.1	Control of NOx Emissions from Nitric Acid Tanks
Proposed Rule 1159.1 is being moved from November to December 2024 to allow staff additional time to work with stakeholders.	
1151	Motor Vehicle and Mobile Equipment Non-Assembly Line Coating Operations
Proposed Amended Rule 1151 is being moved from TBD to November 2024.	

2024 MASTER CALENDAR

Month	Title and Description	Type of Rulemaking
September		
1165	<p>Control of Emissions from Municipal Solid Waste Incinerators Proposed Rule 1165 will establish emission standards, source testing, and monitoring, recordkeeping, and reporting requirements for incinerators. <i>Michael Morris 909.396.3282; CEQA and Socio: Barbara Radlein 909.396.2716</i></p>	AQMP / Other
October		
1135 ⁺	<p>Emissions of Oxides of Nitrogen from Electricity Generating Facilities Proposed Amended Rule 1135 will modify provisions for electricity generating units at Santa Catalina Island to reflect a revised BARCT assessment. <i>Michael Morris 909.396.3282; CEQA and Socio: Barbara Radlein 909.396.2716</i></p>	AQMP / AB 617 BARCT
1173 ⁺	<p>Control of Volatile Organic Compound Leaks and Releases from Components at Petroleum Facilities and Chemical Plants Proposed Amended Rule 1173 will further reduce emissions from petroleum, include contingency provisions, and chemical plants by requiring early leak detection approaches. <i>Michael Morris 909.396.3282; CEQA and Socio: Barbara Radlein 909.396.2716</i></p>	AQMP / AB 617 CERP

* 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

2024 MASTER CALENDAR (Continued)

Month	Title and Description	Type of Rulemaking
November		
1151	<p>Motor Vehicle and Mobile Equipment Non-Assembly Line Coating Operations Proposed Amended Rule 1151 will provide clarifications of current requirements and amend provisions to address implementation issues.</p> <p align="center"><i>Heather Farr 909.396.3672; CEQA and Socio: Barbara Radlein 909.396.2716</i></p>	Other / AB 617 CERP
1445*	<p>Control of Toxic Emissions from Laser Arc Cutting Proposed Rule 1445 will establish requirements to reduce hexavalent chromium and other metal toxic air contaminant particulate emissions from laser arc cutting.</p> <p align="center"><i>Kalam Cheung 909.396.3281; CEQA and Socio: Barbara Radlein 909.396.2716</i></p>	Toxics / AB 617 CERP
December		
1111	<p>Reduction of NOx Emissions from Natural-Gas-Fired, Fan-Type Central Furnaces Proposed Amended Rule 1111 will implement the 2022 AQMP control measure R-CMB-02 requiring zero emission residential space heating.</p> <p align="center"><i>Heather Farr 909.396.3672; CEQA and Socio: Barbara Radlein 909.396.2716</i></p>	AQMP
1121*	<p>Control of Nitrogen Oxides from Residential Type, Natural-Gas-Fired Water Heaters Proposed amendments may be needed to further reduce NOx emissions from water heaters.</p> <p align="center"><i>Heather Farr 909.396.3672; CEQA and Socio: Barbara Radlein 909.396.2716</i></p>	AQMP
1159.1#	<p>Control of NOx Emissions from Nitric Acid Tanks Proposed Rule 1159.1 will establish requirements to reduce NOx emissions from nitric acid units that will apply to RECLAIM, former RECLAIM, and non-RECLAIM facilities.</p> <p align="center"><i>Kalam Cheung 909.396.3281; CEQA and Socio: Barbara Radlein 909.396.2716</i></p>	AQMP / AB 617 BARCT

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

2024 MASTER CALENDAR *(Continued)*

Month	Title and Description	Type of Rulemaking
December (Continued)		
Regulation XIII*#	<p>New Source Review Proposed Amended Regulation XIII will revise New Source Review provisions to address facilities that are transitioning from RECLAIM to a command-and-control regulatory structure and to address comments from U.S. EPA. Additional rules under Regulation XIII may be needed to address offsets and other provisions under Regulation XIII.</p> <p style="text-align: center;"><i>Michael Morris 909.396.3282; CEQA and Socio: Barbara Radlein 909.396.2716</i></p>	AQMP
Regulation XX*#	<p>RECLAIM Proposed Amended Regulation XX will address the transition of NOx RECLAIM facilities to a command-and-control regulatory structure.</p> <p style="text-align: center;"><i>Michael Morris 909.396.3282; CEQA and Socio: Barbara Radlein 909.396.2716</i></p>	AQMP
2304*+ 316.1	<p>Commercial Marine Ports – Container Terminals Fees for Rule 2304 Proposed Rule 2304 will establish requirements to reduce emissions from container terminals located at commercial marine ports and the mobile sources attracted to these facilities. Proposed Rule 316.1 will establish fees to recover the South Coast AQMD’s anticipated cost of implementing Proposed Rule 2304.</p> <p style="text-align: center;"><i>Elaine Shen 909 396. 2715; CEQA and Socio: Barbara Radlein 909.396.2716</i></p>	AQMP / AB 617 CERP

* *Potentially significant hearing*

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2024 To-Be-Determined

2024	Title and Description	Type of Rulemaking
102	<p>Definition of Terms Proposed amendments may be needed to update and add definitions, and potentially modify exemptions. <i>TBD; CEQA and Socio: Barbara Radlein 909.396.2716</i></p>	Other
103	<p>Definition of Geographical Areas Proposed amendments are needed to update geographic areas to be consistent with state and federal references to those geographic areas. <i>TBD; CEQA and Socio: Barbara Radlein 909.396.2716</i></p>	Other
209	<p>Transfer and Voiding of Permits Proposed amendments may be needed to clarify requirements for change of ownership and permits and the assessment of associated fees. <i>Kalam Cheung 909.396.3281; CEQA and Socio: Barbara Radlein 909.396.2716</i></p>	Other
223	<p>Emission Reduction Permits for Large Confined Animal Facilities Proposed Amended Rule 223 will seek additional ammonia emission reductions from large, confined animal facilities by lowering the applicability threshold. Proposed amendments will implement BCM-04 in the 2016 AQMP. <i>TBD; CEQA and Socio: Barbara Radlein 909.396.2716</i></p>	AQMP
403	<p>Fugitive Dust Proposed Amended Rule 403 will seek to remove outdated provisions and clarify existing provisions to enhance compliance. <i>TBD; CEQA and Socio: Barbara Radlein 909.396.2716</i></p>	Other
403.1	<p>Supplemental Fugitive Dust Control Requirements for Coachella Valley Sources Proposed Amended Rule 403.1 will clarify existing requirements for dust control and remove outdated provisions contained in supporting documents for Rule 403.1. <i>TBD; CEQA and Socio: Barbara Radlein 909.396.2716</i></p>	Other
407 [#]	<p>Liquid and Gaseous Air Contaminants Proposed Amended Rule 407 will update SO_x emission limits to reflect Best Available Retrofit Control Technology, if needed, remove exemptions for RECLAIM facilities, and update monitoring, reporting, and recordkeeping requirements. <i>TBD; CEQA and Socio: Barbara Radlein 909.396.2716</i></p>	AB 617 BARCT

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2024 To-Be-Determined (Continued)

2024	Title and Description	Type of Rulemaking
410	<p>Odors from Transfer Stations and Material Recovery Facilities Proposed Amended Rule 410 will clarify existing provisions. Additional provisions may be needed to address activities associated with diversion of food waste to transfer stations or material recovery facilities. <i>TBD; CEQA and Socio: Barbara Radlein 909.396.2716</i></p>	Other
425	<p>Odors from Cannabis Processing Proposed Rule 425 will establish requirements for control of odors from cannabis processing. <i>TBD; CEQA and Socio: Barbara Radlein 909.396.2716</i></p>	Other
430	<p>Breakdown Provisions Amendments to Rule 430 will be needed to remove exemptions for facilities that exit the RECLAIM program and update references to CEMS rules. Other amendments may be needed to address current policies from U.S. EPA regarding startup, shutdown, and malfunction requirements. <i>TBD; CEQA and Socio: Barbara Radlein 909.396.2716</i></p>	RECLAIM / Other
431.1 [#]	<p>Sulfur Content of Gaseous Fuels Proposed Amended Rule 431.1 will assess exemptions, including RECLAIM, and update other provisions, if needed. <i>Heather Farr 909.396.3672; CEQA and Socio: Barbara Radlein 909.396.2716</i></p>	AB 617 BARCT / AB 617 CERP
431.2 [#]	<p>Sulfur Content of Liquid Fuels Proposed Amended Rule 431.2 will assess exemptions, including RECLAIM, and update other provisions, if needed. <i>Heather Farr 909.396.3672; CEQA and Socio: Barbara Radlein 909.396.2716</i></p>	AB 617 BARCT / AB 617 CERP
431.3 [#]	<p>Sulfur Content of Fossil Fuels Proposed Amended Rule 431.3 will assess exemptions, including RECLAIM, and update other provisions, if needed. <i>Heather Farr 909.396.3672; CEQA and Socio: Barbara Radlein 909.396.2716</i></p>	AB 617 BARCT / AB 617 CERP
444	<p>Open Burning Amendments may be needed to clarify existing provisions. <i>TBD; CEQA and Socio: Barbara Radlein 909.396.2716</i></p>	Other
445 [*]	<p>Wood Burning Devices Proposed Amended Rule 445 will address additional U.S. EPA requirements for Best Available Control Measures, including lowering the curtailment threshold. <i>TBD; CEQA and Socio: Barbara Radlein 909.396.2716</i></p>	AQMP

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2024 To-Be-Determined (Continued)

2024	Title and Description	Type of Rulemaking
461	<p>Gasoline Transfer and Dispensing Amendments to Rule 461 may be needed to address potential regulatory gaps. <i>TBD; CEQA and Socio: Barbara Radlein 909.396.2716</i></p>	Other
462	<p>Organic Liquid Loading Proposed Amended Rule 462 will incorporate the use of advanced techniques to detect fugitive emissions and Facility Vapor Leak. Other amendments may be needed to streamline implementation and add clarity. <i>TBD; CEQA and Socio: Barbara Radlein 909.396.2716</i></p>	Other
468 [#]	<p>Sulfur Recovery Units Proposed Amended Rule 468 will update SO_x emission limits to reflect Best Available Retrofit Control Technology, if needed, remove exemptions for RECLAIM facilities, and update monitoring, reporting, and recordkeeping requirements. <i>TBD; CEQA and Socio: Barbara Radlein 909.396.2716</i></p>	AB 617 BARCT
469 [#]	<p>Sulfuric Acid Units Proposed Amended Rule 469 will update SO_x emission limits to reflect Best Available Retrofit Control Technology, if needed, remove exemptions for RECLAIM facilities, and update monitoring, reporting, and recordkeeping requirements. <i>TBD; CEQA and Socio: Barbara Radlein 909.396.2716</i></p>	AB 617 BARCT
1101 [#]	<p>Secondary Lead Smelters/Sulfur Oxides Proposed Amended Rule 1101 will update SO_x emission limits to reflect Best Available Retrofit Control Technology, if needed, remove exemptions for RECLAIM facilities, and update monitoring, reporting, and recordkeeping requirements. <i>TBD; CEQA and Socio: Barbara Radlein 909.396.2716</i></p>	AB 617 BARCT
1102	<p>Dry Cleaners Using Solvent Other Than Perchloroethylene Proposed amendments may be needed to address certain exempt compounds, VOC limits for certain applications, and other amendments to improve clarity. <i>Michael Morris 909.396.3282; CEQA and Socio: Barbara Radlein 909.396.2716</i></p>	AB 617 CERP
1105 [#]	<p>Fluid Catalytic Cracking Units SO_x Proposed Amended Rule 1105 will update SO_x emission limits to reflect Best Available Retrofit Control Technology, if needed, remove exemptions for RECLAIM facilities, and update monitoring, reporting, and recordkeeping requirements. <i>TBD; CEQA and Socio: Barbara Radlein 909.396.2716</i></p>	AB 617 BARCT / AB 617 CERP

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2024 To-Be-Determined (Continued)

2024	Title and Description	Type of Rulemaking
1107	<p>Coating of Metal Parts and Products Proposed amendments may be needed to address certain exempt compounds, VOC limits for certain applications, and other amendments to improve clarity. <i>Heather Farr 909.396.3672; CEQA and Socio: Barbara Radlein 909.396.2716</i></p>	Toxics / Other
1108	<p>Cutback Asphalt Proposed amendments may be needed to address certain exempt compounds, VOC limits for certain applications, and other amendments to improve clarity. <i>Heather Farr 909.396.3672; CEQA and Socio: Barbara Radlein 909.396.2716</i></p>	Toxics / Other
1108.1	<p>Emulsified Asphalt Proposed amendments may be needed to address certain exempt compounds, VOC limits for certain applications, and other amendments to improve clarity. <i>Heather Farr 909.396.3672; CEQA and Socio: Barbara Radlein 909.396.2716</i></p>	Toxics/ Other
1110.2*+ #	<p>Emissions from Gaseous- and Liquid-Fueled Engines Proposed amendments will address use of emergency standby engines, incorporate possible comments by U.S. EPA for approval into the SIP, and address monitoring provisions for new engines. <i>Michael Morris 909.396.3282; CEQA and Socio: Barbara Radlein 909.396.2716</i></p>	AQMP / AB 617 BARCT
1110.4	<p>Emissions from Emergency Generators Proposed Rule 1110.4 will establish and revise rule provisions to reduce NOx, CO, and PM emissions from emergency generators. <i>Michael Morris 909.396.3282; CEQA and Socio: Barbara Radlein 909.396.2716</i></p>	Other / AQMP
1113	<p>Architectural Coatings Proposed amendments may be needed to address delisted compounds and other amendments to improve clarity and to remove obsolete provisions. <i>Heather Farr 909.396.3672; CEQA and Socio: Barbara Radlein 909.396.2716</i></p>	Other
1114	<p>Petroleum Refinery Coking Operations Proposed Amended Rule 1114 will seek to add notification requirements when coke particles, liquid and/or gas is ejected from the coke drum during cutting. <i>TBD; CEQA and Socio: Barbara Radlein 909.396.2716</i></p>	Other
1119#	<p>Petroleum Coke Calcining Operations – Oxides of Sulfur Proposed Amended Rule 1119 will update SOx emission limits to reflect Best Available Retrofit Control Technology, if needed, remove exemptions for RECLAIM facilities, and update monitoring, reporting, and recordkeeping requirements. <i>TBD; CEQA and Socio: Barbara Radlein 909.396.2716</i></p>	AB 617 BARCT / AB 617 CERP

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2024 To-Be-Determined (Continued)

2024	Title and Description	Type of Rulemaking
1122	<p>Solvent Degreasers Proposed amendments may be needed to address certain exempt compounds, VOC limits for certain applications, and other amendments to improve clarity. <i>Heather Farr 909.396.3672; CEQA and Socio: Barbara Radlein 909.396.2716</i></p>	Toxics / Other
1124	<p>Aerospace Assembly and Component Manufacturing Operations Proposed amendments may be needed to address certain exempt compounds, VOC limits for certain applications, and other amendments to improve clarity. <i>Heather Farr 909.396.3672; CEQA and Socio: Barbara Radlein 909.396.2716</i></p>	Toxics / Other
1125	<p>Metal Container, Closure, and Coil Coating Operations Proposed amendments may be needed to address certain exempt compounds, VOC limits for certain applications, and other amendments to improve clarity. <i>Heather Farr 909.396.3672; CEQA and Socio: Barbara Radlein 909.396.2716</i></p>	Toxics / Other
1126	<p>Magnet Wire Coating Operations Proposed amendments may be needed to address certain exempt compounds, VOC limits for certain applications, and other amendments to improve clarity. <i>Heather Farr 909.396.3672; CEQA and Socio: Barbara Radlein 909.396.2716</i></p>	Toxics / Other
1128	<p>Paper, Fabric, and Film Coating Operations Proposed amendments may be needed to address certain exempt compounds, VOC limits for certain applications, and other amendments to improve clarity. <i>Heather Farr 909.396.3672; CEQA and Socio: Barbara Radlein 909.396.2716</i></p>	Toxics / Other
1130	<p>Graphic Arts Proposed amendments may be needed to address certain exempt compounds, VOC limits for certain applications, and other amendments to improve clarity. <i>Heather Farr 909.396.3672; CEQA and Socio: Barbara Radlein 909.396.2716</i></p>	Toxics / Other
1130.1	<p>Screen Printing Operations Proposed amendments may be needed to address certain exempt compounds, VOC limits for certain applications, and other amendments to improve clarity. <i>Heather Farr 909.396.3672; CEQA and Socio: Barbara Radlein 909.396.2716</i></p>	Toxics / Other

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2024 To-Be-Determined (Continued)

2024	Title and Description	Type of Rulemaking
1133.3	<p>Emission Reductions from Greenwaste Composting Operations Proposed Amended Rule 1133.3 will seek additional VOCs and ammonia emission reductions from greenwaste and foodwaste composting. Proposed amendments will implement BCM-10 in the 2016 AQMP. <i>Michael Morris 909.396.3282; CEQA and Socio: Barbara Radlein 909.396.2716</i></p>	AQMP
1136	<p>Wood Products Coatings Proposed amendments may be needed to address certain exempt compounds, VOC limits for certain applications, and other amendments to improve clarity. <i>Heather Farr 909.396.3672; CEQA and Socio: Barbara Radlein 909.396.2716</i></p>	Toxics / Other
1138 ⁺	<p>Control of Emissions from Restaurant Operations Proposed Amended Rule 1138 will further reduce emissions from underfired charboilers. <i>Heather Farr 909.396.3672; CEQA and Socio: Barbara Radlein 909.396.2716</i></p>	AQMP
1142	<p>Marine Tank Vessel Operations Proposed Amended Rule 1142 will address VOC and hydrogen sulfide emissions from marine tank vessel operations, applicability, noticing requirements, and provide clarifications. <i>TBD; CEQA and Socio: Barbara Radlein 909.396.2716</i></p>	Other
1143	<p>Consumer Paint Thinners and Multi-Purpose Solvents Proposed amendments may be needed to address certain exempt compounds, VOC limits for certain applications, and other amendments to improve clarity. <i>Heather Farr 909.396.3672; CEQA and Socio: Barbara Radlein 909.396.2716</i></p>	Toxics / Other
1144	<p>Metalworking Fluids and Direct-Contact Lubricants Proposed amendments may be needed to address certain exempt compounds, VOC limits for certain applications, and other amendments to improve clarity. <i>Heather Farr 909.396.3672; CEQA and Socio: Barbara Radlein 909.396.2716</i></p>	Toxics / Other
1145	<p>Plastic, Rubber, Leather, and Glass Coatings Proposed amendments may be needed to address certain exempt compounds, VOC limits for certain applications, and other amendments to improve clarity. <i>Heather Farr 909.396.3672; CEQA and Socio: Barbara Radlein 909.396.2716</i></p>	Toxics / Other

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2024 To-Be-Determined (Continued)

2024	Title and Description	Type of Rulemaking
1146	<p>Emissions of Oxides of Nitrogen from Industrial, Institutional, and Commercial Boilers, Steam Generators, and Process Heaters</p> <p>Proposed amendments to Rule 1146 may be needed to incorporate comments from U.S. EPA.</p> <p align="center"><i>TBD; CEQA and Socio: Barbara Radlein 909.396.2716</i></p>	Other
1146.1 [#]	<p>Emissions of Oxides of Nitrogen from Small Industrial, Institutional, and Commercial Boilers, Steam Generators, and Process Heaters</p> <p>Proposed amendments to Rule 1146.1 may be needed to clarify provisions for industry-specific categories and to incorporate comments from U.S. EPA.</p> <p align="center"><i>Heather Farr 909.396.3672; CEQA and Socio: Barbara Radlein 909.396.2716</i></p>	Other
1162	<p>Polyester Resin Operations</p> <p>Proposed amendments may be needed to address certain exempt compounds, VOC limits for certain applications, and other amendments to improve clarity.</p> <p align="center"><i>Heather Farr 909.396.3672; CEQA and Socio: Barbara Radlein 909.396.2716</i></p>	Toxics / Other
1166	<p>Volatile Organic Compound Emissions from Decontamination of Soil</p> <p>Proposed Amended Rule 1166 will update requirements, specifically concerning notifications and usage of mitigation plans (site specific versus various locations).</p> <p align="center"><i>Michael Morris 909.396.3282; CEQA and Socio: Barbara Radlein 909.396.2716</i></p>	Other
1171	<p>Solvent Cleaning Operations</p> <p>Proposed Amendments to Rule 1171 may be needed to address certain exempt chemicals and compliance issues.</p> <p align="center"><i>Michael Morris 909.396.3282; CEQA and Socio: Barbara Radlein 909.396.2716</i></p>	Toxics / Other
1174	<p>Control of Volatile Organic Compound Emissions from the Ignition of Barbecue Charcoal</p> <p>Proposed amendments may be needed to address certain exempt compounds, VOC limits for certain applications, and other amendments to improve clarity.</p> <p align="center"><i>Heather Farr 909.396.3672; CEQA and Socio: Barbara Radlein 909.396.2716</i></p>	AQMP / Other
1176	<p>VOC Emissions from Wastewater Systems</p> <p>Proposed Amended Rule 1176 will clarify the applicability of the rule to include bulk terminals under definition of “Industrial Facilities,” and streamline and clarify provisions.</p> <p align="center"><i>TBD; CEQA and Socio: Barbara Radlein 909.396.2716</i></p>	Other / AB 617 CERP

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2024 To-Be-Determined (Continued)

2024	Title and Description	Type of Rulemaking
1186.1, 1191, 1192, 1193, 1194, 1195, 1196* +	<p>Fleet Rules Proposed amendments to Rules 1186.1, 1191, 1192, 1193, 1194, 1195, 1196 will seek to align South Coast AQMD fleet rules with CARB’s final Advanced Clean Fleets regulation should it be adopted.</p> <p align="center"><i>Vicki White 909.396.3436; CEQA and Socio: Barbara Radlein 909.396.2716</i></p>	AQMP / Other
1403*	<p>Asbestos Emissions from Demolition/Renovation Activities Proposed Amended Rule 1403 will enhance implementation, improve rule enforceability, update provisions, notifications, exemptions, 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.</p> <p align="center"><i>Kalam Cheung 909.396.3281; CEQA and Socio: Barbara Radlein 909.396.2716</i></p>	Toxics
1404	<p>Hexavalent Chromium Emissions from Cooling Towers Amendments may be needed to provide additional clarifications regarding use of process water that is associated with sources that have the potential to contain chromium in cooling towers and address VOC emissions.</p> <p align="center"><i>TBD; CEQA and Socio: Barbara Radlein 909.396.2716</i></p>	Toxics / AQMP
1411	<p>Recovery or Recycling of Refrigerants from Motor Vehicle Air Conditioners Proposed Amended Rule 1411 seeks amendments to coincide with Section 609 of the Clean Air Act.</p> <p align="center"><i>TBD; CEQA and Socio: Barbara Radlein 909.396.2716</i></p>	Toxics
1415 1415.1	<p>Reduction of Refrigerant Emissions from Stationary Air Conditioning Systems, and Reduction of Refrigerant Emissions from Stationary Refrigeration Systems Proposed Amended Rules 1415 and 1415.1 will align requirements with the proposed CARB Refrigerant Management Program and U.S. EPA’s Significant New Alternatives Policy Rule provisions relative to prohibitions on specific hydrofluorocarbons.</p> <p align="center"><i>TBD; CEQA and Socio: Barbara Radlein 909.396.2716</i></p>	Other

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2024 To-Be-Determined (Continued)

2024	Title and Description	Type of Rulemaking
1420	<p>Emissions Standard for Lead Proposed Amended Rule 1420 will update requirements to address arsenic emissions to close a regulatory gap between Rule 1420 and Rule 1407 - Control of Emissions of Arsenic, Cadmium, and Nickel from Non-Ferrous Metal Melting Operations. Other provisions may be needed to address storage and handling requirements, and revise closure requirements. <i>Michael Morris 909.396.3282; CEQA and Socio: Barbara Radlein 909.396.2716</i></p>	Toxics
1420.1	<p>Emission Standards for Lead and Other Toxic Air Contaminants from Large Lead-Acid Battery Recycling Facilities Proposed Amendments are needed to update applicable test methods and provide clarifications regarding submittal of a source-test protocol. Additional amendments may be needed to address monitoring and post closure requirements. <i>Michael Morris 909.396.3282; CEQA and Socio: Barbara Radlein 909.396.2716</i></p>	Toxics
1420.2	<p>Emission Standards for Lead from Metal Melting Facilities Proposed Amended Rule 1420.2 will update requirements to address arsenic emissions to close a regulatory gap between Rule 1420 and Rule 1407 - Control of Emissions of Arsenic, Cadmium, and Nickel from Non-Ferrous Metal Melting Operations. Additional amendments may be needed to address monitoring and post closure requirements. <i>Kalam Cheung 909.396.3281; CEQA and Socio: Barbara Radlein 909.396.2716</i></p>	Toxics
1420.3	<p>Emissions Standards for Lead from Firing Ranges Proposed Rule 1420.3 will establish requirements to address lead emissions from firing ranges. <i>Kalam Cheung 909.396.3281; CEQA and Socio: Barbara Radlein 909.396.2716</i></p>	Toxics / Other
1426.1	<p>Hexavalent Chromium Emissions from Metal Finishing Operations Proposed Rule 1426.1 will reduce hexavalent chromium emissions from heated chromium tanks used at facilities with metal finishing operations that are not subject to Rule 1469. <i>Kalam Cheung 909.396.3281; CEQA and Socio: Barbara Radlein 909.396.2716</i></p>	Toxics

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2024 To-Be-Determined (Continued)

2024	Title and Description	Type of Rulemaking
1435*	<p>Control of Toxic Air Contaminant Emissions from Metal Heating Operations 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.</p> <p align="right"><i>Kalam Cheung 909.396.3281; CEQA and Socio: Barbara Radlein 909.396.2716</i></p>	AQMP / AB 617 CERP
1450*	<p>Control of Methylene Chloride Emissions Proposed Rule 1450 will reduce methylene chloride emissions from furniture stripping and establish monitoring, reporting, and recordkeeping requirements.</p> <p align="right"><i>Michael Morris 909.396.3282; CEQA and Socio: Barbara Radlein 909.396.2716</i></p>	Toxics
1455	<p>Control of Hexavalent Chromium Emissions from Torch Cutting and Welding Proposed Rule 1455 will establish requirements to reduce hexavalent chromium emissions from torch cutting and welding of chromium alloys.</p> <p align="right"><i>Kalam Cheung 909.396.3281; CEQA and Socio: Barbara Radlein 909.396.2716</i></p>	Toxics / AB 617 CERP
1466	<p>Control of Particulate Emissions from Soils with Toxic Air Contaminants Amendments may be needed for residential cleanup projects.</p> <p align="right"><i>Michael Morris 909.396.3282; CEQA and Socio: Barbara Radlein 909.396.2716</i></p>	Toxics
1466.1	<p>Control of Particulate Emissions from Demolition of Buildings Proposed Rule 1466.1 will establish requirements to minimize PM emissions during the demolition of buildings that housed equipment and processes with metal toxic air contaminants and pollution control equipment.</p> <p align="right"><i>Michael Morris 909.396.3282; CEQA and Socio: Barbara Radlein 909.396.2716</i></p>	Toxics

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2024 To-Be-Determined (Continued)

2024	Title and Description	Type of Rulemaking
1469	<p>Hexavalent Chromium Emissions from Chromium Electroplating and Chromic Acid Anodizing Operations Amendments to Rule 1469 may be needed to address potential changes with the CARB’s Hexavalent Chromium Airborne Toxic Control Measure for Chrome Plating and Chromic Acid Anodizing Operations. <i>Kalam Cheung 909.396.3281; CEQA and Socio: Barbara Radlein 909.396.2716</i></p>	Toxics
1470	<p>Requirements for Stationary Diesel-Fueled Internal Combustion and Other Compression Ignition Engines Proposed Amended Rule 1470 seeks to reduce NOx emissions from stationary internal combustion engines (ICEs) by replacing older ICEs with alternative cleaner technology. <i>Michael Morris 909.396.3282; CEQA and Socio: Barbara Radlein 909.396.2716</i></p>	AQMP / Toxics
1470.1	<p>Emissions from Emergency Standby Diesel-Fueled Engines Proposed Rule 1470.1 seeks to reduce NOx emissions from emergency standby internal combustion engines (ICEs) by replacing older ICEs and requiring the use of commercially available lower emission fuels, such as renewable diesel. <i>Michael Morris 909.396.3282; CEQA and Socio: Barbara Radlein 909.396.2716</i></p>	AQMP / Toxics
1472	<p>Requirements for Facilities with Multiple Stationary Emergency Standby Diesel-Fueled Internal Combustion Engines Proposed Amended Rule 1472 will remove provisions that are no longer applicable, update and streamline provisions to reflect the latest OEHHA Health Risk Assessment Guidelines and assess the need for Compliance Plans. <i>Michael Morris 909.396.3282; CEQA and Socio: Barbara Radlein 909.396.2716</i></p>	Toxics
1480.1	<p>Ambient Monitoring and Sampling of Gaseous Toxic Air Contaminants Proposed Rule 1480.1 will establish requirements to conduct monitoring and sampling for those facilities identified as significant high-risk level. <i>Heather Farr 909.396.3672; CEQA and Socio: Barbara Radlein 909.396.2716</i></p>	Toxics
1901	<p>General Conformity Proposed Amended Rule 1901 will establish a new General Conformity determination process for applicable projects receiving federal funding or approval. <i>TBD; CEQA and Socio: Barbara Radlein 909.396.2716</i></p>	AQMP

* 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

2024 To-Be-Determined (Continued)

2024	Title and Description	Type of Rulemaking
Regulation XX	<p>RECLAIM - Requirements for Oxides of Sulfur (SOx) Emissions Amendments to Regulation XX rules to address SOx requirements at RECLAIM facilities if there is consideration to transition SOx RECLAIM to command-and-control regulatory structure. <i>Michael Morris 909.396.3282; CEQA and Socio: Barbara Radlein 909.396.2716</i></p>	RECLAIM / Other
Regulation XXIII* ⁺	<p>Facility-Based Mobile Sources Proposed rules within Regulation XXIII would reduce emissions from indirect sources and the mobile sources attracted to these facilities. <i>Elaine Shen 909.396.2715; CEQA and Socio: Barbara Radlein 909.396.2716</i></p>	AQMP / AB 617 CERP
Regulation II, III, IV, V, VIII, XI, XIV, XIX, XXIII, XXIV, XXX and XXXV	<p>Various rule amendments may be needed to meet the requirements of state and federal laws; implement OEHHA’s latest risk assessment guidance; incorporate changes from OEHHA to new or revised toxic air contaminants or their risk values; address variance issues, emission limits, technology-forcing emission limits, and conflicts with other agency requirements; abate substantial endangerment to public health; apply additional reductions to meet SIP short-term measure commitments; address issues raised by U.S. EPA or CARB for the SIP or for a rule that was submitted into the SIP; and address compliance issues raised by the Hearing Board. In addition, administrative changes could be necessary for Hearing Board procedures, filings, petitions, noticing, etc. Amendments to existing rules may be needed to address use of materials that contain chemicals of concern. The associated rule development or amendments include, but are not limited to, South Coast AQMD existing, or new rules to implement measures in the 2012, 2016 or 2022 AQMP. This includes measures in the 2016 AQMP to reduce toxic air contaminants or reduce exposure to air toxics from stationary, mobile, and area sources. Rule adoption or 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 to address the lead National Ambient Air Quality Standard. Rule adoption or amendments may be needed to implement AB 617 including but not limited to BARCT rules, Community Emission Reduction Plans prepared pursuant to AB 617, or new or amended rules to abate a public health issue identified through emissions testing or ambient monitoring.</p>	Other / AQMP/ Toxics / AB 617 BARCT / AB 617 CERP

* 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

TENTATIVE 2025 CALENDAR

Month	Title and Description	Type of Rulemaking
2 nd Quarter		
1401	<p>New Source Review of Toxic Air Contaminants Proposed Amended Rule 1401 will amend Table 1 to include new toxic air contaminants identified by California Office of Environmental Health Hazard Assessment (OEHHA). <i>Kalam Cheung 909.396. 3281; CEQA and Socio: Barbara Radlein 909.396.2716</i></p>	Toxics / 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

BOARD MEETING DATE: August 2, 2024

AGENDA NO. 15

REPORT: Audit Reports of AB 2766 Fee Revenue Recipients for Fiscal Years Ending June 30, 2020 and 2021

SYNOPSIS: Health and Safety Code 44244.1 requires any agency that receives fee revenues subvned from the Department of Motor Vehicles to be audited once every two years. This audit of South Coast AQMD's share, MSRC's share, and local governments' share of such subvned funds, performed by independent Certified Public Accountants, has been completed.

COMMITTEE: Administrative, June 14, 2024, Reviewed

RECOMMENDED ACTION:
Receive and file.

Wayne Natri
Executive Officer

SJ:AP

Background

AB 2766 was chaptered into law as Health and Safety Code Sections 44220-44247 which were enacted to authorize air pollution control districts to impose fees on motor vehicles. These fees are to be expended specifically for the purpose of mobile source air pollution reduction measures pursuant to the California Clean Air Act of 1988 or South Coast AQMD's AQMP pursuant to Article 5 of Chapter 5.5 of Part 3 of the Health and Safety Code.

The fee revenue is collected by the Department of Motor Vehicles (\$4.00 per vehicle registration) and subvned to South Coast AQMD for distribution as follows: 30 percent (\$1.20) goes to support South Coast AQMD-approved programs for the reduction of emissions from mobile sources; 40 percent (\$1.60) is placed in the Air Quality Improvement Trust Fund for quarterly disbursement to local governments; and 30 percent (\$1.20) is placed in the Mobile Source Air Pollution Reduction Special Revenue Fund for projects awarded by the MSRC Committee under a work program approved by South Coast AQMD Board.

Subsequent to the June 14, 2024 Administration Committee meeting, staff noticed an error in Attachment D. A finding was listed in the auditor report for City of Covina, but it should have been City of West Covina.

Audit Summary

South Coast AQMD’s Use of AB 2766 Fee Revenues – Segment 1

The audit of South Coast AQMD’s use of the motor vehicle registration revenues resulted in no findings. The audit report is included in Attachment A. The cost of auditing South Coast AQMD’s use of the AB 2766 revenues was \$3,950, paid from South Coast AQMD’s portion of the fee revenues.

Local Government Use of AB 2766 Fee Revenues – Segment 2

The audit of local governments’ use of AB 2766 funds resulted in 34 findings from 22 agencies, out of 162 recipients. All of findings will be resolved in accordance with AB 2766 program guidelines. A summary of the audit findings is included in Attachment B, along with the audit reports in Attachments C and D.

The total cost to audit the local government recipients was \$99,700. The cost of the audit is allocated and paid from the local governments’ portion of the fee revenues in accordance with AB 2766 program guidelines.

MSRCs Use of AB 2766 Fee Revenues – Segment 3

The audit of the MSRC fund and of projects from the MSRC Work Program resulted in no findings. The audit reports are included in Attachments E and F. The MSRC reviewed the summary audit reports at its June 20, 2024 meeting. The cost of auditing the MSRC and their use of program revenues was \$8,000 and will be deducted from the fee revenues subvended to the MSRC.

Attachments

- A. South Coast AQMD’s Use of AB 2766 Fee Revenues – Segment 1
- B. Summary of AB 2766 Audit Findings for Local Governments and Council of Governments
- C. Local Governments Use of AB 2766 Fee Revenues Summary of Audit Reports - Segment 2
- D. Local Governments Use of AB 2766 Fee Revenues Summary of Audit Reports - Segment 2, Subgroup 1
- E. MSRC’s Use of AB 2766 Fee Revenues Summary Audit Report - Segment 3
- F. MSRC Projects Audit – Segment 3, Projects

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

***AIR QUALITY IMPROVEMENT FUND
(SEGMENT 1)***

***INDEPENDENT ACCOUNTANT'S REPORT ON
APPLYING AGREED-UPON PROCEDURES***

FOR THE YEARS ENDED JUNE 30, 2021 AND 2020





SIMPSON & SIMPSON
CERTIFIED PUBLIC ACCOUNTANTS

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Independent Accountant's Report on Applying Agreed-Upon Procedures

The Governing Board of
The South Coast Air Quality Management District

We have performed the procedures enumerated below on automobile registration fee revenues (AB 2766 funds) received by the South Coast Air Quality Management District (South Coast AQMD) for the fiscal years ended June 30, 2021 and 2020. The South Coast AQMD is responsible for spending AB 2766 funds on the reduction of air pollution from motor vehicles pursuant to the California Clean Air Act of 1988 or the South Coast Air Quality Management District's (South Coast AQMD) Air Quality Management Plan (AQMP) prepared pursuant to Article 5 of Chapter 5.5 of Part 3 of the California Health and Safety Code (CHSC).

The South Coast AQMD has agreed to and acknowledged that the procedures performed are appropriate to meet the intended purpose solely to assist in determining whether AB 2766 funds received by the South Coast AQMD for the fiscal years ended June 30, 2021 and 2020 were spent on the reduction of air pollution from motor vehicles pursuant to California Clean Air Act of 1988 or the South Coast AQMD's AQMP. This report may not be suitable for any other purpose. The procedures performed may not address all the items of interest to a user of this report and may not meet the needs of all users of this report, and as such, users are responsible for determining whether the procedures performed are appropriate for their purposes.

Our procedures and results are as follows.

1. We inquired to obtain an understanding of how the SCAQMD accounts for AB 2766 funds, including whether the AB 2766 funds are maintained in a separate fund or if there is a separate accounting of the AB 2766 funds maintained by another means.

Result

We noted that the AB 2766 funds - Segment 1 (District Funds) are recorded under the General Fund of the SCAQMD.



2. We conducted interviews and tested significant controls to identify significant deficiencies in the design or operation of the SCAQMD's internal control procedures over the receipt and use of AB 2766 funds.

Result

We noted no exceptions in performing this procedure.

3. We obtained the California Department of Motor Vehicles (DMV) fee distribution record for AB 2766 revenues and agree them to the SCAQMD's AB 2766 revenues recorded in the general ledger.

Result

We noted no exceptions to recorded revenues.

4. We recalculated the SCAQMD's allocation of AB 2766 revenue fees to recipients to verify that the allocation was in accordance with CHSC Section 44243, after deducting administrative costs pursuant to Section 44229, and any audit costs pursuant to Section 44244.1(a).

Result

We noted no exceptions on the allocation of AB 2766 revenue fees to the recipients.

5. We conducted interviews in order to obtain an understanding of how the SCAQMD allocates interest earned and determined the reasonableness of the interest allocation and that interest was used for the same purposes for which AB 2766 funds were allocated to the SCAQMD.

Result

We noted no exceptions to interest allocation earned or use of interest earned.



6. We verified that the SCAQMD's governing board adopted a resolution to document the intent and use of AB 2766 funds exclusively for the reduction of air pollution from motor vehicles in accordance with the California Clean Air Act of 1988.

Result

We noted no exceptions in performing this procedure.

7. We obtained the SCAQMD's cost allocation schedule. We conducted interviews and recalculated allocations on a test basis to determine the reasonableness and mathematical accuracy of the cost allocation method.

Result

We noted no exceptions on the cost allocation schedule.

8. We tested AB 2766 direct and indirect non-labor project expenditures for each year to determine:
 - a) allowability, reasonableness, adequacy of supporting documentation, proper approval, clearly identified the project, and were incurred during the fiscal year;
 - b) that the funds were spent in accordance with CHSC Section 44220(b), which requires that AB 2766 fund expenditures were incurred solely to reduce air pollution from motor vehicles and for related planning, monitoring, enforcement and technical studies necessary for implementation of the California Clean Air Act of 1988; and
 - c) in accordance with CHSC Section 44235, the SCAQMD did not use AB 2766 fees for establishing or maintaining the district as a direct provider of the car pool, van pool, or other ridesharing or transit services.

Result

We noted no exceptions in performing this procedure.



9. We tested AB 2766 direct payroll expenditures, reviewed related payroll registers and employee records to verify hours worked, mathematical accuracy, and salary rates.

Result

We noted no exceptions to the AB 2766 direct payroll expenditures.

10. We analyzed AB 2766 administrative expenditures to verify, in accordance with CHSC Section 44233, that the SCAQMD did not use more than 6.25% of the AB 2766 fees distributed for administrative expenditures.

Result

We noted no exceptions in performing this procedure.

11. We obtained the SCAQMD expenditures to verify, in accordance with CHSC Section 44244.1(d), that the SCAQMD expended AB 2766 fees within one year of the program or project completion date.

Result

We noted no exceptions in performing this procedure.

12. We obtained the SCAQMD reports to verify that the SCAQMD submitted a report to the State Board on the use of the fees and results of the programs funded.

Result

We noted no exceptions in performing this procedure.



We were not engaged to and did not conduct an examination or review, the objective of which would be the expression of an opinion on the SCAQMD's compliance with the California Clean Air Act of 1988 or the SCAQMD's Air Quality Management Plan (AQMP) prepared pursuant to Article 5 of Chapter 5.5 of Part 3 of the California Health and Safety Code (CHSC). Accordingly, we do not express such an opinion. Had we performed additional procedures, other matters might have come to our attention that would have been reported to you.

This report is intended solely for the information and use of the governing board and management of the SCAQMD, and is not intended to be and should not be used by anyone other than these specified parties.

A handwritten signature in black ink that reads "Simpson & Simpson". The signature is written in a cursive, flowing style.

Los Angeles, California
November 7, 2023

Summary of Fiscal Year 2019-20 and Fiscal Year 2020-21 AB 2766 Audit Findings for Local Governments and Council of Governments

Findings Description	Fiscal Year(s)	City/County/COG	Status
Unallowable Expenditures	FY 2019-20	City of Duarte	Resolved-The City has replaced the funds
Unallowable Expenditures	FY 2019-20	City of Hawaiian Gardens	Resolved-The City has requested SCAQMD to withhold funds from future disbursements
Unallowable Expenditures	FY 2019-20 & FY 2020-21	City of Huntington Park	Resolved-The City has replaced the funds
Unallowable Expenditures	FY 2020-21	City of Artesia	Resolved-The City has replaced the funds
Unallowable Expenditures	FY 2020-21	City of Cudahy	Resolved-The City has requested SCAQMD to withhold funds from future disbursements
Unallowable Expenditures	FY 2020-21	City of Long Beach	Resolved-The City has replaced the funds
Unallowable Expenditures	FY 2020-21	City of South Gate	Resolved-The City has replaced the funds
Unallowable Expenditures	FY 2020-21	City of Seal Beach	Resolved-The City has requested SCAQMD to withhold funds from future disbursements
Overstatement of MSRC Contract Revenue Recorded in AB 2766 Fund	FY 2019-20	City of Artesia	Resolved-The City has replaced the funds
AB 2766 Funds Not Accounted for Separately	FY 2019-20 & FY 2020-21	City of Palos Verdes Estates	Resolved-The City has set up a special revenue fund
Submission of Annual Audited Financial Statements	FY 2019-20 & FY 2020-21	City of Artesia	Resolved-The City was Audited
Submission of Annual Audited Financial Statements	FY 2020-21	City of Baldwin Park	Resolved-The City was Audited
Submission of Annual Audited Financial Statements	FY 2019-20 & FY 2020-21	City of Compton	Resolved-The City was Audited
Submission of Annual Audited Financial Statements	FY 2019-20 & FY 2020-21	City of Cudahy	Resolved-The City was Audited
Submission of Annual Audited Financial Statements	FY 2019-20 & FY 2020-21	City of Huntington Park	Resolved-The City was Audited
Submission of Annual Audited Financial Statements	FY 2020-21	City of Lawndale	Resolved-The City was Audited
Submission of Annual Audited Financial Statements	FY 2020-21	City of Palos Verdes Estates	Resolved-The City was Audited
Submission of Annual Audited Financial Statements	FY 2019-20	City of South El Monte	Resolved-The City was Audited
Submission of Annual Audited Financial Statements	FY 2019-20 & FY 2020-21	City of South Gate	Resolved-The City was Audited
Submission of Annual Audited Financial Statements	FY 2019-20 & FY 2020-21	City of South Pasadena	Resolved-The City was Audited
Submission of Annual Audited Financial Statements	FY 2020-21	City of Placentia	Resolved-The City was Audited
Submission of Annual Audited Financial Statements	FY 2020-21	City of San Juan Capistrano	Resolved-The City was Audited
Submission of Annual Audited Financial Statements	FY 2020-21	City of La Quinta	Resolved-The City was Audited
Submission of Annual Audited Financial Statements	FY 2020-21	City of Perris	Resolved-The City was Audited
Submission of Annual Audited Financial Statements	FY 2020-21	City of San Jacinto	Resolved-The City was Audited
Submission of Annual Audited Financial Statements	FY 2019-20 & FY 2020-21	City of Fontana	Resolved-The City was Audited
Submission of Annual Audited Financial Statements	FY 2019-20	City of Yucaipa	Resolved-The City was Audited
Lack of Controls Over Financial Reporting	FY 2019-20 & FY 2020-21	City of Artesia	Resolved-The City has begun implementing internal control policies & procedures
Lack of Controls Over Financial Reporting	FY 2019-20 & FY 2020-21	City of Compton	Resolved-The City has begun implementing internal control policies & procedures
Lack of Controls Over Financial Reporting	FY 2019-20 & FY 2020-21	City of Huntington Park	Resolved-The City has begun implementing internal control policies & procedures
Lack of Controls Over Financial Reporting	FY 2019-20	City of Long Beach	Resolved-The City has begun implementing internal control policies & procedures

Summary of Fiscal Year 2019-20 and Fiscal Year 2020-21 AB 2766 Audit Findings for Local Governments and Council of Governments

Findings Description	Fiscal Year(s)	City/County/COG	Status
Lack of Controls Over Financial Reporting	FY 2020-21	City of South Gate	Resolved-The City has begun implementing internal control policies & procedures
Bank Reconciliations Not Performed in a Timely Manner	FY 2019-20 & FY 2020-21	City of Artesia	Resolved-The City has begun implementing policies & procedures for bank reconciliations
Bank Reconciliations Not Performed in a Timely Manner	FY 2020-21	City of Rialto	Resolved-The City has begun implementing policies & procedures for bank reconciliations

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
SUMMARY REPORT ON
AB 2766 FEE REVENUES
FOR LOCAL GOVERNMENT RECIPIENTS
UNDER HEALTH AND SAFETY CODE SECTION 44243(b)
(Segment 2)
FOR THE YEARS ENDED JUNE 30, 2021 and 2020



SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

***AB 2766 FEE REVENUES FOR LOCAL GOVERNMENT RECIPIENTS
UNDER HEALTH AND SAFETY CODE SECTION 44243(b)
(Segment 2)***

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AB 2766 Air Quality Improvement Fund Summary of Segment 2 Reports

The Governing Board of
The South Coast Air Quality Management District

This report provides a summary of the findings and questioned costs contained in the audit reports and reports on applying agreed-upon procedures completed for Segment 2 for the Biennial Audit of Fee Revenues under AB 2766 for fiscal years ended June 30, 2021 and 2020. See Attachment B for a list of the reports included in this summary.

For the purpose of determining whether motor vehicle registration fees (AB 2766 funds) subvended to the South Coast Air Quality Management District (SCAQMD) were expended for air pollution measures pursuant to the Clean Air Act Amendments of 1990, the California Clean Air Act of 1988 or the SCAQMD's Air Quality Management Plan (AQMP) prepared pursuant to Article 5 of Chapter 5.5 of Part 3 of the California Health and Safety Code (CHSC), the SCAQMD requested that we perform audits or agreed-upon procedures reviews for six subgroups of local governments receiving Segment 2 funds. Segment 2 funds are the 40% of motor vehicle fee revenues subvended to the SCAQMD that are distributed to local governments on a quarterly basis. The SCAQMD placed local governments into subgroups based on the amount of Segment 2 funds received and whether the entity had provided Air Quality Improvement Fund audited financial statements and progress reports to the SCAQMD. Local governments in Segment 2 include cities, counties and consortiums of local governments. These consortiums are legal entities created through joint power agreements entered into by cities and counties in a common geographical area. Local governments are permitted to pool their resources for implementing the requirements for the use of AB 2766 funds and to undertake regional projects to reduce air pollution from motor vehicles.

For local governments in Subgroup A, we reviewed audit reports prepared by other auditors and summarized audit findings included in the reports. The Subgroup A summary was provided in a separate report dated March 18, 2024.



To this report, we have summarized audit findings and questioned costs for local government entities in Subgroups 2, 3, 4, 5 and 6 into six categories, as described below.

CATEGORY	DESCRIPTION
----------	-------------

Noncompliance with the AB 2766 Compliance Requirements:

- 1 Unallowable Expenditures
- 2 Overstatement of MSRC Contract Revenue Recorded in the AB 2766 Fund
- 3 AB 2766 Funds Not Accounted for Separately
- 4 Submission of Annual Audited Financial Statements and Annual Progress Report

Material Weaknesses or Significant Deficiencies in Financial Reporting:

- 5 Lack of Controls Over Financial Reporting
- 6 Bank Reconciliations Not Performed in a Timely Manner

The audit findings are described in the Summary of Findings in Attachment A.

This report is intended solely for the information and use of the governing board and management of the SCAQMD, and is not intended to be and should not be used by anyone other than these specified parties.

Los Angeles, California
April 9, 2024

***SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
AIR QUALITY IMPROVEMENT FUND***

SUMMARY OF FINDINGS
For the Years Ended June 30, 2021 and 2020

1. Unallowable Expenditures

California Health and Safety Code Section 44243 require that AB 2766 funds be used for programs to reduce air pollution from mobile sources. We noted the following cities charged unallowable expenditures to AB 2766 funds.

<u>Fiscal Year 2021</u>	<u>Description</u>	<u>Amount</u>
<u>Los Angeles County</u>		
City of Duarte	Ongoing maintenance fee of a leased alternative fuel vehicle	\$ 506.00
City of Hawaiian Gardens	Gateway Cities Council of Governments annual membership dues	7,150.00
City of Huntington Park	Insurance and maintenance fees of leased alternative fuel vehicles	458.28
<u>Fiscal Year 2020</u>	<u>Description</u>	<u>Amount</u>
<u>Los Angeles County</u>		
City of Artesia	Portion of the purchase cost of the electric bus that was reimbursed by Proposition A Local Return Fund and FTA Grant	300,017.00
City of Cudahy	Duplicated billing for lease charges for the month of May 2020	1,256.00
City of Huntington Park	Insurance and maintenance fees of leased alternative fuel vehicles	1,854.78
City of Long Beach	A duplicated journal entry was incorrectly recorded and related interest	1,479,023
City of South Gate	Allocated administrative costs but did not incur any program costs	6,000.00

***SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
AIR QUALITY IMPROVEMENT FUND***

SUMMARY OF FINDINGS
For the Years Ended June 30, 2021 and 2020

1. Unallowable Expenditures (Continued)

<u>Fiscal Year 2020</u>	<u>Description</u>	<u>Amount</u>
<u>Orange County</u>		
City of Seal Beach	Operating costs for the Senior Transportation Nutrition Shuttle beyond the three-year operational limit.	\$ 32,612.00

2. Overstatement of MSRC Contract Revenue Recorded in AB 2766 Fund

California Health and Safety Code Section 44220(b), requires that AB 2766 fund revenues shall be used solely to reduce air pollution from motor vehicles and for related planning, monitoring, enforcement and technical studies necessary for implementation of the California Clean Air Act of 1988.

Los Angeles County

City of Artesia

During fiscal year 2020, the City of Artesia recorded MSRC contract revenue of \$50,000 in the Air Quality Fund. The MSRC contract was for the installation of one “Level II” type EV charging station and one “Level III/Fast Charge” type charging station within the City. According to the MSRC contract, the total project cost would be \$100,000 (\$50,000 to be funded by MSRC contract and \$50,000 to be funded by AB 2766 subvention fund). Per our review of the City’s general ledger and related purchase orders, vendor invoices, and EV rebate receipts, the City originally recorded expenditures of \$227,573.32 for the installation of EV charging stations in the Air Quality Fund. Subsequently, \$220,000 of expenditures were transferred to the Proposition A Local Return Fund (Fund 15); and only \$7,573.32 of expenditures remained in the Air Quality Fund as of June 30, 2020. The City may be over-reimbursed by the MSRC contract in the amount of \$42,426.68 (\$50,000 - \$7,573.32).

***SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
AIR QUALITY IMPROVEMENT FUND***

SUMMARY OF FINDINGS
For the Years Ended June 30, 2021 and 2020

3. AB 2766 Funds Not Accounted for Separately

California Health and Safety Code Section 44243 (b)(1)(C) requires local governments to account for and separately track AB 2766 funds within their accounting records.

Los Angeles County

City of Palos Verdes Estates

The City of Palos Verdes did not have a separate fund to track assets, deferred outflows of resources, liabilities, deferred inflows of resources, and fund balance of the AB 2766 funds. Monies under AB 2766 are commingled with funds received from other governmental agencies and recorded in the Special Projects Fund (Fund 06). However, the City did not separately identify and track assets, deferred outflows of resources, liabilities, deferred inflows of resources, and fund balance of the AB 2766 funds.

***SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
AIR QUALITY IMPROVEMENT FUND***

SUMMARY OF FINDINGS
For the Years Ended June 30, 2021 and 2020

4. Submission of Annual Audited Financial Statements and Annual Progress Report

The Audit Guidelines prepared by the SCAQMD describe the financial and program reporting requirements for local governments. The AB 2766 program legislation requires that each agency receiving motor vehicle registration fee revenues must submit an annual program progress report and annual audited financial statements of AB 2766 funds by the first Friday in February of each year. For fiscal years 2021 and 2020, the following cities did not submit its annual audited financial statements to the SCAQMD in a timely manner.

<u>Fiscal Year 2021</u>	<u>Fiscal Year 2020</u>
<u>Los Angeles County</u> City of Artesia City of Baldwin Park City of Compton City of Cudahy City of Huntington Park City of Lawndale City of Palos Verdes Estates City of South Gate City of South Pasadena	<u>Los Angeles County</u> City of Artesia City of Compton City of Cudahy City of Huntington Park City of South El Monte City of South Gate City of South Pasadena
<u>Orange County</u> City of Placentia City of San Juan Capistrano	
<u>Riverside County</u> City of La Quinta City of Perris City of San Jacinto	
<u>San Bernardino County</u> City of Fontana	<u>San Bernardino County</u> City of Fontana City of Yucaipa

***SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
AIR QUALITY IMPROVEMENT FUND***

SUMMARY OF FINDINGS
For the Years Ended June 30, 2021 and 2020

5. Lack of Controls Over Financial Reporting

Management is responsible for establishing and maintaining effective internal controls, including evaluating and monitoring ongoing activities, to help ensure that appropriate goals and objectives are met; following laws and regulations; and ensuring that management is reliable and financial information is reliable and properly reported. Management is also responsible for implementing systems designed to achieve compliance with applicable laws, regulations, contracts, and grant agreements.

Los Angeles County

City of Artesia

The City of Artesia did not submit the audited financial statements to the SCAQMD for fiscal years 2021 and 2020. This has been a repeat finding since fiscal year 2017.

City of Compton

On March 3, 2022, the City of Compton's independent auditor issued a Qualified Opinion on the City's June 30, 2020 financial statements due to material weaknesses noted on its financial reporting, including allocation of cash to various funds has not been properly reconciled and capital assets records were not maintained. Moreover, the Single Audit report for the year ended June 30, 2020, reported numerous material weaknesses and significant deficiencies on its federal programs and internal control over financial reporting. Because of these material weaknesses and significant deficiencies, particularly the finding related to allocation of cash to various funds, it cast doubt on the reliability of the City's financial statements, including the AB 2766 funds financial statements.

The City did not submit its audited financial statements and annual progress report to the SCAQMD by the established deadline for fiscal years 2021 and 2020. The City's annual audit for fiscal year 2020 was completed on March 3, 2022. As of the date of this report, the City's audited financial statements for fiscal year 2021 have not been issued.

***SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
AIR QUALITY IMPROVEMENT FUND***

SUMMARY OF FINDINGS
For the Years Ended June 30, 2021 and 2020

5. Lack of Controls Over Financial Reporting (Continued)

City of Huntington Park

There were significant delays in closing of the City's books and issuing the City's audited financial statements. The fiscal years 2020 and 2021 audited financial statements were completed on August 10, 2013 and November 16, 2013, respectively.

City of Long Beach

Fiscal year 2020 is the first full fiscal year the City was using the newly implemented ERP system, Tyler Munis. Project Revenue Allocation, a new functionality in Tyler Munis, requires City department users to set up an accounting transaction that allocates project expenditures to their proper funding sources. The project was incorrectly set up and related historical data was also incorrectly converted causing Munis to allocate prior year expenses to AQMD in error, which resulted in a duplicate entry of \$1,467,632.

City of South Gate

On September 21, 2022, the City's independent auditor issued a Report on Internal Control over Financial Reporting and on Compliance and Other Matters Based on an Audit of Financial Statements Performed in Accordance with Government Auditing Standards for the year ended June 30, 2021. The City's independent auditor identified the following conditions that resulted in material audit adjustments to the City's financial statements:

The year-end closing process was not thorough and did not ensure that account balances were reconciled and accurate in advance of the audit requiring a significant number of adjusting journal entries to correct the financial statements. It appears these errors were primarily caused because the trial balance was prepared from data that was not complete, contained errors and appropriate year-end reconciliations were not performed. Some of the more significant entries were as follows:

- Corrected deferred revenue balance (Approximately \$1.0 million)
- Reclassify negative cash amount at June 30, 2021 (Approximately \$13.5 million)
- Record capital assets and construction in progress addition (Approximately \$22.4 million)
- Record the revenue (Approximately \$2.7 million)
- Record the accrued expense and account payable (Approximately \$1.1 million)

***SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
AIR QUALITY IMPROVEMENT FUND***

SUMMARY OF FINDINGS
For the Years Ended June 30, 2021 and 2020

6. Bank Reconciliations Not Performed in a Timely Manner

Los Angeles County

City of Artesia

According to the City of Artesia's independent auditor, bank reconciliations are not being completed in a timely manner and there is a lack of documentation of approval on the bank reconciliations.

San Bernardino County

City of Rialto

According to the City of Rialto's independent auditors, the City's general checking bank account balance per the general ledger was not reconciled to the bank statements in a timely manner during fiscal years 2021 and 2020. This is considered to be a material weakness in internal control over financial reporting.

***SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
AIR QUALITY IMPROVEMENT FUND***

LIST OF LOCAL GOVERNMENT RECIPIENTS AUDITED
For the Years Ended June 30, 2021 and 2020

	<u>City</u>	<u>Type of Audit</u>	<u>Fiscal Year (s)</u>
	Los Angeles County		
1.	City of Agoura Hills	Agreed Upon Procedures	2020
2.	City of Alhambra	Financial & Compliance	2021 & 2020
3.	City of Artesia	Financial & Compliance	2021 & 2020
4.	City of Baldwin Park	Financial & Compliance	2021
5.	City of Bell Gardens	Agreed Upon Procedures	2021
6.	City of Bellflower	Financial & Compliance	2021
7.	City of Calabasas	Agreed Upon Procedures	2020
8.	City of Cerritos	Agreed Upon Procedures	2021
9.	City of Compton	Financial & Compliance	2021 & 2020
10.	City of Covina	Agreed Upon Procedures	2020
11.	City of Cudahy	Financial & Compliance	2021 & 2020
12.	City of Diamond Bar	Agreed Upon Procedures	2021
13.	City of Duarte	Agreed Upon Procedures	2021
14.	City of El Monte	Financial & Compliance	2021 & 2020
15.	City of El Segundo	Agreed Upon Procedures	2020
16.	City of Glendale	Financial & Compliance	2021 & 2020
17.	City of Hawaiian Gardens	Agreed Upon Procedures	2021
18.	City of Hidden Hills	Agreed Upon Procedures	2020
19.	City of Huntington Park	Financial & Compliance	2021 & 2020
20.	City of La Canada Flintridge	Agreed Upon Procedures	2021
21.	City of Lakewood	Financial & Compliance	2021 & 2020
22.	City of Lawndale	Financial & Compliance	2021
23.	City of Long Beach	Financial & Compliance	2021 & 2020
24.	City of Los Alamitos	Agreed Upon Procedures	2020
25.	City of Malibu	Agreed Upon Procedures	2020
26.	City of Manhattan Beach	Agreed Upon Procedures	2021
27.	City of Maywood	Agreed Upon Procedures	2020
28.	City of Palos Verdes Estates	Financial & Compliance	2021
29.	City of Paramount	Agreed Upon Procedures	2020
30.	City of Pico Rivera	Agreed Upon Procedures	2021
31.	City of Rosemead	Agreed Upon Procedures	2020
32.	City of San Dimas	Agreed Upon Procedures	2021
33.	City of Santa Fe Springs	Agreed Upon Procedures	2020
34.	City of Sierra Madre	Agreed Upon Procedures	2021
35.	City of South El Monte	Financial & Compliance	2020
36.	City of South Gate	Financial & Compliance	2021 & 2020
37.	City of South Pasadena	Financial & Compliance	2021 & 2020
38.	County of Los Angeles	Financial & Compliance	2021 & 2020

***SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
AIR QUALITY IMPROVEMENT FUND***

LIST OF LOCAL GOVERNMENT RECIPIENTS AUDITED
For the Years Ended June 30, 2021 and 2020
(Continued)

City	Type of Audit	Fiscal Year (s)
Orange County		
39. City of Anaheim	Financial & Compliance	2021 & 2020
40. City of Buena Park	Financial & Compliance	2021 & 2020
41. City of Newport Beach	Financial & Compliance	2021 & 2020
42. City of Placentia	Financial & Compliance	2021
43. City of Rancho Santa Margarita	Agreed Upon Procedures	2021
44. City of San Juan Capistrano	Financial & Compliance	2021
45. City of Seal Beach	Agreed Upon Procedures	2020
46. City of Yorba Linda	Agreed Upon Procedures	2021
47. City of Fountain Valley	Agreed Upon Procedures	2021
48. City of Aliso Viejo	Agreed Upon Procedures	2020
49. City of Laguna Beach	Agreed Upon Procedures	2020
50. County of Orange	Financial & Compliance	2021 & 2020
Riverside County		
51. City of Canyon Lake	Agreed Upon Procedures	2020
52. City of Desert Hot Springs	Agreed Upon Procedures	2021
53. City of Eastvale	Agreed Upon Procedures	2020
54. City of Hemet	Financial & Compliance	2021 & 2020
55. City of La Quinta	Financial & Compliance	2021
56. City of Menifee	Financial & Compliance	2021 & 2020
57. City of Moreno Valley	Financial & Compliance	2021 & 2020
58. City of Palm Desert	Agreed Upon Procedures	2021
59. City of Perris	Financial & Compliance	2021
60. City of San Jacinto	Financial & Compliance	2021
61. City of Temecula	Financial & Compliance	2021 & 2020

***SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
AIR QUALITY IMPROVEMENT FUND***

LIST OF LOCAL GOVERNMENT RECIPIENTS AUDITED
For the Years Ended June 30, 2021 and 2020
(Continued)

<u>City</u>	<u>Type of Audit</u>	<u>Fiscal Year (s)</u>
San Bernardino County		
62. City of Claremont	Agreed Upon Procedures	2021
63. City of Colton	Agreed Upon Procedures	2020
64. City of Fontana	Financial & Compliance	2021 & 2020
65. City of Highland	Agreed Upon Procedures	2021
66. City of Montclair	Agreed Upon Procedures	2020
67. City of Rialto	Financial & Compliance	2021 & 2020
68. City of San Bernardino	Financial & Compliance	2021 & 2020
69. City of Upland	Financial & Compliance	2021
70. City of Yucaipa	Financial & Compliance	2020
71. County of San Bernardino County	Financial & Compliance	2021 & 2020
Consortium		
72. Coachella Valley Association of Governments	Financial & Compliance	2021 & 2020
73. Gateway Cities Council of Governments	Financial & Compliance	2021 & 2020
74. Western Riverside Council of Governments	Financial & Compliance	2021 & 2020

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

***AIR QUALITY IMPROVEMENT FUND
(SEGMENT 2 – SUBGROUP A)***

***INDEPENDENT ACCOUNTANT'S REPORT ON
APPLYING AGREED-UPON PROCEDURES***

FOR THE YEARS ENDED JUNE 30, 2021 and 2020





SIMPSON & SIMPSON
CERTIFIED PUBLIC ACCOUNTANTS

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Independent Accountant's Report on Applying Agreed-Upon Procedures

The Governing Board of
The South Coast Air Quality Management District

We have performed the procedures enumerated below on solely to assist you in summarizing instances of noncompliance and internal control deficiencies and material weaknesses reported in financial statement audit reports and internal control and compliance reports submitted to the South Coast Air Quality Management District (South Coast AQMD) by cities and counties that received automobile registration fee revenues (AB 2766 funds) from the South Coast AQMD for the fiscal years ended June 30, 2021 and 2020. This report also includes internal control deficiencies and material weaknesses identified in the reports on internal controls. The cities and counties are responsible for spending AB 2766 funds on activities that reduce air pollution from motor vehicles pursuant to the California Clean Air Act of 1988 or the South Coast AQMD's Air Quality Management Plan (AQMP) prepared pursuant to Article 5 of Chapter 5.5 of Part 3 of the California Health and Safety Code (CHSC).

The South Coast AQMD has agreed to and acknowledged that the procedures performed are appropriate to meet the intended purpose of solely to assist in determining whether AB 2766 funds distributed to the cities and counties for the fiscal years ended June 30, 2021 and 2020 were spent on the reduction of air pollution from motor vehicles pursuant to California Clean Air Act of 1988 or the South Coast AQMD's AQMP. This report may not be suitable for any other purpose. The procedures performed may not address all the items of interest to a user of this report and may not meet the needs of all users of this report, and as such, users are responsible for determining whether the procedures performed are appropriate for their purposes.

Our procedures and results are as follows:

We performed a summary review of the audited financial statements and the independent auditors' report on compliance and on internal controls over compliance submitted to the South Coast AQMD by the cities and counties that received more than \$100,000 of AB 2766 funds per year (Large Recipients) for the fiscal years ended June 30, 2021 and 2020 (See Attachment A for the list of recipient). We identified any modifications of the independent auditors' opinions on the Large Recipients' annual financial statements; instances of noncompliance with AB 2766 compliance requirements; and deficiencies, significant deficiencies, and material weaknesses in internal controls over financial reporting and compliance required by AB 2766, and summarized these instances below.





MODIFIED OPINIONS ON THE AUDITED FINANCIAL STATEMENTS

No matters noted.

NONCOMPLIANCE WITH THE AB 2766 COMPLIANCE REQUIREMENTS

No matters noted.

INTERNAL CONTROLS OVER FINANCIAL REPORTING AND COMPLIANCE REQUIRED BY AB 2766

1. Internal Control Environment (Material Weakness)

Los Angeles County

City of West Covina

An important element of internal controls over financial reporting is for the entity to have procedures in place to ensure that all applicable financial reporting guidelines are followed and properly applied.

For fiscal year 2020, the independent auditors of the City of West Covina noted that the City has experienced a high turnover at all levels in the Finance Department. As a result, the request for the Actuarial Valuation report for GASB 75 Accounting Information regarding Other Post-Employment Benefits (OPEB) and GASB 68 Accounting and Financial Reporting for Pensions – An Amendment of GASB Statement No. 27 was postponed. This matter has been the cause of significant delays in producing complete, reconciled and properly adjusted financial statements and other information.

The City's independent auditors recommended that the City maintain appropriate staffing in the Finance Department which will ensure that the policies and procedures in the year-end review process are properly carried out.

According to the City's independent auditors for fiscal year 2021, corrective action has been taken.



2. Errors in Pension Census Data (Material Weakness)

Los Angeles County

City of West Covina

In order for the City to record its liability for providing supplemental pension benefits to eligible participants, it must submit census data to actuaries who use this information to calculate the City's liability.

For fiscal year 2020, the independent auditors of the City of West Covina noted that they were unable to vouch participant information from the census data to source documents.

The City's independent auditors recommended that the City Finance Department review the participant files, ensure only eligible participants are included in the census data to be submitted and maintain proper documentation for the information provided to actuaries.

According to the City's independent auditors for fiscal year 2021, corrective action has been taken.

3. Internal Control Over Federal Grant Reporting (Material Weakness)

Los Angeles County

City of West Covina

An important element of internal controls over financial reporting is for the entity to have procedures in place for the accurate completion of the Schedule of Expenditures of Federal Awards (SEFA).

For fiscal year 2020, the independent auditors of the City of West Covina noted that as a result of high turnover at all levels in the City Finance Department, the SEFA has not been prepared by a consistent person and has required multiple revisions.

The City's independent auditors recommended that the City maintain proper staffing levels within the Finance Department to allow for the proper preparation of the SEFA, including a responsible individual to perform a review of the completed SEFA.

According to the City's independent auditors for fiscal year 2021, corrective action has been taken.



4. Internal Control Over Financial Reporting (Material Weakness)

Riverside County

City of Murrieta

An important element of internal control over cash is the completion of the bank reconciliations to allow City staff to identify any differences between the bank balances and general ledger balances and resolve such differences in a timely manner.

For fiscal year 2020, the independent auditors of the City of Murrieta noted that June 2020 bank reconciliation process was not completed and reviewed by October 2020, which is a lack of timeliness.

The City's independent auditors recommended that all bank accounts be reconciled within 30 days after the end of the month and that all bank reconciliations be initialed and dated by the preparer to indicate that the reconciliation was prepared in a timely manner.

According to the City's independent auditors for fiscal year 2021, corrective action has been taken.

5. Internal Control Over Financial Reporting (Significant Deficiency)

Riverside County

City of Murrieta

An important element of internal controls over cash is the reconciliation process to identify differences between the bank and the general ledger and resolve differences timely.

For fiscal year 2020, the independent auditors of the City of Murrieta noted that Bank reconciliations were not completed for the certain bank accounts.

The City's independent auditors recommended that all bank accounts be reconciled to the General Ledger within 30 days after the end of the month.

According to the City's independent auditors for fiscal year 2021, corrective action has been taken.



6. Purchasing Approval (Significant Deficiency)

Los Angeles County

City of West Covina

A system of purchasing approval should be established, maintained and updated in a timely manner.

For fiscal year 2020, the independent auditors of the City of West Covina noted that a listing of authorized purchasing approval limit signatures was not updated to reflect changes in authorized personnel.

The City's independent auditors recommended that the City perform an annual review of authorized purchasing approvals on record and make any necessary updates as soon as possible.

According to the City's independent auditors for fiscal year 2021, corrective action has been taken.

7. Bank Reconciliation Review (Significant Deficiency)

Los Angeles County

City of West Covina

Bank reconciliations should be prepared, reviewed and approved in a timely manner.

For fiscal year 2020, the independent auditors of the City of West Covina noted that bank reconciliations for various accounts were not reviewed or approved in a timely manner.

The City's independent auditors recommended that all bank reconciliations are reviewed in a timely manner and documentation of when the preparation and review are completed.

According to the City's independent auditors for fiscal year 2021, corrective action has been taken.



We were engaged by the South Coast AQMD to perform this agreed-upon procedures engagement and conducted our engagement in accordance with attestation standards established by the American Institute of Certified Public Accountants. We were not engaged to and did not conduct an examination or review engagement, the objective of which would be the expression of an opinion or conclusion, respectively, on whether AB 2766 funds distributed to the cities and counties for the fiscal years ended June 30, 2021 and 2020 were spent on the reduction of air pollution from motor vehicles pursuant to California Clean Air Act of 1988 or the South Coast AQMD's AQMP. Accordingly, we do not express such an opinion or conclusion. Had we performed additional procedures, other matters might have come to our attention that would have been reported to you.

We are required to be independent of the South Coast AQMD and to meet our other ethical responsibilities, in accordance with the relevant ethical requirements related to our agreed-upon procedures engagement.

A handwritten signature in cursive script that reads "Simpson & Simpson".

Los Angeles, California
March 18, 2024



SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
AIR QUALITY IMPROVEMENT FUND

List of Local Government Large Recipients
For the Years Ended June 30, 2021 and 2020

	<u>Local Government</u>	<u>Fiscal Year(s)</u>
	Los Angeles County	
1.	Burbank	2021 and 2020
2.	Carson	2021 and 2020
3.	Downey	2021 and 2020
4.	Hawthorne	2021 and 2020
5.	Inglewood	2021 and 2020
6.	Los Angeles	2021 and 2020
7.	Norwalk	2021 and 2020
8.	Pasadena	2021 and 2020
9.	Pomona	2021 and 2020
10.	Santa Clarita	2021 and 2020
11.	Santa Monica	2021 and 2020
12.	Torrance	2021 and 2020
13.	West Covina	2021 and 2020
14.	Whittier	2021 and 2020
	Orange County	
15.	Costa Mesa	2021 and 2020
16.	Fullerton	2021 and 2020
17.	Garden Grove	2021 and 2020
18.	Huntington Beach	2021 and 2020
19.	Irvine	2021 and 2020
20.	Lake Forest	2021 and 2020
21.	Mission Viejo	2021 and 2020
22.	Orange	2021 and 2020
23.	Santa Ana	2021 and 2020
24.	Tustin	2021 and 2020
25.	Westminster	2021 and 2020
	Riverside County	
26.	Corona	2021 and 2020
27.	County of Riverside	2021 and 2020
28.	Indio	2021 and 2020
29.	Jurupa Valley	2021 and 2020
30.	Murrieta	2021 and 2020
31.	Riverside	2021 and 2020
	San Bernardino County	
32.	Chino	2021 and 2020
33.	Chino Hills	2021 and 2020
34.	Ontario	2021 and 2020
35.	Rancho Cucamonga	2021 and 2020

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

***MOBILE SOURCE AIR POLLUTION REDUCTION
REVIEW COMMITTEE FUND
(SEGMENT 3)***

***INDEPENDENT ACCOUNTANT'S REPORT ON
APPLYING AGREED-UPON PROCEDURES***

FOR THE YEARS ENDED JUNE 30, 2021 and 2020





SIMPSON & SIMPSON
CERTIFIED PUBLIC ACCOUNTANTS

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Independent Accountant's Report On Applying Agreed-Upon Procedures

The Governing Board of
The South Coast Air Quality Management District

We have performed the procedures enumerated below to the financials and other records of the South Coast Air Quality Management District (SCAQMD), which were agreed to by the management of the SCAQMD, solely to assist you in determining whether automobile registration fee revenues (AB 2766 funds) distributed to the Mobile Source Air Pollution Reduction Review Committee (MSRC) during fiscal years 2019-20 and 2020-21 were spent on the reduction of air pollution from motor vehicles pursuant to the California Clean Air Act of 1988 or the SCAQMD's Air Quality Management Plan (AQMP) prepared pursuant to Article 5 of Chapter 5.5 of Part 3 of the California Health and Safety Code (CHSC). The SCAQMD's management is responsible for use of AB 2766 funds in accordance with the cited criteria. This agreed-upon procedures engagement was conducted in accordance with attestation standards established by the American Institute of Certified Public Accountants. The sufficiency of these procedures is solely the responsibility of those parties specified in this report. Consequently, we make no representation regarding the sufficiency of the procedures described below either for the purpose for which this report has been requested or any other purpose.

Our procedures and results are as follows.

1. We reviewed the list of the MSRC members to verify that, in accordance with CHSC 44244(a), the Committee consists of a representative from each of the specified agencies.

Result

We noted no exceptions in performing this procedure.

2. In accordance with CHSC Section 44244(b), we verified that the MSRC developed and adopted work programs for fiscal years 2019-20 and 2020-21 that were approved by the SCAQMD Governing Board.

Result

We noted no exceptions in performing this procedure.

3. We reviewed the list of the Technical Advisory Committee (TAC) members to verify that membership of TAC is in accordance with the specifications of CHSC Section 44244(c). As required by CHSC Section 44244(c), the TAC advisory committee shall also include one or more person who is a mechanical engineer specializing in vehicle engines.

Result

We noted that for the period reviewed (July 1, 2019 through June 30, 2021), the TAC position for a mechanical engineer specializing in vehicle engines was vacant. In addition, we noted that the TAC position for a representative of the Cities of Los Angeles County, reflected vacant position. We noted no other exceptions in performing this procedure.

4. We obtained an understanding of how AB 2766 funds are accounted for, including whether AB 2766 funds are maintained in a separate fund or if there is a separate accounting for the funds maintained by other means.

Result

We noted that the MSRC has a separate fund called the Mobile Source Air Pollution Reduction Review Committee Fund.

5. We obtained an understanding of established internal control procedures related to the receipt and use of AB 2766 funds.

Result

We noted no exceptions in performing this procedure.

6. We agreed AB 2766 revenues recorded in the Mobile Source Air Pollution Reduction Fund General Ledger to the SCAQMD's record of disbursements.

Result

We noted no exceptions in performing this procedure.

7. We conducted interviews in order to obtain an understanding of how the SCAQMD allocates interest earned and determined the reasonableness of the interest allocation and that interest was used for the same purposes for which AB 2766 funds were allocated to the SCAQMD.

Result

We noted no exceptions on the cost allocation schedule.

8. We tested AB 2766 expenditures of the Mobile Source Air Pollution Reduction Fund for each year to determine:
 - a) allowability, reasonableness, adequacy of supporting documentation, proper approval, clearly identified the project, and were incurred during the fiscal year;
 - b) that the funds were spent in accordance with CHSC Section 44220(b), which requires that AB 2766 fund expenditures were incurred solely to reduce air pollution from motor vehicles and for related planning, monitoring, enforcement and technical studies necessary for implementation of the California Clean Air Act of 1988; and
 - c) in accordance with CHSC Section 44235, the SCAQMD did not use AB 2766 fees for the purpose of establishing or maintaining the district as a direct provider of the car pool, van pool, or other ridesharing or transit services.

Result

We noted no exceptions in performing this procedure.

9. We analyzed AB 2766 administrative expenditures to verify, in accordance with CHSC Section 44233, that the MSRC did not use more than 6.25% of the AB 2766 fees for administrative expenditures.

Result

We noted no exceptions in performing this procedure.



10. We obtained the SCAQMD expenditures to verify, in accordance with CHSC Section 44244.1(d), that the MSRC expended AB 2766 fees within one year of the program or project completion date.

Result

We noted no exceptions in performing this procedure.

11. We reviewed the SCAQMD's financial statements to verify that the Mobile Source Air Pollution Reduction Review Committee Fund was audited as part of the SCAQMD's annual audit conducted by an Independent CPA firm.

Result

We noted that the Mobile Source Air Pollution Reduction Review Committee Fund was audited as part of the SCAQMD's annual audit conducted by an Independent CPA firm.

We were not engaged to and did not conduct an examination or review, the objective of which would be the expression of an opinion on the MSRC's compliance with the California Clean Air Act of 1988 or the SCAQMD's Air Quality Management Plan (AQMP) prepared pursuant to Article 5 of Chapter 5.5 of Part 3 of the California Health and Safety Code (CHSC). Accordingly, we do not express such an opinion. Had we performed additional procedures, other matters might have come to our attention that would have been reported to you.

This report is intended solely for the information and use of the governing board and management of the SCAQMD, members of the Mobile Source Air Pollution Reduction Review Committee and members of the Technical Advisory Committee of the MSRC and is not intended to be, and should not be used anyone other than those specified parties.

A handwritten signature in cursive script that reads "Simpson & Simpson".

Los Angeles, California
December 26, 2023

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

***MOBILE SOURCE AIR POLLUTION REDUCTION
REVIEW COMMITTEE FUND
(SEGMENT 3 - PROJECTS)***

***INDEPENDENT ACCOUNTANT'S REPORT ON
APPLYING AGREED-UPON PROCEDURES***

FOR THE YEARS ENDED JUNE 30, 2021 and 2020





SIMPSON & SIMPSON
CERTIFIED PUBLIC ACCOUNTANTS

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Independent Accountant's Report On Applying Agreed-Upon Procedures

The Governing Board of
The South Coast Air Quality Management District

We have performed the procedures enumerated below on automobile registration fee revenues (AB 2766 funds) distributed to the Mobile Source Air Pollution Reduction Review Committee (MSRC) for the fiscal years ended June 30, 2021 and 2020. The MSRC is responsible for spending AB 2766 funds on the reduction of air pollution from motor vehicles pursuant to the California Clean Air Act of 1988 or the South Coast Air Quality Management District's (South Coast AQMD) Air Quality Management Plan (AQMP) prepared pursuant to Article 5 of Chapter 5.5 of Part 3 of the California Health and Safety Code (CHSC).

The South Coast AQMD has agreed to and acknowledged that the procedures performed are appropriate to meet the intended purpose of solely to assist in determining whether AB 2766 funds distributed to the MSRC for the fiscal years ended June 30, 2021 and 2020 were spent on the reduction of air pollution from motor vehicles pursuant to California Clean Air Act of 1988 or the South Coast AQMD's AQMP. This report may not be suitable for any other purpose. The procedures performed may not address all the items of interest to a user of this report and may not meet the needs of all users of this report, and as such, users are responsible for determining whether the procedures performed are appropriate for their purposes.

Our procedures and results are as follows.

1. We examined and tested ten (10) projects, as presented in Attachment A, approved for funding for the fiscal years ended June 30, 2021 and 2020 by the MSRC to determine if these projects aligned with the work programs for the fiscal years ended June 30, 2021 and 2020, and if these were properly approved by the South Coast AQMD's Governing Board.

Result

We noted no exceptions in performing this procedure.



2. For the ten projects selected for fiscal years ended June 30, 2021 and 2020, as presented in Attachment A, we verified that the project was proposed under the fiscal years ended June 30, 2021 and 2020 work programs that was developed and adopted by the MSRC and approved by the SCAQMD Board in accordance with CHSC Section 44244(b).

Result

We noted no exceptions in performing this procedure.

3. Obtain an understanding of how AB 2766 funds are accounted for, including whether AB 2766 funds are maintained in a separate fund or if there is a separate accounting for the funds maintained by other means.

Result

We noted that the MSRC has a separate fund called the Mobile Source Air Pollution Reduction Review Committee Fund (Fund 23).

4. We obtained an understanding of established internal control procedures related to the receipt and use of AB 2766 funds.

Result

We noted no exceptions in performing this procedure.

5. We agreed AB 2766 revenues recorded in the Mobile Source Air Pollution Reduction Fund General Ledger to the SCAQMD's record of disbursements.

Result

We noted no exceptions in performing this procedure.

6. We obtained a detailed listing of expenditures for the ten projects approved during fiscal years ended June 30, 2021 and 2020 and selected a sample of expenditures for testing. We tested AB 2766 expenditures of the Mobile Source Air Pollution Reduction Fund for each year to determine:

- a) allowability, reasonableness, adequacy of supporting documentation, proper approval, clearly identified the project, and were incurred during the fiscal year;
- b) that the funds were spent in accordance with CHSC Section 44220(b), which requires that AB 2766 fund expenditures were incurred solely to reduce air pollution from motor vehicles and for related planning, monitoring, enforcement



and technical studies necessary for implementation of the California Clean Air Act of 1988; and

- c) that the expenditures are in accordance with CHSC Section 44235, which prevents AB 2766 fees for the purpose of establishing or maintaining the district as a direct provider of the carpool, van pool, or other ridesharing or transit services.

Result

We noted no exceptions in performing this procedure.

- 7. We obtained a listing of the SCAQMD expenditures to verify, in accordance with CHSC Section 44244.1(d), that the MSRC expended AB 2766 fees within one year of the program or project completion date and that no more than 6.25% of the AB 2766 funds are used for administrative costs.

Result

We noted no exceptions in performing this procedure.

We were engaged by the South Coast AQMD to perform this agreed-upon procedures engagement and conducted our engagement in accordance with attestation standards established by the American Institute of Certified Public Accountants. We were not engaged to and did not conduct an examination or review engagement, the objective of which would be the expression of an opinion or conclusion, respectively, on whether AB 2766 funds distributed to the MSRC for the fiscal years ended June 30, 2021 and 2020 were spent on the reduction of air pollution from motor vehicles pursuant to California Clean Air Act of 1988 or the South Coast AQMD's AQMP. Accordingly, we do not express such an opinion or conclusion. Had we performed additional procedures, other matters might have come to our attention that would have been reported to you.

We are required to be independent of the South Coast AQMD and to meet our other ethical responsibilities, in accordance with the relevant ethical requirements related to our agreed-upon procedures engagement.

A handwritten signature in black ink that reads "Simpson & Simpson". The signature is written in a cursive, flowing style.

Los Angeles, California
December 26, 2023

ATTACHMENT A
REVIEW RESULTS OF TEN (10) MSRC PROJECTS

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
 MOBILE SOURCE AIR POLLUTION REDUCTION
 REVIEW COMMITTEE FUND
 REVIEW RESULTS OF TEN (10) MSRC PROJECTS

Contract No.: MS21002

Contractor: Better World Group Advisors, Inc.

Project Title: Develop sound bites on MSRC programs and projects to use in press releases, speeches, etc.

Project Status*: In Progress

AB 2766 Funding Adopted	Amount Paid to Date*	Contract Balance*	Questioned Costs	Costs Accepted
\$265,079	\$65,222	\$199,857	\$ -	\$65,222

Audit Results: No findings

* Project status, amount paid to date, and contract balance are as of June 30, 2021.

** AB 2766 funding was increased to \$448,154 per Contract Modification No. MS21002E executed on December 21, 2022.

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
 MOBILE SOURCE AIR POLLUTION REDUCTION
 REVIEW COMMITTEE FUND
 REVIEW RESULTS OF TEN (10) MSRC PROJECTS
 (CONTINUED)

Contract No.: MS21003

Contractor: Orange County Transportation Authority

Project Title: Implement a special Orange County Fair service by providing express bus service directly to the Orange County Fair from nine existing transit stations located throughout Orange County on Saturdays and Sundays in 2019 and 2020.

Project Status*: Contract term ended on May 31, 2021

AB 2766 Funding Adopted	Amount Paid to Date*	Contract Balance*	Questioned Costs	Costs Accepted
\$ 468,298	\$ -	\$ 468,298	\$ -	\$ -

Audit Results: No findings

* Project status, amount paid to date, and contract balance are as of June 30, 2021.

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
 MOBILE SOURCE AIR POLLUTION REDUCTION
 REVIEW COMMITTEE FUND
 REVIEW RESULTS OF TEN (10) MSRC PROJECTS
 (CONTINUED)

Contract No.: MS21005

Contractor: Southern California Association of Governments

Project Title: Serve as implementer of the last-mile project commercial deployment through a sole source contract.

Project Status*: In Progress

AB 2766 Funding Adopted**	Amount Paid to Date*	Contract Balance*	Questioned Costs	Costs Accepted
\$ 10,000,000	\$ -	\$ 10,000,000	\$ -	\$ -

Audit Results: No findings

* Project status, amount paid to date, and contract balance are as of June 30, 2021.

** AB 2766 funding was increased to \$16,751,000 per Contract Modification No. MS21005A executed on August 11, 2022.

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
 MOBILE SOURCE AIR POLLUTION REDUCTION
 REVIEW COMMITTEE FUND
 REVIEW RESULTS OF TEN (10) MSRC PROJECTS
 (CONTINUED)

Contract No.: MS21006

Contractor: Geographics

Project Title: Host and maintain the MSRC website under the www.CleanTransportationFunding.org domain name, including future minor modifications to the website.

Project Status*: In Progress**

AB 2766 Funding Adopted	Amount Paid to Date*	Contract Balance*	Questioned Costs	Costs Accepted
\$ 12,952	\$ 10,465	\$ 2,487	\$ -	\$ 10,465

Audit Results: No findings

* Project status, amount paid to date, and contract balance are as of June 30, 2021.

** Contract term ended on June 20, 2023.

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
 MOBILE SOURCE AIR POLLUTION REDUCTION
 REVIEW COMMITTEE FUND
 REVIEW RESULTS OF TEN (10) MSRC PROJECTS
 (CONTINUED)

Contract No.: MS21009

Contractor: ITS Technologies & Logistics, LLC

Project Title: Procure and place 12 zero emission vehicles into regular service at the Burlington Northern Santa Fe (BNSF) Railway Facility located at 1535 W. 4th Street, San Bernardino, California.

Project Status*: In Progress

AB 2766 Funding Adopted	Amount Paid to Date*	Contract Balance*	Questioned Costs	Costs Accepted
\$ 1,686,900	\$ -	\$ 1,686,900	\$ -	\$ -

Audit Results: No findings

* Project status, amount paid to date, and contract balance are as of June 30, 2021.

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
 MOBILE SOURCE AIR POLLUTION REDUCTION
 REVIEW COMMITTEE FUND
 REVIEW RESULTS OF TEN (10) MSRC PROJECTS
 (CONTINUED)

Contract No.: MS21013

Contractor: 4 Gen Logistics

Project Title:** Procure and place into regular service 40 Volvo model VNRE6ST battery electric zero emission semi-tractors; and deploy charging infrastructure to support the vehicles.

Project Status*: In Progress

AB 2766 Funding Adopted	Amount Paid to Date*	Contract Balance*	Questioned Costs	Costs Accepted
\$ 7,000,000	\$ -	\$ 7,000,000	\$ -	\$ -

Audit Results: No findings

* Project status, amount paid to date, and contract balance are as of June 30, 2021.

** Project description was modified per Contract Modification No. MS21013C executed on May 30, 2023.

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
 MOBILE SOURCE AIR POLLUTION REDUCTION
 REVIEW COMMITTEE FUND
 REVIEW RESULTS OF TEN (10) MSRC PROJECTS
 (CONTINUED)

Contract No.: MS21014

Contractor: Green Fleet Systems, LLC

Project Title: Procure 5 Mack Anthem near-zero emission trucks.

Project Status*: In Progress

<u>AB 2766 Funding Adopted</u>	<u>Amount Paid to Date*</u>	<u>Contract Balance*</u>	<u>Questioned Costs</u>	<u>Costs Accepted</u>
\$ 500,000	\$ -	\$ 500,000	\$ -	\$ -

Audit Results: No findings

* Project status, amount paid to date, and contract balance are as of June 30, 2021.

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
 MOBILE SOURCE AIR POLLUTION REDUCTION
 REVIEW COMMITTEE FUND
 REVIEW RESULTS OF TEN (10) MSRC PROJECTS
 (CONTINUED)

Contract No.: MS21017

Contractor: MHX, LLC

Project Title: Procure and place into regular service 10 Tesla Semi Class 8 zero emission vehicles; and procure and install at 13600 Napa Street, Fontana, California, two Tesla Mega-chargers or comparable charging infrastructure to support the vehicles..

Project Status*: In Progress

AB 2766 Funding Adopted	Amount Paid to Date*	Contract Balance*	Questioned Costs	Costs Accepted
\$ 1,900,000	\$ -	\$ 1,900,000	\$ -	\$ -

Audit Results: No findings

* Project status, amount paid to date, and contract balance are as of June 30, 2021.

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
 MOBILE SOURCE AIR POLLUTION REDUCTION
 REVIEW COMMITTEE FUND
 REVIEW RESULTS OF TEN (10) MSRC PROJECTS
 (CONTINUED)

Contract No.: MS21018

Contractor: Pac Anchor Transportation, Inc.

Project Title: Procure 23 Volvo VNL near-zero emission trucks (equipped with an engine certified by the California Air Resources Board to the Optional NOx standard of 0.02 g/bhp-hr).

Project Status*: In Progress

<u>AB 2766 Funding Adopted</u>	<u>Amount Paid to Date*</u>	<u>Contract Balance*</u>	<u>Questioned Costs</u>	<u>Costs Accepted</u>
\$ 2,300,000	\$ -	\$ 2,300,000	\$ -	\$ -

Audit Results: No findings

* Project status, amount paid to date, and contract balance are as of June 30, 2021.

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
MOBILE SOURCE AIR POLLUTION REDUCTION
REVIEW COMMITTEE FUND
REVIEW RESULTS OF TEN (10) MSRC PROJECTS
(CONTINUED)

Contract No.: MS21019

Contractor: Volvo Financial Services

Project Title: Procure 14 Volvo VNR Electric Class 8 zero emission vehicles, and to lease these vehicles to Quality Custom Distribution. Also, procure 8 ABB Terra 184 dual-port electric vehicle chargers and 2 Heliox mobile fast chargers, and to lease this equipment to Quality Custom Distribution.

Project Status*: In Progress

<u>AB 2766 Funding Adopted</u>	<u>Amount Paid to Date*</u>	<u>Contract Balance*</u>	<u>Questioned Costs</u>	<u>Costs Accepted</u>
\$ 3,930,270	\$ -	\$ 3,930,270	\$ -	\$ -

Audit Results: No findings

* Project status, amount paid to date, and contract balance are as of June 30, 2021.

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BOARD MEETING DATE: August 2, 2024

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 South Coast AQMD operations. This action is to provide the monthly status report on major automation contracts and planned projects.

COMMITTEE: Administrative, June 14, 2024, Reviewed

RECOMMENDED ACTION:
Receive and file.

Wayne Natri
Executive Officer

RMM:XC:DD:HL:dc

Background

Information Management (IM) provides a wide range of information systems and services in support of all South Coast AQMD operations. IM's primary goal is to provide automated tools and systems to implement rules and regulations, and to improve internal efficiencies. The annual Budget and Board-approved amendments to the Budget specify projects planned during the fiscal year to develop, acquire, enhance, or maintain mission-critical information systems.

Summary of Report

The attached report identifies 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
 August 2, 2024 Board Meeting
 Status Report on Ongoing and Upcoming Projects for
 Information Management

AQ-SPEC Cloud Platform Phase 2	
Brief description	Integrate separate data systems into the AQ-SPEC cloud-based platform to manage data and build interactive data visualizations and data dashboards for web-based viewing
Estimated project cost	\$313,350
Overall project status	In Progress
Percentage complete	70%
LAST 30 days	<ul style="list-style-type: none"> • Environment setup • User Acceptance Testing
NEXT 30 days	<ul style="list-style-type: none"> • User Acceptance Testing
IM Estimated completion date	7/19/24
Estimated Go-live date	9/10/24
Notes	Project is on schedule

Warehouse Indirect Source Rule Online Reporting Portal Phase 4	
Brief description:	Development of online reporting portal for Rule 2305 –Warehouse Indirect Source
Estimated project cost	\$250,000
Overall project status	In Progress
Percentage complete	90%
LAST 30 days	<ul style="list-style-type: none"> • System Development in progress • User Acceptance Testing
NEXT 30 days	<ul style="list-style-type: none"> • User Acceptance Testing
IM Estimated completion date	7/12/24
Estimated Go-live date	8/9/24
Notes	Project is on schedule

Agenda Tracking System	
Brief description	Develop new Agenda Tracking System for submittal, review, and approval of Governing Board meeting agenda items
Estimated project cost	\$250,000
Overall project status	In Progress
Percentage complete	90%
LAST 30 days	<ul style="list-style-type: none"> User Acceptance Testing and Training
NEXT 30 days	<ul style="list-style-type: none"> User Acceptance Testing
IM Estimated completion date	9/12/24
Go-live date	11/15/24
Notes	Project is on schedule

Online Application Filing	
Brief description	Enhanced Web application to automate filing of permit applications, Rule 222 equipment and registration for IC engines; implement electronic permit folder and workflow for staff
Estimated project cost	\$525,000
Overall project status	In Progress
Percentage complete	90%
LAST 30 days	<ul style="list-style-type: none"> User Acceptance Testing of Phase 1 of the project (first ten 400-E-XX forms) User Acceptance Testing of next set of Rule 222 forms
NEXT 30 days	<ul style="list-style-type: none"> User Acceptance Testing of Phase 1 of the project (first ten 400-E-XX forms) User Acceptance Testing of next set of Rule 222 forms
IM Estimated completion date	11/10/23
Go-live date	1/17/25
Notes	IM Development Complete

Permit Workflow Automation – Phase 1	
Brief description	Automate application acceptance and engineering evaluation processes into paperless workflows
Estimated project cost	\$250,000
Overall project status	In Progress
Percentage complete	40%
LAST 30 days	<ul style="list-style-type: none"> System Development in Progress
NEXT 30 days	<ul style="list-style-type: none"> System Development in Progress
IM Estimated completion date	9/10/24
Go-live date	3/14/25
Notes	Project is on schedule

Website Upgrade	
Brief description	Upgrade the Website Content Management System to latest version
Estimated project cost	\$100,000
Overall project status	In Progress
Percentage complete	95%
LAST 30 days	<ul style="list-style-type: none"> User Acceptance Testing and Training
NEXT 30 days	<ul style="list-style-type: none"> User Acceptance Testing and Training
IM Estimated completion date	8/30/24
Go-live date	10/11/24
Notes	Project is on schedule

Compliance System	
Brief description	Develop new Compliance System to help streamline the compliance business process. The new system will provide full integration of incident management, inspection process, field operations and operations dashboard
Estimated project cost	\$450,000
Overall project status	In Progress
Percentage complete	50%
LAST 30 days	<ul style="list-style-type: none"> System Development in progress
NEXT 30 days	<ul style="list-style-type: none"> System Development in progress
IM Estimated completion date	11/8/24
Go-live date	2/28/25
Notes	Project is on schedule

Source Test Tracking System (STTS)	
Brief description	Online STTS will keep track of timelines and quantify the number of test protocols and reports received. The system will provide an external online portal to submit source testing protocols and reports, track the review process, and provide integration to all other business units. It will also provide an external dashboard to review the status of a submittal
Estimated project cost	\$250,000
Overall project status	In Progress
Percentage complete	95%
LAST 30 days	<ul style="list-style-type: none"> Working on going live
NEXT 30 days	<ul style="list-style-type: none"> Working on going live
IM Estimated completion date	12/29/23
Go-live date	9/20/24
Notes	<ul style="list-style-type: none"> IM Development Complete On-Boarding Procedures Approved

Renewal of OnBase Software Support	
Brief description	Authorize the sole source purchase of OnBase software subscription and support for one year
Estimated project cost	\$200,000
Overall project status	In Progress
Est. date of completion	7/30/2024
Percentage complete	100%
LAST 30 days	<ul style="list-style-type: none"> Execute purchase July 30, 2024
NEXT 30 days	<ul style="list-style-type: none"> Project is Live

IT Service Management	
Brief description	IT Service Management will help improve user experience and gain more productivity from IT infrastructure. IT Service Management will align IT service with the organizational goals and streamline delivery of services
Estimated project cost	\$90,000
Overall project status	In Progress
Percentage complete	50%
LAST 30 days	<ul style="list-style-type: none"> Implementation in Progress
NEXT 30 days	<ul style="list-style-type: none"> Implementation in Progress
IM Estimated completion date	7/26/24
Go-live date	10/11/24
Notes	Project is on schedule

Projects that have been completed within the last 12 months are shown below

COMPLETED PROJECTS

PROJECT	DATE COMPLETED
AB2766 Version 2 Enhancements	May 9, 2024
PeopleSoft HCM Labor Agreement Implementation	April 30, 2024
PeopleSoft Electronic Requisition	April 30, 2024
Volkswagen Environmental Mitigation Trust Program GMS Enhancement	March 5, 2024
Email Gateway Replacement	March 1, 2024
Prequalify Vendor List for PCs, Network Hardware, etc.	February 2, 2024
WAIRE Program Online Portal (ISR) - Enhancement for Reporting Year 2024	December 28, 2023
Annual Emissions Reporting 2024	December 28, 2023
PeopleSoft HCM (Human Capital Management) Upgrade	October 24, 2023
Carl Moyer Program GMS	October 4, 2023
Legal Office System – Phase 2	August 31, 2023
Oracle PeopleSoft Software Support	August 31, 2023
PeopleSoft E-Requisition deployment for IM Division	August 22, 2023

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BOARD MEETING DATE: August 2, 2024

AGENDA NO. 17

REPORT: Administrative Committee

SYNOPSIS: The Administrative Committee held a hybrid meeting on Friday, June 14, 2024. The following is a summary of the meeting.

RECOMMENDED ACTION:
Receive and file.

Michael Cacciotti, Vice Chair
Administrative Committee

SN:cb

Committee Members

Present: Vice Chair Michael Cacciotti
Board Member Gideon Kracov
Supervisor V. Manuel Perez

Absent: Chair Vanessa Delgado, Committee Chair

Call to Order

Vice Chair Cacciotti chaired the Administrative Committee meeting on behalf of Chair Delgado. He called the meeting to order at 10:02 a.m.

For additional details of the Administrative Committee Meeting, please refer to the [Webcast](#).

DISCUSSION ITEMS:

1. **Board Members' Concerns:** No Board Members' concerns were reported.
2. **Chair's Report of Approved Travel:** Travel reported for Board Member Gideon Kracov to attend the ACT Expo in Las Vegas, Nevada.

3. **Report of Approved Out-of-Country Travel:** No out-of-country travel was reported.
4. **Review August 2, 2024 Governing Board Agenda:** Executive Officer Wayne Nastri noted that there are no Board or Committee meetings in July and the next Governing Board meeting is August 2. Mr. Nastri commented that there are two Set Hearings: Coachella Valley plan for 2008 8-hour ozone standard; and Proposed Rule 1165 to control emissions from municipal solid waste incinerators. He also commented that there are three Public Hearing items: Proposed Amended Rule 1148.1, which is regarding oil and gas production; Proposed Rule 2306, the railroad indirect source rule and Proposed Rule 316.2, which will determine fees for Rule 2306; and the 2023 Annual Report on the AB 2588 Program.

Board Member Kracov inquired if the oil and gas item was going back to Committee. Susan Nakamura, Chief Operating Officer, confirmed Proposed Rule 1148.1 had been presented to Stationary Source Committee, but staff was not planning on presenting it again to the Stationary Source Committee before the Board meeting. For additional information please refer to the [Webcast at 7:29](#).

5. **Approval of Compensation for Board Member Assistant(s)/Consultant(s):** This item was moved to Action Items as approval from the Administrative Committee is needed. For additional information please refer to the [Webcast at 10:15](#).
6. **Pre-Audit Conference (Presenter: Brandon Young, Engagement Partner):** Brandon Young, Engagement Partner, Lance, Soll & Lunghard, LLP, provided an outline of the financial statement audit for fiscal year 2023/2024. For additional information please refer to the [Webcast at 12:24](#).
7. **Audit Reports of AB 2766 Fee Revenue Recipients for Fiscal Years Ending June 30, 2020 and 2021:** Sujata Jain, Chief Financial Officer, presented the audit reports completed by independent Certified Public Accountants for the fiscal years ending June 30, 2020 and 2021, which include fee revenues subvended, South Coast AQMD's share, MSRC's share and local governments' share of such funds. For additional information please refer to the [Webcast at 15:30](#).
8. **Update on South Coast AQMD Diversity, Equity and Inclusion Efforts:** Anissa Heard-Johnson, Diversity, Equity & Inclusion (DEI) Officer, DEI with Community Air Programs, provided an update on agency efforts, seasonal events, cultural displays, Statewide DEI Working Group, and discussed Maya Lin for Fabulous Female Friday. For additional information please refer to the [Webcast at 17:14](#).

9. **Status Report on Major Ongoing and Upcoming Projects for Information Management:** Ron Moskowitz, Chief Information Officer, reported on the status of various projects and projects that have been completed. For additional information please refer to the [Webcast at 27:02.](#)

ACTION ITEMS:

5. **Approval of Compensation for Board Member Assistant(s)/Consultant(s):** There were four proposals for the compensation of the Board Member Assistant(s)/Consultant(s) for new fiscal year 2024-25. The contracts will be effective from July 1, 2024 through June 30, 2025. For additional information please refer to the [Webcast at 10:15.](#)

Supervisor Perez inquired about the formula for compensation. Mr. Nastri confirmed that staff would provide that information to him.

Moved by Kracov; seconded by Perez, unanimously approved.

Ayes: Cacciotti, Kracov, Perez
Noes: None
Absent: Delgado

10. **Execute Contract to Determine Brake and Tire Wear Exposure Concentrations in South Coast Air Basin and Coachella Valley:** Scott Epstein, Planning and Rules Manager/Planning, Rule Development and Implementation, reported that the Board approved funding for a MATES VI contract to study the contribution of brake and tire wear towards PM, and as a result an RFP was issued. This action is to execute a contract with Emissions Analytics, LLC to conduct the brake and tire wear study in an amount not to exceed \$850,000.

Supervisor Perez indicated that he supports this study but requested a study to mitigate dust in Coachella Valley. Vice Chair Cacciotti commented that he is excited about this study and interested to see the results. For additional information please refer to the [Webcast at 28:35.](#)

Moved by Kracov; seconded by Perez, unanimously approved.

Ayes: Cacciotti, Kracov, Perez
Noes: None
Absent: Delgado

11. **Appropriate Funds from Undesignated (Unassigned) Fund Balance for Permitting Enhancement Program:** Dr. Jillian Wong, Assistant Deputy Officer, Engineering & Permitting, indicated that this item is asking for \$100,000 of unspent funds, plus an additional \$200,000 to be appropriated from the Undesignated Fund Balance into Engineering & Permitting's FY 2024-25 budget to be used for either consultant or retiree assistance in efforts to reduce the permit inventory.

Supervisor Perez asked for confirmation that this budget is for retirees to continue assisting with the permitting enhancement program. Dr. Wong confirmed that is the case. For additional information please refer to the [Webcast at 34:34](#).

Moved by Perez; seconded by Kracov, unanimously approved.

Ayes: Cacciotti, Kracov, Perez
Noes: None
Absent: Delgado

WRITTEN REPORT:

None.

OTHER MATTERS:

12. **Other Business:** Supervisor Perez indicated he is looking forward to the conversation regarding South Coast AQMD and Coachella Valley leadership to hear about the work and efforts for that area. Mr. Nastri confirmed that staff is committed to continue working with CVAG.

For additional information please refer to the [Webcast at 38:03](#).

13. **Public Comment:** There was no public comment.
14. **Next Meeting Date:** The next regular Administrative Committee meeting is scheduled for Friday, August 9, 2024 at 10:00 a.m.

Adjournment

The meeting was adjourned at 10:38 a.m.

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BOARD MEETING DATE: August 2, 2024

AGENDA NO. 18

REPORT: Investment Oversight Committee

SYNOPSIS: The Investment Oversight Committee held a hybrid meeting on Friday, June 14, 2024. The following is a summary of the meeting.

RECOMMENDED ACTION:
Receive and file.

Michael A. Cacciotti, Committee Chair
Investment Oversight Committee

SJ:gp

Committee Members

Present: Vice Chair Michael A. Cacciotti, Committee Chair
Supervisor Curt Hagman
Board Member Veronica Padilla-Campos
Richard Dixon
Jill Whynot

Absent: Mayor José Luis Solache

Call to Order

Committee Chair Cacciotti called the meeting to order at 8:02 a.m.

For additional details of the Investment Oversight Committee Meeting, please refer to the [Webcast](#).

DISCUSSION ITEMS:

1. *Quarterly Report of Investments:* Sujata Jain, Chief Financial Officer presented the quarterly investment report. Committee Chair Cacciotti asked about reinvesting the US Treasury Note funds that will be maturing on June 20, 2024. Ms. Jain explained that staff will reach out to the Los Angeles County Treasurer to reinvest the funds. For additional information please refer to the [Webcast at 6:26](#).

2. Cash Flow Forecast: Ms. Jain reported on the cash flow for the current and next three years. For additional information please refer to the [Webcast at 8:09](#).
3. Financial Market Update: Richard Babbe, PFM Asset Management, gave the financial market update. Mr. Babbe explained that the economic picture is generally favorable, however, there are weaknesses in certain parts of the economy. For additional information please refer to the [Webcast at 9:30](#).

Supervisor Hagman asked about the stimulus package that was passed and if this changes predictions with respect to inflation and government spending. Mr. Babbe talked about the deficit and long-term concerns. Board Member Padilla-Campos asked about job growth and the future of Social Security. Mr. Babbe responded that he did not include that information in this presentation, but could provide that information to the Committee. Committee Chair Cacciotti commented about the one trillion dollar interest payment the Federal government has to pay this year on the 34 trillion dollar national debt and the impact that will have on local, regional and State governments as programs are cut. Mr. Babbe indicated his concern this increasing national debt will have on all levels of government for longer term, more than one year and out (intermediate and long term). He said that the amount of debt our federal government has to refinance with the current higher interest rates will be higher than one trillion dollars which will crowd out other spending. We will need to increase taxes or devalue and create additional inflation going forward to pay back the debt with cheaper dollars. For additional information please refer to the [Webcast at 25:15](#).

OTHER MATTERS:

4. **Other Business**

There was no other business to report.

5. **Public Comment Period**

There were no public comments to report.

6. **Next Meeting Date**

The next regular Investment Oversight Committee meeting is scheduled for Friday, September 13, 2024.

Adjournment

The meeting adjourned at 8:32 a.m.

BOARD MEETING DATE: August 2, 2024

AGENDA NO. 19

REPORT: Mobile Source Committee

SYNOPSIS: The Mobile Source Committee held a hybrid meeting on Friday, June 21, 2024. The following is a summary of the meeting.

RECOMMENDED ACTION:
Receive and file.

Gideon Kracov, Chair
Mobile Source Committee

SLR:ja

Committee Members

Present: Board Member Gideon Kracov, Committee Chair
Supervisor Holly J. Mitchell, Committee Vice Chair
Mayor Pro Tem Larry McCallon
Councilmember Nithya Raman

Absent: Supervisor V. Manuel Perez
Councilmember Carlos Rodriguez

Call to Order

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

For additional details, please refer to the [Webcast](#).

ROLL CALL

INFORMATIONAL ITEMS (Items 1-2):

1. Update on Proposed Rule 2306 – Freight Rail Yards and Proposed Rule 316.2 – Fees for Rule 2306

Elaine Shen, Planning and Rules Manager/Planning, Rule Development and Implementation, provided an update of Proposed Rule 2306 – Freight Rail Yards and Proposed Rule 316.2 – Fees for Rule 2306. For additional details, please refer to the [Webcast](#) beginning at 00:05:44.

Committee Vice Chair Mitchell asked staff how public health information can be provided to the community. Ian MacMillan, Assistant Deputy Executive Officer/Planning, Rule Development and Implementation, responded that staff will have information accessible to the public based on compliance reporting. Supervisor Mitchell also inquired about the possibility of strengthening the rule's emission reduction targets with any future CARB rules. Mr. MacMillan responded that the rule can be revisited in the future. For additional details, please refer to the [Webcast](#) at 00:21:41.

Supervisor Mitchell asked if equipment sources other than locomotives and drayage trucks could be included in setting the emission reduction targets. Mr. MacMillan responded that the proposed rule can be complied with reductions from all vehicle and equipment types and that the emission reduction targets are consistent with adopted CARB regulations. For additional details, please refer to the [Webcast](#) at 00:25:21.

Chair Kracov commented that the proposed rule requires reporting on zero emission infrastructure planning and development for all freight rail yard sources and asked for estimated shares of NOx emissions by freight rail yard sources. Dr. Shen responded that the largest share is from locomotives, followed by drayage trucks, with other sources accounting for single-digit shares.

Mayor McCallon asked how much locomotives contribute to the projected NOx reductions. Dr. Shen responded that locomotives contribute to an average of seven to eight tons per day through full implementation of the proposed rule. For additional details, please refer to the [Webcast](#) at 00:28:47.

Chair Kracov inquired about the comment letters received from the railroads and Pacific Merchant Shipping Association. Executive Officer Wayne Nastri responded that staff is preparing a response to their comments on CEQA. Mr. MacMillan provided a summary of the responsibilities of the owners and operators under PR 2306. Mayor McCallon added that the rule language should be clarified to reflect the intent of the rule. For additional details, please refer to the [Webcast](#) at 00:31:01.

Councilmember Raman asked about federal preemption concerns and previous litigation with railroads. Bayron Gilchrist, General Counsel, responded that South Coast AQMD considers all current laws in designing the proposed rule. Mayor McCallon asked the effect on the proposed rule if U.S. EPA does not grant federal authorization to CARB's In-Use Locomotive Regulation. Mr. Nastri responded that there are multiple potential outcomes. For additional details, please refer to the [Webcast](#) at 00:34:55.

Thomas Jelenić, PMSA; Theresa Pisano, Port of Los Angeles; and Nina Turner, Port of Long Beach asked for a revision of the exemption language to clearly exempt marine terminals from PR 2306, and for any port-related rail activities to be fully exempt as well. Chair Kracov asked staff to work directly with PMSA and ports staff on these requests and ensure rail activities are addressed in a facility-based rule. For additional details, please refer to the [Webcast](#) at 00:38:35.

Yassi Kavezade, Sierra Club; Fernando Gaytan, EarthJustice; Dori Chandler, Coalition for Clean Air; Elizabeth Pring, Andres Salerno, Cindy Ngyuen, Natural Resources Defense Council; and Lionel Mares expressed support for PR 2306 adoption in August while requesting that staff strengthen the proposed rule with more aggressive emission reduction targets for all freight rail yard sources and a comprehensive approach for zero emission technology deployment and infrastructure development. Harvey Eder, Public Solar Power Coalition, expressed concern with rail yard control over the land. For additional details, please refer to the [Webcast](#) at 00:43:56.

Chair Kracov expressed support of passing PR 2306 citing feasibility and consistency with the mission of South Coast AQMD. For additional details, please refer to the [Webcast](#) at 01:02:11.

2. 2022 and 2023 Airports MOU Implementation Progress Report

Sang-Mi Lee, Planning and Rules Manager/Planning, Rule Development and Implementation, presented this item. For additional details, please refer to the [webcast](#) beginning at 1:05:34.

Mayor McCallon requested clarification regarding the separation of a Ground Support Equipment (GSE) fleet operator at Ontario International Airport (ONT). Dr. Lee responded that the United Parcel Service (UPS) GSE fleet primarily operates outside of the airport perimeter and brings its fleet to the airport about two months a year. Initially, the UPS fleet had been included in ONT's emissions inventory. However, about two years ago, the airport informed South Coast AQMD that UPS would be excluded from the MOU as ONT had limited ability to enforce the MOU on an offsite operator. For additional details, please refer to the [webcast](#) starting at 1:18:19.

Chair Kracov asked whether South Coast AQMD has had discussions with U.S. EPA about controlling aircraft emissions. Mr. Nastri confirmed that staff has ongoing conversations with CARB, U.S. EPA, and the Federal Aviation Administration. For additional details, please refer to the [webcast](#) starting at 1:19:57.

Supervisor Mitchell asked whether there is any recourse if an airport does not meet a target in the MOUs. Mr. MacMillan responded that the MOUs include a dispute resolution process, but do not include penalties for noncompliance. South Coast AQMD is hopeful that recent, productive conversations with ONT will resolve the issue. For additional details, please refer to the [webcast](#) starting at 1:20:39.

Mayor McCallon asked if the UPS facility at the airport is subject to the Warehouse ISR. Mr. Nastri responded affirmatively. For additional details, please refer to the [webcast](#) starting at 1:21:35.

Chair Kracov asked whether Supervisor Hagman was aware of the situation with ONT and Mr. Nastri confirmed that he briefed Supervisor Hagman and will be reaching out to the executive director of ONT for further discussions. For additional details, please refer to the [webcast](#) starting at 1:22:02.

Mayor McCallon asked about John Wayne Airport's shortfall in meeting the 2023 target and Mr. Nastri responded that John Wayne Airport has since made up the shortfall. For additional details, please refer to the [webcast](#) beginning at 1:22:34.

Chair Kracov asked about the frequency of the Airport MOU implementation reports presented to the Mobile Source Committee. Mr. MacMillan responded that it is typically an annual report. For additional details, please refer to the [webcast](#) starting at 1:23:31.

There was no public comment on this item.

WRITTEN REPORTS (Items 3-5):

3. Rule 2305 Implementation Status Report: Warehouse Actions and Investments to Reduce Emissions (WAIRE) Program

This item was received and filed.

4. Rule 2202 Activity Report: Rule 2202 Summary Status Report

This item was received and filed.

5. Intergovernmental Review of Environmental Documents and CEQA Lead Agency Projects

This item was received and filed.

OTHER MATTERS:

6. Other Business

There was no other business to report.

7. Public Comment Period

Mr. Eder stated that solar power is the most cost-effective approach and stated support for the use of solar technology.

8. Next Meeting Date

The next regular Mobile Source Committee meeting is scheduled for Friday, August 16, 2024 at 9:00 a.m.

Adjournment

The meeting adjourned at 10:26 a.m.

Attachments

1. Attendance Record
2. Rule 2305 Implementation Status Report: Warehouse Actions and Investments to Reduce Emissions (WAIRE) Program
3. Rule 2202 Activity Report: Rule 2202 Summary Status Report – Written Report
4. Intergovernmental Review of Environmental Documents and CEQA Lead Agency Projects – Written Report

ATTACHMENT 1

**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
MOBILE SOURCE COMMITTEE MEETING
Attendance – June 21, 2024**

Board Member Gideon Kracov	South Coast AQMD Board Member
Supervisor Holly J. Mitchell,	South Coast AQMD Board Member
Mayor Pro Tem Larry McCallon	South Coast AQMD Board Member
Councilmember Nithya Raman	South Coast AQMD Board Member
Guillermo Gonzalez	Board Consultant (Perez)
Jackson Guze	Board Consultant (Raman)
Loraine Lundquist	Board Consultant (Mitchell)
Debra Mendelsohn	Board Consultant (McCallon)
Fred Minassian	Board Consultant (Padilla-Campos)
Uduak- Joe Ntuk	Board Consultant (Solache)
Jihae Oh	Board Consultant (Kracov)
Andrew Silva	Board Consultant (Lock Dawson)
Mark Taylor	Board Consultant (Rodriguez)
Mark Abramowitz	Community Environmental Services
Heather Arias	CARB
Nicholas Bryan	Public Member
Dori Chandler	Coalition for Clean Air
Chris Chavez	Coalition for Clean Air
Avi Chung	Ramboll
Curtis Coleman	Southern CA Air Quality Alliance
Amber Coluso	Port of Los Angeles
Gilberto Contreras	LGB
Allen Doyel	BNSF
Helena DuPont	California Strategies
Harvey Eder	Public Solar Power Coalition
Shayla Funk	Caliber Strategies
Fernando Gaytan	Earthjustice
Jeremy Gilbride	CDM Smith
Layla Gonzalez	CARB
Julija Grigonyte	Ramboll
Michele Grubbs	PMSA
Harold Holmes	CARB
Hiroshi Ishikawa	SCAG
Jamal Jackson	NRDC
Thomas Jelenic	PMSA
Karen Kavanagh	OIAA
Yassi Kavezade	Sierra Club
Bill LaMarr	CSBA
Sara Lamprise	Public Member
Juan Lopez-Rios	LGB

John D. Lovenburg BNSF
 Eric Lu Ramboll
 Ajay Mangat CARB
 Lionel Mares Sierra Club
 Maggie Martinez BUR
 Melinda McCoy JWA
 Tami McCrossen-Orr Trifiletti Consulting
 Melissa McMeechan Ramboll
 Danielle Morone GDB
 Warisa Nizawa LACSD
 Cindy Nguyen Public Member
 Peter Okurowski CCEEB
 Lauren Paladino LAWA
 Teresa Pisano Port of Los Angeles
 Martha Preciado OIAA
 Elizabeth Pring NRDC
 Bethmarie Quiambao Southern California Edison
 Kathy Ramirez Move LA
 Reid Roberts Public Member
 Robert Romansik JWA
 Ramine Ross Western States Petroleum Association
 Andres Salerno Public Member
 Heba Shanaa OIAA
 Daniela Simunovic City of Los Angeles
 Daniela Taberne Public Member
 Elizabeth Tom Ramboll
 Nina Turner Port of Long Beach
 Anne Walsh Public Member
 Peter Whittingham Whittingham Public Affairs Advisors

Jacob Allen South Coast AQMD Staff
 Debra Ashby South Coast AQMD Staff
 Jason Aspell South Coast AQMD Staff
 Cesar Ayala South Coast AQMD Staff
 Zoya Banan South Coast AQMD Staff
 Cindy Bustillos South Coast AQMD Staff
 Marc Carreras Sospedra South Coast AQMD Staff
 Javier Enriquez South Coast AQMD Staff
 Scott Gallegos South Coast AQMD Staff
 Lane Garcia South Coast AQMD Staff
 Bayron Gilchrist South Coast AQMD Staff
 De Groeneveld South Coast AQMD Staff
 Cindy Guzman De La Rocha South Coast AQMD Staff
 Dillon Harris South Coast AQMD Staff
 Angela Kim South Coast AQMD Staff
 Aaron Katzenstein South Coast AQMD Staff
 Belinda Kavin South Coast AQMD Staff
 Brandee Keith South Coast AQMD Staff

Ruby Laity South Coast AQMD Staff
 Howard Lee South Coast AQMD Staff
 Sang-Mi Lee South Coast AQMD Staff
 Jason Low South Coast AQMD Staff
 Terrence Mann South Coast AQMD Staff
 Ian MacMillan South Coast AQMD Staff
 Ron Moskowitz South Coast AQMD Staff
 Ghislan Muberwa South Coast AQMD Staff
 Susan Nakamura South Coast AQMD Staff
 Wayne Nastri South Coast AQMD Staff
 Vasileios Papapostolou South Coast AQMD Staff
 Robert Paud South Coast AQMD Staff
 Dan Penoyer South Coast AQMD Staff
 Denise Peralta Gailey South Coast AQMD Staff
 Eric Praske South Coast AQMD Staff
 Mary Reichert South Coast AQMD Staff
 Valerie Rivera South Coast AQMD Staff
 Nico Schulte South Coast AQMD Staff
 Penny Shaw-Cedillo South Coast AQMD Staff
 Elaine Shen South Coast AQMD Staff
 Masoud Shorshani South Coast AQMD Staff
 Lisa Tanaka O'Malley South Coast AQMD Staff
 Diana Thai South Coast AQMD Staff
 Xian-Liang Tian South Coast AQMD Staff
 Brian Tomasovic South Coast AQMD Staff
 Mei Wang South Coast AQMD Staff
 Shawn Wang South Coast AQMD Staff
 Jessica Wei South Coast AQMD Staff
 Vicki White South Coast AQMD Staff
 Victor Yip South Coast AQMD Staff
 Emily Yen South Coast AQMD Staff
 Chris Yu South Coast AQMD Staff
 Rui Zhang South Coast AQMD Staff



South Coast
 Air Quality Management District
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Rule 2305 Implementation Status Report:
Warehouse Actions and Investments to Reduce Emissions (WAIRE) Program

May 1, 2024 to May 31, 2024

1. Implementation and Outreach Activities:

Activity	Since Last Report*	Since Rule Adoption
Calls and Emails to WAIRE Program Hotline (909-396-3140) and Helpdesk (waire-program@aqmd.gov)	709	9,096
Views of Compliance Training Videos (outside of webinars)	255	7,435
Emails Sent with Information About WAIRE Program Resources	0	~ 77,332
Visits to www.aqmd.gov/waire	3,760	~ 67,826
Warehouse Locations Visited In-Person	209	1,388
Presentations to Stakeholders*	1	145

*Environmental Justice Advisory Group

2. Highlights of Recent Implementation and Enforcement Activities

Warehouse operators in Phase 1 and Phase 2 were required to submit their Annual WAIRE Report (AWR) by January 31, 2024. As of May 31st, South Coast AQMD has received the following AWRs from these two phases:

Compliance Period	Phase 1 (≥250,000 sf)	Phase 2 (≥150,000 - <250,000 sf)	Phase 3 (≥100,000 - <150,000 sf)*	Grand Total
2022	585	N/A	N/A	585
2023	525	326	N/A	851

*Phase 3 warehouse operators are required to submit their first Annual WAIRE Report by January 31, 2025.

Of the submitted reports, 55 warehouse operators still need to submit the required fees (including mitigation fees, as applicable). The warehouse operators who submitted an AWR reported earning a total of about 889,733 WAIRE Points in the two compliance periods, far exceeding the total WAIRE Points Compliance Obligation reported by these entities. These excess points may be banked for future compliance. The operators reported approximately \$28.1 million in mitigation fees, of which about \$24.5 million were paid by May 31, 2024.

Rule 2305 allows warehouse operators or owners the option of earning WAIRE Points for early actions completed prior to their first compliance period. As of May 31st, 2023 warehouse operators and facility owners filed Early Action AWRs. These early action reports include about 80,308 earned WAIRE Points.

Since December 2023, over 200 Notice of Violations (NOVs) have been issued for failure to submit reports. Approximately 110 warehouses have contacted South Coast AQMD directly in response to the NOVs issued, and staff is providing compliance assistance as needed. 80 facilities have subsequently filed the required reports and fees. An additional 3 facilities have submitted the required reports but have not yet submitted the associated fees. Some operators provided additional documentation to assert that the rule may not apply to their facility, and staff is in the process of evaluating this information.

The Warehouse Indirect Source Rule provides the option of proposing a Custom WAIRE Plan for actions that are not currently on the WAIRE Menu. Staff received 1 Custom WAIRE Plan application for the 2024 compliance period and is currently evaluating their potential for earning WAIRE Points. All Custom WAIRE Plan proposals will be available for public review 30 days prior to any potential approval.

Staff continued working on eight Public Records Act Requests preparing information that includes Rule 2305 reported data.

Anticipated Activities in June

- Continue outreach and support efforts to warehouse operators in preparation of their ISIR/AWR submittals. The due date for submitting ISIRs for Phase 3 warehouses (greater than or equal to 100,000 sq. ft and less than 150,000 sq. ft) is July 2, 2024.
- Continue to pursue potential enforcement action as necessary.
- Continue to review and verify submitted information and analyze data reported by facilities.
- Continue to provide documents in response to Public Records Act Requests.
- Continue to develop an approach for addressing business confidentiality concerns and making WAIRE Program data publicly accessible via the online F.I.N.D. tool on the South Coast AQMD website.
- Continue to enhance the WAIRE POP software to support Phase 3 ISIR submittals and improved functionality (e.g., program administration, and an amendment process for submitted reports).
- Staff will provide a training webinar to members of the California Trucking Association on June 21.



South Coast Air Quality Management District

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Rule 2202 Summary Status Report Activity for January 1, 2024 – May 31, 2024

Employee Commute Reduction Program (ECRP)	
# of Submittals:	64

Emission Reduction Strategies (ERS)	
# of Submittals:	58

Air Quality Investment Program (AQIP) Exclusively		
County	# of Facilities	\$ Amount
Los Angeles	27	\$ 94,672
Orange	1	\$ 4,439
Riverside	0	\$ 0
San Bernardino	0	\$ 0
TOTAL:	28	\$ 99,111

ECRP w/AQIP Combination		
County	# of Facilities	\$ Amount
Los Angeles	0	\$ 0
Orange	0	\$ 0
Riverside	0	\$ 0
San Bernardino	0	\$ 0
TOTAL:	0	\$ 0

Total Active Sites as of May 31, 2024

ECRP (AVR Surveys)			TOTAL Submittals w/Surveys	AQIP	ERS	TOTAL
ECRP ¹	AQIP ²	ERS ³				
482	9	12	503	100	720	1,323
36.4%	0.7%	0.9%	38.0%	7.6%	54.4%	100% ⁴

Total Peak Window Employees as of May 31, 2024

ECRP (AVR Surveys)			TOTAL Submittals w/Surveys	AQIP	ERS	TOTAL
ECRP ¹	AQIP ²	ERS ³				
363,847	3,179	1,982	369,008	13,600	284,257	666,865
54.6%	0.5%	0.3%	55.4%	2.0%	42.6%	100% ⁴

- Notes:**
1. ECRP Compliance Option.
 2. ECRP Offset (combines ECRP w/AQIP). AQIP funds are used to supplement the ECRP AVR survey shortfall.
 3. ERS with Employee Survey to get Trip Reduction credits. Emission/Trip Reduction Strategies are used to supplement the ECRP AVR survey shortfall.
 4. Totals may vary slightly due to rounding.

DRAFT VERSION

BOARD MEETING DATE: August 2, 2024

AGENDA NO.

REPORT: Intergovernmental Review of Environmental Documents and CEQA Lead Agency Projects

SYNOPSIS: This report provides a listing of environmental documents prepared by other public agencies seeking review by South Coast AQMD between May 1, 2024 and May 31, 2024, and proposed projects for which South Coast AQMD is acting as lead agency pursuant to CEQA.

COMMITTEE: Mobile Source, June 21, 2024, Reviewed

RECOMMENDED ACTION:
Receive and file.

Wayne Natri
Executive Officer

SR:MK:BR:SW:ET

Background

The California Environmental Quality Act (CEQA) Statute and Guidelines require public agencies, when acting in their lead agency role, to provide an opportunity for other public agencies and members of the public to review and comment on the analysis in environmental documents prepared for proposed projects. A lead agency is when a public agency has the greatest responsibility for supervising or approving a proposed project and is responsible for the preparation of the appropriate CEQA document.

Each month, South Coast AQMD receives environmental documents, which include CEQA documents, for proposed projects that could adversely affect air quality. South Coast AQMD fulfills its intergovernmental review responsibilities, in a manner that is consistent with the Board's 1997 Environmental Justice Guiding Principles and Environmental Justice Initiative #4, by reviewing and commenting on the adequacy of the air quality analysis in the environmental documents prepared by other lead agencies.

The status of these intergovernmental review activities is provided in this report in two sections: 1) Attachment A lists all of the environmental documents prepared by other public agencies seeking review by South Coast AQMD that were received during the reporting period; and 2) Attachment B lists the active projects for which South Coast AQMD has reviewed or is continuing to conduct a review of the environmental documents prepared by other public agencies. Further, as required by the Board's October 2002 Environmental Justice Program Enhancements for fiscal year (FY) 2002-03, each attachment includes notes for proposed projects which indicate when South Coast AQMD has been contacted regarding potential air quality-related environmental justice concerns. The attachments also identify for each proposed project, as applicable: 1) the dates of the public comment period and the public hearing date; 2) whether staff provided written comments to a lead agency and the location where the comment letter may be accessed on South Coast AQMD's website; and 3) whether staff testified at a hearing.

In addition, the South Coast AQMD will act as lead agency for a proposed project and prepare a CEQA document when: 1) air permits are needed; 2) potentially significant adverse impacts have been identified; and 3) the South Coast AQMD has primary discretionary authority over the approvals. Attachment C lists the proposed air permit projects for which South Coast AQMD is lead agency under CEQA.

Attachment A – Log of Environmental Documents Prepared by Other Public Agencies and Status of Review, and Attachment B – Log of Active Projects with Continued Review of Environmental Documents Prepared by Other Public Agencies

Attachment A contains a list of all environmental documents prepared by other public agencies seeking review by South Coast AQMD that were received pursuant to CEQA or other regulatory requirements. Attachment B provides a list of active projects, which were identified in previous months' reports, and which South Coast AQMD staff is continuing to evaluate or prepare comments relative to the environmental documents prepared by other public agencies. The following table provides statistics on the status of review¹ of environmental documents for the current reporting period for Attachments A and B combined²:

¹ The status of review reflects the date when this Board Letter was prepared. Therefore, Attachments A and B may not reflect the most recent updates.

² Copies of all comment letters sent to the lead agencies are available on South Coast AQMD's website at: <http://www.aqmd.gov/home/regulations/ceqa/commenting-agency>.

Statistics for Reporting Period from May 1, 2024 to May 31, 2024	
Attachment A: Environmental Documents Prepared by Other Public Agencies and Status of Review	84
Attachment B: Active Projects with Continued Review of Environmental Documents Prepared by Other Public Agencies (which were previously identified in the March 2024 and April 2024 report)	8
Total Environmental Documents Listed in Attachments A & B	92
<i>Comment letters sent</i>	<i>10</i>
<i>Environmental documents reviewed, but no comments were made</i>	<i>54</i>
<i>Environmental documents currently undergoing review</i>	<i>28</i>

Staff focuses on reviewing and preparing comments on environmental documents prepared by other public agencies for proposed projects: 1) where South Coast AQMD is a responsible agency under CEQA (e.g., when air permits are required but another public agency is lead agency); 2) that may have significant adverse regional air quality impacts (e.g., special event centers, landfills, goods movement); 3) that may have localized or toxic air quality impacts (e.g., warehouse and distribution centers); 4) where environmental justice concerns have been raised; and 5) which a lead or responsible agency has specifically requested South Coast AQMD review.

If staff provided written comments to a lead agency, then a hyperlink to the “South Coast AQMD Letter” is included in the “Project Description” column which corresponds to a notation in the “Comment Status” column. In addition, if staff testified at a hearing for a proposed project, then a notation is included in the “Comment Status” column. Copies of all comment letters sent to lead agencies are available on South Coast AQMD’s website at: <http://www.aqmd.gov/home/regulations/ceqa/commenting-agency>. Interested parties seeking information regarding the comment periods and scheduled public hearings for projects listed in Attachments A and B should contact the lead agencies for further details as these dates are occasionally modified.

In January 2006, the Board approved the Clean Port Initiative Workplan (Workplan). One action item of the Workplan 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 accordance with this action item, Attachments A and B organize the environmental documents received according to the following categories: 1) goods movement projects; 2) schools; 3) landfills and wastewater projects; 4) airports; and 5) general land use projects. In response to the action item relative to mitigation, staff maintains a compilation of mitigation measures presented as a series of tables relative to off-road engines; on-road engines; harbor craft; ocean-going vessels; locomotives; fugitive dust; and greenhouse gases which are available on South Coast AQMD’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 such as ground support equipment.

Attachment C – Proposed Air Permit Projects for Which South Coast AQMD is CEQA Lead Agency

The CEQA lead agency is responsible for determining the type of environmental document to be prepared if a proposal requiring discretionary action is considered to be a “project” as defined by CEQA. South Coast AQMD periodically acts as lead agency for its air permit projects and the type of environmental document prepared may vary depending on the potential impacts. For example, an Environmental Impact Report (EIR) is prepared when there is substantial evidence that the project may have significant adverse effects on the environment. Similarly, a Negative Declaration (ND) or Mitigated Negative Declaration (MND) may be prepared if a proposed project will not generate significant adverse environmental impacts, or the impacts can be mitigated to less than significance. The ND and MND are types of CEQA documents which analyze the potential environmental impacts and describe the reasons why a significant adverse effect on the environment will not occur such that the preparation of an EIR is not required.

Attachment C of this report summarizes the proposed air permit projects for which South Coast AQMD is lead agency and is currently preparing or has prepared environmental documentation pursuant to CEQA. As noted in Attachment C, South Coast AQMD is lead agency for three air permit projects during May 2024.

Attachments

- A. Environmental Documents Prepared by Other Public Agencies and Status of Review
- B. Active Projects with Continued Review of Environmental Documents Prepared by Other Public Agencies
- C. Proposed Air Permit Projects for Which South Coast AQMD is CEQA Lead Agency

ATTACHMENT A
ENVIRONMENTAL DOCUMENTS PREPARED BY OTHER PUBLIC AGENCIES AND STATUS OF REVIEW
May 1, 2024 to May 31, 2024

SOUTH COAST AQMD LOG-IN NUMBER PROJECT TITLE	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
Warehouse & Distribution Centers RVC240522-09 Ellis Logistics Center Project Ellis Logistics Center Project by CRP NC South Perris Owner LLC; DPR22-00018 (SCH #2023040144)	The project consists of constructing a 643,419 square foot warehouse on 34.53 acres. The project is located near the southeast corner of East Ellis Avenue and Case Road. Reference RVC230412-05 Comment Period: 5/17/2024 - 7/1/2024 Public Hearing: N/A	Notice of Availability of a Draft Environmental Impact Report	City of Perris	Under review, may submit comments
Warehouse & Distribution Centers RVC240522-11 Newland Simpson Road Hemet Project	The project consists of constructing two industrial buildings totaling approximately 1,192,418 square feet and an 8.90 acres ancillary trailer parking lot on 74.88 acres. Building 1 would be developed as an 883,080 square feet warehouse and Building 2 would be developed as a 309,338 square feet warehouse. The project also consists of 483,977 square feet of landscaping, covering approximately 24.5 percent of the site. The project is located on the southwest and southeast intersection of Warren Road and Simpson Road. Reference RVC231221-04. Comment Period: 5/17/2024 - 7/1/2024 Public Hearing: N/A	Notice of Availability of a Draft Environmental Impact Report	City of Hemet	Under review, may submit comments
Warehouse & Distribution Centers SBC240502-01 5th & Sterling; Development Permit Type-D (DP-D 23-13)	The project consists of building a 557,000 square foot warehouse with 80 dock doors on 25.12 acres. The project is located north of 5th Street, east of Sterling Avenue, south of 6th Street, and approximately 650 feet west of Lankershim Avenue. https://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2024/may-2024/sbc240502-01-nop-5th-amp-sterling-development-permit-type-d-dp-d-23-13.pdf Comment Period: 5/1/2024 - 5/30/2024 Public Hearing: N/A	Notice of Preparation	City of San Bernardino	Comment letter sent on 5/30/2024
Warehouse & Distribution Centers SBC240503-06 2720 South Willow Avenue Development Project	The project consists of constructing a 118,000 square foot warehouse on 5.63 acres. The project is located at 2720 South Willow Avenue, bounded by businesses to the north, South Willow Avenue to the east, Jurupa Avenue to the south, and Lilac Avenue to the west. Comment Period: 5/3/2024 - 6/2/2024 Public Hearing: N/A	Notice of Intent to Adopt a Mitigated Negative Declaration	City of Rialto	Document reviewed - No comments sent

Key:
 # = Project has potential environmental justice concerns due to the nature and/or location of the project.
 LAC = Los Angeles County, ORC = Orange County, RVC = Riverside County, and SBC = San Bernardino County, ODP = Outside District Jurisdiction Project
 Notes:
 1. Disposition may change prior to Governing Board Meeting
 2. Documents received by the CEQA Intergovernmental Review program but not requiring review are not included in this report.

ATTACHMENT A
ENVIRONMENTAL DOCUMENTS PREPARED BY OTHER PUBLIC AGENCIES AND STATUS OF REVIEW
May 1, 2024 to May 31, 2024

SOUTH COAST AQMD LOG-IN NUMBER PROJECT TITLE	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
<i>Waste and Water-related</i> SBC240509-02 The Replenish Big Bear Program	The project consists of constructing 6.59 miles of drinking water pipelines, RO brine minimization, three pump stations, a groundwater recharge system, and four monitoring wells with a capacity of up to 2,200 acre-foot per year on 138 square miles by 2040. The project is bounded by unincorporated areas of San Bernardino County in the north, east, south, and west in Big Bear. Reference SBC231221-07 and SBC221206-04 Staff previously provided comments on the Notice of Preparation for the project, which can be accessed at: https://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2023/january-2023/SBC221206-04.pdf . Comment Period: 5/9/2024- 5/22/2024 Public Hearing: 5/22/2024	Final Program Environmental Impact Report	Big Bear Area Regional Wastewater Agency	Document reviewed - No comments sent
<i>Waste and Water-related</i> SBC240522-02 Inland Feeder-Foothill Pump Station Intertie Project	The project consists of constructing two new 54-inch diameter supply and discharge pipelines to create an intertie connection between its Inland Feeder pipeline and SBVMWD's Foothill Pump Station. The supply connection pipeline would be approximately 500 feet in length and the discharge connection pipeline would be approximately 1,000 feet in length. The project is located south of the intersection of Greenspot Road and Cone Camp Road in the city of Highland and encompasses a total area of approximately 6.6 acres. Comment Period: 5/20/2024- 6/20/2024 Public Hearing: N/A	Notice of Intent to Adopt a Mitigated Negative Declaration	County of San Bernardino	Document reviewed - No comments sent
<i>Utilities</i> LAC240522-03 Scattergood Generating Stations Units 1 and 2 Green Hydrogen-Ready Modernization Project	The project consists of replacing existing conventional natural gas fired steam boiler generators with a combustion turbine generator and steam turbine generator. The project is located near the northwest corner of Vista Del Mar and West Grand Avenue in Playa del Rey. Reference LAC230524-02 Comment Period: 5/16/2024- 6/17/2024 Public Hearing: N/A	Other	Los Angeles Department of Water and Power	Under review, may submit comments

Key:
 # = Project has potential environmental justice concerns due to the nature and/or location of the project.
 LAC = Los Angeles County, ORC = Orange County, RVC = Riverside County, and SBC = San Bernardino County, ODP = Outside District Jurisdiction Project
 Notes:
 1. Disposition may change prior to Governing Board Meeting
 2. Documents received by the CEQA Intergovernmental Review program but not requiring review are not included in this report.

ATTACHMENT A
ENVIRONMENTAL DOCUMENTS PREPARED BY OTHER PUBLIC AGENCIES AND STATUS OF REVIEW
May 1, 2024 to May 31, 2024

SOUTH COAST AQMD LOG-IN NUMBER PROJECT TITLE	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
Transportation LAC240529-10 California High-Speed Rail System Palmdale to Burbank Project Section	The project consists of constructing a 38-mile rail track for passenger services between Palmdale Station in the Palmdale and Burbank Airport Station in Burbank. Reference LAC220901-10, LAC211102-03, LAC200526-01, and LAC140729-05 Staff previously provided comments on the Preliminary Review for the project, which can be accessed at http://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2022/november/LAC220901-10.pdf . Comment Period: N/A Public Hearing: 6/26/2024	Final Environmental Impact Report	California High-Speed Rail Authority	Under review, may submit comments
Transportation RVC240501-11 McCall Boulevard Road Widening CIP No. 22-03	The project consists of widening McCall Boulevard from Oak Hurst Avenue to Menifee Road (0.75 mile) with a new eastbound and westbound traffic lane and widening the two-lane segment of McCall Boulevard to four lanes. The project also consists of installing traffic signals, street lighting, sidewalks, curb and gutter, ADA ramps, and a retaining wall. The project is located along the existing McCall Boulevard, between Oak Hurst Avenue and Menifee Road. Comment Period: 5/1/2024- 5/7/2024 Public Hearing: 5/8/2024	Notice of Intent to Adopt a Mitigated Negative Declaration	City of Menifee	Document reviewed - No comments sent
Transportation RVC240524-02 I-10 Facility Restoration Project	The project consists of: 1) replacing and grinding lanes; 2) conducting a random slab replacement; 3) replacing outside shoulders; 4) reconstructing the median, cold plane and overlay; 5) upgrading metal beam guard rails; 6) upgrading curb ramps to Americans with Disability Act (ADA) standards; 7) constructing a Gross Solids Removal Device (GSRD)/trash capture device; 8) installing fiber optic cable systems, and 9) improving roadside safety at gore areas. The project is located along I-10 from Post Mile (PM) 0.0 to PM 4.40. Comment Period: 5/24/2024- 6/24/2024 Public Hearing: N/A	Notice of Intent to Adopt a Mitigated Negative Declaration	California Department of Transportation (Caltrans)	Document reviewed - No comments sent
Transportation SBC240523-02 State Route 18 Baldwin Park Lake Pavement Rehabilitation	The project consists of preserving and extending the service life of the existing pavement, as well as other roadway deficiencies along State Route (SR)-18 at Baldwin Lake, including: 1) rehabilitating pavement; 2) constructing 8-foot shoulders; 3) replacing existing signage; 4) upgrading guardrails; 5) removing existing Rock Slope Protection (RSP) and constructing a concrete channel lining at Cushenbury Creek bridge; 6) constructing median and rumble strips; and 7) repairing and upgrading culverts. The project is located 2.0 miles south of Holcomb Valley Road (Postmile [PM] 56.2) to Camp Rock Road (PM 66.9). Comment Period: 5/23/2024- 6/24/2024 Public Hearing: N/A	Notice of Intent to Prepare a Mitigated Negative Declaration	California Department of Transportation (Caltrans)	Document reviewed - No comments sent

Key:
 # = Project has potential environmental justice concerns due to the nature and/or location of the project.
 LAC = Los Angeles County, ORC = Orange County, RVC = Riverside County, and SBC = San Bernardino County, ODP = Outside District Jurisdiction Project
 Notes:
 1. Disposition may change prior to Governing Board Meeting
 2. Documents received by the CEQA Intergovernmental Review program but not requiring review are not included in this report.

ATTACHMENT A
ENVIRONMENTAL DOCUMENTS PREPARED BY OTHER PUBLIC AGENCIES AND STATUS OF REVIEW
May 1, 2024 to May 31, 2024

SOUTH COAST AQMD LOG-IN NUMBER PROJECT TITLE	PROJECT DESCRIPTION	TYPE OF DOC.	LEAD AGENCY	COMMENT STATUS
Retail RVC240516-01 Planning Case PR-2021-001049 (Conditional Use Permit and Design Review)	The project consists of constructing a 2,350 square foot drive-through restaurant (Ono Hawaiian BBQ) with 30 parking stalls and landscape improvements on 0.85 acres. The project is located at 3765 La Sierra Avenue, on the southeast corner of La Sierra Avenue and Magnolia Avenue. Comment Period: 5/16/2024 - 5/30/2024 Public Hearing: N/A	Other	City of Riverside	Document reviewed - No comments sent
Retail RVC240516-02 HOME2SUITES – Plot Plan (PP) No. PLN23-0069 and Conditional Use Permit (CUP) No. PLN23-0070	The project consists of constructing a 65,463 square foot hotel on two acres with 106 rooms and 106 parking spaces. This project is located north of La Piedra Road, east of Interstate 215, south of Newport Road, and west of Antelope Road. Reference RVC240201-02 Comment Period: 5/15/2024 - 6/3/2024 Public Hearing: 6/12/2024	Notice of Intent to Adopt a Mitigated Negative Declaration	City of Menifee	Document reviewed - No comments sent
Retail RVC240529-01 Walmart Fuel Beaumont Project	The project consists of constructing a gasoline service station with 16 pumps on 1.29 acres. The project is located at 1540 East Second Street near the northeast corner of East Second Street and Commerce Way. Reference RVC240410-07, RVC220802-07 and RVC220503-01 Comment Period: 5/21/2024 - 7/5/2024 Public Hearing: 6/12/2024	Notice of Intent to Adopt an Initial Study/Mitigated Negative Declaration	City of Beaumont	Under review, may submit comments
General Land Use (residential, etc.) LAC240501-05 Hollywood Sports Park Proposal (General Plan Amendment No. 24-01 and Zone Change No. 24-01)	The project consists of developing 1,640 residential units on 22 acres. It is anticipated that 20.5 acres could be utilized for high-density residential uses (100 dwelling units/acre maximum), while the remaining 1.5 acres could be utilized for open space uses. The project is located at 9030 Somerset Boulevard, which is bounded by Somerset Boulevard to the north, Virginia Avenue to the East, the Bellflower Bike Trail to the south, and Highway 19 further to the west. Comment Period: 4/26/2024 - 7/25/2024 Public Hearing: 7/10/2024	Notice of Preparation	City of Bellflower	Under review, may submit comments

Key:
= Project has potential environmental justice concerns due to the nature and/or location of the project.
LAC = Los Angeles County, ORC = Orange County, RVC = Riverside County, and SBC = San Bernardino County, ODP = Outside District Jurisdiction Project
Notes:
1. Disposition may change prior to Governing Board Meeting
2. Documents received by the CEQA Intergovernmental Review program but not requiring review are not included in this report.

DRAFT VERSION

ATTACHMENT C

**PROPOSED AIR PERMIT PROJECTS FOR
WHICH SOUTH COAST AQMD IS CEQA
LEAD AGENCY THROUGH MAY 31, 2024**

PROJECT DESCRIPTION	PROPONENT	TYPE OF DOCUMENT	STATUS	CONSULTANT
<p>Quemetco is proposing to modify existing South Coast AQMD 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 naturalgas-fueled ICEs.</p>	<p>Quemetco</p>	<p>Environmental Impact Report (EIR)</p>	<p>The Draft EIR was released for a 124-day public review and comment period from October 14, 2021 to February 15, 2022 and approximately 200 comment letters were received.</p> <p>South Coast AQMD held two community meetings, on November 10, 2021 and February 9, 2022, which presented an overview of the proposed project, the CEQA process, detailed analysis of the potentially significant environmental topic areas, and the existing regulatory safeguards. Response to written comments submitted relative to the Draft EIR and oral comments made at the community meetings are currently being prepared by the consultant.</p> <p>After the Draft EIR public comment and review period closed, Quemetco submitted additional applications for other permit modifications. South Coast AQMD staff is evaluating the effect of these new applications on the EIR process.</p>	<p>Trinity Consultants</p>
<p>Sunshine Canyon Landfill is proposing to modify its South Coast AQMD permits for its active landfill gas collection and control system to accommodate the increased collection of landfill gas. The proposed project will: 1) install two new low emission flares with two additional 300-horsepower electric blowers; and 2) increase the landfill gas flow limit of the existing landfill gas collection system.</p>	<p>Sunshine Canyon Landfill</p>	<p>Subsequent Environmental Impact Report (SEIR)</p>	<p>South Coast AQMD staff reviewed and provided comments on the preliminary air quality analysis, health risk assessment (HRA), and Preliminary Draft SEIR which are currently being addressed by the consultant.</p>	<p>Castle Environmental Consulting</p>
<p>Tesoro is proposing to modify its Title V permit to: 1) add gas oil as a commodity that can be stored in three of the six new crude oil storage tanks at the Carson Crude Terminal (previously assessed in the May 2017 Final EIR); and 2) drain, clean and decommission Reservoir 502, a 1.5-million-barrel concrete lined, wooden-roof topped reservoir used to store gasoil.</p>	<p>Tesoro Refining & Marketing Company, LLC (Tesoro)</p>	<p>Addendum to the Final Environmental Impact Report (EIR) for the May 2017 Tesoro Los Angeles Refinery Integration and Compliance Project (LARIC)</p>	<p>South Coast AQMD staff received a revised Preliminary Draft Addendum, which is currently being reviewed.</p>	<p>Environmental Audit, Inc.</p>

BOARD MEETING DATE: August 2, 2024

AGENDA NO. 20

REPORT: Stationary Source Committee

SYNOPSIS: The Stationary Source Committee held a hybrid meeting on Friday, June 21, 2024. The following is a summary of the meeting.

RECOMMENDED ACTION:
Receive and file.

Larry McCallon, Committee Chair
Stationary Source Committee

JA:cr

Committee Members

Present: Mayor Pro Tem Larry McCallon, Committee Chair
Supervisor Holly J. Mitchell, Committee Vice Chair
Chair Vanessa Delgado
Vice Chair Michael A. Cacciotti
Board Member Veronica Padilla-Campos
Mayor José Luis Solache

Call to Order

Committee Chair McCallon called the meeting to order at 10:30 a.m.

For additional information of the Stationary Source Committee Meeting, please refer to the [Webcast](#).

Roll Call

ACTION ITEM:

1. Authorize Rebate Fund to Incentivize Zero-Emission Appliances Through Building Appliances Rebate Program and Issue RFP for Third-Party Implementation of Program

Michael Krause, Assistant Deputy Executive Officer/Planning, Rule Development and Implementation, provided a summary of the proposed Go Zero rebate program, including recommended funding levels and the issuance of a request for proposal of third-party implementation of the program. For additional details please refer to the [Webcast](#) beginning at 3:00.

Committee Chair McCallon inquired whether application assistance funding would include outreach efforts, and whether overburdened communities in San Bernardino would be able to receive funding. Mr. Krause responded that seventy-five percent of funding would be allocated for overburdened communities, and that all four counties can utilize the rebate program. For additional details please refer to the [Webcast](#) beginning at 8:19

Committee Chair McCallon also inquired how staff arrived at the number of multifamily properties that could be funded, and whether there are funds available for future expansion of the program. Mr. Krause responded that the number of properties is based on the maximum amount of funding the rebate program will allow per property. Executive Officer Wayne Nastri responded that funding is available to expand the program five-fold. For additional details please refer to the [Webcast](#) beginning at 14:40.

Board Member Padilla-Campos inquired how the overburdened communities would be determined eligible, if multiple outreach groups could execute the RFP, and if private or non-profit entities can apply. Mr. Krause responded that overburdened communities would be based on CalEnviroScreen, eligibility would be based by property location, and multiple contractors as well as private or non-profit entities could bid on different sections of the RFP. For additional details please refer to the [Webcast](#) beginning at 15:23.

Vice Chair Cacciotti expressed support for considering location-specific experts who understand the various geographies and supported conducting outreach at larger events. For additional details please refer to the [Webcast](#) beginning at 17:25.

Chair Delgado motioned to double the application assistance funding from \$500,000 to \$1 million, to be able to assist the large jurisdiction. For additional details please refer to the [Webcast](#) beginning at 18:31.

Committee Vice Chair Mitchell supported the pilot program as an opportunity to learn and adjust, finance outreach, and help installer training in an effort to expand the workforce and suggested contractors could help with marketing efforts. For additional details please refer to the [Webcast](#) beginning at 20:22.

Fernando Gaytan, Earthjustice, noted the 2022 AQMP highlighted the need for incentives, expressed support for robust outreach to overburdened communities, recommended working with other agencies to form a one-stop shop for incentive information, suggested to provide solutions for tenant protection, and expressed support for expedient adoption of Proposed Amended Rules 1111 and 1121 later in the year. For additional details please refer to the [Webcast](#) beginning at 23:56.

Bethmarie Quiambao, Southern California Edison (SCE), expressed support for the RFP and noted that SCE had previously filed an application with the CPUC to fund heat pumps but was denied. Vice Chair Cacciotti inquired about the possibility to support SCE's next application to the CPUC, and Ms. Quiambao responded that support from South Coast AQMD would be welcome. For additional details please refer to the [Webcast](#) beginning at 26:31.

Harvey Eder, Public Solar Power Coalition, expressed support for solar heating equipment in lieu of heat pumps. For additional details please refer to the [Webcast](#) beginning at 28:49.

Jed Holtzman, RMI, supported the program to assist residences, provide substantial funding to overburdened communities, and conduct financing outreach. For additional details please refer to the [Webcast](#) beginning at 31:38.

Chris Chavez, Coalition for Clean Air, expressed support for the program and funding allocation to disadvantaged communities, recommended all constituents benefit from new zero-emission appliances, and highlighted the role of incentives to ensure quick implementation of Proposed Amended Rules 1111 and 1121. For additional details please refer to the [Webcast](#) beginning at 33:29.

Chair Delgado recommended the motion include the doubling up to a million dollars for outreach and marketing to cover the entire District.

Moved by Delgado; seconded by Solache; unanimously approved.

Ayes: Cacciotti, Delgado, Mitchell, Padilla-Campos, Solache, McCallon

Noes: None

Absent: None

INFORMATIONAL ITEM:

2. 2023 Annual Report on AB 2588 Program and Updates to AB 2588 and Rule 1402 Supplemental Guidelines

Scott Epstein, Planning and Rules Manager/Planning, Rule Development and Implementation, provided a summary of the AB 2588 Program and activities for the 2023 calendar year. Additional information was included about future AB 2588 and toxic rules activities. For additional details please refer to the [Webcast](#) beginning at 36:27.

Board Member Padilla-Campos inquired if stone cutting businesses are a part of AB 2588. Sarah Rees, Deputy Executive Officer/Planning, Rule Development and Implementation, answered that they would need to emit above thresholds to be subject to program requirements, and she was unaware of any currently in the program but would verify. Board Member Padilla-Campos further explained that heavy outreach is ongoing in her area due to the health impacts of silica. Jason

Aspell, Deputy Executive Officer/Engineering and Permitting, explained that these cutting activities are currently exempt from permitting and that the health impacts to workers from stone cutting would typically fall under OSHA's purview. For additional details please refer to the [Webcast](#) beginning at 46:50.

Vice Chair Cacciotti inquired about OEHHA's updates on trimethylbenzene, particularly if the health values were new or updated, and what was trimethylbenzene. Dr Epstein clarified that additional risk values were adopted for trimethylbenzene. Dr. Rees and Mr. Aspell also clarified that trimethylbenzene was not typically a product of combustion and is more commonly found in coatings or paints. For additional details please refer to the [Webcast](#) beginning at 48:05.

Committee Vice Chair Mitchell requested additional information regarding the six facilities that were required to submit additional reports and the two that required public notification. Dr. Epstein provided the information regarding the public notifications and explained that staff would follow up with a full list. For additional details please refer to the [Webcast](#) beginning at 50:40.

Mr. Eder provided comments on the number of deaths from PM2.5 and premature deaths. For additional details please refer to the [Webcast](#) beginning at 52:31.

WRITTEN REPORTS:

3. Monthly Permitting Enhancement Program (PEP) Update

The report was acknowledged by the committee.

4. Quarterly Permitting Update for Rule 1109.1 – Emissions of Oxides of Nitrogen from Petroleum Refineries and Related Operations

The report was acknowledged by the committee.

5. Monthly Update of Staff's Work with U.S. EPA and CARB on New Source Review Issues for the Transition of RECLAIM Facilities to a Command-and-Control Regulatory Program

The report was acknowledged by the committee.

6. Notice of Violation Penalty Summary

The report was acknowledged by the committee.

OTHER MATTERS:

7. Other Business

There was no other business to report.

8. Public Comment Period

There were no public comments to report.

9. Next Meeting Date

The next Stationary Source Committee meeting is scheduled for Friday, August 16, 2024, at 10:30 a.m.

Adjournment

The meeting was adjourned at 11:24 a.m.

Attachments

1. Attendance Record
2. Monthly Permitting Enhancement Program (PEP) Update
3. Quarterly Permitting Update for Rule 1109.1 – Emissions of Oxides of Nitrogen from Petroleum Refineries and Related Operations
4. Monthly Update of Staff’s Work with U.S. EPA and CARB on New Source Review Issues for the Transition of RECLAIM Facilities to a Command-and-Control Regulatory Program
5. Notice of Violation Penalty Summary

ATTACHMENT 1

**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
STATIONARY SOURCE COMMITTEE**

Attendance –June 21, 2024

Councilmember Michael A. Cacciotti	South Coast AQMD Board Member
Senator Vanessa Delgado (Ret)	South Coast AQMD Board Member
Mayor Pro Tem Larry McCallon	South Coast AQMD Board Member
Supervisor Holly J. Mitchell	South Coast AQMD Board Member
Board Member Veronica Padilla-Campos	South Coast AQMD Board Member
Mayor José Luis Solache	South Coast AQMD Board Member
Robyn Davis	Board Consultant (Mitchell)
William Kelly	Board Consultant (Cacciotti)
Debra Mendelsohn	Board Consultant (McCallon)
Fred Minassian	Board Consultant (Padilla-Campos)
Uduak-Joe Ntuk	Board Consultant (Solache)
Mark Taylor	Board Consultant (Rodriguez)
Jacqueline Vazquez	Board Consultant (Solache)
Chris Chavez	Coalition for Clean Air
Harvey Eder	Public Solar Power Coalition
Fernando Gaytan	Earthjustice
Jed Holtzman	RMI
Warisa Nuzawa	Los Angeles County Sanitation District
Bethmarie Quiambao	Southern California Edison
Jason Aspell	South Coast AQMD staff
Cindy Bustillos	South Coast AQMD staff
Scott Epstein	South Coast AQMD staff
Scott Gallegos	South Coast AQMD staff
Bayron Gilchrist	South Coast AQMD staff
De Groeneveld	South Coast AQMD staff
Sheri Hanizavareh	South Coast AQMD staff
Aaron Katzenstein	South Coast AQMD staff
Michael Krause	South Coast AQMD staff
Howard Lee	South Coast AQMD staff
Jason Low	South Coast AQMD staff
Ian MacMillian	South Coast AQMD staff
Terrence Mann	South Coast AQMD staff
Ron Moskowitz	South Coast AQMD staff
Susan Nakamura	South Coast AQMD staff
Wayne Nastri	South Coast AQMD staff
Sarah Rees	South Coast AQMD staff
Catherine Rodriguez	South Coast AQMD staff
Lisa Tanaka O’Malley	South Coast AQMD staff
Brian Tomasovic	South Coast AQMD staff
Mei Wang	South Coast AQMD staff
Victor Yip	South Coast AQMD staff

Monthly Permitting Enhancement Program (PEP) Update
South Coast AQMD
Stationary Source Committee – June 21, 2024

Background

At the February 2, 2024 Board meeting, the Board directed staff to provide monthly updates to the Stationary Source Committee to report progress made under the Permitting Enhancement Program (PEP). The Chair's PEP initiative was developed to enhance the permitting program and improve permitting inventory and timelines. This report provides a summary of the pending permit application inventory, monthly production, and other PEP related activities.

Summary

Pending Permit Application Inventory

The permitting process consists of a constant stream of incoming applications and outgoing application issuances, rejections, and denials. The remainder of the applications are considered the pending application inventory. The inventory consists of applications that are being prescreened prior to being accepted, workable applications, and non-workable applications. Non-workable means that staff are unable to proceed with processing an application because it is awaiting actions to address various regulatory requirements or deficiencies. As an example, after staff issues a Permit to Construct to a facility, staff must wait for the facility to construct and test the equipment prior to issuing a final Permit to Operate. Once a final Permit to Operate is issued, the permit application is removed from the pending application inventory. Other examples include facilities that may be in violation of rules and cannot be permitted until a facility achieves compliance, staff awaiting additional information from facilities, or facilities that have not completed the CEQA process for their project. During the life of an application, it may switch several times between being workable and non-workable as actions are taken by facilities and staff. Attachment 1 contains more detailed descriptions of the categories of non-workable permit applications. Figure 1 below provides a monthly snapshot of the pending application inventory.

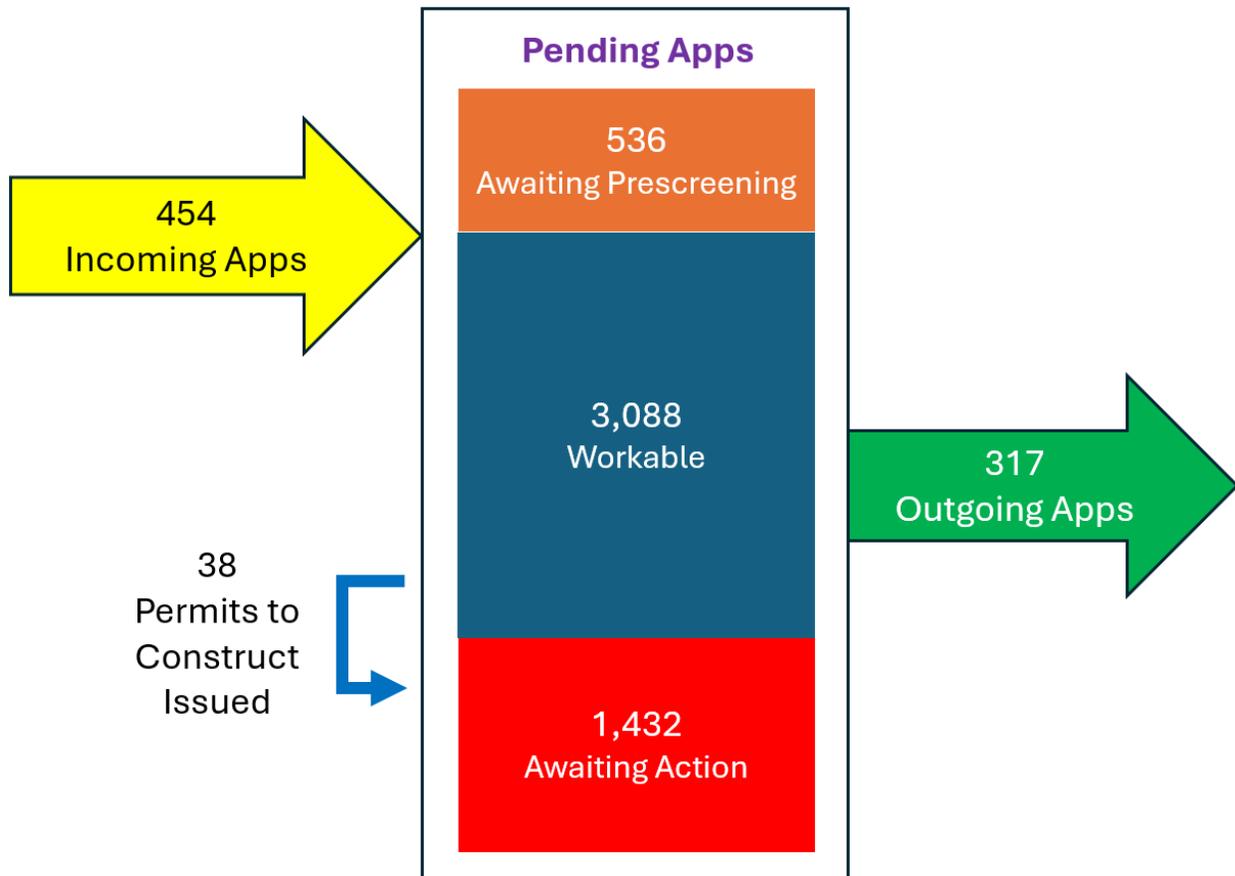


Figure 1: Application Processing Workflow – May 2024

Table 1 below lists the categories included in Awaiting Action (Non-Workable) for the last month. Please note that Table 1 provides a snapshot of data and applications may change statuses several times before final action. Multiple categories may apply to a single application. (38 applications have dual statuses this month).

Table 1: Awaiting Action (Non-Workable) Applications Summary

Awaiting Action (Non-Workable) Categories	March 2024	April 2024	May 2024
Additional Information from Facility	235	223	249
CEQA Completion	25	27	34
Completion of Construction	770	794	866
Facility Compliance Resolution	17	19	22
Facility Draft Permit Review	92	91	86
Fee Payment Resolution	2	3	9
Other Agency Review	35	52	45
Other Facility Action	69	7	7
Other South Coast AQMD Review	100	0	0
Public Notice Completion	23	34	32
Source Test Completion	117	127	120

Please see Attachment 1 for more information on these categories.

In May, 454 incoming applications were submitted which was an increase of 97 incoming applications from the previous month. There were 317 outgoing applications which was a decrease of 92 applications from April (further information is provided in the “Production” section of this report). There was a noticeable increase of incoming applications last month as is expected due to the upcoming Rule 301 fee increases on July 1. Several applications changed status to Completion of Construction after Permits to Construct were issued. Staff will need to wait for construction of the equipment to be completed prior to moving forward on these applications. Since incoming applications (yellow arrow) exceeded outgoing applications (green arrow) this month, the pending application inventory increased.

The rate of incoming applications is unpredictable and is dependent on business demands and the economic climate, as well as South Coast AQMD rule requirements. Maintaining the average production rate of outgoing applications greater than average rate of incoming applications is key to reducing the pending application inventory until a manageable working inventory is established. As stated above, looking ahead to the next reporting period in June, there historically has been a spike in incoming applications before fee increases take effect on July 1 for application fees. This typically results in a swell in the inventory as time is needed to address the surge of permit applications.

Maintaining a low vacancy rate with trained and experienced permitting staff is the biggest factor in maintaining high production and reducing the pending application inventory. In addition, data and analysis showed that addressing vacancies at the Senior and Supervising AQ Engineers was vital since these positions are the review and approval stages of the permitting process. Seven Senior and Supervising AQ Engineer positions are in the process of being filled.

Production

Prior to staff retirements, permit production levels in 2020 were typically above 500 completions per month. Prior to PEP implementation, high vacancy rates resulted in decreased permit completions. Lower production rates nearing 400 completions per month occurred as the vacancy rate peaked. As the vacancy rate has been reduced and staff have been trained, production has increased. Figure 2 below shows a rolling 12-month average of application completions and the monthly production for the last three months. Recently, increased monthly production levels (orange circles) are raising the rolling 12-month production averages (black line) in the chart below. The rolling 12-month average includes the monthly totals from the last year to visualize the trend over time, as production in individual months often fluctuates (in addition to fluctuations in incoming application submittals). The current rolling 12-month average production rate is 438 completions per month. In the coming months, staff anticipates production rates will return to 2020 levels. A higher rolling 12-month average will indicate sustained higher production levels. These higher production levels will begin to reduce the pending application inventory and improve permit processing times.

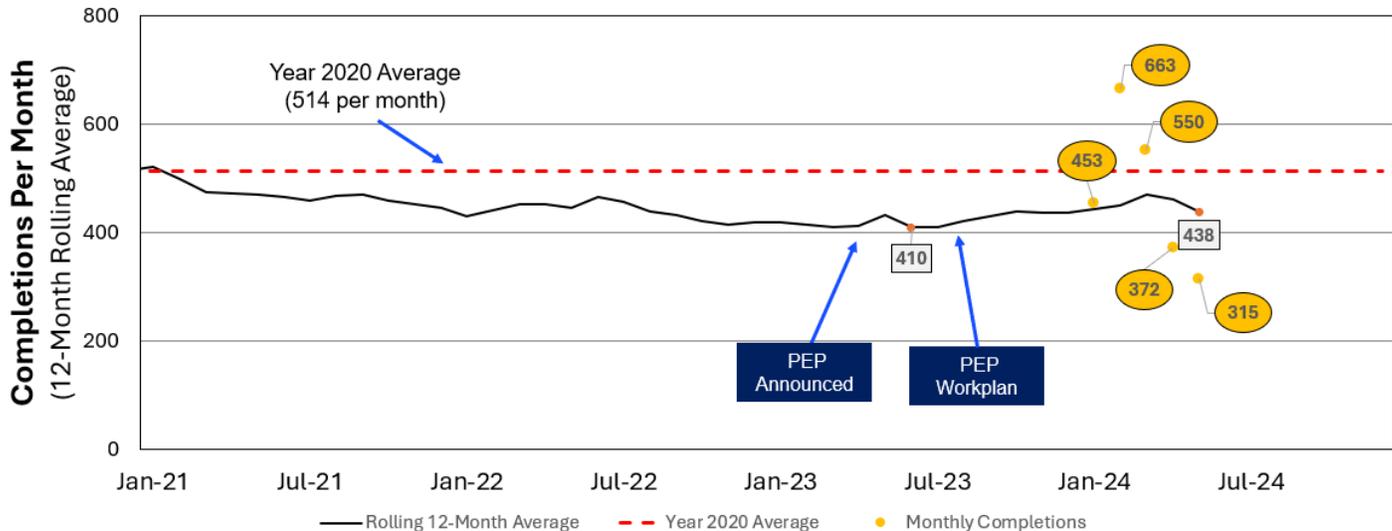


Figure 2: Application Completions - Rolling 12-Month Average and Recent Three Months

Production began to increase in the second half of 2023 as substantial promotional and hiring occurred. New engineering staff are currently being trained and production is expected to increase over the coming months and years as they become more experienced in their duties.

Staff experienced decreased completions in April and May compared to the prior three months. However, in the first two weeks of June, production appears to be rebounding as staff have already acted on 300 completions. Regardless, staff are continuing to investigate this decrease and strategize plans to improve production. For April and May, the following extenuating circumstances were identified:

- Two days of offset sanctions which paused issuance of new permits
 - US EPA acted on Oil and Gas regulations resolving temporary sanctions
- Physical move of E&P staff workspaces which disrupted production
 - Decreased vacancy rates required movement of staff. Relocation was completed efficiently within one week
- Transfer of Supervisory staff member
 - One Supervising AQ Engineer transferred between teams in E&P on May 7. A replacement is expected to be selected in June.
- Focus on complex, aged applications
 - Staff acted on several of these applications which take more time and resources to resolve issues. Several more aged projects are targeted to be completed in June.
- PEP development
 - Electronic permit applications have been developed and are being tested by permit processing engineers. This effort involves resources that would typically be focused on permit evaluations but will result in operational efficiencies upon completion.

Engineering & Permitting (E&P) Vacancy Rate

The current E&P vacancy rate is 9.7%. The minimum target vacancy rate for PEP is 10%. When PEP was first announced, the E&P vacancy rate was greater than 20%.

Staff continued their ongoing efforts to maintain the vacancy rate. In May, one administrative position was filled to replace a departure from the previous month to reduce the vacancy rate below 10% again. An AQ Engineer 2 recruitment will conclude in June which is expected to further reduce the vacancy rate. Staff is in the process of conducting promotional recruitments which will result in another external AQ engineer recruitment around Q1 2025.

Key Activities This Month

- Staff presented their Permit Enhancement Program efforts at the Industry Environmental Association annual conference in San Diego. Other air agencies reached out to staff for more details to enhance their own permitting programs.
- Staff issued several aged permit applications in May. As part of PEP, staff have been focusing on aged applications and resolving complex compliance and permitting issues.
- Staff initiated an effort to distribute permitting public notices in lieu of facilities handling the distribution. This is a PEP initiative and is expected to reduce permitting timelines. Staff are starting this effort on a small scale to develop the process and collect data prior to the full roll out of the program. Facilities have been receptive to the new program.

Upcoming Meetings:

- Permitting Working Group (PWG) - June 18 – Focus on Waste Management Industry
- Permit Streamlining Task Force (PSTF) - July 17
- Staff are targeting to conduct at least six public meetings regarding permitting in Fiscal Year 2024-2025. A schedule of future PSTF and PWG meetings is under development.
- Staff will conduct PWG meetings that will be a collaborative public effort to discuss permitting requirements with various industry sectors and receive public input.
- A PEP update to the Board will occur in the third quarter of 2024.

Attachment 1

Explanation of Non-Workable Application Statuses

Workable applications are those applications where staff have the required information to process the permit application.

Non-workable applications are those applications where the application process has been paused while staff are awaiting the resolution of one or more related tasks or where the permit cannot be issued.

Description of Non-Workable/Awaiting Action Terms

Additional Information from Facility

During permit processing staff may need additional information from a facility that was not included in the original permit application package or a change of scope of the proposed project. Additional information may include items regarding materials used in the equipment (such as toxics), equipment information, or other items to perform emission calculations or determine compliance for the proposal in the application.

CEQA Completion

Prior to issuing permits, CEQA requirements are required to be evaluated and completed. South Coast AQMD can either be the Lead Agency that certifies or approves the CEQA document or the Responsible Agency that consults with the Lead Agency (typically a land use agency) on the CEQA document.

Completion of Construction

After a Permit to Construct is issued, the permit application file remains in the pending application inventory. Staff must wait for the facility to complete construction prior to completing other compliance determination steps before the permitting process can continue. Typically, a Permit to Construct is valid for one year, but it may be extended for various reasons if the facility demonstrates they are making increments of progress. For some large projects, construction may take years while the permit application remains in the pending application inventory.

Facility Compliance Resolution

Prior to issuing permits the affected facility must demonstrate compliance with all rules and regulations [Rule 1303(b)(4)]. Prior to the issuance of a Permit to Construct, all major stationary sources that are owned or operated by, controlled by, or under common control in the State of California are subject to emission limitations must demonstrate that they are in compliance or on a schedule for compliance with all applicable emission limitations and standards under the Clean Air Act. [Rule 1303(b)(2)(5)].

Facility Draft Permit Review

If a facility requests to review their draft permit, staff provides the facility a review period prior to proceeding with issuance. During the review period, staff do not perform any additional evaluation until feedback from the facility is received. Some projects include several permits or large facility permit documents which may take a substantial time to review.

Fee Payment Resolution

Prior to issuing permits, all fees must be remitted, including any outstanding fees from associated facility activities including, but not limited to, annual operating and emission fees, modeling or source testing fees, and permit reinstatement fees.

Other Agency Review

The Title V permitting program requires a 45-day review of proposed permitting actions by U.S. EPA prior to many permitting actions. During the review period, staff are unable to proceed with permit issuance. If U.S. EPA has comments or requests additional information, the review stage may add weeks or months to the process before staff can proceed with the project.

For Electricity Generating Facilities (Power Plants), CEC may provide a review of proposed permits prior to issuance.

Other Facility Action

Prior to issuing a permit, a facility may need to take action to address deficiencies or take steps to meet regulatory requirements. This may include acquiring Emission Reduction Credits after staff notifies a facility the project requires emissions to be offset, performing an analysis for Best Available Control Technology requirements, or conducting air dispersion modeling.

Other South Coast AQMD Review

Prior to proceeding with a permit evaluation, permit engineering staff may require assistance and support from other South Coast AQMD departments. For example, IM support for electronic processing due to unique or long-term project considerations or to complete concurrent review of separate phases or integrated processes for multi-phase projects is routinely needed.

Public Notice Completion

There are several South Coast AQMD requirements that may require public noticing and a public participation process prior to permit issuance. Rule 212 and Regulation XXX both detail public noticing thresholds and requirements which include equipment located near schools, high-emitting equipment, equipment above certain health risk thresholds, or significant projects or permit renewals in the Title V program. The public notice period is typically 30 days, and staff are required to respond to all public comments in writing prior to proceeding with the permitting process. Other delays in the public notice process may include delays in distribution of the notice by the facility, incomplete distribution which may require restarting the 30-day period, or requests for extension from the public.

Source Test Completion

Many rules require source testing prior to permit issuance. Source testing is the measurement of actual emissions from a source that may be used to determine compliance with emission limits, or measurements of toxic emissions may be used to perform a health risk assessment. Lab analysis of an air sample is often required as part of the process. The testing is performed by third party contractors who prepare a source test protocol to detail the testing program, and a source test report with the results of the testing and equipment operation. Both the protocol and report need to be reviewed and approved by South Coast AQMD staff.

June 2024 - Quarterly Permitting Update for Rule 1109.1 - Emissions of Oxides of Nitrogen from Petroleum Refineries and Related Operations

Background

At the November 17, 2023, Stationary Source Committee meeting, the Committee directed staff to provide quarterly updates (in lieu of a presentation) of permitting activities associated with implementation of Rule 1109.1. Staff had presented five (5) quarterly updates on Rule 1109.1 permitting activities to the Stationary Source Committee since October 21, 2022. Starting with the previous report (Q1-2024), staff will provide written quarterly reports to the Committee during the first 3 quarters of each year followed by a presentation in the 4th quarter. This is the 2nd written report for Q2-2024 provided by staff.

Summary

This report covers key permitting activities associate with Rule 1109.1 since the last update in March 2024, as summarized below:

- 4 applications received for revision to previously approved I-Plans and B-Plan
- 7 applications approved and permits issued
- 63 applications in progress
- 2 applications submitted to EPA and pending their review
- 16 additional applications expected to be submitted in 2024

As shown in Tables 1 and 2 below, staff is making significant progress in issuing the permits for the applications received under Rule 1109.1. As of this quarter, 54 percent of the applications received under this rule have been issued, and 73 percent of the open applications are in the review stage. Staff is expected to make steady progress in issuing permits under this rule throughout the rest of this year.

Figure 1 provides the application count by year for the period covering Rule 1109.1 implementation and includes the anticipated applications and actual applications submitted.

Figure 1: Rule 1109.1 Application Count by Year



Table 1 provides a breakdown on the type of applications submitted under Rule 1109.1, and Table 2 provides the status of processing the applications:

Table 1: Rolling Total of Rule 1109.1 Permit Application Submittals

	Q3 2023	Q4 2023	Q1 2024	Q2 2024
BARCT Limits	17	21	21	21
Conditional Limits	29	29	29	29
Boilers/Heaters < 40 MMBtu/hr	46	46	46	46
Exemption Applications	7	7	7	7
Alternate BARCT Limits	9	9	9	9
Add Source Test Condition	23	23	23	23
Plan Applications	17	17	17	21
<i>B-Plan</i>	3	3	3	4
<i>B-Cap</i>	4	4	4	4
<i>I-Plan</i>	10	10	10	13
Total	148	152	152	156

Note: The rolling total application count for the 4 quarters has not changed much because there are no application submittal deadlines in the rule between July 1, 2023 to July 1, 2024.

Table 2: Summary of Rule 1109.1 Application Processing Status

	Q3 2023	Q4 2023	Q1 2024	Q2 2024
Awaiting Additional Facility Info	5	0	0	6
In Process	63	48	17	13
Under Review	26	37	46	42
Final Review	8	8	8	8
Under U.S. EPA Review	2	2	3	2
Issued	44	57	78	85
Total	148	152	152	156

June 2024 Update on Work with U.S. EPA and California Air Resources Board on New Source Review Issues for the RECLAIM Transition

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 NSR issues for the transition of facilities from RECLAIM to a command-and-control regulatory structure. The table below summarizes key activities with U.S. EPA and California Air Resources Board (CARB) since the last report.

Item	Discussion
Meeting with U.S. EPA (Region IX) – May 22, 2024	<ul style="list-style-type: none">• Discussed options to address offset availability for RECLAIM facilities

- A follow up meeting with U.S. EPA (Region IX) is planned for late June 2024 to continue discussions from May 22nd meeting
- RECLAIM/NSR Working Group meeting will not be held in June
- The next Working Group Meeting is planned for third quarter 2024 to provide an update on discussions with U.S. EPA regarding the New Source Review issues for the RECLAIM transition

**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
General Counsel's Office
Settlement Penalty Report (05/01/2024 - 05/31/2024)**

Total Penalties

Civil Settlement: \$712,525.75
Hearing Board Settlement: \$206,415.25
MSPAP Settlement: \$131,590.50

Total Cash Settlements: \$1,050,531.50

Total SEP Value: \$0.00

Fiscal Year through 05/31/2024 Cash Total: \$5,997,737.00

Fiscal Year through 05/31/2024 SEP Value Only Total: \$668,125.00

Fac ID	Company Name	Rule Number	Settled Date	Init	Notice Nbrs	Total Settlement
Civil						
180945	ALLTECH, INC.	203, 1155	05/21/2024	SP	P73912	\$40,000.00
195097	ASHISH PATEL (AMERICAS BEST VALUE INN)	1403, 40 CFR 61.145	05/02/2024	RM	P70143	\$850.00
800016	BAKER COMMODITIES, INC.	415, 2004, 3002	05/08/2024	DH/ND	P63824, P65291, P65293, P67318, P67319, P67321, P72855, P72866, P72871, P72872	\$400,000.00
174544	BREITBURN OPERATING, LP	2004, 3002	05/22/2024	JL	P67379, P69280, P74356	\$12,700.00
195737	CARMART INC.	203	05/07/2024	EC	P78699	\$1,000.00
42086	CITY OF UPLAND-UPLAND LANDFILL	1403, 40 CFR 61.145	05/17/2024	SH	P76122	\$2,500.00
187429	DECKERS BRANDS	2305	05/24/2024	JL	O15005	\$9,000.00
194292	E&B NATURAL RESOURCES MANAGEMENT CORP.	1166	05/22/2024	RM	P73208	\$6,900.00
156741	HARBOR COGENERATION CO, LLC	2004, 2012, 2012 Appendix A, 3002	05/22/2024	DH	P66124, P66138, P66139, P76052, P76076	\$34,650.00
9115	JCI JONES CHEMICALS, INC.	203	05/02/2024	RL	P78321	\$1,032.00
193011	KERR FLOORS, INC.	1403, 40 CFR 61.145	05/01/2024	ND	P65545	\$2,200.00
193248	P&M OIL CO.	203, 463, 1148.1, 1173	05/01/2024	KCM	P73331, P74353, P74376, P75657	\$8,100.00
193847	RA JOHNSON COMPANY	1403, 40 CFR 61.145	05/08/2024	JL	P73632	\$2,500.00

Fac ID	Company Name	Rule Number	Settled Date	Init	Notice Nbrs	Total Settlement
800325	TIDELANDS OIL PRODUCTION, CO.	2004, 3002, 3004	05/08/2024	DH	P63837, P66840	\$10,493.75
149881	TIDELANDS OIL PRODUCTION CO/PIER A WEST	1173	05/08/2024	DH	P74372	\$4,800.00
800026	ULTRAMAR, INC.	1118, 3002, 40 CFR 63.670	05/21/2024	DH	P75061	\$175,800.00
Total Civil Settlements: \$712,525.75						
Hearing Board						
140373	AMERESCO CHIQUITA ENERGY, LLC	203, 431.1, 3002	05/21/2024	KER	6143-4	\$1,600.00
119219	CHIQUITA CANYON, LLC	402	05/16/2024	KER/MR	6177-4	\$204,815.25
Total Hearing Board Settlements: \$206,415.25						
MSPAP						
198952	220W 17TH ST, INC.	461, H&S 41960.2	05/24/2024	VB	P78773	\$3,276.00
38429	A & A READY MIXED CONCRETE, INC.	403	05/03/2024	CL	P75314	\$1,774.00
151507	A & P CORPORATION/ PORTOLA CHEVRON	461	05/03/2024	CL	P79067	\$1,084.00
200428	ALADDIN MOBILE HOME PARK	1403	05/24/2024	CR	P78508	\$1,513.00
188324	AMAZON.COM SERVICES, LLC	203	05/03/2024	VB	P79307	\$1,942.00
176666	AMAZON.COM SERVICES, LLC	203	05/03/2024	CL	P79308	\$971.00
121448	AMERICAN SERVICES GROUP OF CA, INC.	1403	05/03/2024	VB	P80307	\$3,327.00
183387	ANTHONY TORRES DEMOLITION CORP	1403, 40 CFR 61.145	05/03/2024	VB	P79152	\$7,476.00
177982	APRO LLC (DBA "UNITED OIL #176")	461, H&S 41960.2	05/17/2024	SW	P79076	\$1,513.00
29349	ARCHIE'S TIRE & TOWING	461	05/24/2024	VB	P70495	\$2,990.00
174643	ARCO (#42110)	461, H&S 41960.2	05/10/2024	VB	P77732	\$929.00
183282	ARNACO INDUSTRIAL COATING, INC.	203, 1147	05/24/2024	CL	P80403	\$3,573.00
13618	BARRY AVE PLATING CO., INC.	1426, 1469	05/03/2024	CL	P75263, P75272	\$3,388.00
181055	CANYON CARWASH PETROLEUMM, INC.	461	05/24/2024	CR	P79084	\$847.00
148782	CANYON FOOD & MINI MART	461, H&S 41960.2	05/24/2024	VB	P80555	\$1,111.00
200968	CFT NV DEVELOPMENTS, LLC	222	05/10/2024	CL	P78034	\$2,342.00
107071	CHARLIE'S AUTO CENTER, INC.	201	05/17/2024	CR	P79361	\$1,009.00
181204	CITY OF SAN GABRIEL - PUBLIC WORKS FACILITY	203, 461	05/17/2024	CL	P79851	\$5,339.00
200277	DSJ CONCRETE PUMPING	203	05/03/2024	CL	P78357	\$632.00
186718	EATON ALTADENA GOLF, LLC	203, 461	05/03/2024	VB	P75953	\$1,171.00
199446	ENVIRONMENTAL REMEDIES, INC.	1403	05/10/2024	CR	P72947	\$959.00
105510	ETIWANDA SCHOOL DISTRICT - MAINTENANCE YARD	461	05/03/2024	CL	P78453, P71024	\$2,018.00
189790	FLEISCHMANN'S VINEGAR COMPANY, INC.	3002	05/24/2024	CL	P80405	\$3,022.50

Fac ID	Company Name	Rule Number	Settled Date	Init	Notice Nbrs	Total Settlement
159986	FREEMAN MEDICAL BUILDING, LLC	203	05/03/2024	CL	P78406	\$7,144.00
197130	G&M OIL, CO. (#128)	461	05/17/2024	CL	P69887, P78756	\$3,177.00
199489	G&M OIL, CO. (#213)	201	05/24/2024	CR	P80604	\$2,218.00
168073	GAT AIRLINE GROUND SUPPORT	203	05/17/2024	CL	P62790	\$1,021.00
194097	GRACE TO YOU	203	05/03/2024	CL	P67749	\$971.00
163901	GVD-GUFFEY RIMFOREST, CLP	461	05/03/2024	CR	P76198	\$1,579.00
96767	LA CITY - RECREATION & PARKS DEPT.	461	05/24/2024	VB	P76548	\$2,302.00
173904	LAPEYRE INDUSTRIAL SANDS, INC.	2004, 2012	05/10/2024	CL	P68665, P68673, P68679	\$6,045.00
200978	LARGO CONSTRUCTION INC.	1403, 40 CFR 61.145	05/24/2024	CL	P78612	\$1,438.00
167525	LOMA LINDA UNI MEDICAL CENTER	1146	05/10/2024	CL	P78401	\$7,282.00
169613	LOS FELIZ OIL, INC. (DBA "ARCO LOS FELIZ OIL")	461	05/17/2024	CL	P73131, P80559	\$3,082.00
104004	MICROMETALS, INC.	3002	05/17/2024	CL	P75613	\$6,045.00
27704	MILE SQUARE GOLF COURSE	203, 461	05/24/2024	VB	P78591	\$5,824.00
58495	MOBIL DLR	203, 461	05/24/2024	VB	P77713	\$1,492.00
120181	NARMS BABA CORP - ALPINE SHELL & SUBWAY	201	05/17/2024	CL	P70489	\$825.00
118089	ORANGE CARWASH, INC.	461, H&S 41960.2	05/17/2024	CL	P79062	\$4,134.00
114598	ORANGE TREE FRESH FRUIT & NUTS INC.	203	05/10/2024	VB	P76185, P76200	\$3,627.00
167819	PALM TERRACE CARE CENTER	203	05/10/2024	CL	P74189	\$3,177.00
202109	PRO MANAGEMENT COMPANY, INC.	1403	05/17/2024	CL	P75878	\$2,913.00
42499	RABI, INC, (DBA "LOW P")	461	05/17/2024	CL	P79093	\$1,976.00
190684	RADC ENTERPRISES, INC.	203	05/10/2024	VB	P76195	\$906.00
9961	RIVERSIDE CITY, WATER QUALITY CONTROL	203	05/24/2024	VB	P76132	\$959.00
800113	ROHR, INC.	2004	05/03/2024	CL	P75323	\$922.00
89710	ROYAL CABINETS	3002	05/24/2024	CL	P73159	\$1,588.00
116895	THE HOME DEPOT U.S.A. INC	203	05/24/2024	VB	P78011	\$2,018.00
126198	TMP CORPORATION	461, H&S 41960	05/24/2024	VB	P75743	\$2,789.00
190376	VAN NUYS CHEVRON	203, 461	05/03/2024	CL	P74826	\$2,342.00
109963	WORLD OIL MARKETING CO. (SS #60)	461, H&S 41960.2	05/17/2024	CL	P77743	\$1,588.00
Total MSPAP Settlements: \$131,590.50						

**SOUTH COAST AQMD'S RULES AND REGULATIONS INDEX
FOR MAY 2024 PENALTY REPORT**

REGULATION II - PERMITS

- Rule 201 Permit to Construct
- Rule 203 Permit to Operate
- Rule 222 Filing Requirements for Specific Emission Sources Not Requiring a Written Permit Pursuant to Regulation II.

REGULATION IV - PROHIBITIONS

- Rule 402 Nuisance
- Rule 403 Fugitive Dust
- Rule 415 Odors from Rendering Facilities
- Rule 431.1 Sulfur Content of Gaseous Fuels
- Rule 461 Gasoline Transfer and Dispensing
- Rule 463 Storage of Organic Liquids

REGULATION XI - SOURCE SPECIFIC STANDARDS

- Rule 1118 Emissions from Refinery Flares
- Rule 1146 Emissions of Oxides of Nitrogen from Industrial, Institutional and Commercial Boilers, Steam Generators,
- Rule 1147 NOx Reductions from Miscellaneous Sources
- Rule 1148.1 Oil and Gas Production Wells
- Rule 1155 Particulate Matter Control Devices
- Rule 1166 Volatile Organic Compound Emissions from Decontamination of Soil
- Rule 1173 Fugitive Emissions of Volatile Organic Compounds

REGULATION XIV - TOXICS

- Rule 1403 Asbestos Emissions from Demolition/Renovation Activities
- Rule 1426 Emissions from Metal Finishing Operations
- Rule 1469 Hexavalent Chromium Emissions from Chrome Plating and Chromic Acid Anodizing Operations

REGULATION XX - REGIONAL CLEAN AIR INCENTIVES MARKET (RECLAIM)

- Rule 2004 Requirements
- Rule 2012 Requirements for Monitoring, Reporting, and Recordkeeping for Oxides of Nitrogen (NOx) Emissions
- Rule 2012
- Appendix A Protocol for Monitoring, Reporting, and Recordkeeping for Oxides of Nitrogen (NOx) Emissions

**SOUTH COAST AQMD'S RULES AND REGULATIONS INDEX
FOR MAY 2024 PENALTY REPORT**

REGULATION XXIII - FACILITY BASED MOBILE SOURCE MEASURES

Rule 2305 Warehouse Indirect Source Rule – Warehouse Actions and Investments to Reduce Emissions (Waiver) Program

REGULATION XXX- TITLE V PERMITS

Rule 3002 Requirements

Rule 3004 Permit Types and Content

CODE OF FEDERAL REGULATIONS

40 CFR 61.145 Standard for Demolition and Renovation

40 CFR 63.670 Requirements for flare control devices

CALIFORNIA HEALTH AND SAFETY CODE

41960 Certification of Gasoline Vapor Recovery System

41960.2 Gasoline Vapor Recovery

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BOARD MEETING DATE: August 2, 2024

AGENDA NO. 21

REPORT: Technology Committee

SYNOPSIS: The Technology Committee held a hybrid meeting on Friday, June 21, 2024. The following is a summary of the meeting.

RECOMMENDED ACTION:
Receive and file.

Larry McCallon, Acting Chair
Technology Committee

AK:psc

Committee Members

Present: Supervisor Andrew Do
Supervisor Curt Hagman
Mayor Pro Tem Larry McCallon
Board Member Veronica Padilla-Campos

Absent: Mayor Patricia Lock Dawson
Councilmember Carlos Rodriguez, Committee Chair

Call to Order

Acting Committee Chair Larry McCallon called the meeting to order at 12:00 p.m.

For additional details of the Technology Committee Meeting, please refer to the [Webcast](#).

ACTION ITEMS:

1. Issue RFP to Replace Electric Vehicle Charging Infrastructure at South Coast AQMD Headquarters

South Coast AQMD headquarters' EV charging infrastructure is outdated and many chargers are no longer repairable. To continue to provide electric vehicle charging to staff and the public it is necessary to upgrade the EV charging infrastructure and add features to include remote monitoring and integrating the charging network into the

building energy management system. This action is to issue an RFP to solicit proposals to replace the EV charging infrastructure at South Coast AQMD headquarters.

Acting Committee Chair McCallon asked if there are Tesla chargers in the current charging network and if there will be any after the network replacement. Aaron Katzenstein, Deputy Executive Officer/Technology Advancement Office, responded that the chargers will be compatible with Tesla vehicles either directly or via an adapter. For additional details, please refer to the [Webcast](#) beginning at 6:54.

Board Member Padilla-Campos asked for clarification on the number of chargers in the network and if all or a portion of them will be replaced and/or upgraded. Vasileios Papapostolou, Planning and Rules Manager/Technology Advancement Office, responded that the entire charging network will be replaced and there are 55 charging boxes that make up 94 chargers in total. Board Member Padilla-Campos also asked if the equipment will be owned by South Coast AQMD or by the vendor. Dr. Papapostolou responded that South Coast AQMD will own the equipment. For additional details, please refer to the [Webcast](#) beginning at 7:40.

Supervisor Curt Hagman echoed Acting Committee Chair McCallon's point about the charging network being compatible with Tesla vehicles. For additional details, please refer to the [Webcast](#) beginning at 8:54.

Harvey Eder, Public Solar Power Coalition, expressed that South Coast AQMD should own and control the charging network equipment to be used as a model for neighborhood associations and local agencies. He encouraged collaboration to expand the network replacement efforts. For additional details, please refer to the [Webcast](#) beginning at 9:24.

Moved by Hagman; seconded by Do; unanimously approved.

Ayes: Do, Hagman, McCallon, Padilla-Campos
Noes: None
Abstain: None
Absent: Lock Dawson, Rodriguez

2. Adopt Resolution Recognizing Funds for FY 2023-24 Carl Moyer State Reserve, Enhanced Fleet Modernization Program and Clean Cars 4 All, Reimburse General Funds for Administrative Costs, Issue Program Announcement, Amend Carl Moyer Program Awards and Execute Contract to Deploy Zero Emission Equipment

This Board item covers three separate programs including Carl Moyer, Replace Your Ride (RYP) and U.S. EPA’s Targeted Air Shed Grant. In April 2024, CARB allocated \$5.9 million in Enhanced Fleet Modernization Program (EFMP) and Clean Cars 4 All (CC4A) to continue implementing RYP. Also, in April, CARB approved allocations for the FY 2023-24 Carl Moyer “Year 26” State Reserve Program to fund zero-emission projects. In July 2019, the Board approved \$2,100,000 from U.S. EPA Targeted Air Shed Grant for FY 2018-19 to develop and demonstrate battery electric excavators and wheel loaders. In March 2024, U.S. EPA agreed to amend the award to utilize unspent project and administrative funds to deploy zero-emission equipment and extend the project to December 2025. These actions are to: 1) recognize up to \$5.9 million in EFMP and CC4A into HEROS II Special Revenue Fund (56); 2) adopt a resolution recognizing up to \$5.3 million in FY 2023-24 Carl Moyer State Reserve funds into Carl Moyer Program Fund (32); 3) reimburse General Fund for administrative costs to implement RYP; 4) issue a Program Announcement for eligible zero-emission off-road projects; 5) execute agreements for eligible projects resulting from the Program Announcement; 6) amend Carl Moyer Program awards approved in February 2024; and 7) execute contract with Volvo Technology of America, LLC in an amount not to exceed \$1,296,388, including \$60,000 of unused administrative fund to develop, demonstrate and deploy up to 13 zero emission off-road equipment from Clean Fuels Program Fund (31).

Board Member Padilla-Campos inquired about RYP and the status of the 1099 issue. Ruby Laity, Principal Deputy District Counsel, responded that it was determined that 1099 forms do not need to be issued. For additional details, please refer to the [Webcast](#) beginning at 17:34.

Moved by Hagman; seconded by Padilla-Campos; unanimously approved.

Ayes: Do, Hagman, McCallon, Padilla-Campos
Noes: None
Abstain: None
Absent: Lock Dawson, Rodriguez

3. Adopt Resolution to Recognize Funds and Accept Terms and Conditions of the 2022 Port and Freight Infrastructure Program Award from the California State Transportation Agency

In December 2023, the Board recognized an award of \$76,250,003 from California State Transportation Agency (CalSTA) under the 2022 Port and Freight

Infrastructure Program (PFIP) to demonstrate a short line hydrogen fuel cell locomotive and deploy direct current fast chargers and hydrogen refueling dispensers for heavy duty trucks. The Board also established the CalSTA Special Revenue Fund (89) to receive the funds. CalSTA requires a resolution of the Board in order to release the funds. The Board also recognized \$500,000 from DOE through a FY 2023 Congressional Direct Spending Request for the project. These actions are to: 1) Adopt a Resolution to recognize funds, accept terms and conditions of the 2022 PFIP award from CalSTA and authorize the Executive Officer to execute the necessary agreements with CalSTA and the California Department of Transportation to receive the award; 2) Reimburse the General Fund up to \$24,000 for administering the DOE grant and 3) Temporary loan up to \$10 million from the Clean Fuels Program Fund (31) to the CalSTA Special Revenue Fund (89) until PFIP grant funds are received. For additional details, please refer to the [Webcast](#) beginning at 21:46.

Moved by Hagman; seconded by Do; unanimously approved.

Ayes: Do, Hagman, McCallon, Padilla-Campos
Noes: None
Abstain: None
Absent: Lock Dawson, Rodriguez

OTHER MATTERS:

4. Other Business

There was no other business to report.

5. Public Comment Period

Mr. Tony Stevens, California Institute of Technology (Caltech), introduced himself and encouraged staff to visit Caltech where students and professors are working on biodegradable polymers, new lithium technologies and hydrogen storage through startup companies. For additional details, please refer to the [Webcast](#) beginning at 22:48.

6. Next Meeting Date

The next regular Technology Committee meeting is scheduled for Friday, August 16, 2024, at noon.

Adjournment

The meeting adjourned at 12:22 p.m.

Attachment

Attendance Record

ATTACHMENT

**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
TECHNOLOGY COMMITTEE MEETING
Attendance Record – June 21, 2024**

Supervisor Andrew Do	South Coast AQMD Board Member
Supervisor Curt Hagman	South Coast AQMD Board Member
Mayor Pro Tem Larry McCallon	South Coast AQMD Board Member
Board Member Veronica Padilla-Campos	South Coast AQMD Board Member
Debra Mendelsohn	Board Consultant (McCallon)
Fred Minassian	Board Consultant (Padilla-Campos)
Andy Silva	Board Consultant (Lock Dawson)
Chris Wangsaporn	Board Consultant (Do)
Mark Taylor	Board Consultant (Rodriguez)
Mark Abramowitz	Public Member
Harvey Eder	Public Solar Power Coalition
Avi Chung	Public Member
Liam Hurley	Public Member
Alex Moutoux	Public Member
Alex Spataru	Public Member
Tony Stevens	Caltech
Mya Amsbury	South Coast AQMD Staff
Debra Ashby	South Coast AQMD Staff
Berj Der Boghossian	South Coast AQMD Staff
Cindy Bustillos	South Coast AQMD Staff
Sam Cao	South Coast AQMD Staff
Penny Shaw Cedillo	South Coast AQMD Staff
Antonius Charles	South Coast AQMD Staff
Mia Espinosa	South Coast AQMD Staff
Scott Gallegos	South Coast AQMD Staff
Sheri Hanizavareh	South Coast AQMD Staff
Justin Joe	South Coast AQMD Staff
Aaron Katzenstein	South Coast AQMD Staff
Brandee Keith	South Coast AQMD Staff
Angela Kim	South Coast AQMD Staff
Ruby Laity	South Coast AQMD Staff
Howard Lee	South Coast AQMD Staff
Tom Lee	South Coast AQMD Staff

Ron Moskowitz South Coast AQMD Staff
Ghislain Muberwa South Coast AQMD Staff
Susan Nakamura South Coast AQMD Staff
Wayne Nastri South Coast AQMD Staff
Vasileios Papapostolou South Coast AQMD Staff
Robert Paud South Coast AQMD Staff
Paul Rodriguez South Coast AQMD Staff
Walter Shen South Coast AQMD Staff
Yuh Jiun Tan South Coast AQMD Staff
Lisa Tanaka South Coast AQMD Staff
Diana Thai South Coast AQMD Staff
Carolina Vargas South Coast AQMD Staff
Kristina Voorhees South Coast AQMD Staff
Mei Wang South Coast AQMD Staff

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BOARD MEETING DATE: August 2, 2024

AGENDA NO. 22

REPORT: Mobile Source Air Pollution Reduction Review Committee

SYNOPSIS: The Mobile Source Air Pollution Reduction Review Committee held a hybrid meeting on Thursday, June 20, 2024. The following is a summary of the meeting.

RECOMMENDED ACTION:
Receive and file.

Curt Hagman
South Coast AQMD Representative
to MSRC

AK:CR:me

Contract Modification Requests

The MSRC considered four contract modification requests and took the following actions:

1. City of San Fernando, Contract #ML16075 to install a Class I bikeway, approval of four-month term extension;
2. City of San Dimas, Contract #ML18148 to implement bicycle detection measures, approval of three-month term extension;
3. City of Rancho Cucamonga, Contract #ML18051 to procure six light-duty ZEV's and install EV charging infrastructure, approval of two-year term extension, and
4. Southern California Association of Governments, Contract #MS21005 to implement Last Mile Freight Program, approval of modified scope and reallocation of funding between projects.

FYs 24-27 Work Program Development Update

Staff provided an update on the schedule for FYs 24-27 Work Program development and the MSRC-TAC's progress to date. The MSRC was invited to share ideas for Work Program Development Subcommittees and comment on MSRC-TAC recommended Subcommittees. The consensus was for staff to move forward with Work Program development.

Contracts Administrator's Report

The MSRC AB 2766 Contracts Administrator's report provides a written status report on all open contracts from FY 2011-12 to the present. The Contracts Administrator's Report for April 25, 2024 through May 29, 2024 is attached (*Attachment 1*).

Attachments

1. April 25 through May 29, 2024 Contracts Administrator's Report
2. Minutes of the January 18, 2024 MSRC Meeting

MSRC Agenda Item No. 3

DATE: June 20, 2024

FROM: Cynthia Ravenstein

SUBJECT: AB 2766 Contracts Administrator's Report

SYNOPSIS: This report covers key issues addressed by MSRC staff, status of open contracts, and administrative scope changes from April 25 to May 29, 2024.

RECOMMENDATION: Receive and file report

WORK PROGRAM IMPACT: None

Contract Execution Status

2021-24 Work Program

On September 2, 2022, the SCAQMD Governing Board approved an award under the Major Event Center Transportation Program. This contract is executed.

On February 3, 2023, the SCAQMD Governing Board approved an award under the Transformative Transportation Strategies & Mobility Solutions Program. This contract is executed.

On June 2, 2023, the SCAQMD Governing Board approved six awards under the Microtransit Service RFP, for zero-emission shared mobility service. These contracts are with the prospective contractor for signature or executed.

On September 1, 2023, the SCAQMD Governing Board approved two awards under the Publicly Accessible Goods Movement Zero Emission Infrastructure Request for Information. One of these contracts will be administered by SCAQMD on behalf of the MSRC, and the other award is conditional upon successful selection of a site developer and operator and securing co-funding commitments.

On November 3, 2023, the SCAQMD Governing Board approved an allocation for partnership with SCAQMD and other partners in proposals seeking funding under the CARB "Advanced Technology Demonstration and Pilot Projects" solicitation. If proposal(s) had been awarded funding, contract(s) would have been administered by SCAQMD on behalf of the MSRC. However, MSRC staff have received notification that these proposals were not selected for funding award. The \$3,000,000 reverts to the AB 2766 Discretionary Fund.

On February 2, 2024, the SCAQMD Governing Board approved allocations for partnership in applications seeking funding under the Carl Moyer Program solicitation. If the applications are awarded funding, to the extent feasible these contracts will be administered by SCAQMD on behalf of the MSRC.

Work Program Status

Contract Status Reports for Work Program years with open and/or pending contracts are attached.

FY 2011-12 Work Program Contracts

One contract is in “Open/Complete” status, having completed all obligations except operations.

FY 2011-12 Invoices Paid

No invoices were paid during this period.

FYs 2012-14 Work Program Contracts

3 contracts from this Work Program year are open, and 6 are in “Open/Complete” status.

FYs 2012-14 Invoices Paid

No invoices were paid during this period.

FYs 2014-16 Work Program Contracts

9 contracts from this Work Program year are open, and 14 are in “Open/Complete” status.

FYs 2014-16 Invoices Paid

No invoices were paid during this period.

FYs 2016-18 Work Program Contracts

34 contracts from this Work Program year are open, and 57 are in “Open/Complete” status. One contract closed during this period: Southern California Associated Governments, Contract #MS18015 – Southern California Future Communities Program. One contract was cancelled during this period at the contractor’s request: Nikola-TA HRS 1, LLC, Contract #MS18183 – Install Publicly Accessible Hydrogen Fueling Infrastructure. The \$1,660,000 will revert to the AB 2766 Discretionary Fund.

FYs 2016-18 Invoices Paid

One invoice in the amount of \$40,800.00 was paid during this period.

FYs 2018-21 Work Program Contracts

12 contracts from this Work Program year are open, and 3 are in “Open/Complete” status.

As part of the process of implementing the modification to Agreement #MS21016 with Ryder Integrated Logistics, Inc. as approved by the MSRC at their May 2024 meeting, MSRC staff met with Ryder to begin collecting additional information on the expected delivery of vehicles and infrastructure. MSRC staff expect to be able to provide further update at the June 20 MSRC meeting.

FYs 2018-21 Invoices Paid

2 invoices totaling \$2,338.70 were paid during this period.

FYs 2021-24 Work Program Contracts

7 contracts from this Work Program year are open.

FYs 2021-24 Invoices Paid

No invoices were paid during this period.

Administrative Scope Changes

3 administrative scope changes were initiated during the period from April 25 to May 29, 2024:

- City of San Dimas, Contract #ML18148 (Install Bicycle Detection Systems) – Three-month no-cost term extension to keep contract open for MSRC consideration
- City of Azusa, Contract #ML18135 (Procure 3 Light-Duty ZEVs and One Heavy-Duty Near-Zero Emission Vehicle) – Eliminate tasks and \$25,000 associated with heavy-duty vehicle
- Volvo Financial Services, Agreement #MS21019 (Lease 14 Zero Emission Trucks & Provide Charging Infrastructure to Quality Custom Distribution) – Nine-month no-cost term extension

Attachments

- FY 2011-12 through FYs 2021-24 Contract Status Reports



FYs 2011-12 Through 2021-24 AB2766 Contract Status Report

5/30/2024

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
<i>FY 2011-2012 Contracts</i>									
<i>Declined/Cancelled Contracts</i>									
ML12016	City of Cathedral City	1/4/2013	10/3/2019		\$60,000.00	\$0.00	CNG Vehicle & Electric Vehicle Infrastructur	\$60,000.00	No
ML12038	City of Long Beach Public Works				\$26,000.00	\$0.00	Electric Vehicle Charging Infrastructure	\$26,000.00	No
ML12040	City of Duarte				\$30,000.00	\$0.00	One Heavy-Duty Nat. Gas Vehicle	\$30,000.00	No
ML12044	County of San Bernardino Public Wo				\$250,000.00	\$0.00	Install New CNG Station	\$250,000.00	No
ML12048	City of La Palma	1/4/2013	11/3/2018		\$20,000.00	\$0.00	Two Medium-Duty LPG Vehicles	\$20,000.00	No
ML12052	City of Whittier	3/14/2013	7/13/2019		\$165,000.00	\$0.00	Expansion of Existing CNG Station	\$165,000.00	No
ML12053	City of Mission Viejo				\$60,000.00	\$0.00	EV Charging Infrastructure	\$60,000.00	No
ML12090	City of Palm Springs	10/9/2015	10/8/2021	9/8/2025	\$21,163.00	\$0.00	EV Charging Infrastructure	\$21,163.00	No
MS12007	WestAir Gases & Equipment				\$100,000.00	\$0.00	Construct New Limited-Access CNG Station	\$100,000.00	No
MS12027	C.V. Ice Company, Inc.	5/17/2013	11/16/2019		\$75,000.00	\$0.00	Purchase 3 Medium-Heavy Duty Vehicles	\$75,000.00	No
MS12030	Complete Landscape Care, Inc.				\$150,000.00	\$0.00	Purchase 6 Medium-Heavy Duty Vehicles	\$150,000.00	No
MS12067	Leatherwood Construction, Inc.	11/8/2013	3/7/2017		\$122,719.00	\$0.00	Retrofit Six Vehicles w/DECS - Showcase III	\$122,719.00	No
MS12070	Valley Music Travel/CID Entertainme				\$99,000.00	\$0.00	Implement Shuttle Service to Coachella Mus	\$99,000.00	No
Total: 13									
<i>Closed Contracts</i>									
ML12013	City of Pasadena	10/19/2012	3/18/2015	9/18/2015	\$200,000.00	\$65,065.00	Electric Vehicle Charging Infrastructure	\$134,935.00	Yes
ML12014	City of Santa Ana - Public Works Ag	11/8/2013	8/7/2020	2/7/2022	\$338,000.00	\$255,977.50	9 H.D. Nat. Gas & LPG Trucks, EV Charging	\$82,022.50	Yes
ML12015	City of Fullerton	4/25/2013	11/24/2020	11/24/2021	\$40,000.00	\$40,000.00	HD CNG Vehicle, Expand CNG Station	\$0.00	Yes
ML12017	City of Los Angeles, Bureau of Sanit	6/26/2013	5/25/2020	11/25/2021	\$950,000.00	\$950,000.00	32 H.D. Nat. Gas Vehicles	\$0.00	Yes
ML12018	City of West Covina	10/18/2013	10/17/2020	8/17/2023	\$300,000.00	\$300,000.00	Expansion of Existing CNG Station	\$0.00	Yes
ML12019	City of Palm Springs	9/6/2013	7/5/2015		\$38,000.00	\$16,837.00	EV Charging Infrastructure	\$21,163.00	Yes
ML12020	City of Los Angeles Dept of General	9/27/2012	3/26/2019	3/26/2020	\$450,000.00	\$450,000.00	15 H.D. Nat. Gas Vehicles	\$0.00	Yes
ML12021	City of Rancho Cucamonga	9/14/2012	1/13/2020		\$40,000.00	\$40,000.00	Four Medium-Duty Nat. Gas Vehicles	\$0.00	Yes
ML12022	City of La Puente	12/6/2013	6/5/2020		\$110,000.00	\$110,000.00	2 Medium-Duty and Three Heavy-Duty CNG	\$0.00	Yes
ML12023	County of Los Angeles Internal Servi	8/1/2013	2/28/2015		\$250,000.00	\$192,333.00	EV Charging Infrastructure	\$57,667.00	Yes
ML12037	Coachella Valley Association of Gov	3/14/2013	3/13/2014		\$250,000.00	\$250,000.00	Street Sweeping Operations	\$0.00	Yes
ML12039	City of Redlands	2/8/2013	10/7/2019		\$90,000.00	\$90,000.00	Three Heavy-Duty Nat. Gas Vehicles	\$0.00	Yes
ML12041	City of Anaheim Public Utilities Depa	4/4/2014	11/3/2015	11/3/2017	\$68,977.00	\$38,742.16	EV Charging Infrastructure	\$30,234.84	Yes
ML12042	City of Chino Hills	1/18/2013	3/17/2017		\$87,500.00	\$87,500.00	Expansion of Existing CNG Station	\$0.00	Yes
ML12043	City of Hemet	6/24/2013	9/23/2019	11/23/2021	\$30,000.00	\$30,000.00	One Heavy-Duty Nat. Gas Vehicles	\$0.00	Yes
ML12046	City of Irvine	8/11/2013	3/10/2021		\$30,000.00	\$30,000.00	One Heavy-Duty Nat. Gas Vehicle	\$0.00	Yes

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
ML12047	City of Orange	2/1/2013	1/31/2019		\$30,000.00	\$30,000.00	One Heavy-Duty Nat. Gas Vehicle	\$0.00	Yes
ML12049	City of Rialto Public Works	7/14/2014	9/13/2015		\$30,432.00	\$3,265.29	EV Charging Infrastructure	\$27,166.71	Yes
ML12050	City of Baldwin Park	4/25/2013	4/24/2014	10/24/2014	\$402,400.00	\$385,363.00	EV Charging Infrastructure	\$17,037.00	Yes
ML12054	City of Palm Desert	9/30/2013	2/28/2015		\$77,385.00	\$77,385.00	EV Charging Infrastructure	\$0.00	Yes
ML12055	City of Manhattan Beach	3/1/2013	12/31/2018		\$10,000.00	\$10,000.00	One Medium-Duty Nat. Gas Vehicle	\$0.00	Yes
ML12056	City of Cathedral City	3/26/2013	5/25/2014		\$25,000.00	\$25,000.00	Regional Street Sweeping Program	\$0.00	Yes
ML12057	City of Coachella	8/28/2013	8/27/2019	1/27/2022	\$57,456.00	\$57,456.00	Purchase One Nat. Gas H.D. Vehicle/Street	\$0.00	Yes
ML12066	City of Manhattan Beach	1/7/2014	4/6/2015		\$5,900.00	\$5,900.00	Electric Vehicle Charging Infrastructure	\$0.00	Yes
ML12091	City of Bellflower	10/5/2018	10/4/2019	6/30/2022	\$100,000.00	\$49,230.44	EV Charging Infrastructure	\$50,769.56	Yes
MS12001	Los Angeles County MTA	7/1/2012	4/30/2013		\$300,000.00	\$211,170.00	Clean Fuel Transit Service to Dodger Stadium	\$88,830.00	Yes
MS12002	Orange County Transportation Authority	9/7/2012	4/30/2013		\$342,340.00	\$333,185.13	Express Bus Service to Orange County Fair	\$9,154.87	Yes
MS12003	Orange County Transportation Authority	7/20/2012	2/28/2013		\$234,669.00	\$167,665.12	Implement Metrolink Service to Angel Stadium	\$67,003.88	Yes
MS12004	USA Waste of California, Inc.	10/24/2013	11/23/2019		\$175,000.00	\$175,000.00	Construct New Limited-Access CNG Station	\$0.00	Yes
MS12005	USA Waste of California, Inc.	10/19/2012	8/18/2013		\$75,000.00	\$75,000.00	Vehicle Maintenance Facility Modifications	\$0.00	Yes
MS12006	Waste Management Collection & Re	10/19/2012	8/18/2013		\$75,000.00	\$75,000.00	Vehicle Maintenance Facility Modifications	\$0.00	Yes
MS12008	Bonita Unified School District	7/12/2013	12/11/2019	4/11/2021	\$175,000.00	\$175,000.00	Construct New Limited-Access CNG Station	\$0.00	Yes
MS12009	Sysco Food Services of Los Angeles	1/7/2014	4/6/2020		\$150,000.00	\$150,000.00	Construct New Public-Access LNG Station	\$0.00	Yes
MS12010	Murrieta Valley Unified School District	4/5/2013	9/4/2019		\$242,786.00	\$242,786.00	Construct New Limited-Access CNG Station	\$0.00	Yes
MS12011	Southern California Gas Company	6/14/2013	6/13/2019	5/28/2021	\$150,000.00	\$150,000.00	Construct New Public-Access CNG Station -	\$0.00	Yes
MS12012	Rim of the World Unified School District	12/20/2012	5/19/2014		\$75,000.00	\$75,000.00	Vehicle Maintenance Facility Modifications	\$0.00	Yes
MS12024	Southern California Gas Company	6/13/2013	12/12/2019	11/12/2020	\$150,000.00	\$150,000.00	Construct New Public-Access CNG Station -	\$0.00	Yes
MS12025	Silverado Stages, Inc.	11/2/2012	7/1/2018		\$150,000.00	\$150,000.00	Purchase Six Medium-Heavy Duty Vehicles	\$0.00	Yes
MS12026	U-Haul Company of California	3/14/2013	3/13/2019		\$500,000.00	\$353,048.26	Purchase 23 Medium-Heavy Duty Vehicles	\$146,951.74	Yes
MS12028	Dy-Dee Service of Pasadena, Inc.	12/22/2012	1/21/2019		\$45,000.00	\$40,000.00	Purchase 2 Medium-Duty and 1 Medium-He	\$5,000.00	Yes
MS12029	Community Action Partnership of Or	11/2/2012	11/1/2018		\$25,000.00	\$14,850.00	Purchase 1 Medium-Heavy Duty Vehicle	\$10,150.00	Yes
MS12031	Final Assembly, Inc.	11/2/2012	11/1/2018		\$50,000.00	\$32,446.00	Purchase 2 Medium-Heavy Duty Vehicles	\$17,554.00	Yes
MS12032	Fox Transportation	12/14/2012	12/13/2018		\$500,000.00	\$500,000.00	Purchase 20 Medium-Heavy Duty Vehicles	\$0.00	Yes
MS12033	Mike Diamond/Phace Management	12/22/2012	12/21/2018	6/21/2021	\$148,900.00	\$148,900.00	Purchase 20 Medium-Heavy Duty Vehicles	\$0.00	Yes
MS12034	Ware Disposal Company, Inc.	11/2/2012	11/1/2018	5/1/2022	\$133,070.00	\$133,070.00	Purchase 8 Medium-Heavy Duty Vehicles	\$0.00	Yes
MS12035	Disneyland Resort	1/4/2013	7/3/2019		\$25,000.00	\$18,900.00	Purchase 1 Medium-Heavy Duty Vehicle	\$6,100.00	Yes
MS12036	Jim & Doug Carter's Automotive/VS	1/4/2013	11/3/2018		\$50,000.00	\$50,000.00	Purchase 2 Medium-Heavy Duty Vehicles	\$0.00	Yes
MS12058	Krisda Inc	4/24/2013	1/23/2019		\$25,000.00	\$25,000.00	Repower One Heavy-Duty Off-Road Vehicle	\$0.00	Yes
MS12059	Orange County Transportation Authority	2/28/2013	12/27/2014		\$75,000.00	\$75,000.00	Maintenance Facilities Modifications	\$0.00	Yes
MS12060	City of Santa Monica	4/4/2014	8/3/2017	8/3/2019	\$500,000.00	\$434,202.57	Implement Westside Bikeshare Program	\$65,797.43	Yes
MS12061	Orange County Transportation Authority	3/14/2014	3/13/2017		\$224,000.00	\$114,240.00	Transit-Oriented Bicycle Sharing Program	\$109,760.00	Yes
MS12062	Fraser Communications	12/7/2012	5/31/2014		\$998,669.00	\$989,218.49	Develop & Implement "Rideshare Thursday"	\$9,450.51	Yes
MS12063	Custom Alloy Light Metals, Inc.	8/16/2013	2/15/2020		\$100,000.00	\$100,000.00	Install New Limited Access CNG Station	\$0.00	Yes

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
MS12064	Anaheim Transportation Network	3/26/2013	12/31/2014		\$127,296.00	\$56,443.92	Implement Anaheim Circulator Service	\$70,852.08	Yes
MS12065	Orange County Transportation Autho	7/27/2013	11/30/2013		\$43,933.00	\$14,832.93	Ducks Express Service to Honda Center	\$29,100.07	Yes
MS12068	Southern California Regional Rail Au	3/1/2013	9/30/2013		\$57,363.00	\$47,587.10	Implement Metrolink Service to Autoclub Sp	\$9,775.90	Yes
MS12069	City of Irvine	8/11/2013	2/28/2014		\$45,000.00	\$26,649.41	Implement Special Transit Service to Solar	\$18,350.59	Yes
MS12071	Transit Systems Unlimited, Inc.	5/17/2013	12/16/2018		\$21,250.00	\$21,250.00	Expansion of Existing CNG Station	\$0.00	Yes
MS12072	99 Cents Only Stores	4/5/2013	9/4/2019		\$100,000.00	\$100,000.00	Construct New CNG Station	\$0.00	Yes
MS12073	FirstCNG, LLC	7/27/2013	12/26/2019		\$150,000.00	\$150,000.00	Construct New CNG Station	\$0.00	Yes
MS12074	Arcadia Unified School District	7/5/2013	9/4/2019		\$175,000.00	\$175,000.00	Expansion of Existing CNG Infrastructure	\$0.00	Yes
MS12075	CR&R Incorporated	7/27/2013	1/26/2021	1/26/2022	\$100,000.00	\$100,000.00	Expansion of Existing CNG Infrastructure	\$0.00	Yes
MS12076	City of Ontario, Housing & Municipal	3/8/2013	4/7/2015		\$75,000.00	\$75,000.00	Maintenance Facilities Modification	\$0.00	Yes
MS12078	Penske Truck Leasing Co., L.P.	1/7/2014	1/6/2016		\$75,000.00	\$73,107.00	Maintenance Facility Modifications - Vernon	\$1,893.00	Yes
MS12080	City of Pasadena	11/8/2013	8/7/2020	2/7/2022	\$225,000.00	\$225,000.00	Expansion of Existing CNG Infrastructure	\$0.00	Yes
MS12081	Penske Truck Leasing Co., L.P.	1/7/2014	1/6/2016		\$75,000.00	\$75,000.00	Maintenance Facility Modifications - Santa A	\$0.00	Yes
MS12082	City of Los Angeles, Bureau of Sanit	11/20/2013	2/19/2021	2/19/2023	\$175,000.00	\$175,000.00	Install New CNG Infrastructure	\$0.00	Yes
MS12083	Brea Olinda Unified School District	7/30/2015	2/29/2024		\$59,454.00	\$59,454.00	Install New CNG Infrastructure	\$0.00	Yes
MS12085	Bear Valley Unified School District	4/25/2013	6/24/2014		\$75,000.00	\$75,000.00	Maintenance Facility Modifications	\$0.00	Yes
MS12086	SuperShuttle International, Inc.	3/26/2013	3/25/2019		\$225,000.00	\$225,000.00	Purchase 23 Medium-Heavy Duty Vehicles	\$0.00	Yes
MS12087	Los Angeles County MTA	8/29/2013	11/28/2015		\$125,000.00	\$125,000.00	Implement Rideshare Incentives Program	\$0.00	Yes
MS12088	Orange County Transportation Autho	12/6/2013	3/5/2016		\$125,000.00	\$18,496.50	Implement Rideshare Incentives Program	\$106,503.50	Yes
MS12089	Riverside County Transportation Co	10/18/2013	9/17/2015		\$249,136.00	\$105,747.48	Implement Rideshare Incentives Program	\$143,388.52	Yes
MS12Hom	Mansfield Gas Equipment Systems				\$296,000.00	\$0.00	Home Refueling Apparatus Incentive Progra	\$296,000.00	Yes

Total: 74

Closed/Incomplete Contracts

ML12051	City of Bellflower	2/7/2014	2/6/2016	5/6/2018	\$100,000.00	\$0.00	EV Charging Infrastructure	\$100,000.00	No
MS12077	City of Coachella	6/14/2013	6/13/2020		\$225,000.00	\$0.00	Construct New CNG Station	\$225,000.00	No
MS12079	Penske Truck Leasing Co., L.P.	1/7/2014	1/6/2016		\$75,000.00	\$0.00	Maintenance Facility Modifications - Boyle H	\$75,000.00	No
MS12084	Airport Mobil Inc.	12/6/2013	5/5/2020		\$150,000.00	\$0.00	Install New CNG Infrastructure	\$150,000.00	No

Total: 4

Open/Complete Contracts

ML12045	City of Baldwin Park DPW	2/14/2014	12/13/2020	12/13/2026	\$400,000.00	\$400,000.00	Install New CNG Station	\$0.00	Yes
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Total: 1

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
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FY 2012-2014 Contracts

Open Contracts

ML14027	County of Los Angeles Dept of Publi	10/2/2015	5/1/2023	8/1/2028	\$492,000.00	\$0.00	Construct New CNG Station in Canyon Coun	\$492,000.00	No
MS14057	Los Angeles County MTA	11/7/2014	10/6/2019	10/31/2026	\$1,250,000.00	\$0.00	Implement Various Signal Synchronization P	\$1,250,000.00	No
MS14072	San Bernardino County Transportatio	3/27/2015	3/26/2018	3/26/2024	\$1,237,500.00	\$1,148,376.17	Implement Various Signal Synchronization P	\$89,123.83	No

Total: 3

Declined/Cancelled Contracts

ML14063	City of Hawthorne				\$32,000.00	\$0.00	Expansion of Existng CNG Infrastructure	\$32,000.00	No
ML14068	City of South Pasadena	9/12/2014	10/11/2015	1/11/2020	\$10,183.00	\$0.00	Electric Vehicle Charging Infrastructure	\$10,183.00	No
ML14069	City of Beaumont	3/3/2017	3/2/2025		\$200,000.00	\$0.00	Construct New CNG Infrastructure	\$200,000.00	No
MS14035	Penske Truck Leasing Co., L.P.				\$75,000.00	\$0.00	Vehicle Maint. Fac. Modifications - Sun Valle	\$75,000.00	No
MS14036	Penske Truck Leasing Co., L.P.				\$75,000.00	\$0.00	Vehicle Maint. Fac. Modifications - La Mirad	\$75,000.00	No
MS14038	Penske Truck Leasing Co., L.P.				\$75,000.00	\$0.00	Vehicle Maint. Fac. Modifications - Fontana	\$75,000.00	No
MS14043	City of Anaheim				\$175,000.00	\$0.00	Expansion of Existing CNG Station	\$175,000.00	No
MS14078	American Honda Motor Co., Inc.	9/4/2015	8/3/2022		\$150,000.00	\$0.00	New Public Access CNG Station	\$150,000.00	No
MS14085	Prologis, L.P.				\$100,000.00	\$0.00	New Limited Access CNG Station	\$100,000.00	No
MS14086	San Gabriel Valley Towing I				\$150,000.00	\$0.00	New Public Access CNG Station	\$150,000.00	No
MS14091	Serv-Wel Disposal				\$100,000.00	\$0.00	New Limited-Access CNG Infrastructure	\$100,000.00	No

Total: 11

Closed Contracts

ML14010	City of Cathedral City	8/13/2014	10/12/2015		\$25,000.00	\$25,000.00	Street Sweeping Operations	\$0.00	Yes
ML14011	City of Palm Springs	6/13/2014	1/12/2016		\$79,000.00	\$78,627.00	Bicycle Racks, Bicycle Outreach & Educatio	\$373.00	Yes
ML14012	City of Santa Ana - Public Works Ag	2/13/2015	10/12/2021	10/12/2022	\$41,220.00	\$41,220.00	EV Charging and 1 H.D. CNG Vehicle	\$0.00	Yes
ML14014	City of Torrance	9/5/2014	12/4/2019		\$56,000.00	\$56,000.00	EV Charging Infrastructure	\$0.00	Yes
ML14015	Coachella Valley Association of Gov	6/6/2014	9/5/2015		\$250,000.00	\$250,000.00	Street Sweeping Operations	\$0.00	Yes
ML14016	City of Anaheim	4/3/2015	9/2/2021		\$380,000.00	\$380,000.00	Purchase 2 H.D. Vehicles, Expansion of Exi	\$0.00	Yes
ML14019	City of Corona Public Works	12/5/2014	6/4/2020	3/6/2023	\$111,518.00	\$111,517.18	EV Charging, Bicycle Racks, Bicycle Locker	\$0.82	Yes
ML14022	County of Los Angeles Department o	10/2/2015	5/1/2022		\$270,000.00	\$270,000.00	Purchase 9 H.D. Nat. Gas Vehicles	\$0.00	Yes
ML14023	County of Los Angeles Department o	10/2/2015	9/1/2017	3/1/2021	\$230,000.00	\$230,000.00	Maintenance Fac. Modifications-Westcheste	\$0.00	Yes
ML14024	County of Los Angeles Department o	10/2/2015	9/1/2017	9/1/2021	\$230,000.00	\$230,000.00	Maintenance Fac. Modifications-Baldwin Par	\$0.00	Yes
ML14028	City of Fullerton	9/5/2014	1/4/2022		\$126,950.00	\$126,950.00	Expansion of Existing CNG Infrastructure	\$0.00	Yes
ML14029	City of Irvine	7/11/2014	6/10/2017		\$90,500.00	\$71,056.78	Bicycle Trail Improvements	\$19,443.22	Yes
ML14030	County of Los Angeles Internal Servi	1/9/2015	3/8/2018	7/30/2021	\$425,000.00	\$216,898.02	Bicycle Racks, Outreach & Education	\$208,101.98	Yes
ML14031	Riverside County Waste Manageme	6/13/2014	12/12/2020		\$90,000.00	\$90,000.00	Purchase 3 H.D. CNG Vehicles	\$0.00	Yes
ML14032	City of Rancho Cucamonga	1/9/2015	1/8/2022		\$113,990.00	\$104,350.63	Expansion of Existing CNG Infras., Bicycle L	\$9,639.37	Yes
ML14033	City of Irvine	7/11/2014	2/10/2021	2/10/2022	\$60,000.00	\$60,000.00	Purchase 2 H.D. CNG Vehicles	\$0.00	Yes

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
ML14034	City of Lake Elsinore	9/5/2014	5/4/2021		\$56,700.00	\$56,700.00	EV Charging Stations	\$0.00	Yes
ML14049	City of Moreno Valley	7/11/2014	3/10/2021		\$105,000.00	\$101,976.09	One HD Nat Gas Vehicle, EV Charging, Bicy	\$3,023.91	Yes
ML14051	City of Brea	9/5/2014	1/4/2017	7/4/2018	\$450,000.00	\$450,000.00	Installation of Bicycle Trail	\$0.00	Yes
ML14054	City of Torrance	11/14/2014	4/13/2017	7/13/2017	\$350,000.00	\$319,908.80	Upgrade Maintenance Facility	\$30,091.20	Yes
ML14055	City of Highland	10/10/2014	3/9/2018	3/9/2019	\$500,000.00	\$489,385.24	Bicycle Lanes and Outreach	\$10,614.76	Yes
ML14056	City of Redlands	9/5/2014	5/4/2016	5/4/2018	\$125,000.00	\$125,000.00	Bicycle Lanes	\$0.00	Yes
ML14061	City of La Habra	3/11/2016	3/10/2022		\$41,600.00	\$41,270.49	Purchase Two Heavy-Duty Nat. Gas Vehicle	\$329.51	Yes
ML14062	City of San Fernando	3/27/2015	5/26/2021	10/31/2023	\$325,679.00	\$325,679.00	Expand Existing CNG Fueling Station	\$0.00	Yes
ML14064	City of Claremont	7/11/2014	7/10/2020	1/10/2021	\$60,000.00	\$60,000.00	Purchase Two Heavy-Duty Nat. Gas Vehicle	\$0.00	Yes
ML14065	City of Orange	9/5/2014	8/4/2015		\$10,000.00	\$10,000.00	Electric Vehicle Charging Infrastructure	\$0.00	Yes
ML14070	City of Rancho Cucamonga	9/3/2016	12/2/2018		\$365,245.00	\$326,922.25	Bicycle Trail Improvements	\$38,322.75	Yes
ML14071	City of Manhattan Beach	1/9/2015	11/8/2018		\$22,485.00	\$22,485.00	Electric Vehicle Charging Infrastructure	\$0.00	Yes
ML14072	City of Cathedral City	8/13/2014	1/12/2021	7/12/2022	\$41,000.00	\$41,000.00	Install Bicycle Racks & Implement Bicycle E	\$0.00	Yes
ML14094	City of Yucaipa	6/9/2017	6/8/2018		\$84,795.00	\$84,795.00	Installation of Bicycle Lanes	\$0.00	Yes
ML14095	City of South Pasadena	1/10/2019	7/9/2019		\$142,096.00	\$134,182.09	Bicycle Trail Improvements	\$7,913.91	Yes
ML14096	County of Los Angeles Dept of Pub	5/3/2019	12/2/2019	3/2/2020	\$74,186.00	\$74,186.00	San Gabriel BikeTrail Underpass Improveme	\$0.00	Yes
ML14097	County of Los Angeles Internal Servi	9/6/2019	9/5/2020	9/5/2021	\$104,400.00	\$104,400.00	Electric Vehicle Charging Infrastructure	\$0.00	Yes
MS14001	Los Angeles County MTA	3/6/2015	4/30/2015		\$1,216,637.00	\$1,199,512.68	Clean Fuel Transit Service to Dodger Stadiu	\$17,124.32	Yes
MS14002	Orange County Transportation Autho	9/6/2013	4/30/2014		\$576,833.00	\$576,833.00	Clean Fuel Transit Service to Orange Count	\$0.00	Yes
MS14003	Orange County Transportation Autho	8/1/2013	4/30/2014	10/30/2014	\$194,235.00	\$184,523.00	Implement Metrolink Service to Angel Stadiu	\$9,712.00	Yes
MS14004	Orange County Transportation Autho	9/24/2013	4/30/2014		\$36,800.00	\$35,485.23	Implement Express Bus Service to Solar De	\$1,314.77	Yes
MS14005	Transit Systems Unlimited, Inc.	4/11/2014	2/28/2016		\$515,200.00	\$511,520.00	Provide Expanded Shuttle Service to Hollyw	\$3,680.00	Yes
MS14007	Orange County Transportation Autho	6/6/2014	4/30/2015		\$208,520.00	\$189,622.94	Implement Special Metrolink Service to Ang	\$18,897.06	Yes
MS14008	Orange County Transportation Autho	8/13/2014	5/31/2015		\$601,187.00	\$601,187.00	Implement Clean Fuel Bus Service to Orang	\$0.00	Yes
MS14009	A-Z Bus Sales, Inc.	1/17/2014	12/31/2014	3/31/2015	\$388,000.00	\$388,000.00	Alternative Fuel School Bus Incentive Progra	\$0.00	Yes
MS14037	Penske Truck Leasing Co., L.P.	4/7/2017	6/6/2020		\$75,000.00	\$75,000.00	Vehicle Maint. Fac. Modifications - Carson	\$0.00	Yes
MS14039	Waste Management Collection and	7/10/2015	4/9/2016		\$75,000.00	\$75,000.00	Vehicle Maint. Fac. Modifications - Irvine	\$0.00	Yes
MS14040	Waste Management Collection and	7/10/2015	4/9/2016		\$75,000.00	\$75,000.00	Vehicle Maint. Fac. Modifications - Santa An	\$0.00	Yes
MS14041	USA Waste of California, Inc.	9/4/2015	10/3/2021		\$175,000.00	\$175,000.00	Limited-Access CNG Station, Vehicle Maint.	\$0.00	Yes
MS14042	Grand Central Recycling & Transfer	6/6/2014	9/5/2021		\$150,000.00	\$150,000.00	Expansion of Existing CNG Station	\$0.00	Yes
MS14044	TIMCO CNG Fund I, LLC	5/2/2014	11/1/2020		\$150,000.00	\$150,000.00	New Public-Access CNG Station in Santa A	\$0.00	Yes
MS14045	TIMCO CNG Fund I, LLC	6/6/2014	12/5/2020		\$150,000.00	\$150,000.00	New Public-Access CNG Station in Inglewoo	\$0.00	Yes
MS14046	Ontario CNG Station Inc.	5/15/2014	5/14/2020	11/14/2021	\$150,000.00	\$150,000.00	Expansion of Existing CNG Infrastructure	\$0.00	Yes
MS14047	Southern California Regional Rail Au	3/7/2014	9/30/2014		\$49,203.00	\$32,067.04	Special Metrolink Service to Autoclub Speed	\$17,135.96	Yes
MS14048	BusWest	3/14/2014	12/31/2014	5/31/2015	\$940,850.00	\$847,850.00	Alternative Fuel School Bus Incentive Progra	\$93,000.00	Yes
MS14052	Arcadia Unified School District	6/13/2014	10/12/2020		\$78,000.00	\$78,000.00	Expansion of an Existing CNG Fueling Statio	\$0.00	Yes
MS14053	Upland Unified School District	1/9/2015	7/8/2021		\$175,000.00	\$175,000.00	Expansion of Existing CNG Infrastructure	\$0.00	Yes

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
MS14058	Orange County Transportation Autho	11/7/2014	4/6/2016	4/6/2017	\$1,250,000.00	\$1,250,000.00	Implement Various Signal Synchronization P	\$0.00	Yes
MS14059	Riverside County Transportation Co	9/5/2014	3/4/2018	7/4/2023	\$1,250,000.00	\$1,209,969.08	Implement Various Signal Synchronization P	\$40,030.92	No
MS14073	Anaheim Transportation Network	1/9/2015	4/30/2017		\$221,312.00	\$221,312.00	Anaheim Resort Circulator Service	\$0.00	Yes
MS14074	Midway City Sanitary District	1/9/2015	3/8/2021		\$250,000.00	\$250,000.00	Limited-Access CNG Station & Facility Modif	\$0.00	Yes
MS14075	Fullerton Joint Union High School Di	7/22/2016	11/21/2023		\$293,442.00	\$293,442.00	Expansion of Existing CNG Infrastructure/Ma	\$0.00	Yes
MS14076	Rialto Unified School District	6/17/2015	2/16/2022	6/25/2023	\$225,000.00	\$225,000.00	New Public Access CNG Station	\$0.00	Yes
MS14077	County Sanitation Districts of L.A. Co	3/6/2015	5/5/2021		\$175,000.00	\$175,000.00	New Limited Access CNG Station	\$0.00	Yes
MS14080	CR&R Incorporated	6/1/2015	8/31/2021	8/31/2022	\$200,000.00	\$200,000.00	Expansion of Existing CNG Infrastructure/Ma	\$0.00	Yes
MS14081	CR&R Incorporated	6/1/2015	5/30/2021		\$175,000.00	\$100,000.00	Expansion of Existing CNG Infrastructure/Ma	\$75,000.00	Yes
MS14082	Grand Central Recycling & Transfer	12/4/2015	3/3/2023	3/3/2024	\$150,000.00	\$150,000.00	Construct New Public Access CNG Station	\$0.00	Yes
MS14083	Hacienda La Puente Unified School	7/10/2015	3/9/2022	6/9/2023	\$175,000.00	\$175,000.00	New Limited Access CNG Station	\$0.00	Yes
MS14084	US Air Conditioning Distributors	5/7/2015	9/6/2021		\$100,000.00	\$100,000.00	Expansion of Existing CNG Infrastructure	\$0.00	Yes
MS14087	Orange County Transportation Autho	8/14/2015	4/30/2016		\$239,645.00	\$195,377.88	Implement Special Metrolink Service to Ang	\$44,267.12	Yes
MS14088	Southern California Regional Rail Au	5/7/2015	9/30/2015		\$79,660.00	\$66,351.44	Special Metrolink Service to Autoclub Speed	\$13,308.56	Yes
MS14089	Top Shelf Consulting, LLC	1/18/2017	8/4/2016	3/31/2017	\$200,000.00	\$200,000.00	Enhanced Fleet Modernization Program	\$0.00	Yes
MS14090	City of Monterey Park	5/7/2015	5/6/2021		\$225,000.00	\$225,000.00	Expansion of Existing CNG Infrastructure	\$0.00	Yes

Total: 69

Closed/Incomplete Contracts

ML14020	County of Los Angeles Dept of Pub	8/13/2014	1/12/2018		\$150,000.00	\$0.00	San Gabriel BikeTrail Underpass Improveme	\$150,000.00	No
ML14021	Riverside County Regional Park and	7/24/2014	12/23/2016	9/30/2024	\$250,000.00	\$0.00	Bicycle Trail Improvements	\$250,000.00	No
ML14050	City of Yucaipa	7/11/2014	9/10/2015	7/1/2016	\$84,795.00	\$0.00	Installation of Bicycle Lanes	\$84,795.00	No
ML14060	County of Los Angeles Internal Servi	10/6/2017	1/5/2019		\$104,400.00	\$0.00	Electric Vehicle Charging Infrastructure	\$104,400.00	No
ML14066	City of South Pasadena	9/12/2014	7/11/2016	2/11/2018	\$142,096.00	\$0.00	Bicycle Trail Improvements	\$142,096.00	No
ML14093	County of Los Angeles Dept of Pub	8/14/2015	1/13/2019		\$150,000.00	\$0.00	San Gabriel BikeTrail Underpass Improveme	\$150,000.00	No
MS14092	West Covina Unified School District	9/3/2016	12/2/2022		\$124,000.00	\$0.00	Expansion of Existing CNG Infrastructure	\$124,000.00	No

Total: 7

Open/Complete Contracts

ML14013	City of Los Angeles, Bureau of Sanit	10/7/2016	2/6/2025		\$400,000.00	\$400,000.00	Purchase 14 H.D. Nat. Gas Vehicles	\$0.00	Yes
ML14018	City of Los Angeles Dept of General	3/6/2015	9/5/2021	2/5/2026	\$810,000.00	\$810,000.00	Purchase 27 H.D. Nat. Gas Vehicles	\$0.00	Yes
ML14025	County of Los Angeles Dept of Publi	10/2/2015	7/1/2018	7/1/2024	\$300,000.00	\$300,000.00	Construct New CNG Station in Malibu	\$0.00	Yes
ML14026	County of Los Angeles Dept of Publi	10/2/2015	5/1/2023	5/1/2024	\$300,000.00	\$300,000.00	Construct New CNG Station in Castaic	\$0.00	Yes
ML14067	City of Duarte	12/4/2015	1/3/2023	6/3/2024	\$60,000.00	\$60,000.00	Purchase Two Electric Buses	\$0.00	Yes
MS14079	Waste Resources, Inc.	9/14/2016	8/13/2022	10/13/2024	\$100,000.00	\$100,000.00	New Limited Access CNG Station	\$0.00	Yes

Total: 6

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
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FY 2014-2016 Contracts

Open Contracts

ML16025	City of South Pasadena	6/22/2016	4/21/2023	2/21/2025	\$130,000.00	\$0.00	Expand Existing CNG Infrastructure	\$130,000.00	No
ML16039	City of Torrance Transit Department	1/6/2017	9/5/2022	3/27/2026	\$32,000.00	\$0.00	Install Eight Level II EV Chargers	\$32,000.00	No
ML16047	City of Fontana	1/6/2017	8/5/2019	8/5/2025	\$500,000.00	\$0.00	Enhance an Existing Class 1 Bikeway	\$500,000.00	No
ML16057	City of Yucaipa	4/27/2016	1/26/2019	1/26/2024	\$380,000.00	\$0.00	Implement a "Complete Streets" Pedestrian	\$380,000.00	No
ML16075	City of San Fernando	10/27/2016	2/26/2019	8/26/2024	\$354,000.00	\$0.00	Install a Class 1 Bikeway	\$354,000.00	No
ML16077	City of Rialto	5/3/2018	10/2/2021	2/2/2026	\$463,216.00	\$218,708.00	Pedestrian Access Improvements, Bicycle L	\$244,508.00	No
MS16094	Riverside County Transportation Co	1/25/2017	1/24/2022	2/24/2024	\$1,909,241.00	\$1,635,864.00	MetroLink First Mile/Last Mile Mobility Strate	\$273,377.00	No
MS16121	Long Beach Transit	11/3/2017	4/2/2024	11/30/2028	\$600,000.00	\$570,000.00	Repower 39 and Purchase 1 New Transit Bu	\$30,000.00	No

Total: 8

Declined/Cancelled Contracts

ML16014	City of Dana Point				\$153,818.00	\$0.00	Extend an Existing Class 1 Bikeway	\$153,818.00	No
ML16065	City of Temple City				\$500,000.00	\$0.00	Implement a "Complete Streets" Pedestrian	\$500,000.00	No
ML16067	City of South El Monte				\$73,329.00	\$0.00	Implement an "Open Streets" Event	\$73,329.00	No
ML16074	City of La Verne	7/22/2016	1/21/2023		\$365,000.00	\$0.00	Install CNG Fueling Station	\$365,000.00	No
MS16043	LBA Realty Company LLC				\$100,000.00	\$0.00	Install Limited-Access CNG Station	\$100,000.00	No
MS16080	Riverside County Transportation Co				\$1,200,000.00	\$0.00	Passenger Rail Service for Coachella and St	\$1,200,000.00	No
MS16098	Long Beach Transit				\$198,957.00	\$0.00	Provide Special Bus Service to Stub Hub Ce	\$198,957.00	No
MS16104	City of Perris				\$175,000.00	\$0.00	Expansion of Existing CNG Infrastructure	\$175,000.00	No
MS16106	City of Lawndale	3/1/2019	11/30/2025		\$175,000.00	\$0.00	Expansion of Existing CNG Infrastructure	\$175,000.00	No
MS16107	Athens Services				\$100,000.00	\$0.00	Construct a Limited-Access CNG Station	\$100,000.00	No
MS16108	VNG 5703 Gage Avenue, LLC				\$150,000.00	\$0.00	Construct Public-Access CNG Station in Bell	\$150,000.00	No
MS16109	Sanitation Districts of Los Angeles C				\$275,000.00	\$0.00	Expansion of an Existing L/CNG Station	\$275,000.00	No
MS16111	VNG 925 Lakeview Avenue, LLC				\$150,000.00	\$0.00	Construct Public Access CNG Station in Pla	\$150,000.00	No

Total: 13

Closed Contracts

ML16006	City of Cathedral City	4/27/2016	4/26/2022	4/26/2023	\$25,000.00	\$25,000.00	Bicycle Outreach	\$0.00	Yes
ML16007	City of Culver City Transportation De	10/6/2015	4/5/2023		\$246,000.00	\$246,000.00	Purchase 7 H.D. Nat. Gas Vehicles, EV Cha	\$0.00	Yes
ML16009	City of Fountain Valley	10/6/2015	2/5/2018	5/5/2019	\$46,100.00	\$46,100.00	Install EV Charging Infrastructure	\$0.00	Yes
ML16011	City of Claremont	10/6/2015	6/5/2022		\$90,000.00	\$90,000.00	Purchase 3 Heavy-Duty Nat. Gas Vehicles	\$0.00	Yes
ML16012	City of Carson	1/15/2016	10/14/2022		\$60,000.00	\$60,000.00	Purchase 2 Heavy-Duty Nat. Gas Vehicles	\$0.00	Yes
ML16015	City of Yorba Linda	3/4/2016	11/3/2017		\$85,000.00	\$85,000.00	Install Bicycle Lanes	\$0.00	Yes
ML16016	City of Los Angeles Dept of General	2/5/2016	12/4/2022		\$630,000.00	\$630,000.00	Purchase 21 Heavy-Duty Nat. Gas Vehicles	\$0.00	Yes
ML16018	City of Hermosa Beach	10/7/2016	1/6/2023		\$29,520.00	\$23,768.44	Purchase 2 M.D. Nat. Gas Vehicles, Bicycle	\$5,751.56	Yes
ML16019	City of Los Angeles, Dept of General	1/25/2017	3/24/2023		\$102,955.00	\$102,955.00	Install EV Charging Infrastructure	\$0.00	Yes

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
ML16020	City of Pomona	4/1/2016	2/1/2018	8/1/2018	\$440,000.00	\$440,000.00	Install Road Surface Bicycle Detection System	\$0.00	Yes
ML16023	City of Banning	12/11/2015	12/10/2021		\$30,000.00	\$30,000.00	Purchase 1 H.D. Nat. Gas Vehicle	\$0.00	Yes
ML16024	City of Azusa	4/27/2016	2/26/2022		\$30,000.00	\$30,000.00	Purchase 1 H.D. Nat. Gas Vehicle	\$0.00	Yes
ML16026	City of Downey	5/6/2016	9/5/2017		\$40,000.00	\$40,000.00	Install EV Charging Infrastructure	\$0.00	Yes
ML16027	City of Whittier	1/8/2016	11/7/2022		\$30,000.00	\$30,000.00	Purchase 1 H.D. Nat. Gas Vehicle	\$0.00	Yes
ML16028	City of Azusa	9/9/2016	4/8/2018		\$25,000.00	\$25,000.00	Enhance Existing Class 1 Bikeway	\$0.00	Yes
ML16031	City of Cathedral City	12/19/2015	2/18/2017		\$25,000.00	\$25,000.00	Street Sweeping in Coachella Valley	\$0.00	Yes
ML16032	City of Azusa	9/9/2016	4/8/2019	4/8/2021	\$474,925.00	\$474,925.00	Implement a "Complete Streets" Pedestrian	\$0.00	Yes
ML16033	Coachella Valley Association of Gov	4/27/2016	4/26/2018		\$250,000.00	\$250,000.00	Street Sweeping Operations in Coachella Va	\$0.00	Yes
ML16034	City of Riverside	3/11/2016	10/10/2018	7/10/2020	\$500,000.00	\$500,000.00	Implement a "Complete Streets" Pedestrian	\$0.00	Yes
ML16036	City of Brea	3/4/2016	12/3/2018		\$500,000.00	\$500,000.00	Install a Class 1 Bikeway	\$0.00	Yes
ML16037	City of Rancho Cucamonga	2/5/2016	11/4/2022		\$30,000.00	\$30,000.00	Purchase One Heavy-Duty Natural Gas Vehi	\$0.00	Yes
ML16038	City of Palm Springs	4/1/2016	7/31/2022	9/30/2022	\$170,000.00	\$60,000.00	Install Bicycle Lanes & Purchase 2 Heavy-D	\$110,000.00	Yes
ML16042	City of San Dimas	4/1/2016	12/31/2019	12/31/2021	\$55,000.00	\$55,000.00	Install EV Charging Infrastructure	\$0.00	No
ML16045	City of Anaheim	6/22/2016	8/21/2019		\$275,000.00	\$255,595.08	Maintenance Facility Modifications	\$19,404.92	Yes
ML16046	City of El Monte	4/1/2016	5/31/2021	5/31/2023	\$20,160.00	\$14,637.50	Install EV Charging Infrastructure	\$5,522.50	Yes
ML16049	City of Buena Park	4/1/2016	11/30/2018		\$429,262.00	\$429,262.00	Installation of a Class 1 Bikeway	\$0.00	Yes
ML16050	City of Westminster	5/6/2016	7/5/2020	5/5/2022	\$115,000.00	\$93,925.19	Installation of EV Charging Infrastructure	\$21,074.81	Yes
ML16051	City of South Pasadena	2/12/2016	1/11/2017	12/11/2017	\$320,000.00	\$258,691.25	Implement "Open Streets" Event with Variou	\$61,308.75	Yes
ML16052	City of Rancho Cucamonga	9/3/2016	11/2/2019	3/31/2021	\$315,576.00	\$305,576.00	Install Two Class 1 Bikeways	\$10,000.00	Yes
ML16053	City of Claremont	3/11/2016	7/10/2018	12/10/2020	\$498,750.00	\$498,750.00	Implement a "Complete Streets" Pedestrian	\$0.00	Yes
ML16054	City of Yucaipa	3/26/2016	7/26/2018	10/25/2019	\$120,000.00	\$120,000.00	Implement a "Complete Streets" Pedestrian	\$0.00	Yes
ML16055	City of Ontario	5/6/2016	5/5/2022		\$270,000.00	\$270,000.00	Purchase Nine Heavy-Duty Natural-Gas Veh	\$0.00	Yes
ML16056	City of Ontario	3/23/2016	9/22/2020	9/22/2021	\$106,565.00	\$106,565.00	Expansion of an Existing CNG Station	\$0.00	Yes
ML16059	City of Burbank	4/1/2016	2/28/2022		\$180,000.00	\$180,000.00	Purchase 6 H.D. Nat. Gas Vehicles	\$0.00	Yes
ML16060	City of Cudahy	2/5/2016	10/4/2017		\$73,910.00	\$62,480.00	Implement an "Open Streets" Event	\$11,430.00	Yes
ML16061	City of Murrieta	4/27/2016	1/26/2020		\$11,642.00	\$9,398.36	Installation of EV Charging Infrastructure	\$2,243.64	Yes
ML16062	City of Colton	6/3/2016	7/2/2020		\$21,003.82	\$21,003.82	Installation of EV Charging Infrastructure	\$0.00	Yes
ML16063	City of Glendora	3/4/2016	4/3/2022		\$30,000.00	\$30,000.00	Purchase One H.D. Nat. Gas Vehicle	\$0.00	Yes
ML16064	County of Orange, OC Parks	2/21/2017	10/20/2018		\$204,073.00	\$157,632.73	Implement "Open Streets" Events with Vario	\$46,440.27	Yes
ML16066	City of Long Beach Public Works	1/13/2017	9/12/2018		\$75,050.00	\$63,763.62	Implement an "Open Streets" Event	\$11,286.38	Yes
ML16068	Riverside County Dept of Public Heal	12/2/2016	8/1/2018		\$171,648.00	\$171,648.00	Implement "Open Streets" Events with Vario	\$0.00	Yes
ML16069	City of West Covina	3/10/2017	6/9/2021		\$54,199.00	\$54,199.00	Installation of EV Charging Infrastructure	\$0.00	Yes
ML16070	City of Beverly Hills	2/21/2017	6/20/2023		\$90,000.00	\$90,000.00	Purchase 3 H.D. Nat. Gas Vehicles	\$0.00	Yes
ML16071	City of Highland	5/5/2017	1/4/2020	1/4/2023	\$264,500.00	\$264,500.00	Implement a "Complete Streets" Pedestrian	\$0.00	Yes
ML16072	City of Palm Desert	3/4/2016	1/4/2020	1/3/2022	\$56,000.00	\$56,000.00	Installation of EV Charging Infrastructure	\$0.00	Yes
ML16073	City of Long Beach Public Works	1/13/2017	7/12/2017		\$50,000.00	\$50,000.00	Implement an "Open Streets" Event	\$0.00	Yes

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
ML16076	City of San Fernando	2/21/2017	8/20/2021		\$43,993.88	\$43,993.88	Install EV Charging Infrastructure	\$0.00	Yes
ML16078	City of Moreno Valley	5/6/2016	11/5/2017	5/5/2018	\$32,800.00	\$31,604.72	Install Bicycle Infrastructure & Implement Bi	\$1,195.28	Yes
ML16079	City of Yucaipa	4/1/2016	3/31/2020		\$5,000.00	\$5,000.00	Purchase Electric Lawnmower	\$0.00	Yes
ML16083	City of El Monte	4/1/2016	4/30/2021	4/30/2023	\$57,210.00	\$25,375.60	Install EV Charging Infrastructure	\$31,834.40	Yes
ML16122	City of Wildomar	6/8/2018	6/7/2019		\$500,000.00	\$500,000.00	Install Bicycle Lanes	\$0.00	Yes
ML16126	City of Palm Springs	7/31/2019	7/30/2020	10/30/2020	\$22,000.00	\$19,279.82	Install Bicycle Racks, and Implement Bicycle	\$2,720.18	Yes
MS16001	Los Angeles County MTA	4/1/2016	4/30/2017		\$1,350,000.00	\$1,332,039.84	Clean Fuel Transit Service to Dodger Stadiu	\$17,960.16	Yes
MS16002	Orange County Transportation Autho	10/6/2015	5/31/2016		\$722,266.00	\$703,860.99	Clean Fuel Transit Service to Orange Count	\$18,405.01	Yes
MS16003	Special Olympics World Games Los	10/9/2015	12/30/2015		\$380,304.00	\$380,304.00	Low-Emission Transportation Service for Sp	\$0.00	Yes
MS16004	Mineral LLC	9/4/2015	7/3/2017	1/3/2018	\$27,690.00	\$9,300.00	Design, Develop, Host and Maintain MSRC	\$18,390.00	Yes
MS16029	Orange County Transportation Autho	1/12/2018	6/11/2020		\$836,413.00	\$567,501.06	TCM Partnership Program - OC Bikeways	\$268,911.94	Yes
MS16030	Better World Group Advisors	12/19/2015	12/31/2017	12/31/2019	\$271,619.00	\$245,355.43	Programmic Outreach Services to the MSR	\$26,263.57	Yes
MS16081	EDCO Disposal Corporation	3/4/2016	10/3/2022		\$150,000.00	\$150,000.00	Expansion of Existing Public Access CNG St	\$0.00	Yes
MS16084	Transit Systems Unlimited, Inc.	5/6/2016	2/28/2018		\$565,600.00	\$396,930.00	Implement Special Shuttle Service from Uni	\$168,670.00	Yes
MS16085	Southern California Regional Rail Au	3/11/2016	9/30/2016		\$78,033.00	\$64,285.44	Special MetroLink Service to Autoclub Spee	\$13,747.56	Yes
MS16086	San Bernardino County Transportatio	9/3/2016	10/2/2021		\$800,625.00	\$769,021.95	Freeway Service Patrols	\$31,603.05	Yes
MS16087	Burrtec Waste & Recycling Services,	7/8/2016	3/7/2023		\$100,000.00	\$100,000.00	Construct New Limited-Access CNG Station	\$0.00	Yes
MS16088	Transit Systems Unlimited, Inc.	5/12/2017	1/11/2023		\$17,000.00	\$17,000.00	Expansion of Existing CNG Station	\$0.00	Yes
MS16089	Orange County Transportation Autho	7/8/2016	4/30/2017		\$128,500.00	\$128,500.00	Implement Special Bus Service to Angel Sta	\$0.00	Yes
MS16092	San Bernardino County Transportatio	2/3/2017	1/2/2019		\$242,937.00	\$242,016.53	Implement a Series of "Open Streets" Event	\$920.47	Yes
MS16093	Orange County Transportation Autho	9/3/2016	3/2/2018	9/2/2018	\$1,553,657.00	\$1,499,575.85	Implement a Mobile Ticketing System	\$54,081.15	Yes
MS16095	Orange County Transportation Autho	7/22/2016	5/31/2017		\$694,645.00	\$672,864.35	Implement Special Bus Service to Orange C	\$21,780.65	Yes
MS16096	San Bernardino County Transportatio	10/27/2016	12/26/2019	6/30/2021	\$450,000.00	\$450,000.00	EV Charging Infrastructure	\$0.00	Yes
MS16097	Walnut Valley Unified School District	10/7/2016	11/6/2022		\$250,000.00	\$250,000.00	Expand CNG Station & Modify Maintenance	\$0.00	Yes
MS16099	Foothill Transit	3/3/2017	3/31/2017		\$50,000.00	\$50,000.00	Provide Special Bus Service to the Los Ange	\$0.00	Yes
MS16100	Southern California Regional Rail Au	5/5/2017	9/30/2017		\$80,455.00	\$66,169.43	Provide Metrolink Service to Autoclub Speed	\$14,285.57	Yes
MS16102	Nasa Services, Inc.	2/21/2017	4/20/2023		\$100,000.00	\$100,000.00	Construct a Limited-Access CNG Station	\$0.00	Yes
MS16103	Arrow Services, Inc.	2/3/2017	4/2/2023		\$100,000.00	\$100,000.00	Construct a Limited-Access CNG Station	\$0.00	Yes
MS16116	Riverside Transit Agency	3/3/2017	1/2/2023		\$10,000.00	\$9,793.00	Purchase One Transit Bus	\$207.00	Yes
MS16117	Omnitrans	4/21/2017	6/20/2023		\$175,000.00	\$175,000.00	Expansion of Existing CNG Infrastructure	\$0.00	Yes
MS16118	Omnitrans	4/21/2017	6/20/2023		\$175,000.00	\$175,000.00	Expansion of Existing CNG Infrastructure	\$0.00	Yes
MS16119	Omnitrans	4/21/2017	8/20/2022		\$150,000.00	\$0.00	New Public Access CNG Station	\$150,000.00	No
MS16124	Riverside County Transportation Co	12/14/2018	12/14/2019	5/14/2020	\$253,239.00	\$246,856.41	Extended Freeway Service Patrols	\$6,382.59	Yes
MS16125	San Bernardino County Transportatio	9/20/2019	11/19/2020		\$1,000,000.00	\$1,000,000.00	Traffic Signal Synchronization Projects	\$0.00	Yes
MS16127	Los Angeles County MTA	6/29/2021		6/28/2022	\$2,500,000.00	\$2,500,000.00	Expansion of the Willowbrook/Rosa Parks Tr	\$0.00	Yes

Total: 81

Closed/Incomplete Contracts

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
ML16005	City of Palm Springs	3/4/2016	10/3/2017		\$40,000.00	\$0.00	Install Bicycle Racks, and Implement Bicycle	\$40,000.00	No
ML16035	City of Wildomar	4/1/2016	11/1/2017		\$500,000.00	\$0.00	Install Bicycle Lanes	\$500,000.00	No
MS16082	Riverside County Transportation Co	9/3/2016	8/2/2018		\$590,759.00	\$337,519.71	Extended Freeway Service Patrols	\$253,239.29	No
MS16090	Los Angeles County MTA	10/27/2016	4/26/2020	10/26/2020	\$2,500,000.00	\$0.00	Expansion of the Willowbrook/Rosa Parks Tr	\$2,500,000.00	No
MS16091	San Bernardino County Transportatio	10/7/2016	11/6/2018		\$1,000,000.00	\$0.00	Traffic Signal Synchronization Projects	\$1,000,000.00	No
MS16123	Orange County Transportation Autho	12/7/2018	11/6/2023		\$91,760.00	\$0.00	Install La Habra Union Pacific Bikeway	\$91,760.00	No

Total: 6

Open/Complete Contracts

ML16008	City of Pomona	9/20/2016	11/19/2022	5/19/2025	\$60,000.00	\$60,000.00	Purchase 3 Medium-Duty and 1 Heavy-Duty	\$0.00	Yes
ML16013	City of Monterey Park	12/4/2015	7/3/2022	7/3/2024	\$90,000.00	\$90,000.00	Purchase 3 Heavy-Duty Nat. Gas Vehicles	\$0.00	Yes
ML16017	City of Long Beach	2/5/2016	8/4/2023	5/4/2029	\$1,415,400.00	\$1,415,400.00	Purchase 50 Medium-Duty, 17 H.D. Nat. Ga	\$0.00	No
ML16021	City of Santa Clarita	10/7/2016	6/6/2024		\$49,400.00	\$49,399.00	Install EV Charging Infrastructure	\$1.00	Yes
ML16022	Los Angeles Department of Water an	5/5/2017	3/4/2024	6/4/2028	\$240,000.00	\$240,000.00	Purchase 8 H.D. Nat. Gas Vehicles	\$0.00	Yes
ML16040	City of Eastvale	1/6/2017	7/5/2022	11/5/2026	\$66,409.00	\$66,040.41	Install EV Charging Infrastructure	\$368.59	Yes
ML16041	City of Moreno Valley	9/3/2016	1/2/2021	4/2/2024	\$20,000.00	\$20,000.00	Install EV Charging Infrastructure	\$0.00	Yes
ML16058	Los Angeles County Department of P	10/7/2016	4/6/2024		\$371,898.00	\$371,898.00	Purchase 11 H.D. Nat. Gas Vehicles and Ins	\$0.00	Yes
MS16105	Huntington Beach Union High School	3/3/2017	7/2/2024		\$175,000.00	\$175,000.00	Expansion of Existing CNG Infrastructure	\$0.00	Yes
MS16110	City of Riverside	10/6/2017	2/5/2025	10/5/2026	\$270,000.00	\$270,000.00	Expansion of Existing CNG Station and Main	\$0.00	Yes
MS16112	Orange County Transportation Autho	4/14/2017	3/13/2024		\$1,470,000.00	\$1,470,000.00	Repower Up to 98 Transit Buses	\$0.00	Yes
MS16113	Los Angeles County MTA	5/12/2017	4/11/2024		\$1,875,000.00	\$1,875,000.00	Repower Up to 125 Transit Buses	\$0.00	Yes
MS16114	City of Norwalk	3/3/2017	6/2/2024		\$32,170.00	\$32,170.00	Purchase 3 Transit Buses	\$0.00	Yes
MS16115	City of Santa Monica	4/14/2017	7/13/2025		\$450,000.00	\$450,000.00	Repower 30 Transit Buses	\$0.00	Yes
MS16120	Omnitrans	4/7/2017	5/6/2025		\$945,000.00	\$870,000.00	Repower 63 Existing Buses	\$75,000.00	Yes

Total: 15

Terminated Contracts

ML16010	City of Fullerton	10/7/2016	4/6/2023	4/6/2024	\$78,222.00	\$27,896.71	Install EV Charging Stations	\$50,325.29	Yes
ML16048	City of Placentia	3/26/2016	5/25/2021	12/25/2026	\$80,000.00	\$18,655.00	Install EV Charging Infrastructure	\$61,345.00	Yes

Total: 2

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
FY 2016-2018 Contracts									
Open Contracts									
ML18031	City of Diamond Bar	9/7/2018	11/6/2025	11/6/2027	\$58,930.00	\$38,930.00	Install EVSE, Purchase up to 2-LD Vehicles	\$20,000.00	No
ML18050	City of Irvine	9/7/2018	8/6/2028		\$330,490.00	\$0.00	Purchase 1 Medium/Heavy-Duty ZEV and In	\$330,490.00	No
ML18051	City of Rancho Cucamonga	3/1/2019	10/31/2025	4/30/2027	\$91,500.00	\$82,500.00	Purchase 6 Light-Duty ZEVs, Install 3 Limite	\$9,000.00	No
ML18055	City of Long Beach	11/29/2018	11/28/2026	11/28/2028	\$622,220.00	\$302,401.53	Install EV Charging Stations	\$319,818.47	No
ML18057	City of Carson	10/5/2018	7/4/2023	12/15/2026	\$106,250.00	\$50,000.00	Purchase 5 Zero-Emission Vehicles and Infr	\$56,250.00	No
ML18060	County of Los Angeles Internal Servi	10/5/2018	8/4/2026	8/4/2028	\$1,273,938.00	\$724,868.96	Purchase 29 Light-Duty Zero Emission Vehi	\$549,069.04	No
ML18063	City of Riverside	6/7/2019	1/6/2027	3/6/2028	\$50,000.00	\$0.00	Expand Existing CNG Station	\$50,000.00	No
ML18067	City of Pico Rivera	9/7/2018	11/6/2022	12/6/2027	\$83,500.00	\$0.00	Install EVSE	\$83,500.00	No
ML18068	City of Mission Viejo	7/31/2019	6/30/2027		\$86,940.00	\$20,000.00	Purchase 2 Light-Duty ZEVs & Install EVSE	\$66,940.00	No
ML18069	City of Torrance	3/1/2019	7/31/2027	12/31/2028	\$187,400.00	\$100,000.00	Purchase 4 Heavy-Duty Near-Zero Emission	\$87,400.00	No
ML18078	County of Riverside	10/5/2018	10/4/2028		\$375,000.00	\$300,000.00	Purchase 15 Heavy-Duty Vehicles	\$75,000.00	No
ML18082	City of Los Angeles Bureau of Sanita	8/30/2019	8/29/2028	8/29/2029	\$900,000.00	\$0.00	Purchase 8 Medium-Duty Vehicles and 8 Li	\$900,000.00	No
ML18084	City of South El Monte	10/18/2019	9/17/2023	3/30/2028	\$30,000.00	\$0.00	EV Charging Infrastructure	\$30,000.00	No
ML18091	City of Temecula	1/19/2019	7/18/2023	3/18/2026	\$141,000.00	\$0.00	Install Sixteen EV Charging Stations	\$141,000.00	No
ML18092	City of South Pasadena	2/1/2019	1/31/2025	4/30/2027	\$50,000.00	\$20,000.00	Procure Two Light-Duty ZEVs and Install EV	\$30,000.00	No
ML18094	City of Laguna Woods	7/12/2019	12/11/2024	10/11/2026	\$50,000.00	\$0.00	Install Two EV Charging Stations	\$50,000.00	No
ML18129	City of Yucaipa	12/14/2018	3/13/2023	9/13/2027	\$63,097.00	\$0.00	Install Six EV Charging Stations	\$63,097.00	No
ML18134	City of Los Angeles Dept of General	5/3/2019	5/2/2028		\$116,000.00	\$0.00	Purchase Two Medium-Duty ZEVs	\$116,000.00	No
ML18135	City of Azusa	12/6/2019	12/5/2029		\$55,000.00	\$0.00	Purchase Three Light-Duty ZEVs and One H	\$55,000.00	No
ML18145	City of Los Angeles Dept of Transpor	1/10/2020	4/9/2027	4/9/2028	\$1,400,000.00	\$0.00	Provide One Hundred Rebates to Purchaser	\$1,400,000.00	No
ML18146	City of South Gate	3/1/2019	11/30/2023	11/30/2026	\$127,400.00	\$127,400.00	Purchase Five Light-Duty ZEVs and Install S	\$0.00	No
ML18147	City of Palm Springs	1/10/2019	1/9/2024	7/9/2026	\$60,000.00	\$0.00	Install Eighteen EV Charging Stations	\$60,000.00	No
ML18148	City of San Dimas	1/21/2022	5/20/2023	8/20/2024	\$50,000.00	\$0.00	Implement Bicycle Detection Measures	\$50,000.00	No
ML18151	County of San Bernardino Departme	8/25/2020	10/24/2029		\$200,000.00	\$150,000.00	Purchase Eight Heavy-Duty Near Zero Emis	\$50,000.00	No
ML18152	County of San Bernardino Flood Con	8/11/2020	10/10/2029		\$108,990.00	\$75,000.00	Purchase Five Heavy-Duty Near Zero Emissi	\$33,990.00	No
ML18166	City of Placentia	2/18/2021	5/17/2027		\$25,000.00	\$0.00	Purchase One Heavy-Duty Near-Zero Emis	\$25,000.00	No
ML18178	City of La Puente	11/1/2019	11/30/2025	11/30/2028	\$25,000.00	\$0.00	Purchase One Heavy-Duty Near-Zero Emis	\$25,000.00	No
ML18185	City of Wildomar	10/19/2023	10/18/2024		\$25,000.00	\$0.00	Install Bicycle Trail	\$25,000.00	No
MS18024	Riverside County Transportation Co	6/28/2018	8/27/2021	8/31/2024	\$1,500,000.00	\$1,054,760.00	Vanpool Incentive Program	\$445,240.00	No
MS18027	City of Gardena	11/2/2018	9/1/2026	1/1/2029	\$365,000.00	\$0.00	Install New Limited Access CNG, Modify Mai	\$365,000.00	No
MS18065	San Bernardino County Transportatio	3/29/2019	8/28/2023	3/28/2024	\$2,000,000.00	\$2,000,000.00	Implement Metrolink Line Fare Discount Pro	\$0.00	Yes
MS18106	R.F. Dickson Co., Inc.	7/19/2019	1/18/2026		\$265,000.00	\$250,000.00	Expansion of Existing Infrastructure/Mechani	\$15,000.00	No
MS18181	San Bernardino County Transportatio	4/10/2023	9/9/2030		\$1,662,000.00	\$0.00	Construct Hydrogen Fueling Station	\$1,662,000.00	No
MS18182	Air Products and Chemicals Inc.	3/8/2023	2/7/2031		\$1,000,000.00	\$0.00	Install Publicly Accessible Hydrogen Fueling	\$1,000,000.00	No

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
Total: 34									
Declined/Cancelled Contracts									
ML18044	City of Malibu	8/8/2018	10/7/2022	10/7/2023	\$50,000.00	\$0.00	Install EV Charging Infrastructure	\$50,000.00	No
ML18053	City of Paramount	9/7/2018	3/6/2023		\$64,675.00	\$0.00	Install EV Charging Infrastructure	\$64,675.00	No
ML18075	City of Orange				\$25,000.00	\$0.00	One Heavy-Duty Vehicle	\$25,000.00	No
ML18140	City of Bell Gardens	12/14/2018	12/13/2028		\$50,000.00	\$0.00	Purchase Two Heavy-Duty Near-ZEVs	\$50,000.00	No
ML18149	City of Sierra Madre				\$50,000.00	\$0.00	Implement Bike Share Program	\$50,000.00	No
ML18150	City of South El Monte				\$20,000.00	\$0.00	Implement Bike Share Program	\$20,000.00	No
ML18153	City of Cathedral City	5/3/2019	4/2/2025		\$52,215.00	\$0.00	Install EV Charging Infrastructure	\$52,215.00	No
ML18158	City of Inglewood				\$146,000.00	\$0.00	Purchase 4 Light-Duty Zero Emission, 4 Hea	\$146,000.00	No
ML18164	City of Pomona				\$200,140.00	\$0.00	Purchase Three Heavy-Duty ZEVs	\$200,140.00	No
ML18165	City of Baldwin Park	2/1/2019	1/30/2024		\$49,030.00	\$0.00	Expand CNG Station	\$49,030.00	No
ML18172	City of Huntington Park	3/1/2019	2/28/2025		\$65,450.00	\$0.00	Purchase One Heavy-Duty ZEV	\$65,450.00	No
ML18174	City of Bell	11/22/2019	7/21/2026		\$25,000.00	\$0.00	Purchase One Heavy-Duty Near-Zero Emiss	\$25,000.00	No
ML18177	City of San Bernardino	6/7/2019	12/6/2026	12/6/2028	\$279,088.00	\$0.00	Purchase Medium- and Heavy-Duty Evs and	\$279,088.00	No
MS18009	Penske Truck Leasing Co., L.P.	8/8/2018	12/7/2020		\$82,500.00	\$0.00	Modify Maintenance Facility & Train Technici	\$82,500.00	No
MS18013	California Energy Commission				\$3,000,000.00	\$0.00	Advise MSRC and Administer Hydrogen Infr	\$3,000,000.00	No
MS18017	City of Banning				\$225,000.00	\$0.00	Expansion of Existing CNG Infrastructure	\$225,000.00	No
MS18018	City of Norwalk	6/8/2018	9/7/2019		\$75,000.00	\$0.00	Vehicle Maintenance Facility Modifications	\$75,000.00	No
MS18107	Huntington Beach Union High School				\$225,000.00	\$0.00	Expansion of Existing Infrastructure	\$225,000.00	No
MS18109	City of South Gate				\$175,000.00	\$0.00	Install New Limited-Access CNG Infrastructu	\$175,000.00	No
MS18111	Newport-Mesa Unified School Distric				\$175,000.00	\$0.00	Expansion of Existing CNG Infrastructure	\$175,000.00	No
MS18112	Banning Unified School District	11/29/2018	11/28/2024	11/28/2025	\$275,000.00	\$0.00	Install New CNG Infrastructure	\$275,000.00	No
MS18113	City of Torrance				\$100,000.00	\$0.00	Expansion of Existing CNG Infrastructure	\$100,000.00	No
MS18114	Los Angeles County Department of P	11/15/2019	11/14/2026		\$175,000.00	\$0.00	Install New Limited-Access CNG Infrastructu	\$175,000.00	No
MS18116	Los Angeles County Department of P	11/15/2019	11/14/2026		\$175,000.00	\$0.00	Install New Limited-Access CNG Infrastructu	\$175,000.00	No
MS18119	LBA Realty Company XI LP				\$100,000.00	\$0.00	Install New Limited-Access CNG Infrastructu	\$100,000.00	No
MS18121	City of Montebello				\$70,408.00	\$0.00	Expansion of Existing CNG Infrastructure	\$70,408.00	No
MS18175	Regents of the University of Californi	6/7/2019	8/6/2025	8/6/2026	\$1,000,000.00	\$0.00	Expansion of Existing Hydrogen Station	\$1,000,000.00	No
MS18183	Nikola-TA HRS 1, LLC	9/28/2022	1/27/2030		\$1,660,000.00	\$0.00	Install Publicly Accessible Hydrogen Fueling	\$1,660,000.00	No
MS18184	Clean Energy				\$1,000,000.00	\$0.00	Install Publicly Accessible Hydrogen Fueling	\$1,000,000.00	No
Total: 29									
Closed Contracts									
ML18019	City of Hidden Hills	5/3/2018	5/2/2022	5/2/2023	\$49,999.00	\$49,999.00	Purchase Two Light-Duty ZEVs and EVSE	\$0.00	Yes
ML18021	City of Signal Hill	4/6/2018	1/5/2022		\$49,661.00	\$46,079.31	Install EV Charging Stations	\$3,581.69	Yes
ML18022	City of Desert Hot Springs	5/3/2018	1/2/2020	1/2/2021	\$50,000.00	\$50,000.00	Traffic Signal and Synchronization Project	\$0.00	Yes
ML18034	City of Calabasas	6/8/2018	3/7/2022	3/7/2023	\$50,000.00	\$50,000.00	Install EVSE	\$0.00	Yes

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
ML18035	City of Westlake Village	8/8/2018	11/7/2022		\$50,000.00	\$50,000.00	Install EVSE	\$0.00	Yes
ML18040	City of Agoura Hills	7/13/2018	6/12/2022		\$17,914.00	\$17,914.00	Install EV Charging Infrastructure	\$0.00	Yes
ML18042	City of San Fernando	6/28/2018	2/27/2024		\$10,000.00	\$10,000.00	Purchase 1 Light-Duty ZEV	\$0.00	Yes
ML18049	City of Downey	7/6/2018	5/5/2023		\$148,260.00	\$148,116.32	Install EV Charging Stations	\$143.68	Yes
ML18052	City of Garden Grove	8/8/2018	10/7/2022		\$53,593.00	\$46,164.28	Purchase 4 L.D. ZEVs and Infrastructure	\$7,428.72	Yes
ML18054	City of La Habra Heights	8/8/2018	4/7/2022		\$9,200.00	\$9,200.00	Purchase 1 L.D. ZEV	\$0.00	Yes
ML18056	City of Chino	3/29/2019	9/28/2023		\$103,868.00	\$103,868.00	Install EV Charging Infrastructure	\$0.00	Yes
ML18070	City of Lomita	11/29/2018	6/28/2022		\$6,250.00	\$6,250.00	Purchase 1 Light-Duty ZEV	\$0.00	Yes
ML18071	City of Chino Hills	9/7/2018	10/6/2022		\$20,000.00	\$20,000.00	Purchase 2 Light-Duty ZEVs	\$0.00	Yes
ML18076	City of Culver City Transportation De	10/5/2018	10/4/2023		\$1,130.00	\$1,130.00	Purchase Light-Duty ZEV	\$0.00	Yes
ML18077	City of Orange	11/2/2018	10/1/2022		\$59,776.00	\$59,776.00	Four Light-Duty ZEV and EV Charging Infr	\$0.00	Yes
ML18079	City of Pasadena	12/7/2018	11/6/2023		\$183,670.00	\$183,670.00	EV Charging Infrastructure	\$0.00	Yes
ML18086	City of Los Angeles Bureau of Street	2/8/2019	4/7/2023		\$300,000.00	\$300,000.00	Install Sixty EV Charging Stations	\$0.00	Yes
ML18088	City of Big Bear Lake	11/29/2018	8/28/2020	8/28/2021	\$50,000.00	\$50,000.00	Install Bicycle Trail	\$0.00	Yes
ML18090	City of Santa Clarita	5/9/2019	2/8/2023	2/8/2024	\$122,000.00	\$118,978.52	Install Nine EV Charging Stations	\$3,021.48	Yes
ML18097	City of Temple City	11/29/2018	7/28/2022		\$16,000.00	\$12,000.00	Purchase Two Light-Duty ZEVs	\$4,000.00	Yes
ML18126	City of Lomita	12/7/2018	1/6/2020		\$26,500.00	\$13,279.56	Install bicycle racks and lanes	\$13,220.44	Yes
ML18127	City of La Puente	2/1/2019	2/28/2023		\$10,000.00	\$7,113.70	Purchase Light-Duty Zero Emission Vehicle	\$2,886.30	Yes
ML18128	City of Aliso Viejo	8/30/2019	11/29/2023		\$65,460.00	\$65,389.56	Purchase Two Light-Duty ZEVs and Install S	\$70.44	Yes
ML18130	City of Lake Forest	3/1/2019	9/30/2022		\$106,480.00	\$106,480.00	Install Twenty-One EVSEs	\$0.00	Yes
ML18131	City of Los Angeles, Police Departm	5/3/2019	12/2/2022		\$19,294.00	\$19,294.00	Purchase Three Light-Duty ZEVs	\$0.00	Yes
ML18138	City of La Canada Flintridge	2/8/2019	5/7/2023		\$32,589.00	\$32,588.07	Install Four EVSEs and Install Bicycle Racks	\$0.93	Yes
ML18139	City of Calimesa	8/30/2019	7/29/2020	11/29/2021	\$50,000.00	\$50,000.00	Install Bicycle Lane	\$0.00	Yes
ML18142	City of La Quinta	4/24/2019	2/23/2023	8/23/2023	\$51,780.00	\$51,780.00	Install Two EV Charging Stations	\$0.00	Yes
ML18154	City of Hemet	11/22/2019	9/21/2023	3/21/2024	\$30,000.00	\$30,000.00	Purchase Two Light-Duty ZEVs and EV Cha	\$0.00	Yes
ML18155	City of Claremont	7/31/2019	9/30/2023		\$35,609.00	\$35,608.86	Install EV Charging Infrastructure	\$0.14	Yes
ML18156	City of Covina	2/1/2019	3/31/2023	12/31/2023	\$63,800.00	\$62,713.00	Purchase Four Light-Duty ZEVs and EV Cha	\$1,087.00	Yes
ML18160	City of Irwindale	3/29/2019	12/28/2022		\$14,263.00	\$14,263.00	Purchase Two Light-Duty ZEVs	\$0.00	Yes
ML18173	City of Manhattan Beach	3/29/2019	2/28/2023		\$49,000.00	\$49,000.00	Purchase Two Light-Duty ZEVs and EV Cha	\$0.00	Yes
ML18179	City of Rancho Mirage	8/20/2021	2/19/2022		\$50,000.00	\$50,000.00	Traffic Signal Synchronization	\$0.00	Yes
MS18001	Los Angeles County MTA	6/29/2017	4/30/2018		\$807,945.00	\$652,737.07	Provide Clean Fuel Transit Service to Dodge	\$155,207.93	Yes
MS18002	Southern California Association of G	6/9/2017	11/30/2018	12/30/2021	\$2,500,000.00	\$2,276,272.46	Regional Active Transportation Partnership	\$223,727.54	Yes
MS18003	Geographics	2/21/2017	2/20/2021	6/20/2021	\$72,453.00	\$65,521.32	Design, Host and Maintain MSRC Website	\$6,931.68	Yes
MS18004	Orange County Transportation Autho	8/3/2017	4/30/2019		\$503,272.00	\$456,145.29	Provide Special Rail Service to Angel Stadiu	\$47,126.71	Yes
MS18005	Orange County Transportation Autho	1/5/2018	4/30/2019		\$834,222.00	\$834,222.00	Clean Fuel Bus Service to OC Fair	\$0.00	Yes
MS18006	Anaheim Transportation Network	10/6/2017	2/28/2020		\$219,564.00	\$9,488.22	Implement Anaheim Circulator Service	\$210,075.78	Yes
MS18008	Foothill Transit	1/12/2018	3/31/2019		\$100,000.00	\$99,406.61	Special Transit Service to LA County Fair	\$593.39	Yes

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
MS18010	Southern California Regional Rail Au	12/28/2017	7/31/2019		\$351,186.00	\$275,490.61	Implement Special Metrolink Service to Unio	\$75,695.39	Yes
MS18011	Southern California Regional Rail Au	2/9/2018	6/30/2018		\$239,565.00	\$221,725.12	Special Train Service to Festival of Lights	\$17,839.88	Yes
MS18012	City of Hermosa Beach	2/2/2018	2/1/2024		\$36,000.00	\$36,000.00	Construct New Limited-Access CNG Station	\$0.00	Yes
MS18014	Regents of the University of Californi	10/5/2018	12/4/2019	3/4/2020	\$254,795.00	\$251,455.59	Planning for EV Charging Infrastructure Inve	\$3,339.41	Yes
MS18015	Southern California Association of G	7/13/2018	2/28/2021	11/30/2023	\$2,000,000.00	\$1,585,466.77	Southern California Future Communities Par	\$414,533.23	Yes
MS18016	Southern California Regional Rail Au	1/10/2019	3/31/2019		\$87,764.00	\$73,140.89	Special Train Service to Auto Club Speedwa	\$14,623.11	Yes
MS18023	Riverside County Transportation Co	6/28/2018	6/27/2021	3/31/2023	\$500,000.00	\$500,000.00	Weekend Freeway Service Patrols	\$0.00	Yes
MS18025	Los Angeles County MTA	11/29/2018	5/31/2019		\$1,324,560.00	\$961,246.86	Special Bus and Train Service to Dodger Sta	\$363,313.14	Yes
MS18102	Orange County Transportation Autho	10/4/2019	5/31/2020		\$1,146,000.00	\$1,146,000.00	Implement OC Flex Micro-Transit Pilot Proje	\$0.00	Yes
MS18103	Orange County Transportation Autho	2/8/2019	9/7/2020		\$642,000.00	\$613,303.83	Install Hydrogen Detection System	\$28,696.17	Yes
MS18104	Orange County Transportation Autho	2/21/2020	3/31/2021	3/31/2022	\$212,000.00	\$165,235.92	Implement College Pass Transit Fare Subsi	\$46,764.08	Yes
MS18105	Southern California Regional Rail Au	1/10/2019	6/30/2019		\$252,696.00	\$186,830.04	Special Train Service to the Festival of Light	\$65,865.96	Yes
MS18180	Omnitrans	8/4/2022	8/3/2023		\$83,000.00	\$75,000.00	Modify Vehicle Maintenance Facility and Trai	\$8,000.00	Yes

Total: 54

Closed/Incomplete Contracts

ML18083	City of San Fernando	11/2/2018	11/1/2022		\$20,000.00	\$0.00	Implement Traffic Signal Synchronization	\$20,000.00	No
ML18093	City of Monterey Park	2/1/2019	2/28/2026	10/31/2028	\$25,000.00	\$0.00	Purchase Heavy-Duty Near-ZEV	\$25,000.00	No
ML18133	City of Rancho Mirage	12/7/2018	11/6/2020		\$50,000.00	\$0.00	Traffic Signal Synchronization	\$50,000.00	No
ML18137	City of Wildomar	3/1/2019	5/31/2021	12/1/2022	\$50,000.00	\$0.00	Install Bicycle Trail	\$50,000.00	No
ML18167	City of Beverly Hills	3/29/2019	6/28/2025		\$50,000.00	\$0.00	Purchase Two Heavy-Duty Near-Zero Emiss	\$50,000.00	No
ML18168	City of Maywood	3/29/2019	11/28/2022		\$7,059.00	\$0.00	Purchase EV Charging Infrastructure	\$7,059.00	No
MS18026	Omnitrans	10/5/2018	1/4/2020		\$83,000.00	\$0.00	Modify Vehicle Maintenance Facility and Trai	\$83,000.00	No
MS18118	City of Beverly Hills	3/29/2019	7/28/2025		\$85,272.00	\$0.00	Expansion of Existing CNG Infrastructure	\$85,272.00	No

Total: 8

Open/Complete Contracts

ML18020	City of Colton	5/3/2018	4/2/2024	4/2/2027	\$67,881.00	\$67,881.00	Purchase One Medium-Duty and One Heavy	\$0.00	Yes
ML18028	City of Artesia	6/28/2018	3/27/2025		\$50,000.00	\$50,000.00	Install EVSE	\$0.00	Yes
ML18030	City of Grand Terrace	6/28/2018	3/27/2022	3/27/2025	\$45,000.00	\$45,000.00	Install EVSE	\$0.00	Yes
ML18032	City of Arcadia	2/1/2019	4/30/2025		\$24,650.00	\$24,650.00	Purchase 1 Heavy-Duty Near-ZEV	\$0.00	Yes
ML18033	City of Duarte	8/8/2018	2/7/2025		\$50,000.00	\$50,000.00	Purchase 1-HD ZEV	\$0.00	Yes
ML18036	City of Indian Wells	8/8/2018	5/7/2023	5/7/2026	\$50,000.00	\$50,000.00	Install EV Charging Stations	\$0.00	No
ML18037	City of Westminster	6/28/2018	6/27/2024	12/27/2026	\$120,900.00	\$120,900.00	Install EVSE, Purchase up to 3-LD ZEV & 1-	\$0.00	Yes
ML18038	City of Anaheim	10/5/2018	5/4/2025	5/4/2026	\$151,630.00	\$147,883.27	Purchase 5 Light-Duty ZEVs and Install EVS	\$3,746.73	Yes
ML18039	City of Redlands	6/28/2018	7/27/2024	1/27/2025	\$63,191.00	\$63,190.33	Purchase 1 Medium/Heavy-Duty ZEV and In	\$0.67	Yes
ML18041	City of West Hollywood	8/8/2018	12/7/2023	6/7/2024	\$50,000.00	\$50,000.00	Install EV Charging Infrastructure	\$0.00	Yes
ML18043	City of Yorba Linda	9/7/2018	12/6/2023	12/6/2024	\$87,990.00	\$87,990.00	Install EV Charging Infrastructure	\$0.00	Yes
ML18045	City of Culver City Transportation De	6/28/2018	6/27/2025		\$51,000.00	\$51,000.00	Purchase Eight Near-Zero Vehicles	\$0.00	Yes

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
ML18046	City of Santa Ana - Public Works Ag	11/9/2018	7/8/2026		\$359,591.00	\$359,590.75	Purchase 6 Light-Duty ZEVs, 9 Heavy-Duty	\$0.25	Yes
ML18047	City of Whittier	8/8/2018	4/7/2026	1/7/2029	\$113,910.00	\$113,910.00	Purchase 5 Heavy-Duty Near-Zero Emission	\$0.00	No
ML18048	City of Lynwood	6/28/2018	10/27/2024		\$93,500.00	\$44,505.53	Purchase Up to 3 Medium-Duty Zero-Emissi	\$48,994.47	Yes
ML18059	City of Glendale Water & Power	2/1/2019	7/31/2026	1/31/2028	\$260,500.00	\$232,315.70	Install Electric Vehicle Charging Infrastructur	\$28,184.30	No
ML18061	City of Moreno Valley	4/9/2019	2/8/2025		\$25,000.00	\$25,000.00	Purchase 1 Heavy-Duty Near-ZEV	\$0.00	Yes
ML18062	City of Beaumont	8/8/2018	9/7/2024		\$25,000.00	\$25,000.00	Purchase 1 Heavy-Duty Near-ZEV	\$0.00	Yes
ML18064	City of Eastvale	11/29/2018	4/28/2026	4/28/2029	\$80,400.00	\$61,462.40	Purchase 2 Light-Duty, One Medium-Duty. Z	\$18,937.60	No
ML18072	City of Anaheim	12/18/2018	11/17/2026		\$239,560.00	\$239,560.00	Purchase 9 Light-Duty ZEVs & 2 Med/Hvy-D	\$0.00	Yes
ML18074	City of Buena Park	12/14/2018	6/13/2026		\$107,960.00	\$107,960.00	EV Charging Infrastructure	\$0.00	Yes
ML18080	City of Santa Monica	1/10/2019	12/9/2023	9/9/2025	\$44,289.00	\$44,288.92	Install EV Charging Stations	\$0.08	Yes
ML18081	City of Beaumont	10/5/2018	10/4/2022	10/4/2025	\$31,870.00	\$31,870.00	EV Charging Infrastructure	\$0.00	Yes
ML18085	City of Orange	4/12/2019	10/11/2026		\$50,000.00	\$50,000.00	Purchase Two Heavy-Duty Near-Zero Emiss	\$0.00	Yes
ML18087	City of Murrieta	3/29/2019	3/28/2025		\$143,520.00	\$143,520.00	Install Four EV Charging Stations	\$0.00	Yes
ML18089	City of Glendora	7/19/2019	4/18/2025	10/18/2028	\$50,760.00	\$50,760.00	Purchase a Heavy-Duty ZEV	\$0.00	Yes
ML18095	City of Gardena	11/9/2018	12/8/2024		\$25,000.00	\$25,000.00	Purchase Heavy-Duty Near-ZEV	\$0.00	Yes
ML18096	City of Highland	12/13/2019	8/12/2024		\$10,000.00	\$9,918.84	Purchase Light-Duty Zero Emission Vehicle	\$81.16	Yes
ML18098	City of Redondo Beach	2/1/2019	3/31/2023	3/31/2025	\$89,400.00	\$89,400.00	Install Six EV Charging Stations	\$0.00	Yes
ML18099	City of Laguna Hills	3/1/2019	5/31/2023	9/30/2024	\$32,250.00	\$32,250.00	Install EV Charging Stations	\$0.00	Yes
ML18100	City of Brea	10/29/2020	12/28/2024	12/31/2025	\$56,500.00	\$56,500.00	Install Twenty-Four Level II EV Charging Sta	\$0.00	Yes
ML18101	City of Burbank	2/1/2019	4/30/2024	10/30/2024	\$137,310.00	\$137,310.00	Install Twenty EV Charging Stations	\$0.00	No
ML18132	City of Montclair	4/5/2019	9/4/2023	9/4/2026	\$40,000.00	\$40,000.00	Install Eight EV Chargers	\$0.00	Yes
ML18136	City of Orange	4/12/2019	8/11/2024		\$40,000.00	\$40,000.00	Purchase Four Light-Duty Zero Emission Ve	\$0.00	Yes
ML18141	City of Rolling Hills Estates	2/14/2020	1/13/2024	4/13/2026	\$40,000.00	\$40,000.00	Purchase One Light-Duty ZEV and Install Se	\$0.00	Yes
ML18143	City of La Habra	10/18/2019	9/17/2025	9/17/2027	\$80,700.00	\$80,700.00	Install Two EV Charging Stations	\$0.00	Yes
ML18144	City of Fontana Public Works	10/4/2019	12/3/2023	12/31/2025	\$269,090.00	\$269,090.00	Install Twelve EVSEs	\$0.00	No
ML18157	City of Los Angeles Bureau of Street	6/21/2019	5/20/2027		\$85,000.00	\$85,000.00	Purchase One Medium-Duty ZEV	\$0.00	Yes
ML18159	City of Rialto	12/13/2019	5/12/2024	9/19/2025	\$135,980.00	\$106,597.86	Purchase Nine Light-Duty ZEVs and EV Cha	\$29,382.14	No
ML18161	City of Indio	5/3/2019	10/2/2025		\$25,000.00	\$25,000.00	Purchase 1 Light-Duty Zero Emission and E	\$0.00	Yes
ML18162	City of Costa Mesa	1/10/2020	7/9/2026		\$148,210.00	\$148,210.00	Purchase Three Light-Duty ZEVs and EV Ch	\$0.00	Yes
ML18163	City of San Clemente	3/8/2019	12/7/2024	12/7/2025	\$75,000.00	\$70,533.75	Purchase Three Light-Duty ZEVs and EV Ch	\$4,466.25	Yes
ML18169	City of Alhambra	6/14/2019	8/13/2024		\$111,980.00	\$111,980.00	Install EV Charging Infrastructure	\$0.00	Yes
ML18170	City of Laguna Niguel	1/10/2020	8/9/2028		\$75,100.00	\$75,100.00	Purchase One Light-Duty ZEV and EV Char	\$0.00	No
ML18171	City of El Monte	3/1/2019	4/30/2025		\$68,079.00	\$68,077.81	Purchase One Heavy-Duty ZEVs and EV Ch	\$1.19	Yes
ML18176	City of Coachella	3/1/2019	11/30/2024		\$58,020.00	\$58,020.00	Install EV Charging Stations	\$0.00	Yes
MS18066	El Dorado National	12/6/2019	2/5/2026		\$100,000.00	\$100,000.00	Install New Limited-Access CNG Station	\$0.00	Yes
MS18073	Los Angeles County MTA	1/10/2019	2/9/2026		\$2,000,000.00	\$2,000,000.00	Purchase 40 Zero-Emission Transit Buses	\$0.00	Yes
MS18108	Capistrano Unified School District	2/1/2019	5/30/2025	9/30/2026	\$111,750.00	\$111,750.00	Expansion of Existing Infrastructure	\$0.00	Yes

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
MS18110	Mountain View Unified School Distric	2/1/2019	3/31/2025		\$275,000.00	\$61,747.29	Install New Limited-Access CNG Infrastructu	\$213,252.71	No
MS18115	City of Commerce	6/7/2019	12/6/2025	7/6/2026	\$275,000.00	\$275,000.00	Expansion of Existing L/CNG Infrastructure	\$0.00	No
MS18117	City of San Bernardino	6/7/2019	11/6/2025		\$240,000.00	\$240,000.00	Expansion of Existing CNG Infrastructure/Me	\$0.00	Yes
MS18120	City of Redondo Beach	2/1/2019	9/30/2025		\$275,000.00	\$275,000.00	Install New Limited-Access CNG Infrastructu	\$0.00	Yes
MS18122	Universal Waste Systems, Inc.	2/1/2019	3/31/2025	7/31/2027	\$195,000.00	\$195,000.00	Install New Limited Access CNG Infrastructu	\$0.00	Yes
MS18123	City Rent A Bin DBA Serv-Wel Dispo	12/14/2018	2/13/2025		\$200,000.00	\$200,000.00	Install New Limited-Access CNG Infrastructu	\$0.00	Yes
MS18124	County Sanitation Districts of Los An	7/31/2019	2/28/2027		\$275,000.00	\$275,000.00	Install New Limited-Access CNG Infrastructu	\$0.00	Yes
MS18125	U.S. Venture	5/9/2019	8/8/2025		\$200,000.00	\$200,000.00	Install New Limited-Access CNG Infrastructu	\$0.00	Yes

Total: 57

Terminated Contracts

ML18058	City of Perris	10/12/2018	11/11/2024	11/11/2028	\$94,624.00	\$0.00	Purchase 1 Medium-Duty ZEV and EV Char	\$94,624.00	No
MS18029	Irvine Ranch Water District	8/8/2018	10/7/2024	1/7/2029	\$185,000.00	\$0.00	Install New Limited Access CNG Station & T	\$185,000.00	No

Total: 2

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
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FY 2018-2021 Contracts

Open Contracts

MS21002	Better World Group Advisors	11/1/2019	12/31/2022	12/31/2024	\$448,154.00	\$220,442.50	Programmatic Outreach Services	\$227,711.50	No
MS21005	Southern California Association of G	5/5/2021	1/31/2024	7/31/2025	\$16,751,000.00	\$132,085.88	Implement Last Mile Goods Movement Progr	\$16,618,914.12	No
MS21006	Geographics	4/1/2021	6/20/2023	6/20/2025	\$20,152.00	\$13,845.50	Hosting & Maintenance of the MSRC Websit	\$6,306.50	No
MS21009	ITS Technologies & Logistics, LLC	7/15/2022	7/14/2028		\$1,686,900.00	\$168,690.00	Deploy 12 Zero-Emission Yard Tractors	\$1,518,210.00	No
MS21010	MHX, LLC	9/29/2021	1/28/2028	7/28/2029	\$569,275.00	\$0.00	Deploy One Zero-Emission Overhead Crane	\$569,275.00	No
MS21013	4 Gen Logistics	3/27/2022	5/26/2028		\$7,000,000.00	\$4,567,500.00	Deploy 40 Zero Emssion Trucks	\$2,432,500.00	No
MS21015	Premium Transportation Services, In	9/22/2021	5/21/2027	1/2/2028	\$1,500,000.00	\$1,334,758.50	Deploy up to 15 Near-Zero Emissions Truck	\$165,241.50	No
MS21016	Ryder Integrated Logistics, Inc.	12/7/2022	4/6/2029		\$3,169,746.00	\$0.00	Procure Two Integrated Power Centers and	\$3,169,746.00	No
MS21017	MHX, LLC	9/29/2021	9/28/2030		\$1,900,000.00	\$1,900,000.00	Deploy up to 10 Zero-Emission Trucks & Infr	\$0.00	No
MS21018	Pac Anchor Transportation, Inc.	8/17/2021	8/16/2027	8/16/2028	\$2,100,000.00	\$1,440,000.00	Deploy up to 21 Near Zero Emission Trucks	\$660,000.00	No
MS21019	Volvo Financial Services	3/31/2022	3/30/2030		\$3,930,270.00	\$2,095,869.15	Lease up to 14 Zero-Emission Trucks and P	\$1,834,400.85	No
MS21023	BNSF Railway Company	4/22/2022	4/21/2028	4/21/2029	\$1,313,100.00	\$0.00	Install EV Charging Infrastructure	\$1,313,100.00	No

Total: 12

Declined/Cancelled Contracts

MS21008	CMA CGM (America) LLC				\$3,000,000.00	\$0.00	Deploy 2 Zero-Emission Rubber Tire Gantry	\$3,000,000.00	No
MS21011	RDS Logistics Group	1/21/2022	7/20/2028		\$808,500.00	\$0.00	Deploy 3 Zero-Emission Yard Tractors and	\$808,500.00	No
MS21012	Amazon Logistics, Inc.				\$4,157,710.00	\$0.00	Deploy up to 10 Zero-Emission and 100 Nea	\$4,157,710.00	No
MS21020	Sea-Logix, LLC				\$2,300,000.00	\$0.00	Deploy up to 23 Near-Zero Emssions Trucks	\$2,300,000.00	No
MS21021	CMA CGM (America) LLC				\$1,946,463.00	\$0.00	Deploy up to 13 Near Zero Emission Trucks	\$1,946,463.00	No
MS21022	Orange County Transportation Autho				\$289,054.00	\$0.00	Implement Special Transit Service to the Or	\$289,054.00	No

Total: 6

Closed Contracts

MS21001	Los Angeles County MTA	8/30/2019	7/29/2020		\$613,752.87	\$613,752.87	Implement Special Transit Service to Dodge	\$0.00	Yes
MS21003	Orange County Transportation Autho	7/8/2020	5/31/2021		\$468,298.00	\$241,150.48	Provide Express Bus Service to the Orange	\$227,147.52	Yes
MS21004	Los Angeles County MTA	1/7/2021	5/31/2023		\$814,822.00	\$326,899.00	Clean Fuel Bus Service to Dodger Stadium	\$487,923.00	Yes

Total: 3

Open/Complete Contracts

MS21007	Penske Truck Leasing Co., L.P.	4/1/2022	3/31/2028		\$957,813.00	\$957,812.40	Deploy 5 Zero-Emission Yard Tractors	\$0.60	Yes
MS21014	Green Fleet Systems, LLC	8/31/2021	8/30/2027	8/30/2028	\$300,000.00	\$300,000.00	Deploy up to 3 Near Zero Emission Trucks	\$0.00	Yes
MS21025	Costco Wholesale Corporation	12/9/2022	12/8/2028		\$160,000.00	\$160,000.00	Install Five EV Charging Units	\$0.00	Yes

Total: 3

Cont.#	Contractor	Start Date	Original End Date	Amended End Date	Contract Value	Remitted	Project Description	Award Balance	Billing Complete?
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FY 2021-2024 Contracts

Open Contracts

MS24001	Los Angeles County MTA	1/26/2023	5/31/2028		\$1,200,248.00	\$0.00	Provide Clean Fuel Bus Service to Dodger S	\$1,200,248.00	No
MS24002	South Pasadena Police Department	1/16/2024	5/15/2030		\$499,789.00	\$0.00	Procure Zero-Emission Vehicles and Infrastr	\$499,789.00	No
MS24003	Omnitrans	4/15/2024	10/30/2025		\$315,278.00	\$0.00	Bloomington Microtransit Service Expansion	\$315,278.00	No
MS24004	City of Seal Beach	12/21/2023	9/30/2025		\$162,891.00	\$0.00	Circuit Transit Shared Mobility	\$162,891.00	No
MS24005	City of Huntington Beach	7/1/2024	9/1/2026		\$279,186.00	\$0.00	Circuit Transit Rideshare Program	\$279,186.00	No
MS24006	Anaheim Transportation Network	10/12/2023	5/31/2025		\$322,000.00	\$0.00	Old Towne Orange Microtransit Service	\$322,000.00	No
MS24008	City of Long Beach	3/19/2024	1/31/2026		\$410,734.00	\$0.00	Circuit Transit Mobility Transit Expansion Pr	\$410,734.00	No

Total: 7

Pending Execution Contracts

MS24007	City of Gardena				\$424,134.00	\$0.00	Gtrans Microtransit Service	\$424,134.00	No
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Total: 1



AB2766 Discretionary Fund Program Invoices

4/25/24 to 5/29/24

Contract Admin.	MSRC Chair	MSRC Liaison	Finance	Contract #	Contractor	Invoice #	Amount
<i>2016-2018 Work Program</i>							
4/25/2024	5/16/2024	5/16/2024	5/21/2024	MS18024	Riverside County Transportation Commission	03683	\$40,800.00
Total: \$40,800.00							
<i>2018-2021 Work Program</i>							
5/16/2024	5/16/2024	5/16/2024	5/21/2024	MS21002	Better World Group Advisors	WG-MSRC4	\$1,965.70
5/1/2024	5/16/2024	5/16/2024	5/21/2024	MS21006	Geographics	24-23644	\$373.00

Total: \$2,338.70

Total This Period: \$43,138.70



**MOBILE SOURCE AIR POLLUTION REDUCTION REVIEW COMMITTEE
THURSDAY, JANUARY 18, 2024 MEETING MINUTES
21865 Copley Drive, Diamond, Bar, CA 91765**

MEMBERS PRESENT:

(Chair) Larry McCallon, representing San Bernardino County Transportation Authority (SBCTA)
(Vice-Chair) Brian Berkson, representing Riverside County Transportation Commission (RCTC)
Curt Hagman, representing South Coast AQMD
Patrick Harper, representing Orange County Transportation Authority (OCTA)
Rena Lum (Alt.), representing Los Angeles County Metropolitan Transportation Authority (Metro)
Peter Christensen (Alt.), representing California Air Resources Board (CARB)

MEMBERS ABSENT:

Mark Henderson representing SCAG
William Robertson, representing CARB
Cindy Allen (Alt.), representing SCAG
Steve Veres, representing Metro
Katrina Foley (Alt.), representing OCTA
Linda Krupa (Alt.), representing RCTC
John Dutrey (Alt.), representing SBCTA

MSRC-TAC MEMBERS PRESENT:

Steven Lee, representing Metro
Rongsheng Luo, representing SCAG
Kelly Lynn, representing SBCTA
Minh Le, representing County of Los Angeles
Adriann Cardoso, representing OCTA

OTHERS PRESENT:

Avinash Chung
Chris Yu
Edwin Harte, So Cal Gas
Lauren Dunlap
Louis Zhao, OCTA

Mike Martinez
Owen Frazier, TRC Companies
Paul Lin
Sam Emmersen, Better World Group
Samira R, So Cal Gas
SBCCOG
Valerie Rivera
Jack Symington, LACI
Jereas Musharbash, Airport Mobil Towing

SOUTH COAST AQMD STAFF & CONTRACTORS PRESENT:

Anish Pathak, Financial Analyst
Cynthia Ravenstein, MSRC Contracts Administrator
Daniel Penoyer, Air Quality Specialist
Daphne Hsu, Principal Deputy District Counsel
Debra Ashby, Sr. Public Affairs Specialist
Donna Vernon, Administrative Assistant
Karen Sandoval, Financial Analyst
Kristin Remy, Sr. Administrative Assistant
Lane Garcia, Program Supervisor
Laurence Brown, Air Quality Specialist
Marjorie Eaton, Administrative Assistant
Matt Mackenzie, MSRC Contracts Assistant
Michael Miller, Board Member Assistant
Paul Wright, Sr. Information Technology Specialist
Ray Gorski, MSRC Technical Advisor-Contractor
Sindy Enriquez, MSRC Contracts Assistant
Walter Shen, Planning & Rules Manager

CALL TO ORDER

- Chair McCallon called the meeting to order at 2:00 p.m.
- Roll call was taken at the start of the meeting.
- Chair McCallon asked the committee for any opening comments.

No opening comments.

- Chair McCallon asked for disclosures.

Item #3 – MSRC Member Curt Hagman said he does not have a financial interest, but is required to identify for the record that he is a member of the Board of Directors for Omnitrans, which is involved in this item.

Items #9 and 10 – MSRC Member Curt Hagman said he does not have a financial interest, but is required to identify for the record that he is a member of the Governing Board for the South Coast AQMD, which is involved in this item.

Item #3 – MSRC Chair Larry McCallon said he does not have a financial interest, but is required to identify for the record that he is a member of the Board of Directors for Omnitrans, which is involved in this item.

Items #9 and 10 – MSRC Chair Larry McCallon said he does not have a financial interest, but is required to identify for the record that he is a member of the Governing Board for the South Coast AQMD, which is involved in this item.

Item #9 – MSRC Alternate Member Rena Lum said she does not have a financial interest, but is to identify for the record that she is an employee for the Los Angeles County Metropolitan Transportation Authority, which is involved in this item.

- Chair McCallon asked for public comment on the Consent Calendar.

No public comment.

CONSENT ITEMS (Items 1 through 9):**Information Only – Receive and Approve**

1. Minutes of October 9, 2023 MSRC Meeting

Moved by Hagman; seconded by Harper; under approval of Consent Calendar Items #1-8, item unanimously approved.

Ayes: Hagman, Harper, Lum, Christensen, Berkson, McCallon

Noes: None

Action: Staff will include the minutes of the October 9, 2023 MSRC Meeting in the MSRC Committee Report for the February 2, 2024 South Coast AQMD Board meeting.

2. Consider Adoption of 2024 Meeting Schedules

Moved by Hagman; seconded by Harper; under approval of Consent Calendar Items #1-8, item unanimously approved.

Ayes: Hagman, Harper, Lum, Christensen, Berkson, McCallon

Noes: None

Action: No further action is required.

3. Summary of Final Reports by MSRC Contractors

- Omnitrans, Contract #MS18180 (\$83,000 - Maintenance Facility Improvements)
- Costco Wholesale Corp., Contract #MS21025 (\$160,000 - Install Five EV Charging Units)

Moved by Hagman; seconded by Harper; under approval of Consent Calendar Items #1-8, item unanimously approved.

Ayes: Hagman, Harper, Lum, Christensen, Berkson, McCallon

Noes: None

Action: No further action is required.

Information Only – Receive and File**4. MSRC Contracts Administrator's Report**

The MSRC AB 2766 Contracts Administrator's Report for September 28, 2023 through January 3, 2024 was included in the agenda package.

Moved by Hagman; seconded by Harper; under approval of Consent Calendar Items #1-8, item unanimously approved.

Ayes: Hagman, Harper, Lum, Christensen, Berkson, McCallon

Noes: None

Action: Staff will include the MSRC Contracts Administrator's Report in the

MSRC Committee Report for the February 2, 2024 South Coast AQMD Board meeting.

5. Financial Report on AB 2766 Discretionary Fund

A financial report on the AB 2766 Discretionary Fund for December 2023 was included in the agenda package.

Moved by Hagman; seconded by Harper; under approval of Consent Calendar Items #1-8, item unanimously approved.

Ayes: Hagman, Harper, Lum, Christensen, Berkson, McCallon

Noes: None

Action: No further action is required.

6. Report on Outreach Activities

Summary of outreach, communications and policy activities undertaken by the Better World Group on behalf of MSRC for Fall 2023.

Moved by Hagman; seconded by Harper; under approval of Consent Calendar Items #1-8, item unanimously approved.

Ayes: Hagman, Harper, Lum, Christensen, Berkson, McCallon

Noes: None

Action: No further action is required.

For Approval – As Recommended

7. Consider Nine-Month Term Extension by City of Gardena (GTrans), Contract #MS8027 (\$365,000 - Install New Limited Access CNG Station, Modify Maintenance Facility & Train Mechanics)

GTrans requests approval of a nine-month term extension due to longer than anticipated time for delivery of electrical switchgear box and subsequent delays with permits and inspections. This contract was previously extended a total of 28 months.

Moved by Hagman; seconded by Harper; under approval of Consent Calendar Items #1-8, item unanimously approved.

Ayes: Hagman, Harper, Lum, Christensen, Berkson, McCallon

Noes: None

Action: MSRC staff will amend the above contract accordingly.

8. Consider 18-Month Term Extension by MHX, LLC, Agreement #MS21010 (\$569,275 - Deploy One Zero Emission Overhead Crane)

MHX requests an 18-month term extension due to supply chain challenges. This agreement has not previously been extended.

Moved by Hagman; seconded by Harper; under approval of Consent Calendar Items #1-8, item unanimously approved.

Ayes: Hagman, Harper, Lum, Christensen, Berkson, McCallon

Noes: None

Action: MSRC staff will amend the above contract accordingly.

ACTION ITEMS (Items 9 through 10):

9. Consider a Cooperative Agreement with Los Angeles County Metropolitan Transportation Authority (Metro) to Pursue Funding Opportunities and Proposals for a Los Angeles County Heavy-Duty Truck Electrified and Alternative Fuel Transportation System

Ray Gorski, MSRC Technical Advisor, said this item is to enter into a cooperative agreement with Metro to establish a framework for MSRC and Metro to pursue joint opportunities in the future. This could include partnering to develop and co-fund a joint Request for Proposals (RFP) or to pursue outside funding opportunities including co-funding MSRC projects.

Metro has recommitted \$50 million for an I-710 Clean Truck Program. Metro's CEO has issued direction to collaborate with local and regional stakeholders to develop programs to deploy zero-emission trucks in the I-710 corridor as soon as possible. This presents a great opportunity because the MSRC's interest in the development of publicly accessible zero-emission infrastructure is directly aligned with Metro's commitment to have zero-emission trucks deployed along the I-710.

The cooperative agreement has been fully vetted through both the South Coast AQMD legal office as well as the Los Angeles County Counsel. The MSRC-TAC recommends MSRC approve the cooperative agreement.

Chair McCallon asked if the agreement commits the MSRC to a certain amount of funds. Mr. Gorski answered that it does not. The MSRC has unallocated discretionary resources and we feel that there is a potential opportunity to partner and jointly co-fund projects which mutually benefit both parties.

Chair McCallon asked if third parties will be involved. Mr. Gorski answered absolutely third parties will be involved. The types of projects that both entities are

interested in pursuing are those which place zero emission infrastructure along the I-710 corridor to support goods movement between the maritime ports and the Inland Empire. This would include participation with infrastructure developers, site owners and potentially trucking firms which will utilize the charging infrastructure.

MSRC Member Patrick Harper asked why do we need an agreement and can we do this without an agreement? Mr. Gorski answered that the agreement is necessary for Metro to legally transfer money to the South Coast AQMD on behalf of the MSRC.

Mr. Harper asked why does the money need to be transferred from LA Metro to us? Mr. Gorski answered that, for example, the MSRC will take the responsibility for administering any programs which come out of that RFP and would utilize funding from both agencies.

Chair McCallon asked for public comments on this item.

No comments.

Moved by Hagman for the MSRC to approve and execute a joint cooperative agreement with Metro to pursue projects of mutual benefit; seconded by Berkson; item unanimously approved.

Ayes: Hagman, Harper, Lum, Christensen, Berkson, McCallon

Noes: None

Action: MSRC staff will place the cooperative agreement on the February 2, 2024 South Coast AQMD Board agenda for approval

10. Consider Partnering with Respondents to MSRC RFI 2023-01, Publicly Accessible Goods Movement Zero-Emission Infrastructure, in seeking funding under the South Coast AQMD Carl Moyer Program Announcement PA2024-02, Zero-Emission Infrastructure Program

Ray Gorski, MSRC Technical Advisor, presented that in December 2023, South Coast AQMD released a Carl Moyer Program Announcement for the construction of zero-emission infrastructure. This program to support the development of electric charging and hydrogen refueling to support medium and heavy duty zero emission vehicles has a value of up to \$200 million. This funding flows from the California Air Resources Board to the South Coast AQMD. This solicitation has a closing date of February 6, 2024. Today's action is requested because of the timeliness of this program opportunity which is offered by the South Coast AQMD.

This is a good opportunity for the MSRC to work with the South Coast AQMD to fund projects which were submitted to the MSRC under MSRC's publicly accessible

zero-emission infrastructure RFI. This would allow the MSRC to leverage the amount of discretionary funds and expand the number of projects under this RFI.

The MSRC did not meet in December, but the MSRC-TAC met. There was a vetting process for the RFI respondents to determine which projects should move forward for Carl Moyer consideration. The MSRC-TAC authorized staff to look at all the projects that were currently unfunded by the MSRC that were deemed near shovel-ready and conformed with the guidelines of the Carl Moyer program to negotiate a potential MSRC co-funding amount with that project respondent and seek approval from the MSRC-TAC. The MSRC-TAC recommends approval of the recommendations that were put forth to them.

MSRC Member Hagman stated that he understands what was done, but a special meeting could have been called. When looking for policy direction from a board, at least that should be brought up. It deserved a phone call to the Chair and ask if you want to hold a special meeting. We can ratify this action and take approval on it, but it is still a policy; it should take policy direction to move forward.

Ray Gorski answered that in the spirit of disclosure, what happened was there was an MSRC meeting scheduled, and it was canceled. There was the intent to bring this to you.

Under this process, there are three RFI responses which were both compatible with the requirements of the South Coast AQMD Carl Moyer program and were also entities which approached the MSRC for potential partnering on a joint program. The three respondents are Southern California Gas Company, Penske Truck Rental and Pilot Company/Flying J.

Southern California Gas Company is proposing to develop a hydrogen refueling station in Pico Rivera which would support heavy duty zero emission trucks. This would be co-located with an existing So Cal Gas renewable natural gas refueling facility. The final design is looking to produce 1,200 kg per day of refueling capacity and up to 48 hours of storage capacity.

Penske Truck Rental has proposed to develop 20 sites with a total of 114 DC fast-chargers. There is a broad-based geographic distribution through the South Coast AQMD region. The chargers are dual port, and the project will also include solar, electricity generation and energy storage using outside batteries.

MSRC Member Hagman asked if Penske has an electric truck fleet. Mr. Gorski answered that Penske is one of the larger fleets to deploy electric vehicles.

Chair McCallon asked if these chargers will be publicly accessible or just to Penske trucks. Mr. Gorski answered these are going to be accessible under a business model which will allow all the trucks which are leased through the Penske organization to charge anywhere throughout their entire charging network. Not unique to Penske, it will not be open 24 hours, 7 days a week to any truck. The different business models that are being looked at for doing zero emission truck charging usually have some restriction, due to liability concerns or access. Many do require having an agreement with the entity which owns that infrastructure.

Pilot/Flying J is a hydrogen station proposed for construction in Rialto along the I-210 corridor. This will be co-located with the Pilot Travel Center which is currently under construction. This has proximity to major distribution centers within a 1.5-mile radius. This will be available to the public but is more conducive to trucking since it is at a truck stop.

Chair McCallon commented that we need the ability to fuel cars too.

MSRC Vice-Chair Brian Berkson commented that he has a Flying J in his city and they segregate the truck area from the passenger vehicle area. He doesn't see anyone with a car fueling up at the Flying J.

Mr. Gorski responded that he could put together some information that shows what the hydrogen refueling availability is like for light duty passenger vehicles within the South Coast AQMD region.

Mr. Berkson asked if the MSRC could add a caveat which would require Pilot/Flying J, if approved, to provide a pump for passenger cars as well.

Mr. Gorski answered that the MSRC has the discretion to request anything they like. However, this solicitation is for goods movement trucks. They responded to the MSRC's RFI which focused on Class 8 tractors.

MSRC Member Patrick Harper commented that in the staff report it says the site is ideally located to address the fueling needs of large fleets, owner operators and everyday commuters.

Chair McCallon asked that we clarify and inquire about refueling passenger vehicles. We need something in that area to refuel hydrogen cars.

Ray Gorski continued with the funding requests for the three projects. He explained that in comparison to the funding requests that were in their original responses to MSRC's solicitation, the amounts now requested are 50% of those values. If you are able to leverage the MSRC funding with another color of money, it will allow you to

only spend half of what you would have under your own RFI.

The requests are as follows: Southern California Gas Company is requesting \$6 million to co-fund the hydrogen refueling station in Pico Rivera, Penske Truck Rental is requesting \$17.98 million to co-fund the construction of 20 electric vehicle charging facilities, and Pilot/Flying J is requesting \$3 million to implement the hydrogen station they are proposing for their travel center in Rialto. The MSRC funding contribution will be leveraged by at least 75%.

Mr. Gorski states that they have very detailed breakdown of costs that can be made available upon request. One of the things included in the RFI was for them to discuss the working relationship and the status of working with the power utility companies. In most cases, they are looking to utilize the Charge Ready transport funding which is available if you are in the SCE area, or working with the LADWP if you are in the greater Los Angeles area, or their municipal utility. They are all actively pursuing to ensure that power is available at the site for them to complete these projects.

Mr. Gorski continued his presentation with the status of MSRC zero emission infrastructure RFI-completed actions. The targeted amount the MSRC set aside is \$50 million. More than 376 DC fast chargers and 19 hydrogen refueling dispensers are currently funded by the MSRC under MSRC's Work Program. The total project cost for these projects is \$215 million; the MSRC's investment is \$14.7 million. This illustrates what you have been able to fund for \$14.7 million out of your \$50 million.

MSRC did not do this all on its own. There was a partnership with the California State Transportation Agency, the Port of Los Angeles and Metro to bring \$45 million of additional funding to the table and this does not include the co-funding brought from the project implementers.

There are pending actions you will be asked to consider very soon. MSRC staff is working with the San Pedro Bay Ports to fund additional MSRC sites which would include 244 total charging stations at a total project cost of \$140.5 million. Staff is working with both ports to develop and execute a Memorandum of Understanding allowing funding to flow between the parties. The projects will be administered by the MSRC on behalf of the partnership with the San Pedro Bay Ports. Additional funding from the ports of \$28.5 million. The MSRC investment will be zero; this money which is flowing from the San Pedro Bay Ports to fund programs which are being solicited and implemented by the MSRC.

Today's action is the partnership with the MSRC, project proponents and the South Coast AQMD Carl Moyer program. This lists 22 locations and if are all successful, an additional 228 charging sites and 8 hydrogen refueling stations. Total amount of MSRC funding is \$26.98 million. Total project investment is greater than \$93

million.

Mr. Hagman asked of the \$26 million asking today in this item, is this all MSRC dollars?

[Mr. Gorski misspoke, apparently responding to all the types of funding which would be applied to the projects. \$26.9 million is the MSRC contribution towards the identified projects as stated in the staff report attached to the agenda.] It is going to be a combination of MSRC dollars, co-funding by project proponents and the South Coast AQMD Carl Moyer program.

If the MSRC is 100% successful and each of the three projects for your consideration today are funded by the Carl Moyer program, and the MSRC is able to move forward in developing relationships with the Ports, the total number of project locations will be 40. The number of electric vehicle chargers will be greater than 848. MSRC total funding would be \$41.6 million. Total project investment would be \$450 million.

The recommended steps are as follows: 1) approve the MSRC-TAC recommendation to enter into agreements and partner with Southern California Gas, Penske Truck Rental and Pilot Company/Flying J in pursuit of Carl Moyer funding, 2) complete MOU Partnership with San Pedro Bay Ports which will allow us to fund additional projects and, 3) monitor Carl Moyer award status to see which of those projects has the potential for moving forward.

MSRC Alternate Peter Christensen recommended both on the hydrogen and electric side to leverage our ability to ensure station reliability and minimize downtime because while these stations are great to have, they are no good if they are not operating. He encouraged the team to think about this as they prepare the agreements. His last recommendation is to coordinate, when appropriate, with the California Energy Commission as CARB's sister agency that plans and implements a lot of infrastructure development in California.

Mr. Gorski commented that if CARB has guidance for hydrogen station reliability, we want to work with you to use that as a point of departure for discussions with project proponents.

Chair McCallon asked for public comment on this item.

No public comment.

Moved by Hagman to 1) approve the MSRC-TAC recommendation to enter into agreements and partner with Southern California Gas, Penske Truck Rental and Pilot Company/Flying J in pursuit of Carl Moyer funding 2) complete MOU

Partnership with San Pedro Bay Ports which will allow MSRC to fund additional projects and 3) monitor Carl Moyer award status to see which of those projects has the potential for moving forward; seconded by Berkson, item unanimously approved.

Ayes: Hagman, Harper, Lum, Christensen, Berkson, McCallon

Noes: None

Action: Staff will place the funding allocations on the February 2, 2024 South Coast AQMD Board agenda for approval

OTHER BUSINESS:

11. Other Business

PUBLIC COMMENT PERIOD

Jereas Musharbash of Airport Mobil Towing in Ontario, California. One of the first towing companies to convert all trucks to CNG. Asking for help with the Carl Moyer Program.

Ray Gorski stated that we have South Coast AQMD Technology Advancement Office (TAO) representatives currently participating and we can coordinate with them. Chair McCallon confirmed that TAO will reach out to Mr. Musharbash.

ADJOURNMENT

The meeting adjourned at 2:52 p.m.

NEXT MEETING

Thursday, February 15, 2024 at 2:00 p.m.

[Prepared by Marjorie Eaton]

BOARD MEETING DATE: August 2, 2024

AGENDA NO. 25

PROPOSAL: Determine That Proposed Amended Rule 1148.1 – Oil and Gas Production Wells, Is Exempt from CEQA; and Amend Rule 1148.1

SYNOPSIS: Rule 1148.1 – Oil and Gas Production Wells applies to facilities that operate oil and gas wells. Proposed Amended Rule 1148.1 (PAR 1148.1) will address objectives of the Community Emission Reduction Plan for the AB 617 community, Wilmington, Carson, and West Long Beach. PAR 1148.1 enhances leak detection provisions, establishes NO_x limits for equipment that uses produced gas, and establishes requirements for workover rigs. PAR 1148.1 also bans the use of odorants, requires leak notifications, and updates signage requirements.

COMMITTEE: Stationary Source, May 17, 2024, Reviewed

RECOMMENDED ACTIONS:

Adopt the attached Resolution:

1. Determining that Proposed Amended Rule 1148.1 – Oil and Gas Production Wells, is exempt from the requirements of the California Environmental Quality Act; and
2. Amending Rule 1148.1 – Oil and Gas Production Wells.

Wayne Nastri
Executive Officer

SR:MK:MM

Background

Rule 1148.1 was adopted on March 5, 2004, to reduce VOC emissions from wellheads and well cellars located at oil and gas production facilities. The rule requires increased inspection and maintenance, and control of produced gas emissions, with additional regulatory considerations when located within 100 meters of sensitive receptors.

Rule 1148.1 was amended on September 4, 2015, to provide enforceable mechanisms to reduce odor nuisance potential from emissions associated with oil and gas production facility operations. The 2015 amendment focused on the use of odor mitigation best practices; required facilities located within 1,500 feet of a sensitive receptor to conduct

and submit a specific cause analysis for any confirmed odor event; and required facilities with continuing odor issues to develop and implement an approved Odor Mitigation Plan.

Two AB 617 communities, Wilmington, Carson, West Long Beach (WCWLB) and South Los Angeles (SLA), included objectives to address oil and gas well activities in their Community Emissions Reduction Plans (CERP). Proposed Amended Rule 1148.1 (PAR 1148.1) was developed to address CERP objectives related to increased monitoring of well activities, the use of lower emission or zero-emission equipment, and the elimination of odorants. PAR 1148.1 also addresses the 2022 Air Quality Management Plan Control Measure FUG-01: Improved Leak Detection and Repair by requiring enhanced monitoring of well sites.

Public Process

The development of PAR 1148.1 was conducted through a public process. Four Working Group Meetings were held on: April 20, 2023, September 14, 2023, December 14, 2023, and April 11, 2024. In addition, staff participated in AB 617 Community Steering Committee (CSC) Meetings to notify and update CSC members on the rule development process and progress on CERP objectives. Stakeholders include representatives from the community, environmental organizations, industry representatives, and government agencies. Staff also met individually with industry stakeholders and visited sites affected by the rule development process. A Public Workshop was held on February 1, 2024, where staff presented the proposed rule to the general public and stakeholders, and received comments related to the proposal.

Proposal

PAR 1148.1 will require the use of enhanced leak detection technology with Optical Gas Imaging (OGI) inspections monthly, establish NO_x limits for equipment that uses produced gas, and source tests requirements. PAR 1148.1 will also require that workover rigs meet Tier 4 Final diesel engine standards, bans the use of odorants that are used to mask odors emanating from oil production sites, require submitting a notification for quantified leaks greater than 25,000 ppm VOC, adds new definitions to add clarity, updates signage requirements, and makes minor changes to rule language for consistency and clarity. Implementation of PAR 1148.1 is expected to result in emission reductions of 0.27 tons per day of VOC by 2025 and 0.51 tons per day of NO_x by 2027.

Key Issues

Through the rulemaking process, staff has worked with stakeholders to address and resolve issues. Staff is not aware of any remaining key issues.

California Environmental Quality Act

Pursuant to the CEQA Guidelines sections 15002(k) and 15061, PAR 1148.1 is exempt from CEQA pursuant to CEQA Guidelines Section 15061(b)(3). A Notice of Exemption has been prepared pursuant to CEQA Guidelines section 15062 and is included as Attachment H to this Board letter. If PAR 1148.1 is approved, the Notice of Exemption

will be filed for posting with the county clerks of Los Angeles, Orange, Riverside, and San Bernardino counties, and with the State Clearinghouse of the Governor's Office of Planning and Research.

Socioeconomic Impact Assessment

Approximately 323 facilities are subject to PAR 1148.1 with all belonging to the Oil and Gas Extraction (NAICS 211) sector. Out of the 323 facilities, up to 255 facilities may qualify as a small business based on various small business definitions. The key requirements of PAR 1148.1 that would have cost impacts for the affected facilities include: 1) conducting periodic OGI inspections; 2) purchasing and installing 3-way catalysts; 3) retrofitting workover rigs with Tier 4 Final engines; and 4) conducting periodic maintenance on equipment. The total present value of compliance costs of implementing PAR 1148.1 during the 2025-2046 period is estimated to be \$92.0 million and \$66.4 million at a 1% and 4% discount rate, respectively. The annual average compliance costs of PAR 1148.1 are estimated to range from \$4.1 million to \$4.7 million at a 1% to 4% real interest rate, respectively. When the compliance costs are amortized using a 4% real interest rate, 28 net jobs are forecasted to be foregone annually in the four-county region during the 2025-2046 period, relative to the baseline scenario. The impact of PAR 1148.1 on production costs and delivered prices in the South Coast AQMD region is expected to be minimal. The details of the Final Socioeconomic Impact Assessment can be found in Attachment I to this Board Letter.

AQMP and Legal Mandates

Under Health and Safety Code section 40460(a), the South Coast AQMD is required to adopt an AQMP demonstrating compliance with all federal regulations and standards. The South Coast AQMD is required to adopt rules and regulations that carry out the objectives of the AQMP. PAR 1148.1 addresses the 2022 Air Quality Management Plan Control Measure FUG-01: Improved Leak Detection and Repair by requiring monthly monitoring of well sites with the use of OGI technology.

Implementation and Resource Impact

Existing staff resources are adequate to implement the proposed amended rule.

Attachments

- A. Summary of Proposal
- B. Key Issues and Responses
- C. Rule Development Process
- D. Key Contacts List
- E. Resolution
- F. Proposed Amended Rule 1148.1
- G. Final Staff Report
- H. Notice of Exemption from CEQA
- I. Final Socioeconomic Impact Assessment
- J. Board Presentation

ATTACHMENT A

SUMMARY OF PROPOSAL

Proposed Amended Rule 1148.1 – Oil and Gas Production Wells

Applicability

- Deleted the phrase “processed gas” and added the phrase “produced gas” for clarity and consistency

Requirements

- Updated signage requirements for specific installation locations and lettering size
- Maintain equipment free of visible vapors
- Establish emission limits for NO_x of 11 ppmv at 15% oxygen for any engine that is powered by produced gas that is used to operate an oil producing or injection well
- Establish emission limits for NO_x of 9 ppmv at 15% oxygen for any stationary gas turbine or fuel cell that is powered by produced gas
- Emissions from workover rig meet at least a Tier 4 Final standard
- Ban odorants and limit use of neutralizing agents to products that do not contain air toxics
- Notification for leaks greater than 25,000 ppm VOC

Operator Inspection Requirements

- Monthly Optical Gas Imaging inspections

Testing Requirements

- Source testing requirements and frequency for engines and microturbines

Exemptions

- Added exemption from source testing of microturbines that are certified by CARB’s Distributed Generation Certification Program

ATTACHMENT B

KEY ISSUE AND RESPONSE

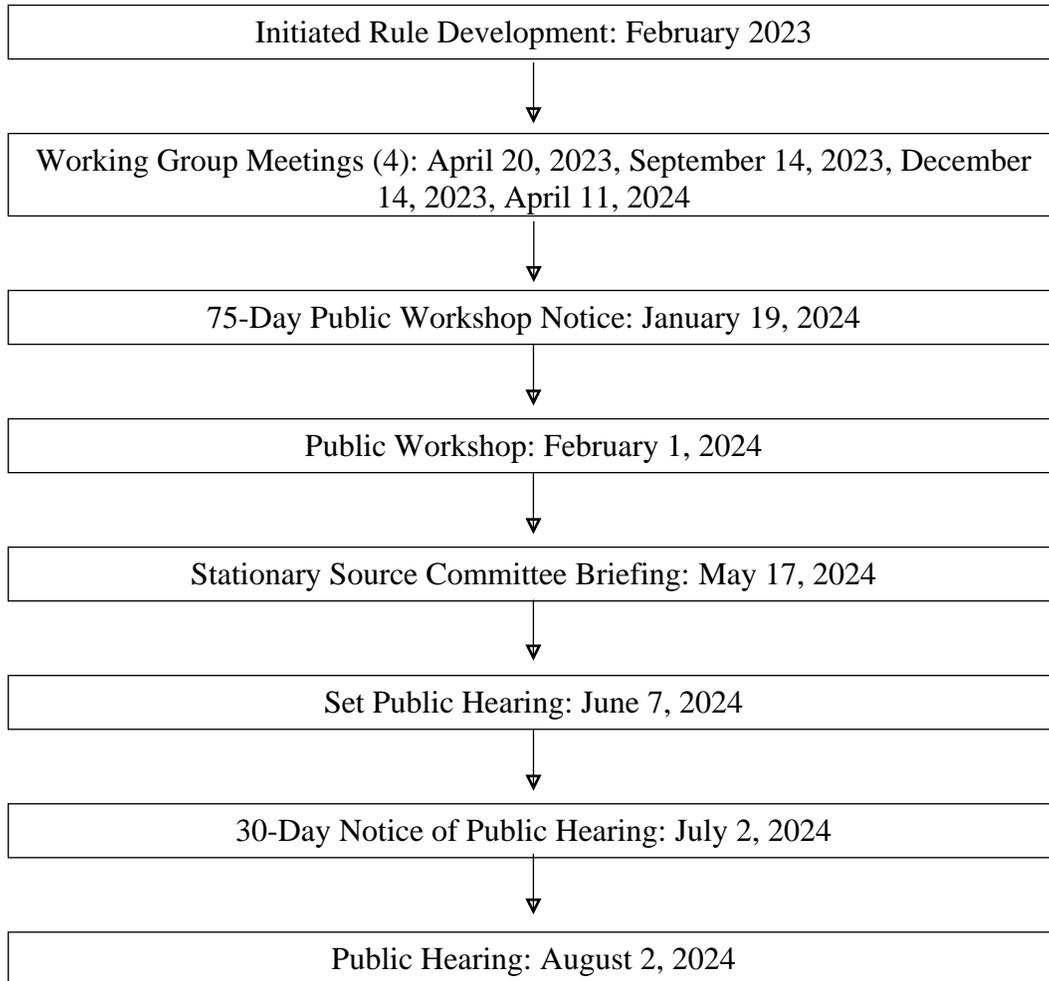
Proposed Amended Rule 1148.1 – Oil and Gas Production Wells

Throughout the rulemaking process, staff worked with stakeholders to resolve key issues. Staff is not aware of any key remaining issues.

ATTACHMENT C

RULE DEVELOPMENT PROCESS

Proposed Amended Rule 1148.1 – Oil and Gas Production Wells



Seventeen (17) months spent in rule development

Four (4) Working Group Meetings

One (1) Public Workshop

One (1) Stationary Source Committee Meeting

ATTACHMENT D

KEY CONTACTS LIST

Proposed Amended Rule 1148.1 – OIL AND GAS PRODUCTION WELLS
(listed alphabetically)

- Bridge Energy
- California Geologic Energy Management Division
- California Resources Corporation
- Center for Biological Diversity
- Communities for a Better Environment
- City of Los Angeles Planning Department
- E&B Natural Resources
- Esperanza Community Housing Corporation
- FracTracker Alliance
- Pacific Coast Energy Company, LP
- Redeemer Community Partnership
- Signal Hill Petroleum
- STAND-LA
- Warren Resources
- WG Holdings

ATTACHMENT E

RESOLUTION NO. 24-_____

A Resolution of the Governing Board of the South Coast Air Quality Management District (South Coast AQMD) determining that Proposed Amended Rule 1148.1 – Oil and Gas Production Wells, is exempt from the requirements of the California Environmental Quality Act (CEQA).

A Resolution of the South Coast AQMD Governing Board amending Rule 1148.1 – Oil and Gas Production Wells.

WHEREAS, the South Coast AQMD Governing Board finds and determines that Proposed Amended Rule 1148.1 is considered a “project” as defined by CEQA; and

WHEREAS, the South Coast AQMD 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 the proposed project pursuant to such program (South Coast AQMD Rule 110); and

WHEREAS, the South Coast AQMD Governing Board finds and determines that 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 1148.1 is exempt from CEQA; and

WHEREAS, the South Coast AQMD Governing Board finds and determines that because the analysis of the anticipated physical changes that may occur as a result of implementing the proposed project indicates that minimal to no construction activities are expected, it can be seen with certainty that Proposed Amended Rule 1148.1 would not cause a significant adverse effect on the environment, and is therefore, exempt from CEQA pursuant to CEQA Guidelines Section 15061(b)(3) – Common Sense Exemption; and

WHEREAS, the South Coast AQMD 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, the South Coast AQMD Governing Board has determined that the Final Socioeconomic Impact Assessment of Proposed Amended Rule 1148.1 is consistent with the March 17, 1989 Governing Board Socioeconomic Resolution for rule amendment; and

WHEREAS, the South Coast AQMD Governing Board has determined that the Final Socioeconomic Impact Assessment for Proposed Amended Rule 1148.1 is

consistent with the provisions of Health and Safety Code Sections 40440.8, 40728.5, and 40920.6; and

WHEREAS, the South Coast AQMD Governing Board has determined that Proposed Amended Rule 1148.1 will result in increased costs to the affected industries, yet such costs are considered to be reasonable, with a total annualized cost as specified in the Final Socioeconomic Impact Assessment; and

WHEREAS, the South Coast AQMD Governing Board has actively considered the Final Socioeconomic Impact Assessment for Proposed Amended Rule 1148.1 and has made a good faith effort to minimize such impacts; and

WHEREAS, the South Coast AQMD staff conducted a Public Workshop on February 1, 2024 regarding Proposed Amended Rule 1148.1; and

WHEREAS, Proposed Amended Rule 1148.1 and supporting documentation, including but not limited to, the Notice of Exemption, Final Staff Report, and Final Socioeconomic Impact Assessment were presented to the South Coast AQMD Governing Board and the South Coast AQMD 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 South Coast AQMD 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 modifications to Proposed Amended Rule 1148.1 clause (e)(6)(B)(ii) since the Notice of Public Hearing was published, clarify the reference to Rule 1173 subdivision (g) and change the formatting of numeric value for consistency are not so substantial as to significantly affect the meaning of Proposed Amended Rule 1148.1 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 the proposed project is exempt from CEQA; and

WHEREAS, Proposed Amended Rule 1148.1 will be submitted to California Air Resources Board (CARB) and United States Environmental Protection Agency (U.S. EPA) for inclusion into the State Implementation Plan; and

WHEREAS, Health and Safety Code Section 40727 requires that prior to adopting, amending, or repealing a rule or regulation, the South Coast AQMD 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 South Coast AQMD Governing Board has determined that a need exists to amend Rule 1148.1 to implement Best Available Retrofit Control

Technology, partially implement Control Measure FUG-01 of the 2022 Final Air Quality Management Plan, and fulfill commitments contained in the Wilmington, Carson, West Long Beach and South Los Angeles Community Emission Reduction Plans; and

WHEREAS, the South Coast AQMD Governing Board has determined that there is a problem that the proposed amended rule will alleviate, namely the failure to attain national ambient air quality standards for ozone and PM2.5, and that the rule will promote the attainment of state and federal ambient air quality standards; and

WHEREAS, the South Coast AQMD Governing Board obtains its authority to adopt, amend, or repeal rules and regulations from Health and Safety Code Sections 39002, 39650 et. seq., 40000, 40001, 40440, 40441, 40702, 40725 through 40728.5, 40920.6, and 41508; and

WHEREAS, the South Coast AQMD Governing Board has determined that Proposed Amended Rule 1148.1 is written and displayed so that its meaning can be easily understood by persons directly affected by it; and

WHEREAS, the South Coast AQMD Governing Board has determined that Proposed Amended Rule 1148.1 is in harmony with, and not in conflict with or contradictory to, existing statutes, court decisions, or state or federal regulations; and

WHEREAS, the South Coast AQMD Governing Board has determined that Proposed Amended Rule 1148.1 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 South Coast AQMD; and

WHEREAS, the South Coast AQMD Governing Board, in amending Rule 1148.1, references the following statute which the South Coast AQMD hereby implements, interprets or makes specific: Assembly Bill 617, Health and Safety Code Sections 39002, 40001, 40406, 40702, 40440(a), 40725 through 40728.5, 40920.6, and 41511; and

WHEREAS, Health and Safety Code Section 40727.2 requires the South Coast AQMD to prepare a written analysis of existing federal air pollution control requirements applicable to the same source type being regulated whenever it adopts, or amends a rule, and the South Coast AQMD's comparative analysis of Proposed Amended Rule 1148.1 is included in the Final Staff Report; and

WHEREAS, the Public Hearing has been properly noticed in accordance with all provisions of Health and Safety Code Sections 40725 and 40440.5; and

WHEREAS, the South Coast AQMD Governing Board has held a Public Hearing in accordance with all provisions of law; and

WHEREAS, the South Coast AQMD Governing Board specifies the Planning, Rule Development, and Implementation Manager overseeing the rule development for Proposed Amended Rule 1148.1 as the custodian of the documents or other materials which constitute the record of proceedings upon which the adoption of this

proposed project is based, which are located at the South Coast Air Quality Management District, 21865 Copley Drive, Diamond Bar, California; and

NOW, THEREFORE BE IT RESOLVED, that the South Coast AQMD Governing Board does hereby determine, pursuant to the authority granted by law, that Proposed Amended Rule 1148.1 is exempt from CEQA pursuant to CEQA Guidelines Section 15061(b)(3) – Common Sense Exemption. This information has been presented to the South Coast AQMD Governing Board, whose members exercised their independent judgment and reviewed, considered, and approved the information therein prior to acting on the proposed project; and

BE IT FURTHER RESOLVED, that the South Coast AQMD Governing Board does hereby adopt, pursuant to the authority granted by law, Proposed Amended Rule 1148.1 as set forth in the attached, and incorporated herein by reference; and

BE IT FURTHER RESOLVED, that the South Coast AQMD Governing Board requests that Proposed Amended Rule 1148.1 be submitted for inclusion in the State Implementation Plan; and

BE IT FURTHER RESOLVED, that the Executive Officer is hereby directed to forward a copy of this Resolution and Proposed Amended Rule 1148.1 and supporting documentation to CARB for approval and subsequent submittal to the U.S. EPA for inclusion into the State Implementation Plan.

DATE: _____

CLERK OF THE BOARDS

PROPOSED AMENDED RULE 1148.1. OIL AND GAS PRODUCTION WELLS

(a) Purpose

The purpose of this rule is to reduce emissions of volatile organic compounds (VOCs), toxic air contaminants (TAC) emissions and Total Organic Compounds (TOC) from the operation and maintenance of wellheads, well cellars, and the handling of produced gas at oil and gas production facilities to assist in reducing regional ozone levels and to prevent public nuisance and possible detriment to public health caused by exposure to such emissions.

(b) Applicability

This rule applies to onshore oil producing wells, well cellars and produced gas handling operation and maintenance activities at onshore facilities where petroleum and ~~processed~~ produced gas are produced, gathered, separated, processed and stored. These facilities are also subject to additional rule requirements, including, but not limited to: the storage of organic liquids is subject to Rule 463 – Organic Liquid Storage; wastewater systems, including sumps and wastewater separators are subject to Rule 1176 – VOC Emissions from Wastewater Systems; and leaks from components are subject to Rule 1173 – Control of Volatile Organic Compound Leaks and Releases from Components at Petroleum Facilities and Chemical Plants. Natural gas distribution, transmission and associated storage operations are not subject to the requirements of this rule.

(c) Definitions

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

(1) **ABANDONED WELL** is a well that has been certified by the California ~~Department of Conservation, Division of Oil, Gas and Geothermal Resources~~ Geologic Energy Management Division as permanently closed and non-operational.

(2) **CENTRAL PROCESSING AREA** is any location within an oil and gas production facility where pressurized phase separation or treatment of produced well fluids, including any produced oil, water or gas, occurs. A location that includes only oil producing wells and associated equipment not involved in pressurized phase separation or treatment, is not considered to be a central processing area.

- (3) COMPONENT is any valve, fitting, pump, compressor, pressure relief device, diaphragm, hatch, sight-glass, wellhead, stuffing box, or meter in VOC service. Components are further classified as:
 - (A) MAJOR COMPONENT is any 4-inch or larger valve, any 5-hp or larger pump, any compressor, and any 4-inch or larger pressure relief device.
 - (B) MINOR COMPONENT is any component which is not a major component.
- (4) CONFIRMED ODOR EVENT is an occurrence of odor resulting in three or more complaints by different individuals from different addresses, and the source of the odor is verified by ~~District~~ South Coast AQMD personnel.
- (5) CONFIRMED OIL DEPOSITION EVENT is an occurrence of property damage due to the airborne release of oil or oil mist from an oil and gas production facility, as verified by ~~District~~ South Coast AQMD personnel.
- (6) ENGINE is any spark- or compression-ignited internal combustion engine, including engines used for control of VOC's.
- (67) FACILITY is any equipment or group of equipment or other VOC-, TOC- or TAC-emitting activities, which are located on one or more contiguous properties within the ~~District~~South Coast AQMD, 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). Such above-described groups, if noncontiguous, but connected only by land carrying a pipeline, shall not be considered one facility.
- (8) FUEL CELL is a device that generates electricity through an electrochemical reaction, not combustion.
- (9) GAS HANDLING is the control or processing of produced gas for on-site or off-site use.
- (710) HEAVY LIQUID is any liquid with 10 percent or less VOC by volume evaporated at 150°C (302°F), determined according to test methods specified in paragraph ~~(+)(3)(j)(3)~~ or ~~(+)(4)(j)(4)~~.
- (811) LEAK is the dripping of either heavy or light liquid; or the detection of a concentration of TOC above background, determined according to the test method in paragraph ~~(+)(1)(j)(1)~~.
- (912) LIGHT LIQUID is any liquid with more than 10 percent VOC by volume evaporated at 150°C (302°F), determined according to the test method specified in paragraph ~~(+)(3)(j)(3)~~.

- (13) NEUTRALIZING AGENTS are chemical substances applied directly to the surface of the source of the odors in droplet or liquid form and are used to capture, destroy, and remove odorous molecules through a physio-chemical process that does not simply mask the odor.
- ~~(14)~~ (14) ODOR is the perception experienced by a person when one or more chemical substances in the air come into contact with the human olfactory nerves.
- (15) ODORANT is one or more chemical substances giving off a smell and that is deliberately used to mask another chemical substance's smell.
- ~~(16)~~ (16) OIL PRODUCING WELL is a well which produces crude oil.
- (17) OPTICAL GAS IMAGING (OGI) DEVICE is an infrared camera with a detector capable of visualizing gases in the 3.2-3.4 micrometer waveband.
- ~~(18)~~ (18) ORGANIC LIQUID is any liquid containing VOC.
- ~~(19)~~ (19) 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.
- ~~(20)~~ (20) RESPONSIBLE PARTY for a corporation is a corporate officer. A responsible party for a partnership or sole proprietorship is the general partner or proprietor, respectively.
- ~~(21)~~ (21) SENSITIVE RECEPTOR ~~means~~ is any residence including private homes, condominiums, apartments, and living quarters; education resources such as preschools and kindergarten through grade twelve (k-12) schools; licensed daycare centers; and health care facilities such as hospitals or retirement and nursing homes. A sensitive receptor includes long term care hospitals, hospices, prisons, and dormitories or similar live-in housing.
- ~~(22)~~ (22) SPECIFIC CAUSE ANALYSIS is a process used by an owner or operator of a facility subject to this rule to investigate the cause of a confirmed odor event or confirmed oil deposition event, identify corrective measures and prevent recurrence of a similar event.
- (23) STATIONARY GAS TURBINE is any gas turbine that is gas and/or liquid fueled with or without power augmentation. This gas turbine is either attached to a foundation at a facility or is portable equipment that will reside at the same location for more than 12 consecutive months.
- ~~(24)~~ (24) STUFFING BOX is a packing gland, chamber or "box" used to hold packing material compressed around a moving pump rod to reduce the escape of gas or liquid.

- (25) TIER 4 FINAL ENGINE is an engine subject to the final aftertreatment based Tier 4 emission standards in Title 13, Cal. Code Regs., Section 2423(b)(1)(B) and/or Title 40, CFR, Part 1039.101. This also includes engines certified under the averaging, banking, and trading program with respect to the Tier 4 FEL listed in Title 13, Cal. Code Regs., Section 2423(b)(2)(B) and/or Title 40, CFR, Part 1039.101.
- (1826) TOTAL ORGANIC COMPOUNDS (TOC) is the concentration of gaseous organic compounds determined according to the test method in paragraph (i)(1).
- (1927) TOXIC AIR CONTAMINANT (TAC) is an air contaminant that has been identified as a hazardous air pollutant pursuant to Section 7412 of Title 42 of the United States Code; or has been identified as a TAC by the California Air Resources Board (CARB) pursuant to Health and Safety Code Section 39655 through 39662; or which may cause or contribute to an increase in mortality or an increase in serious illness, or potential hazard to human health.
- (28) VISIBLE VAPORS are any VOC vapors detected visually by an operator or detected with an OGI device during a well cellar, wellhead, oil producing well, or water injection well inspection.
- (2029) VOLATILE ORGANIC COMPOUND is as defined in Rule 102 – Definition of Terms.
- (2130) WASTEWATER is a water stream or other liquid waste stream generated in a manner which may contain petroleum liquid, emulsified oil, VOC, or other hydrocarbons.
- (2231) WATER INJECTION WELL is a bored, drilled, or driven shaft, or a dug hole that is deeper than it is wide, or an improved sinkhole, or a subsurface fluid distribution system used to inject fluid consisting primarily of water into a reservoir typically to create fluid lift of product or maintain reservoir pressure.
- (2332) WELL CELLAR is a lined or unlined containment surrounding one or more oil wells, allowing access to the wellhead components for servicing and/or installation of blowout prevention equipment.
- (2433) WELLHEAD is an assembly of valves mounted to the casing head of an oil well through which a well is produced. The wellhead is connected to an oil production line and in some cases to a gas casing line.

(34) WORKOVER RIG is a mobile piece of equipment used to perform one or more operations on an oil producing well or water injection well.

(d) Requirements

- (1) The operator of an oil and gas production facility shall not allow a concentration of a TOC in the well cellar greater than 500 ppmv, according to the test method in paragraph ~~(j)(1)~~(j)(1).
- (2) The operator of an oil and gas production facility shall not allow any valve to be opened at the wellhead unless a portable container is used to catch and contain organic liquid that would otherwise drop into the well cellar or onto the ground. Such container shall be kept closed to the atmosphere when it contains organic liquid and is not in use.
- (3) If a well cellar is verified by ~~District~~ South Coast AQMD personnel as the source of odors associated with three or more complaints by different individuals from different addresses in a single day, the operator of an oil and gas production facility shall pump out or remove organic liquid accumulated in the well cellar as soon as possible but no later than by the end of the day.
- (4) The operator of an oil and gas production facility shall not allow organic liquid to be stored in a well cellar, except as provided by paragraph (d)(5). During any period of equipment maintenance, drilling, well plugging, abandonment operations, or well workover, the operator shall pump out or remove organic liquid that accumulates in the well cellar no later than two (2) days after the maintenance, drilling, well plugging, abandonment or workover activity at the well is completed.
- (5) The operator may only store organic liquid in a portable enclosed storage vessel if the vessel is equipped with air pollution control equipment to reduce the TOC emissions to less than 250 ppmv outlet concentration according to the test method in paragraph ~~(j)(1)~~(j)(1), except use of air pollution control equipment is not required during activities determined to meet the exemption criteria of paragraph ~~(j)(2)~~(k)(2). The operator shall conduct a TOC measurement according to the test method in paragraph ~~(j)(1)~~(j)(1) at the time of filling, and weekly thereafter to ensure that the air pollution control system achieves the emission standard of 250 ppmv.

- (6) The operator of an oil and gas production facility shall pump out any organic liquid accumulated in the well cellar immediately before a well is steamed or after a wellhead is steam cleaned.
- (7) The operator of an oil and gas production facility shall pump out or remove organic liquid accumulated in the well cellar when the TOC concentration in the well cellar is greater than 250 ppmv as determined by the test method in paragraph ~~(i)(1)(j)(1)~~ within five (5) calendar days following the determination, or if the well cellar is located within 1,500 feet of a sensitive receptor, by close of the following ~~business~~-day. In lieu of the method in paragraph ~~(i)(1)(j)(1)~~, an operator may measure the depth of accumulated organic liquid and pump-out the liquid when the depth exceeds two (2) inches. The organic liquid depth may be measured using a “copper coat” gauge or any other measuring instrument determined to be acceptable by the Executive Officer.
- (8) The operator of an oil and gas production facility shall not allow natural gas or produced gas to be vented into the atmosphere. The emissions of produced gas shall be collected and controlled using one of the following:
 - (A) A system handling gas for fuel, sale, or underground injection; or
 - (B) A device, approved by the Executive Officer, with a VOC vapor removal efficiency demonstrated to be at least 95% by weight per test method of paragraph ~~(i)(2)(j)(2)~~ or by demonstrating an outlet VOC concentration of 50 ppmv according to the test method in paragraph ~~(i)(1)(j)(1)~~ or by an equivalent demonstration identified in an approved permit issued on or after March 5, 2004, pursuant to Rule 203 – Permit to Operate. If the control device uses supplemental natural gas to control VOC, it shall be equipped with a device that automatically shuts off the flow of natural gas in the event of a flame-out or pilot failure.
- (9) Except as Rule 1173 – Control of Volatile Organic Compound Leaks and Releases from Components at Petroleum Facilities and Chemical Plants applies to components of produced gas handling equipment located within 100 meters of a sensitive receptor, the operator shall repair any gaseous leaks of 250 ppmv TOC or greater by the close of the ~~business~~-day following the leak discovery or take actions to prevent the release of TOC emissions to the atmosphere until repairs have been completed.

- (10) Unless approved in writing by the Executive Officer, CARB, and United States Environmental Protection Agency (U.S. EPA) as having no significant emissions impacts, no person shall:
- (A) Remove or otherwise render ineffective a well cellar at an oil and gas production well except for purposes of well abandonment to be certified by the ~~California Department of Conservation, Division of Oil, Gas and Geothermal Resources~~ Geologic Energy Management Division; or
- (B) Drill a new oil and gas production well unless a well cellar is installed for secondary containment of fluids.
- (11) ~~Effective October 4, 2015,~~ The operator of an oil and gas production facility shall utilize a rubber grommet designed for drill piping, production tubing or sucker rods to remove excess or free flowing fluid from piping, tubing or rods that are removed during any maintenance or piping, tubing or rod replacement activity that involves the use of a workover rig.
- (12) ~~Effective March 2, 2016,~~ The operator of an oil and gas production facility shall, for any central processing area located within 1,500 feet of a sensitive receptor, operate and maintain a monitoring system that alarms or notifies operators of key process conditions, such as operating pressure, liquid level or on/off operating status, or a monitoring system that is required in accordance with applicable local fire regulations, in order to ensure proper facility operation. The monitoring system shall alarm or notify operators at a central location, control center, or other common area. The owner or operator shall identify and document the monitored process parameters or monitoring system required by applicable local fire regulations and shall make such documentation available for inspection upon request.
- (13) Effective [six months from date of rule amendment]October 4, 2015, the operator of an oil and gas production facility shall ~~post instructions~~ install and maintain signage. Unless otherwise approved in writing by the Executive Officer, signage shall:~~for reporting odor complaints. The posted instructions shall be provided in a conspicuous manner and under such conditions as to make it likely to be read or seen and understood by an ordinary individual during both normal operating and non-operating hours. The instructions shall include the following minimum information in English and Spanish:~~

- (A) Be installed within 50 feet of the main entrance to the facility and in a location that is visible to the public;
 - (B) Measure at least 30 inches wide by 30 inches tall;
 - (C) Display lettering at least 2 inches tall with text color contrasting with the sign background;
 - (D) Located at least 4 feet above grade from the bottom of the sign;
 - (E) Display the following information in English and Spanish:
 - ~~(Ai)~~ Name of the facility; Local or toll-free phone number for the site contact that is accessible 24 hours a day;
 - ~~(Bii)~~ Facility call number; and; Notification statement:
“TO REPORT AIR QUALITY ISSUES SUCH AS ODORS, DUST, OR SMOKE FROM THIS FACILITY, PLEASE CALL [FACILITY CONTACT AND PHONE NUMBER] OR THE SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT AT 1-800-CUT-SMOG®”;
and
 - ~~(Ciii)~~ Instructions to call the South Coast Air Quality Management District complaint hotline at the toll free number 1-800-CUT-SMOG or equivalent information approved in writing by the Executive Officer.; Notification statement:
“PARA REPORTAR PROBLEMAS DE CALIDAD DEL AIRE COMO OLORES, POLVO O HUMO DE UNA INSTALACIÓN, LLAME A [CONTACTO DE LA INSTALACIÓN Y NÚMERO DEL TELÉFONO] O AL EL DISTRITO DE ADMINISTRACIÓN DE LA CALIDAD DEL AIRE DE LA COSTA SUR AL 1-800-CUT-SMOG®”;
and
 - ~~(iv)~~ Instructions to access additional information electronically:
<https://www.aqmd.gov/home/rules-compliance/compliance/1148-2>
- (14) The operator of an oil and gas production facility shall maintain well cellar, wellhead, oil producing well, water injection well and associated lines free of visible vapors resulting from a defect in equipment as determined pursuant to the schedule and inspection requirements specified in paragraph (e)(6).

- (15) Effective [Two years from date of rule amendment], any engine that is powered by produced gas that is used to operate an oil producing or injection well shall comply with a NOx emission limit of 11 ppmv at 15% oxygen on a dry basis.
- (16) Effective [Two years from date of rule amendment], any stationary gas turbine or fuel cell that is powered by produced gas, at an oil and gas production facility, shall comply with a NOx emission limit of 9 ppmv at 15% oxygen on a dry basis
- (17) Effective [Three years from date of rule amendment], workover rigs operated at an oil and gas production facility shall be equipped with an engine that meets the minimum emissions standards of a Tier 4 Final engine.
- (18) The operator of an oil and gas production facility shall not use odorants.
- (19) The operator of an oil and gas production facility shall not:

 - (A) Use a neutralizing agent that contains more than 0.1 % by weight of toxic air contaminants pursuant to South Coast AQMD Rule 1401 – New Source Review of Toxic Air Contaminants; and
 - (B) Atomize or spray any neutralizing agent.
- (20) Effective January 1, 2025, for any leaks that are detected within a well cellar or from a wellhead that are greater than 25,000 ppm VOC with a calibrated analyzer per EPA Method 21, the operator shall electronically notify the Executive Officer, using a format approved by the Executive Officer, of the following information within 24 hours of the leak quantification:

 - (A) name and contact information of the owner and operator of the subject wellhead(s) and/or well cellar(s);
 - (B) leak concentration(s) in parts per million (PPM);
 - (C) date of discovery; and
 - (D) status of any repairs.

(e) Operator Inspection Requirements

- (1) The operator of an oil and gas production facility shall visually inspect:

 - (A) Any stuffing box not located in or above a well cellar daily;
 - (B) Any stuffing box located in or above a well cellar weekly; or
 - (C) Any stuffing box or produced gas handling and control equipment located 328 feet (100 meters) or less from a sensitive receptor daily. Receptor distance shall be determined as the distance measured

from the stuffing box or produced gas handling and control equipment to the property line of the nearest sensitive receptor.

- (D) Any stuffing box or produced gas handling and control equipment located between 328 feet (100 meters) and 1,500 feet from a sensitive receptor daily for any facility receiving Notice(s) of Violation for Rule 402 and/or H&S Code § 41700 for odor nuisance occurring on two (2) or more days. Receptor distance shall be determined as the distance measured from the stuffing box or produced gas handling and control equipment to the property line of the nearest sensitive receptor.
- (2) Notwithstanding the requirements of subparagraphs (e)(1)(A) and (e)(1)(B), the operator shall perform monthly visual inspections of any stuffing box fitted with a stuffing box adapter, any closed crude oil collection container, and any well shut off switch that will shut down the well when the container is full.
- (3) Except for well cellars listed under subdivision (j), the operator shall quarterly, perform an inspection of all well cellars according to the test method in paragraph ~~(i)(1)~~(j)(1).
- (4) Within two (2) days of discovery of organic liquid leakage observed from the inspections pursuant to subparagraph (e)(1)(A), (e)(1)(B), or paragraph (e)(2), and within eight (8) hours pursuant to subparagraph (e)(1)(C), the operator shall conduct an inspection of the stuffing box and well cellar according to the test method in paragraph ~~(i)(1)~~(j)(1) or measure the organic liquid depth using a “copper coat” gauge or any other measuring instrument determined to be acceptable by the Executive Officer.
- (5) Notwithstanding the provisions of Rule 1173 – Control of Volatile Organic Compound Leaks and Releases from Components at Petroleum Facilities and Chemical Plants, the operator of an oil and gas production facility shall conduct a monthly TOC measurement on any component that has been identified as causing or likely to have caused the confirmed odor event through a submitted specific cause analysis report submitted in accordance with the provisions of subdivision (f). The TOC measurement shall be conducted monthly according to the test method in paragraph ~~(i)(1)~~(j)(1) following submittal of the specific cause analysis report, until the measurement fails to exceed the leak rates identified in subparagraphs (e)(5)(A) and (e)(5)(B) for six consecutive months. The operator shall

repair, replace or remove from service the component in accordance with the requirements of subparagraphs (e)(5)(A) and (e)(5)(B).

(A) Any heavy liquid component leak of more than three drops per minute and greater than 100 ppmv shall be repaired, replaced or removed from service in one (1) calendar day.

(B) Any light liquid/gas/vapor/component leak greater than 500 ppmv but no more than 10,000 ppmv shall be repaired, replaced or removed from service in one (1) calendar day.

(6) Optical Gas Imaging Inspections

Effective [six months from rule amendment], the operator of an oil and gas production site shall demonstrate compliance with subparagraph (d)(14), by conducting OGI inspections in accordance with the following requirements:

(A) The person conducting an OGI inspection shall:

- (i) Complete a manufacturer's certification or training program for the OGI Device used to conduct the inspection, and
- (ii) Operate and maintain the OGI Device in accordance with the manufacturer's specifications and recommendations.

(B) Oil and Gas Production Facility Inspections

A person meeting the requirements of subparagraph (e)(6)(A) shall:

- (i) Conduct an inspection at an oil and gas production facility at least once per calendar month on all components and well cellars; and
- (ii) When visible vapors are detected using an OGI Device, and the leak cannot be repaired within ~~twenty four~~ 24 hours from time of discovery, the use of an appropriate analyzer in compliance with paragraph (j)(1) shall be used to quantify the visible vapors in ppmv concentration within 48 hours of when the vapors are detected and the leak shall be repaired pursuant to Rule 1173 subdivision (g)~~the Repair Period Table from Rule 1173~~. Quantification of visible vapors is not required if the leak is repaired within ~~twenty four~~ 24 hours from time of discovery.

(f) Specific Cause Analysis and Report

Effective September 4, 2015, the owner or operator of any oil and gas production facility with any sensitive receptor within 1,500 feet of any well located on the

facility property shall conduct a Specific Cause Analysis for each confirmed odor event and for each confirmed oil deposition event. The Specific Cause Analysis shall describe the steps taken to identify the source and cause of the odor or confirmed oil deposition event, and any mitigation and corrective actions taken or identified. The owner or operator shall, within 30 calendar days following receipt of written notification of a confirmed odor event or confirmed oil deposition event from the Executive Officer, submit the Specific Cause Analysis report to the Executive Officer, certified by the Responsible Party that all information submitted is true and correct.

- (1) The submitted Specific Cause Analysis report shall include the following:
 - (A) Identification of the equipment or activity causing or likely to have caused the confirmed odor event or confirmed oil deposition event, including any equipment or activity identified in the written notification of a confirmed odor event or confirmed oil deposition event by the Executive Officer.
 - (B) Any ~~SCAQMD~~ South Coast AQMD regulatory requirement associated with the equipment or activity causing or likely to have caused the confirmed odor event or confirmed oil deposition event, including but not limited to, any permit condition and any other ~~SCAQMD~~ South Coast AQMD rule, including this rule.
 - (C) Identification of any Standard Operating Procedure, emergency or leak prevention plan, including any spill prevention plan, preventative maintenance scheduling or procedure associated with the source of the confirmed odor event or confirmed oil deposition event and any corrective action identified as part of the review and update pursuant to paragraph (f)(2) and schedule for completion of the corrective action.
- (2) The owner or operator shall review and update the following as part of the Specific Cause Analysis:
 - (A) Any Standard Operating Procedures associated with normal production operations and the leak history of inspections associated with the source of the confirmed odor event or confirmed oil deposition event.
 - (B) Any emergency or leak prevention plans, including any spill prevention plans associated with the source of the confirmed odor event or confirmed oil deposition event.

- (C) Any preventative maintenance scheduling or procedures associated with the source of the confirmed odor event or confirmed oil deposition event.

(g) **Odor Mitigation Plan**

Effective September 4, 2015, the owner or operator of any oil and gas production facility shall submit for approval an Odor Mitigation Plan, or an update to an existing Odor Mitigation Plan, to the Executive Officer within 90 calendar days following receipt of written notification from the Executive Officer.

(1) **Requirement for a Plan Submittal**

The Executive Officer shall notify the owner or operator of any oil and gas production facility with any sensitive receptor within 1,500 feet of any well located on the facility property of the requirement for an Odor Mitigation Plan if any of the following thresholds are met or exceeded:

- (A) Receipt of Notice(s) of Violation for Rule 402 and/or H&S Code § 41700 for odor nuisance occurring on two (2) or more days; or
- (B) Three (3) confirmed odor events within the previous six (6) consecutive calendar months.
- (C) Subsequent to approval of an Odor Mitigation Plan:
 - (i) Receipt of a Notice of Violation for Rule 402 – Nuisance, as a result of odors; or
 - (ii) Three (3) confirmed odor events within the most recent six (6) consecutive calendar months following the date of approval of a previous Odor Mitigation Plan.

(2) **Odor Mitigation Plan Elements**

An approved Odor Mitigation Plan must include and address the following activities and equipment:

- (A) Oil and gas production and wastewater generation, including both normal and spill or release management control operations, with corresponding identification of potential or actual sources of emissions, odors, frequency of operator inspection and history of leaks.
- (B) Activity involving drilling, well completion or rework, repair or maintenance of a well, which notes the sources of emissions, odors, odor mitigation measures for responding to odors and odor

complaints, and procedures used for odor monitoring at the site and fence line.

- (C) Identification of emission points and emission or leak monitoring used for all wastewater tanks, holding, knockout, and oil/water separation vessels, including any pressure relief devices or vacuum devices attached to the vessels, with provisions for recording of releases from such devices.
- (D) Any equipment or activity identified as part of any previous Specific Cause Analysis.

(3) Odor Monitoring and Mitigation Requirements

An approved Odor Mitigation Plan must include the following odor monitoring and mitigation provisions:

- (A) The owner or operator shall conduct continual odor surveillance downwind at the perimeter of the property during drilling, well completion, or rework, repair or maintenance of any well, including water injection wells. Observations shall be recorded hourly. Equivalent odor monitoring equipment may be used in lieu of odor surveillance, subject to approval by the Executive Officer.
- (B) If odors are detected from odor surveillance or odor monitoring at the perimeter of the facility, pursuant to subparagraph (g)(3)(A) and confirmed from drilling, well completion, or rework, repair or maintenance of any well, the associated activity will discontinue until the source or cause of odors is determined and mitigated in accordance with measures previously approved unless the source or cause of the detected odors is determined to not be associated with the activity under surveillance.
- (C) The oil and gas production facility shall store any removed drill piping, production tubing or sucker rods in a manner that minimizes emissions from crosswinds by storing within an enclosed area or other equivalent method.
- (D) Notwithstanding the provisions of Rule 1173 - Control of Volatile Organic Compound Leaks and Releases from Components at Petroleum Facilities and Chemical Plants, the operator of any oil and gas production facility shall repair, replace or remove from service any leaking component located within 1,500 feet of a sensitive receptor in accordance with the requirements of clauses (g)(3)(D)(i)

and (g)(3)(D)(ii). For each calendar quarter, the operator may extend the repair period, as indicated below, for a total number of leaking components not to exceed 0.05 percent of the number of components inspected during the previous quarter, by type, rounded upward to the nearest integer where required.

- (i) Any heavy liquid component leak of more than three drops per minute and greater than 100 ppmv shall be repaired, replaced or removed from service in one (1) calendar day with an extended repair period of three (3) calendar days.
 - (ii) Any light liquid/gas/vapor component leak greater than 500 ppmv but no more than 10,000 ppmv shall be repaired, replaced or removed from service in one (1) calendar day with an extended repair period of three (3) calendar days.
- (E) Any corrective action identified in a Specific Cause Analysis report previously submitted by the facility.
- (F) The owner or operator shall evaluate the cause or likely cause of any confirmed odor event as identified in any Specific Cause Analysis report previously submitted by the facility and identify either improvements to existing monitoring systems required pursuant to paragraph (d)(12) or parameters for a new monitoring system installation. The owner or operator shall establish an installation and implementation schedule for any monitoring system improvements or new installations, subject to Executive Officer approval.

If any provision of paragraph (g)(3) is not included in the Odor Mitigation Plan, an evaluation and documentation must be provided in the Odor Mitigation Plan that states the reason why such provision is not feasible or would not be effective in addressing the specific cause of the confirmed odor events or notice(s) of violation that resulted in the requirement for plan submittal, subject to approval by the Executive Officer.

- (4) The owner and operator of an oil and gas production facility shall comply with all provisions of an approved Odor Mitigation Plan, except as provided by paragraph ~~(j)(2)~~(k)(2). Violation of any of the terms of the plan is a violation of this rule.

(h) Recordkeeping Requirements

- (1) The operator shall maintain all records that document the purchase and installation of the stuffing box adapter(s) to demonstrate compliance with paragraph (e)(4) at the facility or facility headquarters and such records shall be made available to the Executive Officer upon request.
- (2) The operator shall maintain all records of inspection, measurements, repair, cleaning and pump-outs required by this rule, and of any activities performed under the exemption provided by (jk)(2), in a form approved by the Executive Officer at the facility or facility headquarters for a period of three years or a period of five years for a Title V facility and such records shall be made available to the Executive Officer upon request.
- (3) The operator shall maintain production records and other applicable information and documents, including any referenced established written company safety manual or policy, sufficient to demonstrate eligibility for any exemption claimed pursuant to subdivision ~~(i)~~(j) and make them available to the Executive Officer upon request.
- (4) The operator shall maintain all records and other applicable documents required as part of an Odor Mitigation Plan approved in accordance with subdivision (g) in a form approved by the Executive Officer at the facility or facility headquarters for a period of three years or a period of five years for a Title V facility and such records and applicable documents shall be made available to the Executive Officer upon request.

(i) Testing Requirements

- (1) For any engine subject to paragraph (d)(15), the operator shall demonstrate compliance to the emission limit in paragraph (d)(15) by:
 - (A) Conducting an initial source test within [24 months of rule amendment]; and
 - (B) Subsequent source testing within 5 years of the previous source test.
- (2) For any stationary turbine subject to paragraph (d)(16), the operator shall demonstrate compliance to the emission limit in paragraph (d)(16) by:
 - (A) Conducting an initial source test within [24 months of rule amendment]; and
 - (B) Subsequent source testing within 5 years of the previous source test.

(i) Test Methods

The following test methods and procedures shall be used to determine compliance with this rule. Other test methods determined to be equivalent after review by the staffs of the ~~District~~South Coast AQMD, the ~~Air Resources Board~~CARB, and the U.S. EPA, and approved in writing by the ~~District~~-Executive Officer may also be used.

- (1) Measurement of TOC or VOC concentrations shall be conducted according to the ~~United States Environmental Protection Agency (U.S. EPA)~~ Reference Method 21 using an appropriate analyzer calibrated with methane. The analyzer shall be calibrated before inspection each day prior to use. For the purpose of demonstrating compliance with the TOC concentration requirements in paragraphs (d)(1) and (d)(7), measurement of the TOC concentrations shall be conducted at a distance of no more than three (3) inches above the organic liquid surface in the well cellar.
- (2) Determination of Efficiency of Emission Control Systems
The control equipment efficiency of an emission control system, on a mass emissions basis, and the VOC concentrations in the exhaust gases, measured and calculated as carbon, shall be determined by U.S. EPA Test Methods 25, 25A, or ~~District~~South Coast AQMD Method 25.1 - Determination of Total Gaseous Non-Methane Organic Emissions as Carbon or ~~District~~South Coast AQMD Method 25.3 Determination of Low Concentration Non-Methane Non-Ethane Organic Compound Emissions from Clean Fueled Combustion Sources, as applicable. U.S. EPA Test Method 18 or CARB Method 422 shall be used to determine emissions of exempt compounds.
- (3) The VOC content shall be determined according to ASTM Method D 1945 for gases, ~~SCAQMD~~South Coast AQMD Method 304-91 for liquids. The percent VOC of a liquid evaporated at 150°C (302°F) shall be determined according to ASTM Method D 86.
- (4) The flash point of heavy liquids shall be determined according to ASTM Method D 93.
- (5) Laboratory Approval
Sampling, analysis, and reporting shall be conducted by a laboratory that has been approved under the ~~District~~South Coast AQMD Laboratory Approval Program (LAP) for the cited ~~District~~South Coast AQMD reference test methods, where LAP approval is available. For ~~District~~South

Coast AQMD reference test methods for which no LAP program is available, the LAP approval requirement shall become effective one year after the date that the LAP program becomes available for that ~~District~~ South Coast AQMD reference test method.

(6) Source testing for compliance demonstration of NOx emission limits shall be conducted per South Coast AQMD Method 100.1.

(jk) Exemptions

- (1) This rule shall not apply to well cellars associated exclusively with:
 - (A) Oil and gas production wells that have been idle and out of operation for more than six months, as indicated by production records, with no liquid leaks or accumulation of crude oil in the well cellar. All provisions of this rule shall apply upon commencement of operation of the idle well.
 - (B) Wells that have been certified as an abandoned well by the ~~California Department of Conservation, Division of Oil, Gas and Geothermal Resources~~ Geologic Energy Management Division.
 - (C) Water, gas or steam injection wells.
- (2) The provisions of paragraphs (d)(3), (d)(5), (d)(7), (d)(8), (d)(9) and paragraph (g)(3) shall not apply to any well, produced gas handling system, or portable enclosed storage vessel and associated air pollution control equipment undergoing maintenance and repair, well drilling, or well abandonment operations, if the owner or operator can demonstrate to the Executive Officer that: performing the maintenance and repair, drilling, or abandonment operation to meet paragraph (d)(3), (d)(5), (d)(7), (d)(8), (d)(9), or paragraph (g)(3), as applicable, would cause the facility to operate in a manner that violates state or federal regulations, applicable industry safety standards, or a written company safety manual or policy that was developed to comply with applicable industry safety standards; and that the maintenance and repair, drilling, or abandonment operation is conducted in a manner that minimizes, as much as possible under the circumstances, emissions to the atmosphere.
- (3) The provisions of paragraph (d)(1), (d)(2) and (d)(7) shall not apply to any well cellar used in emergencies at oil production facilities, if clean-up procedures are implemented within 24 hours after each emergency occurrence and completed within ten (10) calendar days.

- (4) The provisions of paragraph (d)(8) of this rule shall not apply to oil and gas production wells in operation as of March 5, 2004, that produce no more than one (1) barrel per day of oil or 200 standard cubic feet per day of produced gas per facility, provided that such production wells are not located within 100 meters of a sensitive receptor, and provided the production can be demonstrated from annual production records. Demonstration of produced gas production shall be based on metered measurement of the gas.
- (5) The provisions of paragraph (i)(2) shall not apply to a stationary turbine certified by the CARB Distributed Generation Certification Program.

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

Final Staff Report

Proposed Amended Rule 1148.1 – Oil and Gas Production Wells

July 2024

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EXECUTIVE SUMMARY

The purpose of South Coast AQMD Rule 1148.1 – *Oil and Gas Production Wells* (Rule 1148.1) is to reduce emissions of volatile organic compounds (VOC), toxic air contaminants (TAC) and total organic compounds (TOC) from the operation and maintenance of wellheads, well cellars, and the handling of produced gas and oil and gas production facilities. Rule 1148.1 applies to approximately 330 onshore oil or gas well facilities that conduct operations including drilling, well completion, well rework, and well injection activities.

~~PAR 1148.1 is will also seek to further reduce VOC emissions from wellheads, well cellars, and the handling of produced gas through use of enhanced leak detection technology.~~

Rule requirements reduce VOC emissions from the wellheads and the well cellars through inspection and maintenance, and control of produced gas emissions. The rule also establishes work practices and odor mitigation procedures.

Proposed Amended Rule 1148.1 (PAR 1148.1) will seek to further reduce VOC emissions from wellheads, well cellars, and the handling of produced gas through use of enhanced leak detection technology, among other requirements.

In response to concerns raised by Assembly Bill (AB) 617 communities located in the Wilmington, Carson, West Long Beach (WCWLB) area and South Los Angeles (SLA) area and the 2022 Air Quality Management Plan Control Measure FUG-01: Improved Leak Detection and Repair, Proposed Amended Rule (PAR) 1148.1 will further reduce and control VOC emissions. Proposed Amended Rule (PAR) 1148.1 was developed in response to priorities identified in the Wilmington, Carson, West Long Beach (WCWLB) Community Emission Reduction Plan (CERP), the South Los Angeles² (SLA) CERP, and to partially implement the 2022 Air Quality Management Plan (AQMP) control measure FUG-01: Improved Leak Detection and Repair. PAR 1148.1 will: 1) add new definitions to further clarify the amendments being proposed, 2) require the use of enhanced leak detection technology, 3) require equipment that uses produced gas to meet specific NO_x limits and to verify compliance via source tests, 4) require workover rigs to use Tier 4 Final diesel engines, 5) ban the use of odorants that are used to mask odors emanating from oil production sites, 6) require submitting a notification for quantified leaks greater than 25,000 ppm VOC, and 6) update signage requirements. Additional minor changes to rule language will be made for consistency and clarity.

Implementation of PAR 1148.1 is expected to reduce VOC emissions by approximately 100 tons per year (0.27 tons per day) starting in year 2025 when the OGI inspections begin, and is expected to reduce NO_x emissions by approximately 200 tons per year (0.55 tons per day) by year 2027 when workover rigs are required to meet Tier 4 Final engine standards.

Development of PAR 1148.1 was conducted through a public process. Four Working Group Meetings were held on: April 20, 2023, September 14, 2023, December 14, 2023, and April 11,

2024. The working group meetings consists of stakeholders including representatives from the communities, environmental organizations, industry representatives, and government agencies. In addition, staff participated in AB 617 meetings to notify and update stakeholders on the rule development process. Staff also met individually with industry stakeholders and visited sites affected by the rule development process. Working group meeting notices were provided to operators, suppliers and participants of AB 617 meetings that signed up for notifications of AB 617 updates or oil and gas well rule development. A Public Workshop meeting was held on February 1, 2024, where staff presented the proposed amended rule PAR 1148.1 to the general public and stake-holders, and received comments related to the proposals.

CHAPTER 1: BACKGROUND

INTRODUCTION

BACKGROUND

AFFECTED FACILITIES

PUBLIC PROCESS

INTRODUCTION

Rule 1148.1 – *Oil and Gas Production Wells* requires operators of oil and gas wells to reduce emissions of volatile organic compounds (VOCs), toxic air contaminants (TAC) emissions and Total Organic Compounds (TOC) from the operation of wellheads, well cellars, and the handling of produced gas at oil and gas production facilities. Well activity occurs at multiple sites throughout the South Coast AQMD and may be found near residential communities as shown in Figure 1.1.



Figure 1.1 – Example of Urban Oil Well

Concerns have been raised by AB 617 communities located in the Wilmington, Carson, West Long Beach (WCWLB) area and South Los Angeles (SLA) area about the need for additional, timely and reliable requirements to further control VOC emissions coming from oil and gas production facilities. In response, staff proposes to modify requirements in Rule 1148.1 to add the use of enhanced leak detection technology, require Tier 4 Final diesel engines in the use of workover rigs engaged in general maintenance activities, and source test requirements for stationary equipment that uses produced gas to verify emission limits. Staff also proposes to ban the use of odorants used to mask odors and update signage requirements. Additional definitions and minor changes to rule language are made for consistency and clarity.

REGULATORY BACKGROUND

Rule 1148.1 was adopted on March 5, 2004, to implement Control Measure FUG-05 of the 2003 AQMP by reducing VOC emissions from the wellheads and the well cellars located at oil and gas production facilities through increased inspection and maintenance, and control of produced gas emissions, with additional regulatory considerations when located within 100 meters to sensitive receptors. See Figure 1.2 for an example of wellheads inside a well cellar.



Figure 1.2 – Example of Wellheads Inside a Well Cellar

Rule 1148.1 was amended on September 4, 2015 to minimize environmental impacts on neighboring communities and sensitive receptors from ongoing operations, including well stimulation techniques such as hydraulic fracturing. Between 2010 and 2014, operations at an urban oil and gas production facility were the subject of numerous public complaints and received multiple Notices of Violations (NOV) from the South Coast AQMD. The amendment focused on improving work practices and established odor mitigation procedures.

AB 617 and Concerns with Oil and Gas Well Activities

In 2017, Governor Brown signed AB 617 (C. Garcia, Chapter 136, Statutes of 2017) to develop a new community-focused program to potentially reduce exposure to air pollution and preserve public health. AB 617 directed the California Air Resources Board (CARB) and all local air districts, including the South Coast AQMD, to enact measures to protect communities disproportionately impacted by air pollution. On September 27, 2018, CARB designated 10 communities across the state to implement community plans for the first year of the AB 617 program. Local air districts were tasked with developing and implementing community emissions reduction and community air monitoring plans in partnership with residents and community stakeholders. The Community Air Monitoring Plan (CAMP) includes actions to enhance the understanding of air pollution in the designated communities and to support effective implementation of the Community Emissions Reduction Plan (CERP). A CERP provides a blueprint for achieving air pollution emission and exposure reductions, addressing the community's highest air quality priorities. The CERP includes actions to reduce emissions and/or exposures in partnership with community stakeholders.

During their CERP development process, the WCWLB and SLA communities raised numerous concerns related to oil and gas well activity and current South Coast AQMD rules.

The CERP for WCWLB listed four main air quality priorities related to oil drilling and production. These priorities focused on:

- The need for near-facility air measurements and inspections to address leaks and odors from oil drilling and production;
- Fenceline air monitoring;
- Vapor recovery systems and leak detection technologies; and
- The use of lower or zero-emission equipment for on-site operations.

The CERP for SLA also listed multiple priorities related to oil drilling and production. These priorities focused on:

- Identification of potential elevated emissions through air measurement surveys around oil drilling sites;
- Determination of which oil well sites and activities may require additional monitoring;
- Explore limiting/eliminating odorant use;
- Explore requirements for lower emission or zero-emission equipment;
- Reduction emissions and exposure to oil and gas operations through rule amendments to the Rule 1148 Series;
- Incentive funding opportunities for best management practices and/or installation of emission reduction technologies at oil and gas facilities.

Note that some other community concerns have been addressed in the February 2023 amendment to *Rule 1148.2 – Notification and Reporting Requirements for Oil and Gas Wells and Chemical Suppliers* (Rule 1148.2) such as providing notifications for activities such as acidizing of water injection wells. In addition, Rule 1148.2 has requirements for mailers to be sent out to sensitive receptors within 1,500 feet of an oil and gas or injection well prior to the commencement of an acidizing event.

AFFECTED FACILITIES

Proposed Amended Rule 1148.1 affects any operator of an oil or gas production facility located within the jurisdiction of the South Coast AQMD and its operation and maintenance of wellheads, well cellars, and the handling of produced gas. There are approximately three hundred and thirty facilities potentially affected by this amendment.

PUBLIC PROCESS

The development of PAR 1148.1 was conducted through a public process. Four Working Group Meetings were held on: April 20, 2023, September 14, 2023, December 14, 2023, and April 11, 2024. In addition, staff participated in AB 617 meetings to notify and update stakeholders on the rule development process. Stakeholders include representatives from the community, environmental organizations, industry representatives, and government agencies. Staff also met individually with industry stakeholders and visited sites affected by the rule development process.

Working group meeting notices were provided to operators, suppliers and participants of AB 617 meetings that signed up for notifications of AB 617 updates or oil and gas well rule development. A Public Workshop meeting was held on February 1, 2024, where staff presented the proposed amended rule to the general public and stake holders, and received comments related to the proposal.

CHAPTER 2: BARCT ASSESSMENT

INTRODUCTION

BARCT ANALYSIS APPROACH

INTRODUCTION

As part of the rule development process, staff conducted a Best Available Retrofit Control Technology (BARCT) assessment of equipment subject to PAR 1148.1. The purpose of a BARCT assessment is to identify potential emission reductions from specific equipment and to establish an emission limit consistent with state law.

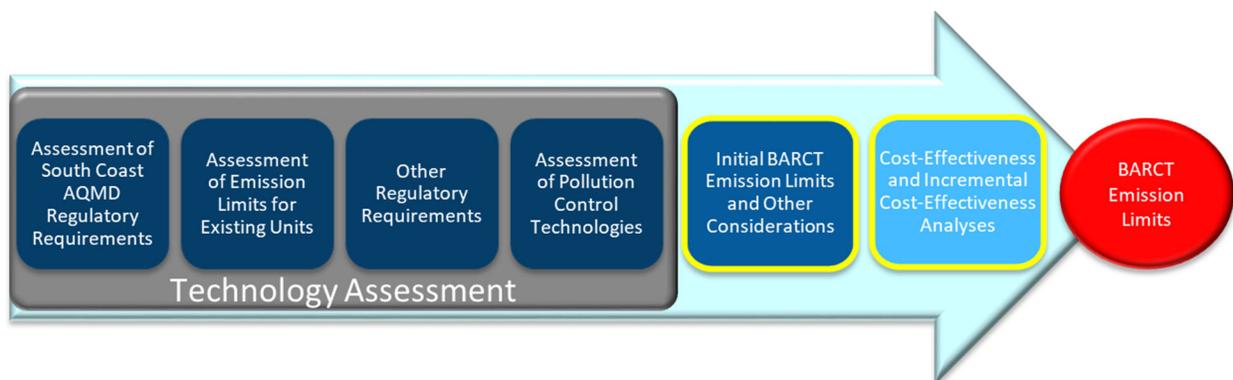
Under Health and Safety Code Section 40406, BARCT is defined as:

“... 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.”

The BARCT assessment for this rule development consisted of a multi-step analysis. The first four steps represent the technology assessment. First, staff evaluated current South Coast AQMD regulatory requirements with an applicability to this rule development. Second, staff then assessed emission limits for existing units. Third, staff next surveyed other air districts and agencies outside of the South Coast AQMD’s jurisdiction to identify emission limits that exist for similar equipment. In the final step of the technology assessment, staff assessed pollution control technologies to determine what degree of reduction could be achievable for the affected sources. Based on the technology assessment, initial emission limits and other considerations were proposed.

Once initial emission limits have been proposed, staff then calculated the cost-effectiveness of the proposals. The calculations consider the cost to meet the initial BARCT emission limit and the emission reductions that would occur from implementing technology that could meet the initial BARCT emission limit. An incremental cost-effectiveness analysis is conducted if multiple cost-effective control technology options are identified. Options are compared to determine costs of emission reductions. Based on the evaluation of the information, BARCT emission limits are recommended. See Figure 2-1 below for a graphical representation of the BARCT assessment process.

Figure 2.1 – BARCT Assessment Process



BARCT ANALYSIS APPROACH

In this rulemaking effort, staff is considering the following proposals to be incorporated into the rule:

- (1) Adding the use of enhanced monitoring and leak detection techniques
- (2) Establishing emission limits for internal combustion engines used to operate wellhead pumps
- (3) Establishing emission limits for stationary gas turbines using produced gas for fuel
- (4) Requiring electrification or the use of cleaner engines for workover rigs

(1) Adding the use of enhanced monitoring and leak detection techniques

- *Assessment of Current South Coast AQMD Regulatory Requirements*

Currently, Rule 1148.1(i)(1) requires the use of an appropriate analyzer calibrated with methane per U.S. EPA Reference Method 21 to inspect components and equipment regulated by the rule. Typically, the analyzer used is a Toxic Vapor Analyzer (TVA) (See Figure 2.2). A TVA is capable of measuring a variety of organic vapors using flame ionization detection (FID) technology and it provides a concentration value of the organic vapor.



Figure 2.2 – Example of a Toxic Vapor Analyzer

Other South Coast AQMD Rules also require the use of an appropriate analyzer calibrated with methane per U.S. EPA Reference Method 21 to conduct inspections including but not limited to: 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 1176 – *VOC Emissions from Wastewater Systems*; and Rule 1178 – *Further Reductions for VOC Emissions from Storage Tanks at Petroleum Facilities*.

In September 2023, Rule 1178 was amended to include optical gas imaging (OGI) inspections for equipment subject to the rule. In June 2024, Rule 463 was also amended to require OGI inspections.

- *Assessment of Emission Limits of Existing Units*

The use of OGI equipment does not have an emission limit relevant to this analysis. As such, no assessment of emission limits of existing units is required.

- *Other Regulatory Requirements*

Staff reviewed rules and regulations from other air districts and agencies and noted that the use of enhanced monitoring techniques utilizing OGI was limited.

San Joaquin Valley Air Pollution Control District (SJVAPCD) Rule 4409 – *Components at Light Crude Oil Production Facilities, Natural Gas Production Facilities, and Natural Gas Processing Facilities*, subsection 6.3, after June 30, 2024, requires that all leaks detected with the use of an OGI instrument shall be measured using U.S. EPA Reference Method 21 within two calendar days of initial OGI leak detection or within 14 calendar days of initial OGI leak detection of an inaccessible or unsafe to monitor component to determine compliance with the leak thresholds and repair timeframes specified in the rule.¹



Figure 2.3 – Example of an OGI camera

Under Colorado Air Quality Control Commission Regulation Number 7 – *Control of Emissions from Oil and Gas Emissions Operations*, the use of an OGI camera can be utilized as part of an approved leak detection and repair plan.² Leak detection thresholds are quantified using a TVA or equivalent device.

- *Assessment of Pollution Control Technologies*

OGI equipment does not control pollution directly but is a tool that can be used to identify emissions. As such, no assessment of pollution control technology is required for adding the use of enhanced monitoring and leak detection techniques. However, a discussion on current enhanced monitoring and leak detection technologies is included.

Optical Gas Imaging

An optical gas imaging camera uses infrared technology capable of visualizing vapors. OGI cameras have different detectors capable of visualizing a variety of gas wavelengths. VOC wavelengths are in the 3.2-3.4 micrometer waveband.

The cameras are widely used as a screening tool for leak detection purposes and have continuous monitoring capability.



Figure 2.4 – OGI Camera Imaging

¹ San Joaquin Valley Air Pollution Control District (SJVAPCD) Rule 4409 – *Components at Light Crude Oil Production Facilities, Natural Gas Production Facilities, and Natural Gas Processing Facilities*, subsection 6.3: <https://ww2.valleyair.org/media/z11dynbx/rule-4409.pdf>, p. 4409-21, accessed on November 1, 2023.

² Colorado Air Quality Control Commission Regulation Number 7 – *Control of Emissions from Oil and Gas Emissions Operations*: <https://drive.google.com/file/d/1P6pRmNYx5KwEK6qDReYFL11-K-URI33J/view>, p. 36, accessed on November 1, 2023.

Handheld OGI cameras are used widely by leak detection service providers as well as facilities for periodic monitoring.

Open Path Sensors

Open path detection devices emit beams that detect VOCs (See Figure 2.5). For VOC to be detected with an open path device, the VOCs must contact the beam. Open path detection devices can detect gas concentrations in the parts per billion range and from distances as far as 300 meters away from a source, with some models advertised as having a range of 1,000 meters. One open path device can cover multiple paths. Open path devices can detect small concentrations of VOC in the parts per billion by volume (ppbv) range and can also speciate VOC. A significant limitation to leak detection of these devices is the requirement for VOCs to contact the emitted beam. This provides a chance for VOCs to go undetected if travelling on a path that does not intercept the beam. Another drawback to open path detection is the dilution factor. VOCs originating from a tank may need to travel hundreds of feet before contacting the emitted beam. The concentration of VOC may dilute so significantly that VOCs are undetectable by the time the VOCs reach the emitted beam.

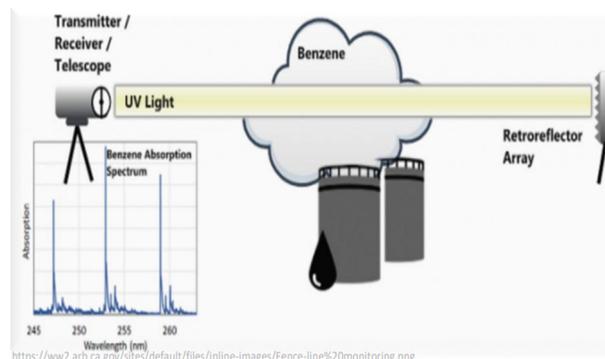


Figure 2.5 – Example of Open Path Technology

Fixed Gas Sensors

Fixed gas sensors have the capability to continuously monitor for VOC emissions and are installed as fixed applications (See Figure 2.6). Concentrations of VOC detected with fixed gas sensors are in the parts per million by volume (ppmv) range depending on the sensor and have a maximum detection range of about 50-100 ppmv. Like open path devices, gas sensors can only detect emissions when VOCs contact the fixed sensor. Leaks from a source must be significant to be detected by a fixed gas sensor due to the dilution factor. According to one supplier, it is estimated that a leak with a concentration of 72,000 ppmv is detectable by a gas sensor 100 feet away. A leak with a concentration of 18,000 ppmv is detectable by a gas sensor 50 feet away.



Figure 2.6 – Example of a Fixed Gas Sensor

(2) Establishing emission limits for internal combustion engines used to operate wellhead pumps

- *Assessment of Current South Coast AQMD Regulatory Requirements*

Currently, Rule 1148.1 does not have any emission limits for engines operated at facilities subject to this rule. However, other South Coast AQMD rules do regulate internal combustion engines. South Coast AQMD Rules 1110.2 – *Emissions from Gaseous- and Liquid-Fueled Engines* and

1470 – *Requirements for Stationary Diesel-Fueled Internal Combustion and Other Compression Ignition Engines* regulate emissions from internal combustion engines that are rated greater than 50 bhp. In addition, stationary engines that are greater than 50 bhp are required to be permitted by the South Coast AQMD. Some engines, however, that are less than 50 bhp but are operated by facilities subject to the South Coast AQMD Regional Clean Air Incentives Market (RECLAIM) program are also subject to permitting requirements. Portable engines that are greater than 50 bhp are required to be either registered by the California Air Resources Board (CARB) through their Portable Equipment Registration Program (PERP) or permitted by the South Coast AQMD.

- *Assessment of Emission Limits of Existing Units*



Figure 2.7 – Example of an ICE

During the rule development process, staff visited multiple sites where internal combustion engines were observed to be operating wellhead pumps (See Figure 2.7). The sites were not part of the RECLAIM program. In general, these engines were rated under 50 bhp and were powered by produced gas from the individual sites. The engines were not observed to have any emission controls on their exhaust. As long as the supply of produced gas was available or as necessary, the engines were operated continuously 24 hours a day, 7 days a week. Because the observed engines were rated at less than 50 bhp, Rules 1110.2 and 1470 do not apply. Thus, the engines used to operate wellhead pumps generally do not have an emission limit unless the engine is rated greater than 50 bhp.

- *Other Regulatory Requirements*

Staff reviewed rules and regulations from other air districts and agencies and noted that for rules that similarly regulate oil and gas production sites, engines are not included in their respective regulations. However, in their suite of rules, other regulatory agencies do regulate emissions from stationary internal combustion engines such as: BAAQMD Regulation 9 – *Inorganic Gaseous Pollutants*, Rule 8 – *Nitrogen Oxides and Carbon Monoxide from Stationary Internal Combustion Engines* and SJVAPCD Rule 4702 – *Internal Combustion Engines*.

- *Assessment of Pollution Control Technologies*

Application of Nonselective Catalytic Reduction Technology

During site visits, staff noted that the internal combustion engines observed were engines that are classified as rich-burn engines. Rich-burn engines operate at a higher concentration of fuel to air in its combustion chamber compared to lean-burn engines which operate at a higher concentration of air to fuel in its combustion chamber. With a higher concentration of fuel to air, rich-burn engines respond to varying loads more effectively compared to lean-burn engines. On oil field and gas production sites, the supply of produced gas to an engine can vary making the rich-burn engine one of choice and necessity.

Although no exhaust emission controls were observed on engines used to operate wellhead pumps, there exists commercially available air pollution control equipment that can be installed on rich-burn engines such that if operated properly can achieve emission reduction compliant to the NO_x emission limit established in Rule 1110.2.

Nonselective Catalytic Reduction (NSCR) technology is applicable to all rich-burn engines and is a common control method for rich-burn engines (See Figure 2.8). The first wide scale application of NSCR technology occurred in the mid- to late-1970s, when 3-way NSCR catalysts were applied to motor vehicles with gasoline engines. Since then, this control method has found widespread use on stationary engines. Improved NSCR catalysts, called 3-way catalysts because CO, VOC, and NO_x are simultaneously controlled, have been commercially available for stationary engines for over 20 years.



Figure 2.8 – Example of an NSCR Device

The NSCR catalyst promotes the chemical reduction of NO_x in the presence of CO and VOC to produce oxygen and nitrogen. The 3-way NSCR catalyst also contains materials that promote the oxidation of VOC and CO to form carbon dioxide and water vapor. To control NO_x, CO, and VOC simultaneously, 3-way catalysts must operate in a narrow air/fuel ratio band (15.9 to 16.1 for natural gas-fired engines) that is close to stoichiometric.

Removal efficiencies for a 3-way catalyst are greater than 90% for NO_x, greater than 80% for CO, and greater than 50% for VOC. Greater efficiencies, below 10 parts per million NO_x, are possible through use of an improved catalyst containing a greater concentration of active catalyst materials, use of a larger catalyst to increase residence time, or through use of a more precise air/fuel ratio controller.

NSCR catalysts are subject to masking, thermal sintering, and chemical poisoning. In addition, NSCR is not effective in reducing NO_x if the CO and VOC concentrations are too low. NSCR is also not effective in reducing NO_x if significant concentrations of oxygen are present. In this latter case, the CO and VOC in the exhaust will preferentially react with oxygen instead of the NO_x. For this reason, NSCR is an effective NO_x control method only for rich-burn engines.

When applying NSCR to an engine, care must be taken to ensure that the sulfur content of the fuel gas is not excessive. The sulfur content of pipeline-quality natural gas and LPG is very low, but some oil field gases and waste gases can contain high concentrations. Sulfur tends to collect on the catalyst, which causes deactivation. This is generally not a permanent condition and can be reversed by introducing higher temperature exhaust into the catalyst or simply by heating the catalyst. Even if deactivation is not a problem, the water content of the fuel gas must be limited when significant amounts of sulfur are present to avoid deterioration and degradation of the catalyst from sulfuric acid vapor.

In cases where an engine operates at idle for extended periods or is cyclically operated, attaining and maintaining the proper temperature may be difficult. In such cases, the catalyst system can be designed to maintain the proper temperature, or the catalyst can use materials that achieve high efficiencies at lower temperatures. For some cyclically operated engines, these design changes may be as simple as thermally insulating the exhaust pipe and catalyst. Most of these limitations can be eliminated or minimized by proper design and maintenance.

Electrification of All Engines

During site visits, staff observed that most wellhead pumps are electrically driven. However, on a few sites, some wellhead pumps were being powered by engines fueled by produced gas. Staff noted that on these few sites, the produced gas could not be routed offsite for further processing or collection. In order to maintain operation of the site, the operator could either vent the produced gas to the atmosphere, install a combustion device to flare it, install a boiler or heater to consume it, or utilize an internal combustion engine or a stationary turbine to produce power to run a wellhead pump. In the past, another option included potentially reinjecting the produced gas back into the oil formation; however, staff has learned that other regulatory agencies such as the City of Los Angeles Zoning Administrator severely restrict this practice and it is no longer common.

(3) Establishing emission limits for stationary gas turbines using produced gas for fuel

- *Assessment of Current South Coast AQMD Regulatory Requirements*

During the rule development process, staff visited multiple sites where stationary gas turbines were operated using process gas as their fuel source. Currently, Rule 1148.1 does not have an emission limit for turbines operated at facilities subject to this rule. However, for turbines that are rated at 0.3 MW and larger, South Coast AQMD Rule 1134 – *Emissions of Oxides of Nitrogen from Stationary Gas Turbines* applies.

- *Assessment of Emission Limits of Existing Units*

Rule 1134 limits NO_x emissions from stationary gas turbines that are fueled by produced gas to 9 ppmv at 15% O₂ on a dry basis. For engines rated at less than 0.3 MW, there is currently no emission limit set by the South Coast AQMD.

- *Other Regulatory Requirements*

Staff reviewed rules and regulations from other air districts and agencies and noted that for rules that similarly regulate oil and gas production sites, stationary gas turbines are not included in their respective regulation. However, in their suite of rules, other regulatory agencies do regulate the emissions from stationary gas turbines engines such as: BAAQMD Regulation 9 – *Inorganic*

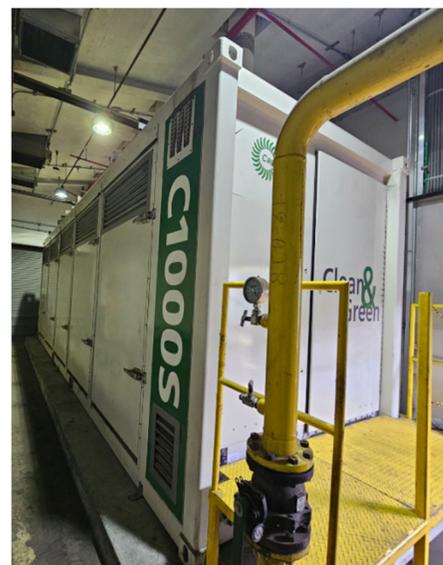


Figure 2.9 – Example of a Stationary Gas Turbine

Gaseous Pollutants, Rule 9 – Nitrogen Oxides Stationary Gas Turbines and SJVAPCD Rule 4703 – *Stationary Gas Turbines*. These rules also exempt smaller turbines such as those used at oil and gas well production sites.

The CARB Distributed Generation (DG) Certification Regulation is available to smaller gas turbines that are exempt from air district permitting requirements. These units must demonstrate that they meet or exceed the following emission standards:

Table 2.1: DG Emission Standards

Pollutant	Emission Standard (lb/MW-hr)
NO _x	0.07
CO	0.10
VOCs	0.02

- *Assessment of Pollution Control Technologies*

To control NO_x emissions, Selective Catalytic Reduction (SCR) technology is often used. SCR is a commercially available air pollution control system used to reduce NO_x emissions from stationary gas turbines. SCR technology injects ammonia into a turbine's exhaust. The exhaust is then passed through a fixed catalyst bed where NO_x reacts with the ammonia and is converted into nitrogen. If CO and VOCs are also to be controlled, then an oxidation catalyst is added to the exhaust stream typically upstream of the SCR. Catalyst efficiency relies on good dispersion and mixing. Typical conversion efficiencies for SCR systems range between 90 – 95% for NO_x.

Dry Low NO_x controls NO_x by combusting gas at lower temperatures using a lean premixed combustion. An advanced control system is also utilized. Low NO_x levels are achieved as the process requires less fuel and air resulting in lower combustion temperatures.

(4) Requiring electrification or the use of cleaner engines for workover rigs

- *Assessment of Current South Coast AQMD Regulatory Requirements*

Currently, the electrification or the use of cleaner engines for workover rigs is not required by Rule 1148.1. Other South Coast AQMD rules do not mandate the use of electrified or cleaner engines. However, Rule 1148.2 requires the operator of a workover rig where the engine does not meet a minimum Tier 4 Final emissions standards of Title 40 of the Code of Federal Regulations Part 1039 Subpart B, Section 1039.101, Table 1 and the engine is not powered by a non-combustion source, to notify the Executive Officer no more than 10 calendar days and no less than 24 hours prior to the use of the workover rig on either an onshore oil or gas well, or an injection well. This engine standard shall also apply to any engine that connects to, and assists, the workover rig with any well activity.

- *Assessment of Emission Limits of Existing Units*

Typically, workover rigs use engines that are considered to be off-road compression-ignition diesel engines and are registered through CARB's PERP. Depending on the age and the rated bhp of the engine, an engine is assigned to a Tier category. Based on the tier level, emission limits vary. For example, a 2008 engine rated between 75 – 100 bhp falls under the Tier 3 category and it has a NO_x emission limit of 3.5 g/bhp-hr (~ 234 ppmv at 15% O₂). In comparison, a 2015 engine rated similarly falls under the Tier 4 Final category and it has a NO_x emission limit of 0.14 g/bhp-hr (~ 9 ppmv at 15% O₂). It should be noted that engines which are integrated with the propulsion of the rig itself is not included in CARB's PERP.



Figure 2.10 – A Workover Rig in Operation

- *Other Regulatory Requirements*

U.S. EPA has developed Tier 4 standards for nonroad diesel engines to reduce emissions. Exhaust emissions from Tier 4 engines decrease emissions from older engines by more than 90%.³ The Tier 4 standards took effect for new engines beginning in 2008 and were fully phased in for most diesel engines by 2014. Thus, new engines manufactured after 2008 are required to meet the applicable standard effective when the engine is built. Staff has noted that engines used on workover rigs range between $175 \leq \text{hp} < 750$ and widely range in age. Staff has observed during site visits that only some engines used on workover rigs are currently required to meet Tier 4 standards.

The Tier 4 emission standards are provided in the following table.

³ U.S. EPA, Summary and Analysis of Comments: Control of Emissions from Nonroad Diesel Engines, May 2004: <https://nepis.epa.gov/Exe/ZyPDF.cgi/P10003DS.PDF?Dockey=P10003DS.PDF>, accessed on November 2, 2023.

Table 2.2 – Tier 4 Final Emission Standards in grams per horsepower-hour (g/hp-hr)

Rated Power	First Year that Standards Apply	PM	NOx
hp < 25	2008	0.30	-
25 ≤ hp < 75	2013	0.02	3.5*
75 ≤ hp < 175	2012-2013	0.01	0.30
175 ≤ hp < 750	2011-2013	0.01	0.30
hp ≥ 750	2011-2014	0.075	2.6/0.50†
	2015	0.02/0.03**	0.50††

* The 3.5 g/hp-hr standard includes both NOx and nonmethane hydrocarbons

† The 0.05 g/hp-hr standard applies to gensets over 1200 hp

** The 0.02 g/hp-hr standard applies to gensets; the 0.03 g/hp-hr standard applies to other engines

†† Applies to all gensets only.

- *Assessment of Pollution Control Technologies*

SCR Technology

To achieve Tier 4 Final NOx emission levels, engine manufacturers will use small-scaled SCR units on the exhaust of these engines. SCR technology injects ammonia into a turbine's exhaust. The exhaust is then passed through a fixed catalyst bed where NOx reacts with the ammonia and is converted into nitrogen. If CO and VOCs are also to be controlled, then an oxidation catalyst is added to the exhaust stream typically upstream of the SCR. Catalyst efficiency relies on good dispersion and mixing. Typical conversion efficiencies for SCR systems range between 90 – 95% for NOx.

Electrification of Engines Used for Workover Rigs

Staff observed the use of an electrified workover rig at two different sites and is aware of another electrified workover rig that had once been installed and operated at another site. At the two sites where there was an electrified rig, staff noted that the units were not capable of leaving the site and were confined to move on a fixed rail system within the facility. In addition, each site had been retrofitted with a robust electrical substation to meet the electrical demand required by a workover rig. The fixed rail system would also be especially challenging for oil and gas well sites that are difficult to access due to terrain and location. See Figure 2.11 for photos on an electrically powered drilling/workover rig.



Figure 2.11 – Photo on left shows electrified drilling/workover rig and photo on right shows inside view. Note that this drilling/workover rig is on a rail and can only be used at this specific site

CHAPTER 3: PROPOSED AMENDMENTS TO RULE 1148.1

INTRODUCTION

PROPOSED AMENDMENTS TO RULE 1148.1

INTRODUCTION

Staff participated in multiple meetings with WCWLB and SLA community residents, acknowledged the CERP, conducted multiple site visits to oil and gas production sites, conducted a BARCT assessment, and presented our findings in a public process. The following proposals address the concerns raised in these communities.

PROPOSED AMENDMENTS TO RULE 1148.1

Subdivision (c) – Definitions

The definitions listed below are being revised or added due to the proposed amendments to Rule 1148.1:

- **COMPONENT** – The definition is updated to include the wellhead and stuffing box as recognized components.
- **ENGINE** – During the rule development process, staff noted that produced gas was being utilized to power engines used to operate wellheads. Staff has added this definition as part of introducing emission limits onto engines that are powered and consuming produced gas from oil field and production sites. Staff referenced South Coast AQMD Rule 1110.2 for development of this definition.
- **FUEL CELL** – The definition is added to recognize the technology as an alternate to engines. U.S. EPA describes fuel cells as follows. A fuel cell is an electrochemical device similar to a battery. While both batteries and fuel cells generate power through an internal chemical reaction, a fuel cell differs from a battery in that it uses an external supply that continuously replenishes the reactants in the fuel cell. A battery, on the other hand, has a fixed internal supply of reactants. The fuel cell can supply power continuously as long as the reactants are replenished, while the battery can only generate limited power before it must be recharged or replaced.⁴
- **GAS HANDLING** – Staff discussed the intent of gas handling operations within the Applicability section of the rule and discovered a potential misunderstanding of using the term “processed gas” instead of “produced gas.” Staff updated rule language to state “produced gas” in the first sentence of the Applicability section and created a definition for “gas handling” to further clarify the intent of this rule.
- **NEUTRALIZING AGENTS** – Staff has added this definition as part the proposal to remove the use of odorants from oil and gas production sites. AB 617 communities have expressed concern that odorants may be masking chemicals that can be harmful to the environment and to members of the public. Staff is making a distinction between neutralizing agents and odorants, which are specifically designed to mask an odor.

⁴ U.S. EPA Auxiliary and Supplemental Power Fact Sheet: Fuel Cells: https://www.epa.gov/sites/default/files/2019-08/documents/fuel_cells_fact_sheet_p1004xfm.pdf, accessed on June 14, 2023.

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- **ODORANT** – Staff has added this definition as part the proposal to remove the use of odorants from oil and gas production sites. AB 617 communities have expressed concern that odorants may be masking chemicals that can be harmful to the environment and to members of the public.
 - **OPTICAL GAS IMAGING DEVICE** – Staff has added this definition as part of introducing enhanced monitoring technology into the rule. Staff referenced South Coast AQMD Rule 1178 for development of this definition.
 - **STATIONARY GAS TURBINE** – During the rule development process, staff noted that produced gas was being utilized to power stationary gas turbines that produce electricity to either power the site or supply the local electrical power grid. Staff has added this definition as part of introducing emission limits onto turbines that are powered and consuming produced gas from oil field and production sites. Staff referenced South Coast AQMD Rule 1134 for development of this definition.
 - **TIER 4 FINAL ENGINE** – U.S. EPA established Tier 4 Final standards for nonroad diesel engines that reduce emissions by integrating engine and fuel controls as a system. Exhaust emissions of PM and NOx from these engines will decrease by more than 90%. These standards are achieved through the use of advanced exhaust gas after-treatment technologies such as urea-selective catalyst reduction (SCR) catalysts for NOx control, and diesel particulate filters (DPFs) for PM control. The use of ultra-low sulfur diesel (ULSD) fuel with a maximum sulfur content of 15 ppmv or less is also generally required.
 - **VISIBLE VAPORS** – Staff has added this definition as part of introducing enhanced monitoring technology into the rule. Staff referenced South Coast AQMD Rule 1178 for development of this definition.
 - **WORKOVER RIG** – Staff has added this definition to describe what a workover rig is. Staff developed this definition by researching various oil field industry websites that listed workover rigs, and from first-hand observations of workover rigs used in the local oil field production facilities.

Subdivision (d) – Requirements

The requirements listed below are being revised or added due to the proposed amendments to Rule 1148.1.

- Paragraphs (d)(7) and (d)(9) – The word “business” was removed from these paragraphs for consistency. The oil and gas production facilities operate 24 hours a day and 7 days a week. Therefore, there is no need to distinguish a business day from a regular day.
- Paragraph (d)(13) – During the amendment to Rule 1148.2 – *Notification and Reporting Requirements for Oil and Gas Wells and Chemical Suppliers*, concerns were raised about signs

installed at oil field and production sites. AB 617 stakeholders requested that instructions be provided on how to make odor complaints and electronically access information on well activities. Staff referenced South Coast AQMD Rule 1460 –*Control of Particulate Emissions from Metal Recycling and Shredding Operations* for development of this requirement. Figure 3.1 shows a typical sign for an oil and gas facility.



Figure 3.1 - Example of Signage Prior to Amendment

- Paragraph (d)(14) – Staff has added this requirement as part of introducing enhanced monitoring technology using an OGI camera as part of the inspection process.
- Paragraph (d)(15) – Staff has added a NO_x emission limit to engines that are powered by produced gas. During site visits, staff discovered engines being used to process produced gas from oil field sites. These engines were observed in the operation of wellheads and similar production equipment.

Generally, produced gas can be collected and routed from an oil field to another location offsite to be further processed into a usable stream. For example, some produced gas can be sent to supply the Southern California Gas Company or similar company. Alternatively, produced gas can be collected from an oil field and used onsite to power combustion equipment such as a stationary gas turbine, an engine. If the gas cannot be sent offsite or used to power combustion equipment, then it is vented to a flare.

In the case of engines using produced gas, staff discovered that these engines were typically rated at less than 50 bhp. By using engines that are rated less than 50 bhp, an engine is not subject to the emission limits established in Rule 1110.2. Rule 1110.2 applies only to engines rated greater than 50 bhp. In addition, the South Coast AQMD does not require a permit to operate for an engine rated less than 50 bhp unless the engine is located at a facility subject to the South Coast AQMD RECLAIM program. Rule 1110.2 may be amended in future rulemaking activity to include engines that are rated at less than 50 bhp. However, since these

engines are currently operated at oil and gas production facilities, staff has included them under this rule to address air quality concerns and potential health impacts to the community.

Staff is concerned that this type of engine is an uncontrolled source of emissions. Staff visited sites where these engines were observed in operation and noted that these engines can operate continuously 24 hours a day, 7 days a week based on produced gas supply and/or electrical demand. Upon observing these engines, staff did not see any emission control devices on them. Staff also has observed that multiple engines can operate within close proximity to each other where although a single engine may be rated at less than 50 bhp, the aggregate horsepower of all of the engines on the site exceeds 50 bhp. In addition, staff has observed that some of these engines are located within less than 1000 feet of sensitive receptors such as residences and other dwellings.

During the third working group meeting that was held on December 14, 2023, staff received a comment inquiring if the produced gas could be reinjected back into the ground. Staff researched the inquiry and held a meeting with an LA City Planning employee and discovered that reinjecting gas back into the ground is discouraged due to safety concerns of having gas stored below residential neighborhoods. Additionally, LA City prefers to have the produced gas used in microturbines that meet certain emission standards. Staff also recognizes that CalGEM already regulates injection wells, including underground gas storage.

To address concerns over these engines, staff is proposing that engines meet the NO_x emission limit applicable to engines regulated by Rule 1110.2 irrespective of rating. Currently, the NO_x emission limit for Rule 1110.2 engines is established at 11 ppmv at 15% O₂, on a dry basis with limited exceptions. To phase in compliance with this proposal, staff proposes a two-year implementation period from the date of the rule amendment to be reasonable amount of time for operators of such equipment to either retrofit existing equipment, install new equipment, or find alternative solutions.

- Paragraph (d)(16) – Staff has added a NO_x emission limit to stationary turbines that are powered by produced gas. During site visits, staff observed stationary turbines being used to process produced gas from oil field sites generating electricity that was either being used onsite or was exported to the electrical power grid. For stationary turbines rated greater than 0.3 MW, Rule 1134 applies; however, for units rated less than 0.3 MW, no emission limits are applicable. Staff has generally observed microturbines that are rated at 65 kW (0.065 MW) at various oil and gas production sites with some larger ones rated at 200 kW (0.2 MW).

To address concerns over turbines that are not subject to Rule 1134, staff is proposing that all stationary turbines meet the NO_x emission limit applicable to stationary turbines as regulated by Rule 1134 irrespective of rating. Staff considers that the amount of microturbines installed and operated at oil and gas production sites to be a small number. Thus, rather than amend Rule 1134, staff is including this subset of turbines in this rule. Currently, the NO_x emission limit for Rule 1134 turbines fueled by produced gas engines is established at 9 ppmv at 15% O₂, on a dry basis with limited exceptions. To phase in compliance with this proposal, staff proposes a two-year implementation period from the date of the rule amendment to be

reasonable amount of time for operators of such equipment to either retrofit existing equipment, install new equipment, or find alternative solutions.

- Paragraph (d)(17) – Staff is proposing that workover rigs used at oil and gas well sites be equipped with at least a Tier 4 Final engine. Based on AB 617 community concerns over emissions from diesel workover rigs, staff conducted site visits and also researched the potential emission reductions and feasibility of requiring electrified workover rigs. Part of the research included conducting a cost-effectiveness analysis. The results indicated that electrifying the workover rigs would exceed the cost-effectiveness threshold and take many more years to implement due to lack of infrastructure that would be needed.

To address concerns over emissions from workover rigs, staff is proposing requiring all workover rigs to meet Tier 4 Final standards. While conducting research on this proposal staff found that the emission reductions on a Tier 4 Final engine are significant compared to Tier 2 level engines and this requirement was found to be cost-effective. Staff is proposing a three-year implementation period from the date of this rule amendment to either upgrade or replace their fleet of workover rigs. In addition, staff has found that some oil and gas operators have already upgraded part of their workover fleet to meet Tier 4 Final engine standards.

- Paragraph (d)(18) – Staff is proposing to ban the use of odorants, specifically odorants that are used to mask another chemical substance’s smell. AB 617 community stakeholders have expressed concerns about the use of odorants and the potential exposure to unknown chemicals.

Staff researched and found that some oil and gas production site operators are using odorants with strong fruit fragrances like guava or cherry. These operators have attempted to mask petroleum and oily-type odors with these odorants but it has led to several public nuisance violations with complaints of rotten fruit-type odors mixed with petroleum odors. Some complainants described having headaches. Mistrust has been created among community members due to the lack of knowledge about an odorant’s chemicals and the substance that is being masked with the odorant. Odorants are generally composed of hydrocarbons such as alcohols and glycols but may also contain phenols or aromatics. These chemicals contribute to ozone formation and public nuisance complaints. They may also have health impacts depending on the type and quantity of the odorant substance.

Paragraph (d)(19) - Staff recognizes that oil and gas operators may use neutralizing agents as an alternative to odorants for maintenance of their wells, including during the removal of well tubing as the well tubing may have its own odors. Neutralizing agents work to “knock out” or eliminate the odors, as opposed to masking the odors. Staff has proposed to allow the continued use of neutralizing agents that do not contain any toxics listed in Rule 1401 in quantities greater than 0.1% by weight. Staff also suggests that neutralizing agents be applied in liquid or droplet form and should not be atomized. If a neutralizing agent were atomized into the air, these

chemicals may create odors. Staff has added definitions to clarify the differences in this requirement by adding the word ‘odorant’ and the word ‘neutralizing agent’ to the list of definitions.

It should be noted that this requirement does not affect the use of mercaptans or other chemicals that are purposefully injected into specific gas lines for safety purposes such as for detecting a gas leak in gas lines that are used, for example, in sales.

- Paragraph (d)(20) – Staff is proposing to require operators to submit a notification within twenty-four hours of discovering a leak greater than 25,000 ppmv VOC. Notifications were requested by community stakeholders that are interested in knowing when a leak has been found so that they can choose their next course of action.

Operators will report leaks using the existing portal that is currently being used to submit notifications under Rule 1148.2. Interested parties that have signed up to receive Rule 1148.2 notifications will also receive notifications of reported leaks. The proposed data to be submitted will include facility information, leak concentration, date of discovery, and status of any repairs.

Subdivision (e) – Operator Inspection Requirements

- Paragraph (e)(6) – Staff has added an enhanced leak detection requirement using an OGI camera. The requirement has been modeled after the OGI requirement found in SJVAPCD Rule 4409. Comparing the use of an OGI camera with the use of a TVA, staff recognizes differences between the two applications. The OGI camera is expected to be used as a screening tool. With its current technological capabilities, an OGI camera cannot quantify an emission concentration whereas a TVA can report an emission in a concentration value. However, an OGI camera can scan more components quicker than a TVA, which can only inspect one component at a time. Used together, this technology is expected to give an operator the ability to identify leaks faster and to repair them sooner, compared with not using both in unison.

Staff has added two options that operators can choose from when conducting their monthly OGI inspections and repairs under (e)(6)(B)(ii). If only using an OGI camera and quantification through use of a TVA is not initially made, operators will be required to repair any discovered leaks within twenty-four hours of discovery. Additionally, if any leak cannot be repaired within twenty-four hours, then the operator will be required to quantify the leak within forty-eight hours of leak discovery and to follow Rule 1173 subdivision (g) ~~the Repair Period Table in Rule 1173~~. Note the repair period timing pursuant to Rule 1173 starts once quantification is made and the concentration of the leak is known.

If using both an OGI camera and an appropriate analyzer, operators will be required to repair any discovered quantified leaks within the time allowed pursuant to Rule 1173 subdivision (g)

~~the Repair Period Table in Rule 1173.~~ In either option where quantification is needed, an appropriate analyzer that complies with paragraph (j)(1) shall be used. The intent of these two options is to give operators flexibility in conducting their monthly inspections. Staff recognizes that operators may not have ready access to a TVA; so, if an operator uses an OGI camera, identifies a leak, and repairs the leak below an OGI visible threshold, rather than wait for a TVA, then staff encourages a repair sooner than later.

Subdivision (i) – Testing Requirements

New subdivision (i) was added to demonstrate compliance with emission limits proposed in the amendment to the rule.

- Paragraph (i)(1) – Staff added a source testing requirement for engines that use produced gas as a fuel source in order to demonstrate compliance with its emission limit. Prior to this amendment, many engines that fell under this category were rated under 50 bhp and no testing requirement was in place. Although these engines may be considered small, they can operate 24 hours a day, 7 days a week and cumulatively, the amount of emissions can be significant.
- Paragraph (i)(2) – Staff added a source testing requirement for stationary turbines that use produced gas as a fuel source in order to demonstrate compliance with its emission limit. Although this provision is identical to the provision in paragraph (i)(1), it is included to distinguish turbines from engines. Specifically, an exemption from source testing is provided in paragraph (k)(5) if the turbine is certified through CARB’s Distributed Generation program. No similar program is available for engines using produced gas.

Subdivision (j) – Test Methods

- Paragraph (j)(6) – Since emission limits for equipment have been included in this amendment, staff is adding that any source testing be completed per South Coast AQMD Method 100.1.

Subdivision (k) – Exemptions

- Paragraph (k)(5) – Staff added an exemption for a stationary turbine that has been certified by CARB Distributed Generation Certification program such that no source test of the engine shall be required. For engines that have not been certified as such, they will be required to demonstrate compliance via a periodic source test.

Other Revisions

- Since the 2015 Amendment to the rule, the California Department of Conservation, Division of Oil, Gas and Geothermal Resources (DOGGR) has been replaced by the California Geologic Energy Management (GEM) Division. Reference to DOGGR has been replaced with GEM.
- The name of the agency such as AQMD or District has been replaced by the South Coast AQMD.
- Staff updated references within the rule to account for amendments and deleted obsolete wording and provisions.
- Staff considered revisions to paragraph (d)(8) but believes that the current language allows flexibility to address leaks from equipment associated with well heads and well cellars. For example, produced gas from a tank that has been blocked-in but contains inventory from oil and gas field production activities shall be routed to a system handling gas for fuel, sale, or underground injection or to a control device so as to avoid leaks.

CHAPTER 4: IMPACT ASSESSMENTS

INTRODUCTION

EMISSION REDUCTIONS

COST-EFFECTIVENESS

INCREMENTAL COST-EFFECTIVENESS

SOCIOECONOMIC IMPACT ASSESSMENT

CALIFORNIA ENVIRONMENTAL QUALITY ACT ANALYSIS

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CODE SECTION 40727

COMPARATIVE ANALYSIS

INTRODUCTION

Impact assessments were conducted as part of PAR 1148.1 rule development to assess the environmental and socioeconomic implications of PAR 1148.1. These impact assessments include emission reduction calculations, cost-effectiveness and incremental cost-effectiveness analyses, a socioeconomic assessment, and a California Environmental Quality Act (CEQA) analysis. Staff prepared draft findings and a comparative analysis pursuant to Health and Safety Code Sections 40727 and 40727.2, respectively.

EMISSION REDUCTIONS

PAR 1148.1 will establish more stringent control and monitoring requirements at oil and gas production sites that will result in emission reductions.

OGI Monitoring

Staff is proposing the monthly use of OGI as a tool to find leaks from equipment regulated by this rule. By using OGI, leaks can be discovered and repaired sooner than through current inspection frequency and technique. Emission reductions from this proposal were calculated based on estimated baseline emissions and assumed one major leak per year from 10% of the 330 affected facilities. Staff used a leak rate of 200 lbs/day of VOC for each assumed major leak rate. This assumed leak rate is 98% smaller than the leak rate used in Rule 1178 but is expected to be consistent with the type of facilities regulated by this rule. Rule 1178 estimated approximately 8,000 lbs/day of emission losses based on U.S. EPA's 2016 Control Technology Guidelines for Oil and Gas Industry.⁵

Based on the current quarterly inspection frequency, staff assumes that an undiscovered leak occurs at a midpoint between inspections of 45 days. If the inspection frequency is increased to monthly, then staff assumes that an undiscovered leak occurs at a midpoint of 15 days. Comparing the current quarterly inspection frequency using the TVA to the proposed monthly frequency using OGI equipment, staff predicts that a potential leak may be discovered and repaired approximately 30 days sooner, a difference between 45 and 15 days.

To establish a baseline rate of potential emission, staff performed the following calculation:

- One leak per year from 10% of 330 affected facilities
- A leak rate of 200 lbs/day of VOC
- 45 days before a leak is identified

⁵ South Coast AQMD Rule 1178 – Further Reductions of VOC Emissions from Storage Tanks at Petroleum Facilities: <https://www.aqmd.gov/docs/default-source/rule-book/Proposed-Rules/1178/par-1178-draft-staff-report--final.pdf>, p. 4-2, accessed on September 19, 2023.

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- Calculation – (1 leak/yr) x (33 facilities) x (200 lbs VOC/day) x (45 days) x (1 yr/365 day) x (1 ton/2000 lb) = 0.40 ton VOC/day
 - Using these assumptions, a potential baseline of 0.40 ton per day of VOC is attributable to Rule 1148.1 related equipment.

With OGI monthly inspections, staff anticipates a reduction in VOC emissions compared to the baseline. To determine the reduction, staff performed the following calculation:

- One leak per year from 10% of 330 affected facilities
- A leak rate of 200 lbs/day of VOC
- Discovery of a leak 30 days sooner
- Calculation – (1 leak/yr) x (33 facilities) x (200 lbs VOC/day) x (30 days) x (1 yr/365 day) x (1 ton/2000 lbs) = 0.27 ton VOC/day
- Using these assumptions, a potential reduction of 0.27 ton per day of VOC is attributable to OGI monthly inspections.

Fenceline Monitoring

Stationary Gas Sensors

Staff researched different types of fenceline monitoring systems and found that several oil and gas facilities had stationary gas sensors installed, primarily as a trial run for data collection. Staff found that stationary gas sensors detect the targeted gas/emission such as VOCs once it makes contact with its sensor. During the research of fenceline monitors staff found that the number of sensors needed at each site varied depending on the size and terrain.

To determine potential emission reductions through fenceline monitoring using stationary gas sensors, staff used a similar approach to that used for OGI monitoring. In this case, since stationary monitors operate continuously, the emission reduction is credited as saving 45 days of undiscovered emissions. To quantify the reduction, staff performed the following calculation:

- One leak per year from 10% of 330 affected facilities
- A leak rate of 200 lbs/day of VOC
- 45 days of a leak that was identified
- Calculation – (1 leak/yr) x (33 facilities) x (200 lbs VOC/day) x (45 days) x (1 yr/365 day) x (1 ton/2000 lbs) = 0.40 ton VOC/day
- Using these assumptions, a potential reduction of 0.40 ton per day of VOC is attributable to stationary gas sensors.

Open Path Sensors

As an alternative to stationary gas sensors staff researched open path sensors and found that they use a transmitter to transmit a beam to a reflector that sends the beam back. Detection of a targeted

gas/emission such as VOCs is made when it makes contact with the beam. Staff did not find any oil and gas production sites using open path sensors but included this as an option. Since open path sensors operate continuously like stationary gas sensors, a potential emission reduction equivalent of 0.40 ton per day of VOC would be expected. See calculation performed in the previous section for additional details.

Engines Powered by Produced Gas

Staff is proposing requiring facilities that use their produced gas to power engines that drive oil producing wells to meet a NO_x emission standard of 11 ppmv @ 15% O₂ on a dry basis. This emission limit was obtained from South Coast AQMD Rule 1110.2 Table 2 for stationary engines. Emission reductions from this proposal were calculated based on the assumption that an unregulated engine used in this service has equivalent emissions of a spark ignition engine.⁶ The reason that staff assumed a spark ignition engine is that these engines were powered by produced gas versus diesel as with typical compression ignition engines. With the proposed exhaust emission controls using a 3-way catalyst with an air-to-fuel ratio control, staff expects a reduction in NO_x emissions of approximately 90% based on current technology performance of a 3-way catalyst.

To determine potential reductions in NO_x emissions through the installation of exhaust emission controls, staff performed the following calculation:

- Uncontrolled emission factor for spark ignition engine of 1.5 g/hp-hr NO_x (CARB reference emission data)
- Engine rated at 50 bhp
- Engine operates continuously: 24 hours, 365 days
- 90% reduction efficiency for catalyst system
- Calculation – (90% reduction) x (1.5 g/hp-hr) x (50 hp) x (365 days/yr) x (24 hr /day) x (1 lb/453 g) x (1 ton/2000 lbs) x (1 yr/365 days) = 0.0018 ton NO_x/day
- Using these assumptions, a potential reduction of 0.0018 ton per day of NO_x is attributable to the installation of exhaust emission controls

It should be noted that this calculation is on a per engine basis and the total emissions reduced will vary by the actual number of engines retrofitted and used at oil and gas production sites.

Microturbines Powered by Produced Gas

As an alternative to routing produced gas to engines, staff acknowledges that stationary gas turbines can also use produced gas resulting in a similar NO_x emission reduction of approximately 90%. Staff is proposing that the NO_x emission limit for microturbines be 9 ppmv @ 15% O₂ on a dry basis, which was obtained from Table 1 from Rule 1134 for stationary gas turbines. Emission

⁶ California Air Resources Board – PERP Regulation : https://ww2.arb.ca.gov/sites/default/files/2020-03/PERP_Reg_12.5.18R.pdf, p. 21, accessed on November 1, 2023.

reductions from this proposal were calculated based on the assumption that one microturbine would replace three unregulated engines with equivalent emissions of spark ignition engines, as referenced above in the “Engines Powered by Produced Gas” section. Staff selected this ratio as representative of the amount of gas needed to sustain operation of a small microturbine relative to the amount of gas needed to sustain operation of an engine.

To determine potential reductions in NO_x emissions through the installation of a microturbine replacing engines operating on produced gas, staff performed the following calculation:

- Uncontrolled emission factor for spark ignition engine of 1.5 g/hp-hr NO_x (CARB reference emission data)
- Engines rated at 50 bhp (3 engines = 150 hp capacity)
- Engine operates continuously: 24 hours, 365 days
- Emission factor for a microturbine of 0.16 g/hp-hr (from manufacturer datasheet)
- Calculation – $(1.5 \text{ g/hp-hr} - 0.16 \text{ g/hp-hr}) \times (150 \text{ hp}) \times (365 \text{ days/yr}) \times (24 \text{ hr /day}) \times (1 \text{ lb/453 g}) \times (1 \text{ ton/2000 lbs}) \times (1 \text{ yr/365 days}) = 0.005 \text{ ton NO}_x/\text{day}$
- Using these assumptions, a potential reduction of 0.005 ton per day of NO_x is attributable to the installation of one microturbine in lieu of three engines

It should be noted that this calculation is on a per microturbine basis and the total emissions reduced will vary by the actual number of microturbines installed and used at oil and gas production sites.

Use of Tier 4 Final Workover Rigs

Staff is proposing that workover rigs be powered by engines that are at least rated as Tier 4 Final. By requiring the use of Tier 4 Final engines on workover rigs, staff expects a significant reduction in emissions whenever the use of workover rigs is required. Staff assumed that the emissions from current workover rigs to be at Tier 2 levels. Staff also assumed that a workover rig is required four times per year at each site, is used four days per week, and eight hours per day. Workover rig engine size will vary. Staff assumed a rating of 600 hp to be representative of a typical engine. As noted previously, staff identified that there are approximately three hundred and thirty sites. To service these sites, staff estimated that approximately 40 rigs may be needed to cover potential demand.

To determine potential reductions in NO_x emissions through the requirement of using Tier 4 Final rated engines relative to Tier 2 engines on a workover rig, staff performed the following calculation:

- Tier 2 NO_x emission factor of 4.5 g/bhp-hr
- Tier 4 Final NO_x emission factor of 0.30 g/bhp-hr
- Approximately 40 rigs may be needed
- Operation of a rig is 4 days per week, 8 hours per day

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- Typical engine size is 600 bhp
 - Calculation – $(4.5 \text{ g/hp-hr} - 0.30 \text{ g/hp-hr}) \times (40 \text{ rigs}) \times (600 \text{ hp}) \times (8 \text{ hrs/day}) \times (4 \text{ days/week}) \times (52 \text{ weeks/yr}) \times (1 \text{ lb}/453 \text{ g}) \times (1 \text{ ton}/2000 \text{ lbs}) \times (1 \text{ yr}/365 \text{ days}) = 0.51 \text{ ton NOx/day}$
 - Using these assumptions, a potential reduction of 0.51 tons per day of NOx is attributable to the requirement of using Tier 4 Final rated engines relative to Tier 2 engines on a workover rig

Electrification of Workover Rigs

Staff researched the feasibility of requiring oil and gas production facilities to use electrified workover rigs instead of workover rigs equipped with diesel engines. During the rule development process, staff visited multiple oil and gas production sites and spoke to industry representatives and vendors. From these discussions and interaction, staff was made aware that the use of an electrically powered drilling/workover rig was only available at two sites. Staff visited these sites and found that these two sites were unique in that each had dedicated infrastructure installed to meet the electrical demands of these electrified drilling/workover rigs. Staff noted that these electrified drilling/workover rigs were designed to only operate at their respective sites and were not mobile.

To determine potential reductions in NOx emissions through the use of an electrified rig, staff performed a calculation similar to one comparing using Tier 4 Final rated engines relative to Tier 2 engines on a workover rig. In this case, however, an electrified rig is assumed to emit zero NOx emissions.

- Tier 2 NOx emission factor of 4.5 g/bhp-hr
- Approximately 40 rigs may be needed
- Operation of a rig is 4 days per week, 8 hours per day
- Typical engine size is 600 bhp
- Calculation – $(4.5 \text{ g/hp-hr}) \times (40 \text{ rigs}) \times (600 \text{ hp}) \times (8 \text{ hrs/day}) \times (4 \text{ days/week}) \times (52 \text{ weeks/yr}) \times (1 \text{ lb}/453 \text{ g}) \times (1 \text{ ton}/2000 \text{ lbs}) \times (1 \text{ yr}/365 \text{ days}) = 0.54 \text{ ton NOx/day}$
- Using these assumptions, a potential reduction of 0.54 ton per day of NOx is attributable to the requirement of using an electrified rig versus a rig equipped with Tier 2 engines

Elimination of Odorants

Due to concerns raised by stakeholders, staff proposes to eliminate the use of odorants. Although some odorants may contain VOC material, the overall reduction in VOC emissions associated with this activity is not expected to be significant.

Improved Signage

By producing and installing new signs at oil and gas production sites, some additional emission reductions may be generated, but these are expected to be one-time occurrences and are not expected to be significant.

COST-EFFECTIVENESS

Health and Safety Code Section 40920.6 requires a cost-effectiveness analysis when establishing BARCT requirements. The cost-effectiveness of a control is measured in terms of the control cost in dollars per ton of air pollutant reduced. The costs for the control technology include purchasing, installation, operation, maintenance, and permitting. Emission reductions were calculated for each requirement and based on estimated baseline emissions. The 2022 AQMP established a cost-effectiveness threshold of \$36,000 per ton of VOC reduced. A cost-effectiveness that is greater than the threshold of \$36,000 per ton of VOC reduced requires additional analysis and a hearing before the Governing Board on costs. The 2022 AQMD also established a cost-effectiveness threshold of \$325,000 per ton of NOx reduced. A cost-effectiveness that is greater than the threshold of \$325,000 per ton of NOx reduced would also require additional analysis and a hearing before the Governing Board on costs.

The cost-effectiveness is estimated based on the present value of the retrofit cost, which was calculated according to the capital cost (initial one-time equipment and installation costs) plus the annual operating cost (recurring expenses over the useful life of the control equipment multiplied by a present worth factor).

$$\text{Cost-Effectiveness (CE)} = \text{Present Worth Value (PWV)} / \text{Emission Reduction (ER)}$$

$$\text{PWV} = \text{Total Install Cost (TIC)} + \text{Present Worth Factor (PWF)} \times \text{Annual Cost (AC)}$$

Capital costs are one-time costs that cover the components required to assemble a project. Annual costs are any recurring costs required to operate equipment. Costs were obtained for OGI monitoring, retrofitting an existing engine powered by produced gas to drive a well, microturbines powered by produced gas, Tier 4 Final equipped workover rigs, and electrification of workover rigs.

OGI Monitoring

Staff is proposing the monthly use of OGI equipment as a tool to find leaks from equipment regulated by this rule. Costs for this proposal were obtained from vendors and facilities. Some oil and gas companies already use an OGI camera and staff was able to obtain further cost information

such as maintenance and labor. In addition, South Coast AQMD retains OGI cameras, and training and maintenance cost information was available.

The following information was used to calculate the cost-effectiveness of purchasing and using an OGI camera:

- Number of oil and gas companies to be at approximately 80
- Cost of an OGI camera = \$120,000 with a 10-year life span
- Annual maintenance = \$1000
- Training = \$1,000 every two years (\$500 per year)
- In-House labor 1 person working 8 hours/day at \$50/hr = \$400/day
- Monthly inspections = 12/year
- Emission reduction based on analysis conducted previously = 0.27 tpd VOC

- PWF = 8.111 for a 10-year life expectancy at 4% interest rate
- TIC = \$120,000 x 80 cameras = \$9,600,000
- AC = \$1000 [maintenance] + \$500 [training] + (1 person x 8 hr/day x \$50/hr x 12 inspections/yr) [labor] = \$6300 per OGI camera or \$504,000 for 80 cameras
- PWV = \$9,600,000 + 8.111 x \$540,000 = \$13,688,000
- ER = (0.27 tpd VOC) x (365 day/yr) x (10 years) = 990 tons VOC
- CE = \$13,688,000 / 990 tons VOC reduced = \$13,800/ton VOC reduced

Based on these assumptions, the cost-effectiveness for requiring monthly inspections using OGI cameras is calculated to be \$13,800/ton VOC reduced.

Fenceline Monitoring

Stationary Gas Sensors

As an alternative to OGI cameras, staff researched the use of stationary gas sensors for the monitoring of VOCs. Costs used in this analysis were obtained from oil and gas facilities that have already installed stationary gas sensors.

The following information was used to calculate the cost-effectiveness of purchasing and installing fenceline monitoring equipment:

- Number of oil and gas sites is approximately 330
- Cost of each sensor = \$3,115
- Number of sensors at a site = 14
- Installation cost of \$30,000

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- Estimated life span of 10 years
 - Annual maintenance = \$10,000
 - Emission reduction based on analysis conducted previously = 0.40 tpd VOC

 - PWF = 8.111 for a 10-year life expectancy at 4% interest rate
 - TIC = (14 sensors x \$3,115 + \$30,000), all multiplied by 330 sites = \$24,291,300
 - AC = \$10,000 x 330 sites = \$33,000,000
 - PWV = \$24,291,300 + 8.111 x \$33,000,000 = \$51,057,600
 - ER = (0.40 tpd VOC) x (365 day/yr) x (10 years) = 1,460 tons VOC
 - CE = \$51,057,600 / 1,496 tons VOC reduced = \$34,971/ton VOC reduced

Based on these assumptions, the cost-effectiveness for the use of stationary gas sensors is calculated to be \$34,971/ton VOC reduced.

Staff considered both stationary gas sensors and the use of OGI cameras and calculated the incremental cost-effectiveness for both options. This analysis is included in the section “Incremental Cost-Effectiveness”.

Open Path Sensors

Open path sensors are an alternative to stationary gas sensors and work in a different way by having a beam projected from a transmitter to a reflector. Staff did not find an oil and gas site using this type of technology; however, staff is aware that it is being used at oil refineries. The staff report from South Coast AQMD Rule 1178 included cost-effective data which was used for this staff report.

The following information was used to calculate the cost-effectiveness of purchasing and installing fenceline monitoring equipment:

- Number of oil and gas sites to be at approximately 330
- Cost of each sensor = \$190,000
- Installation cost per sensor = \$190,000
- Number of sensors at a site = 4
- Estimated life span of 20 years
- Annual maintenance = \$5,000
- Emission reduction based on analysis conducted previously = 0.40 tpd VOC

- PWF = 13.59 for a 20-year life expectancy at 4% interest rate
- TIC = (4 sensors x \$380,000), all multiplied by 330 sites = \$501,600,000
- AC = \$5,000 x 330 sites = \$1,650,000

- $PWV = \$501,600,000 + 13.59 \times \$1,650,000 = \$503,250,000$
- $ER = (0.40 \text{ tpd VOC}) \times (365 \text{ day/yr}) \times (20 \text{ years}) = 2,920 \text{ tons VOC}$
- $CE = \$503,250,000 / 2,920 \text{ tons VOC reduced} = \$172,346/\text{ton VOC reduced}$

Based on these assumptions, the cost-effectiveness for the use of open path sensors is calculated to be \$172,346/ton VOC reduced.

It should be noted that this type of enhanced leak detection technology exceeds the cost-effective VOC threshold.

Engines Powered by Produced Gas

Staff is proposing that engines that are powered by produced gas and are used to drive an oil producing meet a NO_x standard of 11 ppmv @ 15% O₂ on a dry basis. Staff researched technologies that could be used to meet this standard and also the option to replace these engines with microturbines which is discussed in the next section. Staff obtained cost information for the technology upgrades from vendors that supply and service engines to oil and gas facilities. Staff also used cost information for exhaust emission controls that was collected for the November 2019 amendment to Rule 1110.2.

The following information was used to calculate the cost-effectiveness of upgrading engines powered by produced gas used to drive an oil producing well:

- Cost of 3-way catalyst = \$5,000
- Cost of air/fuel ratio controller = \$1,000
- Cost of installation of parts = \$5,000
- Estimated life span of 3 years for parts operating 24 hrs/day
- Annual maintenance = \$1,000
- Emission reduction based on analysis conducted previously = 0.0018 tpd NO_x
- $PWF = 2.78$ for a 3-year life expectancy at 4% interest rate
- $TIC = \$11,000$
- $AC = \$1,000$
- $PWV = \$11,000 + 2.78 \times \$1,000 = \$13,775$
- $ER = (0.0018 \text{ tpd NO}_x) \times (365 \text{ day/yr}) \times (3 \text{ years}) = 1.971 \text{ tons NO}_x$
- $CE = \$13,775 / 1.971 \text{ tons NO}_x \text{ reduced} = \$7,000/\text{ton NO}_x \text{ reduced}$

Based on these assumptions, the cost-effectiveness for upgrading engines powered by produced gas used to drive an oil producing well is calculated to be \$7,000/ton NO_x reduced.

Microturbines Powered by Produced Gas

As an alternative to requiring emissions controls on engines, staff is proposing that microturbines replace engines that use produced gas. The NO_x emission standard for microturbines is 9 ppmv @ 15% O₂ on a dry basis. It is assumed that one microturbine would replace three engines that are each being used to drive three wells. Staff obtained cost information on microturbines from a local vendor that offers them for sale with South Coast AQMD's jurisdiction.

The following information was used to calculate the cost-effectiveness of purchasing a microturbine rated at 65 kilowatts (kW):

- Cost of microturbine = \$150,000
- Microturbine installation cost = \$300,000
- Cost of electric motor = \$5,000 (x 3 for 3 electric motors) needed to drive wells
- Installation of electric motors = \$5,000 (x3 for 3 electric motors) needed to drive wells
- Estimated life span of 10 years
- Annual maintenance = \$10,000
- Emission reduction based on analysis conducted previously = 0.005 tpd NO_x

- PWF = 8.111 for a 10-year life expectancy at 4% interest rate
- TIC = \$480,000
- AC = \$10,000
- PWV = \$480,000 + 8.111 x \$10,000 = \$561,110
- ER = (0.005 tpd NO_x) x (365 day/yr) x (10 years) = 18.25 tons NO_x
- CE = \$561,110 / 18.25 tons NO_x reduced = \$30,700/ton NO_x reduced

Based on these assumptions, the cost-effectiveness for installing a microturbine powered by produced gas used to drive an oil producing well is calculated to be \$30,700/ton NO_x reduced.

Use of Tier 4 Final Workover Rigs

Staff is proposing that engines on workover rigs be at least rated as Tier 4 Final. Staff obtained cost data from several operators that have either upgraded or replaced their workover rigs to be equipped with Tier 4 Final engines.

The following information was used to calculate the cost-effectiveness of purchasing a Tier 4 Final engine equipped workover rig:

- Cost of Tier 4 Final engine equipped workover rig = \$1,000,000
- Estimated life span of 20 years
- Estimated number of Tier 4 Final engine equipped workover rigs needed to meet demand throughout South Coast AQMD's jurisdiction = 40

- Annual maintenance = \$20,000
- Emission reduction based on analysis conducted previously = 0.51 tpd NOx
- PWF = 13.59 for a 20-year life expectancy at 4% interest rate
- TIC = 40 rigs x \$1,000,000 = \$40,000,000
- AC = 40 rigs x \$20,000 = \$80,000
- PWV = \$40,000,000 + 13.59 x \$800,000 = \$50,872,000
- ER = (0.51 tpd NOx) x (365 day/yr) x (20 years) = 3,723 tons NOx
- CE = \$50,872,000 / 3,723 tons NOx reduced = \$13,700/ton NOx reduced

Based on these assumptions, the cost-effectiveness for replacing older model workover rigs with engines that are at least rated as Tier 4 Final is calculated to be \$13,700/ton NOx reduced.

Electrification of Workover Rigs

Staff researched the feasibility of oil and gas production facilities using electrified workover rigs instead of workover rigs equipped with diesel engines. During the rule making process staff received cost information from the only two operators that currently have an electrified workover rig on their respective sites. No other facility was found to have an existing electrified rig. Staff found that a substation would need to be installed at *each* site in order to meet the electrical demands that an electrified workover rig would require.

The following information was used to calculate the cost-effectiveness of requiring an electrified workover rig:

- Number of oil and gas sites to be at approximately 330
- Cost of electrified workover rig = \$10,000,000
- Cost of substation per site = \$5,000,000
- Estimated life span of 20 years
- Estimated number of electrified workover rigs needed to meet demand throughout South Coast AQMD's jurisdiction = 40
- Annual Maintenance for the rigs = \$20,000
- Annual Maintenance for the substations = \$10,000
- Emission reduction based on analysis conducted previously = 0.54 tpd NOx
- PWF = 13.59 for a 20-year life expectancy at 4% interest rate
- TIC = 40 rigs x \$10,000,000 + 330 substations x \$5,000,000 = \$2,050,000,000
- AC = 40 rigs x \$20,000 + 330 substations x \$10,000 = \$4,100,000
- PWV = \$2,050,000,000 + 13.59 x \$4,100,000 = \$2,054,100,000
- ER = (0.54 tpd NOx) x (365 day/yr) x (20 years) = 3,942 tons NOx

- $CE = \$2,054,100,000 / 3,942 \text{ tons NO}_x \text{ reduced} = \$521,080/\text{ton NO}_x \text{ reduced}$

Based on these assumptions, the cost-effectiveness for replacing older model workover rigs with an electrified rig (and the installation of the requisite infrastructure) is calculated to be \$521,080/ton NO_x reduced.

It should be noted that the electrification of workover rigs exceeds the cost-effective NO_x threshold.

Elimination of Odorants

The elimination of odorants is not expected to produce any significant reductions in VOC emissions. Moreover, the elimination of odorants does not result in any new cost incurred by operators, but rather it is a cost that is no longer spent. Therefore, no cost-effective analysis was conducted for this proposal.

Improved Signage

By producing and installing new signs at oil and gas production sites, some additional emission reductions may be generated, but these are expected to be one-time occurrences and are not expected to be significant. Staff acknowledges that there will be one-time costs associated with this proposal but does not consider these costs to be significant. Therefore, no cost-effective analysis was conducted for this proposal.

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, SO_x, NO_x, and their precursors.

Options for Enhanced Monitoring

Staff conducted an incremental cost-effectiveness for OGI camera usage and stationary gas sensor monitoring as they both use enhanced technology for the detection of fugitive VOC emissions. Staff used the following formula to calculate incremental cost-effectiveness where option 1 is OGI monitoring and option 2 is stationary gas monitoring:

$$\text{Incremental Cost-Effectiveness} = \frac{\text{Cost of Option 2} - \text{Cost of Option 1}}{\text{Benefit of Option 2} - \text{Benefit of Option 1}}$$

$$\text{Incremental Cost-Effectiveness} = \frac{\$51,057,600 - \$13,688,000}{1,460 \text{ tons} - 990 \text{ tons}}$$

The incremental cost-effectiveness of using stationary gas sensors compared to OGI technology is calculated to be \$79,510/ton VOC reduced.

Staff found that it was not cost-effective to use stationary gas sensors relative to OGI technology and therefore recommends the use of OGI technology as it is a more active and robust use of enhanced leak detection technology.

Options for Tier 4 Final Engine versus Electrification

Staff conducted an incremental cost-effectiveness for Tier 4 Final workover rigs versus electrified workover rigs where option 1 is the use of Tier 4 Final workover rigs and option 2 is the use of electrified workover rigs:

$$\text{Incremental Cost-Effectiveness} = \frac{\$2,050,000,000 - \$50,872,000}{3,942 \text{ tons} - 3,723 \text{ tons}}$$

The incremental cost-effectiveness of using electrified workover rigs compared to Tier 4 Final workover rigs is calculated to be \$9,100,000/ton VOC reduced.

Staff found that it was not cost-effective to use electrified workover rigs relative to Tier 4 Final workover rigs.

SOCIOECONOMIC IMPACT ASSESSMENT

Health and Safety Code Section 40440.8 requires a socioeconomic impact assessment for proposed and amended rules resulting in significant impacts to air quality or emission limitations. A Draft Socioeconomic Impact Assessment for PAR 1148.1 has been prepared and released for public review and comment on July 2, 2024. The Final Socioeconomic Impact Assessment is available in Attachment I of the August 2, 2024 Governing Board Package.

CALIFORNIA ENVIRONMENTAL QUALITY ACT ANALYSIS

Pursuant to the California Environmental Quality Act (CEQA) Guidelines Sections 15002(k) and 15061, the proposed project (PAR 1148.1) is exempt from CEQA pursuant to CEQA Guidelines Section 15061(b)(3). A Notice of Exemption has been prepared pursuant to CEQA Guidelines Section 15062, and 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, and with the State Clearinghouse of the Governor's Office of Planning and Research.

DRAFT FINDINGS UNDER HEALTH AND SAFETY CODE SECTION 40727*Requirements to Make Findings*

Health and Safety Code Section 40727 requires that the Board 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. In order to determine compliance with Health and Safety Code Sections 40727 and 40727.2, a written analysis is required comparing the proposed amended rule with existing regulations.

Necessity

A need exists to amend PAR 1148.1 to implement best available retrofit control technology and emission reduction strategies recommended in the WCWLB and SLA CERPs as part of the AB 617 commitment.

Authority

The South Coast AQMD obtains its authority to adopt, amend, or repeal rules and regulations pursuant to Health and Safety Code Sections 39002, 40000, 40001, 40440, 40702, 40725 through 40728, 40920.6, and 41508.

Clarity

PAR 1148.1 is written or displayed so that its meaning can be easily understood by the persons directly affected by them.

Consistency

PAR 1148.1 is in harmony with and not in conflict with or contradictory to existing statutes, court decisions, or state or federal regulations.

Non-Duplication

PAR 1148.1 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 South Coast AQMD.

Reference

In amending this rule, the following statutes which the South Coast AQMD hereby implements, interprets, or makes specific are referenced: Health and Safety Code Sections 39002, 40001, 40406, 40702, 40440(a), and 40725 through 40728.5.

COMPARATIVE ANALYSIS

Under Health and Safety Code Section 40727.2, the South Coast AQMD is required to perform a comparative written analysis when adopting, amending, or repealing a rule or regulation. The comparative analysis is relative to existing federal requirements, existing or proposed South Coast AQMD rules and air pollution control requirements and guidelines which are applicable to oil and gas production activities. Because PAR 1148.1 does impose new inspection and reporting requirements, a comparative analysis was conducted.

Table 4-1: Comparative Analysis

Topic	South Coast AQMD Rule 1148.1 Oil and Gas Notification Rule	San Joaquin Valley Air Pollution Control District	CalGEM	State of Colorado, Air Quality Control Commission	U.S. EPA
Newly Added Inspection Requirements	<ul style="list-style-type: none"> Inspections with OGI camera Use of Tier 4 Final diesel engines on workover rigs Establish NOx limits for combustion equipment 	<ul style="list-style-type: none"> OGI usage requires quantification within 2 days of leak detection No relevant requirements for Tier 4 Final engines or NOx limits observed 	<ul style="list-style-type: none"> OGI usage allowed for inspections No relevant requirements for Tier 4 Final engines or NOx limits observed 	<ul style="list-style-type: none"> OGI allowed as alternative instrument monitoring and on drones Tier 4 engines required in impacted communities No relevant NOx limits observed 	<ul style="list-style-type: none"> OGI usage allowed with specific requirements for operator and equipment No relevant requirements for Tier 4 Final engines or NOx limits observed
Other amendments	<ul style="list-style-type: none"> Notification when leak >25,000 ppmv detected Banning use of odorants 	<ul style="list-style-type: none"> Notification required to request extension for repair of leaking component No relevant requirements on odorant use observed 	<ul style="list-style-type: none"> Notification required for leaks > 50,000 ppmv or for leaks >10,000 ppmv persisting more than 5 days No relevant requirements on odorant use observed 	<ul style="list-style-type: none"> Notification within 5 days of discovery for unrepaired leaks No relevant requirements on odorant use observed 	<ul style="list-style-type: none"> No relevant requirements for notification or odorant use observed
Notes		Reviewed Rule 4401 – Steam-Enhanced Crude Oil Production Wells	Reviewed Subarticle 13. Greenhouse Gas Emission Standards for Crude Oil and Natural Gas Facilities	Reviewed Regulation Number 7 of Colorado state Air Quality Control Commission regulations	Reviewed Appendix K “Determination of VOC and Greenhouse Gas Leaks Using Optical Gas Imaging” document
Links	https://www.aqmd.gov/home/rules-compliance/rules/scaqmd-rule-book/proposed-rules/rule-1148-1	https://ww2.valleyair.org/media/be1niqvx/rule-4401.pdf	https://ww2.arb.ca.gov/sites/default/files/2024-05/2024OilandGasRegulationunofficial.pdf	https://cdphe.colorado.gov/aq/cc-regulations	https://www.epa.gov/system/files/documents/2021-11/40-cfr-part-60-appendix-k-proposal_0.pdf

APPENDIX A – RESPONSES TO COMMENT LETTERS

Responses to Comments - Table of Contents

Comments from Public Workshop, Received 2/1/2024

Comment Letter 1: Shannon Smith, Signal Hill Petroleum, Received 2/9/2024

Comment Letter 2: STAND LA, Received 2/15/2024

Comment Letter 3: Center for Biological Diversity, Received 2/15/2024

Comment Letter 4: FracTracker Alliance, Received 4/11/2024

Comments from Public Workshop

Comment PW-1: Shannon Smith, Regulatory Compliance Supervisor from Signal Hill Petroleum had two questions: for OGI inspections, did staff factor in the cost of a toxic vapor analyzer (TVA) as part of the OGI camera cost-effectiveness? Second, did staff do mockup of the proposed signage requirement with four-inch lettering?

Response: Staff did not account for the cost of a TVA since using one during the proposed monthly OGI inspections is optional. Should an owner or operator opt to have a potential repair period consistent with South Coast AQMD Rule 1173, then the use of a TVA would be at their discretion. Second, staff initially proposed to include the signage requirements as promulgated in South Coast AQMD 1460 subdivision (g). However, since the Public Workshop was held, staff met with Signal Hill Petroleum staff and observed that the sign with four-inch lettering is excessively large. Staff is, therefore, proposing that lettering to be two-inches instead of four-inches which is still readable from a public street.

Comment PW-2: Emma Silber, Climate Justice Associate from Physicians for Social Responsibility expressed several concerns. First, by allowing the continued use of neutralizing agents, toxic contaminants would still be released into the air. Second, she was opposed to allowing Tier 4 Final engines to be used rather than requiring electrification. She stated that she had heard of a site that plugged in their workover rig into the electrical grid. Lastly, she expressed a concern over the efficiency of NOx incinerators.

Response: Staff is addressing the concern over the use of neutralizing agents by proposing that no toxic air contaminants listed in South Coast AQMD Rule 1401 would be allowed in any neutralizing agent and that no atomization of any neutralizing agents would be allowed. If a neutralizing agent were used by a site, these prohibitions are intended to prevent the use of air toxics and to keep the chemical from becoming airborne. Second, staff researched the potential electrification of workover rigs. Staff found that although options may exist to use electrically-powered drilling rigs, no commercially available option existed for workover rigs. Lastly, staff noted that NOx incinerators may be used for site-specific, soil remediation projects which would be regulated by South Coast AQMD Rule 1166.

Comment PW-3: Justin Martin, Manager from Pacific Coast Energy Co, asked if detection of visible vapors is in regards with the naked eye or with OGI equipment.

Response: Visible vapors is a new definition for this rule and is defined as VOC vapors detected visually by an operator or with an OGI device.

Comment PW-4: Richard Parks, President from Redeemer Community Partnership, made several comments. First, he commented that Warren E&P had electrified their workover operations and

asked why we did not include this equipment in staff's technology assessment and analysis. Second, Mr. Parks expressed concern that allowing the use of neutralizing agents may not solve the issue of toxic air contaminants causing birth defects and that an odorant called "Chemco Odor Control Jasmine" had an endocrine disruptor. Lastly, Mr. Parks then requested information with whom the South Coast AQMD had spoken with regarding the reinjection of methane because reinjection was what he considered a zero-emission solution to produced gas.

Response: Staff had conducted a site visit to Warren E&P in Wilmington, prior to the Public Workshop, and found that an electrically-powered workover/drilling rig that was on site had been removed several years ago. While on-site, staff witnessed a diesel-powered workover rig conducting general well maintenance. Based on staff's direct observations, it was noted that Warren E&P does not operate an electrified workover nor electrified drilling rig. Second, staff is addressing concern over the use of neutralizing agents by proposing that no toxic air contaminants listed in South Coast AQMD Rule 1401 would be allowed in any neutralizing agent and that no atomization of any neutralizing agents would be allowed. If a neutralizing agent were used by a site, these prohibitions are intended to prevent the use of air toxics and to keep the chemical from becoming airborne. Also, staff reviewed the Safety Data Sheet for "Chemco Odor Control Jasmine" and found that it does contain a prohibited chemical that is listed in Rule 1401. Therefore, under the proposed prohibition, it would no longer be allowed to be used. Lastly, staff has met with staff from the city of Los Angeles Planning Department and found that the City of Los Angeles discourages the practice of gas reinjection within urban areas due to concerns of back pressure buildup underneath residents' homes and also due to the major gas leak that took place at Aliso Canyon a few years ago. In addition, since the Public Workshop took place staff met with CalGEM personnel and found that CalGEM has jurisdiction over the reinjection and storage of gas underground.

Comment PW-5: Mark Abramowitz, President from Community Environmental Services, asked why South Coast AQMD has not done a BARCT analysis for fuel cell technology and if South Coast AQMD had looked at the quality of the produced gas that is generated at oil and gas sites.

Response: Staff contacted several vendors of fuel cell technology and determined based on the information provided that the technology is not readily available for use on workover rigs. Staff acknowledges that this technology could become a viable option in the future. Second, operators that sell the produced gas to local gas companies must clean it up prior to selling it. Operators need to remove, at minimum, excess water prior to being used in microturbines.

Comment PW-6: Tianna (last name not provided), Environmental Justice Program Manager, raised two concerns. First, she questioned why electrified workover rigs were not required to be used. Second, she expressed concern with odorants and neutralizing agents. Tania asked if costs have been used in a cumulative way to include costs to taxpayers and residents due to particulate

emissions for diesel-fueled workover rigs and concerns over endocrine disruptors in neutralizing agents. Concerns over cumulative harm were also raised.

Response: Staff conducted a cost-effectiveness analysis of proposed options and used the guidance for VOC and NO_x cost-effectiveness found in the 2022 South Coast Air Quality Management Plan. In determining what is considered cost-effective for NO_x, health effects were included. Staff conducted a cost-effective and emission reduction analyses for both Tier-4 Final engine upgrades and for electrification and found that while it was cost-effective to upgrade to Tier-4 Final engines, it was not cost-effective to use electrically-powered engines. Lastly, staff is addressing concern over the use of neutralizing agents by proposing that no toxic air contaminants listed in South Coast AQMD Rule 1401 would be allowed in any neutralizing agent and that no atomization of any neutralizing agents would be allowed.

Comment PW-7: Mark Abramowitz expressed concern over the allowance of 0.1% by weight of banned toxic air contaminants and that that amount would not be allowed in drinking water.

Response: Drinking water has much stricter standards because it is directly ingested. The allowance of 0.1% by weight is included for trace contaminants that are not purposely included in the odor neutralizer.

Comment PW-8: Erica Blyther, Petroleum Administrator for the City of Los Angeles Office of Petroleum and Natural Gas Administration and Safety, stated that she was pleased with South Coast AQMD requiring monthly OGI inspections and inquired on what constitutes a certified inspector for OGI device use.

Response: Thank you for your comment. There are now several vendors of OGI cameras and the intent of requiring the user of an OGI camera to complete a manufacturer's certification or training program is to ensure that the user of such equipment is well versed in the use of such equipment. Staff also recognizes that the training course(s) may differ depending on the manufacturer.

Comment PW-9: Emma Silber asked if detected leaks during inspections would be made public.

Response: Since the Public Workshop was held, staff is proposing to require the operator to submit a notification whenever a leak is quantified and found to be greater than 25,000 ppmv of VOC. For those that have signed up to receive Rule 1148.2 notifications, they will now also receive notifications for reported leaks greater than 25,000 ppmv of VOC.

Comment Letter 1: Signal Hill Petroleum, Received 2/9/2024



American Energy.
American Jobs.

February 7, 2024

Jose Enriquez, Air Quality Specialist
South Coast Air Quality Management District
Planning, Rule Development and Area Sources
21865 Copley Dr.
Diamond Bar, CA 91765

RE: Signal Hill Petroleum, Inc.'s comments regarding preliminary draft language of Proposed Amended Rule 1148.1.

Dear Mr. Enriquez and 1148.1 Rulemaking Team,

Signal Hill Petroleum (SHP) is a privately-owned California -based energy company that specializes in the exploration and production of crude oil and natural gas in urban areas. With a set of core values rooted in a transparent business philosophy, honest approach, and concern for the environment, our company strives to be an excellent neighbor and community partner. The SHP Regulatory Team has been following the development of Proposed Rule 1148.1. Per your request, we have drafted comments on the recently released draft rule language. Please see our comments below:

(c)(34) WORKOVER RIG is a mobile piece of equipment used to perform one or more operations on an oil producing well or water injection well

This definition, while also present in Rule 1148.2, is too broad. A "mobile piece of equipment" could include trucks and other smaller tools. We suggest that you use ARB's definition of workover rig (2449(c)(62)): "a mobile self-propelled rig used to perform one or more remedial operations, such as deepening, plugging back, pulling and resetting liners, on a producing oil or gas well to try to restore or increase the well's production."

(d)(17) Effective [Three years from date of rule amendment], the operator of an oil and gas production facility shall use workover rigs that are equipped with an engine that meets the emissions standards of a Tier 4 Final engine.

2633 Cherry Ave. Signal Hill, CA 90755 | T: 562.595.6440 | F: 562.426.4587 | W: shpl.net

1-1

1-2

While SHP already has all Tier 4 Final Workover Rigs in our fleet, we would like to point out that this is already being regulated by the California Air Resources Board In-Use Off-Road Diesel-Fueled Fleets Regulation, in which every fleet in California phases out older engines for new Tier 4 Final or electric engines.

1-2
Cont.

(d)(13) ...signage shall: (A) Be installed within 50 feet of the main entrance to the facility and in a location that is visible to the public; (B) Measure at least 30 inches wide by 30 inches tall; (C) Display lettering at least 4 inches tall with text color contrasting with the sign background; (D) Located at least 4 feet above grade from the bottom of the sign;

As currently proposed these signs would be nearly impossible to achieve, impractical to maintain, and an eye sore to the community. SHP has made a quick example of what is being proposed and the pictures are an attachment to this letter. The first requirement, (d)(13)(A) which requires the sign to be installed within 50 feet of the entrance, is too specific and impractical. An operator could post the signs across the street or inside their facility and still be fully compliant with the rule. The second requirement (d)(13)(B), which requires the sign to be at least 30" by 30", should be reconsidered. The 4" lettering does not fit on a 30" by 30" poster. This is also not a typical poster size. 24" by 36" would be more standard although still much larger than any other sign SHP currently has. Our company signs with our Facility name and phone number measure 30" by 12" and our neighbors have no problem reading them. The third requirement (c)(13)(C), which requires 4" lettering, is not practical. As you can see from the attached photos, 4" lettering in both English and Spanish would be a billboard rather than an entrance sign. We also created an example of 2" lettering in English only and it is also huge and not practical to post at our facilities. The fourth requirement (d)(13)(D) requires the sign to be 4 feet off the ground minimum. If the signs are posted on the entrance fence (and not 50 feet away) then the sign can be no higher than 2 feet since most standard fences are 6 feet tall. Anything protruding above that could interfere with barbed wires and the security of the enclosure.

1-3

This one-size-fits-all approach does not work for urban upstream oil and gas operations. It may make sense for a large facility distanced from the public view, such as in Rule 1460, but doesn't make sense for production sites next door to businesses and homes. We recommend editing the original language to allow for flexibility among operators while still achieving your goal of having the signs visible and readable by the public. We specifically recommend removing requirements (d)(13)(A) through (d)(13)(D) and either not specifying a size or recommending a standard size for the signage without text size requirements.

(e)(6)(B)(ii) When visible vapors are detected using an OGI Device, use an appropriate analyzer in compliance with paragraph (j)(1) to quantify the visible vapors in ppmv concentration within 48 hours of when the vapors are detected;

1-4

SHP owns three OGI cameras and currently uses them to detect any potential leaks in our facilities. While monthly OGI inspections and recordkeeping will be challenging, we

believe it is feasible to accomplish this. What makes the OGI camera so useful is that our operators can visit a facility, FLIR the facility, and if they find a leak, they can repair it immediately and move on. If our crew needed to quantify the leak before repairing it, that would require time to (1) acquire a TVA, (2) find and measure the leak with the TVA, (3) report the leak to the district and (4) look up the repair thresholds in accordance with Rule 1173, all before fixing the actual leak. This is time spent allowing the leaks to continue in order to quantify and document the leaks. Also, SHP has looked into and rented a TVA (Total Vapor Analyzer) in compliance with EPA specifications and found that the maintenance and calibration requirements were extremely onerous. Calibration gases would have to be stored on-site and the TVAs calibrated every day. In addition, the TVAs require maintenance more often than a FLIR camera. SHP would have to purchase multiple TVA units to always have two or three units on hand in case of a leak in order to comply with this requirement.

SHP recommends that you adopt the rule language in Rule 1178 (f)(4)(A) "If determined that Visible Vapors are emitted from components required to be maintained in a Vapor Tight Condition or in a condition with no Visible Gaps, the owner or operator shall make necessary repairs or adjustments... within 3 days". This would ensure that leaks are fixed promptly and that all components could be inspected in a timely manner, once a month in compliance with the new proposed rule requirements.

Please let us know if you have any questions or wish to discuss our comments further. You may contact Shannon Smith at (562) 326-5246 or ssmith@shpi.net.

Sincerely,



Shannon Smith
Regulatory Compliance Supervisor

Attachments:

Photo #1 – Proposed signage with 4" lettering in English only

Photo #2 – Proposed signage with 2" lettering in English only

1-4
Cont.

Comment 1-1: The definition for workover rig was incorporated from South Coast AQMD Rule 1148.2 for consistency among rules that use this definition. The definition is somewhat vague so that it may allow for future technologies that could become commercially available such as electrically-powered or fuel-cell powered rigs. In addition, adding that it be self-propelled would not cover all rigs since some exist that use a secondary engine to do well work and the primary engine to drive the rig itself.

Comment 1-2: Staff conducted a cost-effective and emission reduction analyses for both Tier-4 Final engine upgrades and for electrification and found that while it was cost-effective to upgrade to Tier-4 Final engines, it was not cost-effective to require the use of electrically-powered engines. In addition, staff researched a company that already manufactures electric drilling rigs and found that the footprint and power requirements such a rig would require to be too large for the majority of oil and gas sites that are found within South Coast AQMD's jurisdiction as many of these sites are less than a half-acre in size. Additionally, a substation would be necessary as well as power lines and electric grid that could handle the power requirements of 373 kilowatts which is equivalent to a 500-HP diesel engine. Finally, drilling activities represent a small fraction of activities at oil and gas facilities.

CARB already has a requirement for In-Use Off-Road Diesel-Fueled Fleets regulation, however, depending on the size of the operator's fleet, it could take longer than the effective date of this rule before an operator would be required to upgrade their fleet by CARB's compliance date. Therefore, this requirement aims to bridge the gap that may exist between this rule and CARB's rule.

Comment 1-3: Staff reviewed the signage requirements and agreed that the minimum size of the lettering was too large and has since reduced the minimum size from 4 inches to 2 inches. This change will not affect the intent of this updated requirement which aims to have signage be visible from a public street.

Comment 1-4: Staff agrees that it is preferable to repair leaks discovered with an OGI camera sooner rather than later and the proposed amended rule language has been updated such that any leaks found exclusively with an OGI camera shall be repaired within twenty-four hours of discovery. If using an OGI camera in conjunction with a calibrated handheld device that can quantify leaks, the operator can follow Rule 1173 subdivision (g) Repair Period Table which could give the operator additional time to repair those leak(s).

Comment Letter 2: STAND LA, Received 2/15/2024



February 10, 2024

Mr. Wayne Nastri, Executive Officer
 South Coast Air Quality Management District
 21885 Copley Dr, Diamond Bar, CA 91765

Re: Proposed Amended Rule 1148.1 - Oil and Gas

Dear Mr. Nastri:

Rule 1148.1 - Oil and Gas presents opportunities to substantially reduce nitrogen oxides (NO_x) emissions and protect the health of residents, especially those of frontline communities. Southern California still needs to reduce smog-forming NO_x by more than 100 tons per day in order to achieve the 1997 standard for ozone.¹

The Stand Together Against Neighborhood Drilling (STAND-LA) coalition of frontline environmental justice organizations have actively participated in the Air District's AB617 and the 1148.1 rule-making processes to protect communities disproportionately impacted by air pollution.

We remain concerned that the proposed amended Rule 1148.1 does not yet incorporate our recommendations to reduce NO_x and protect public health. We seek action in three areas:

1. Zero-emission workover operations
2. Zero toxics in odor counteractants (including neutralizing agents)
3. Zero combustion of produced methane

Zero-emission Workover Operations

We request that the Air District evaluate the cost effectiveness of using electric utility power or other zero-emission auxiliary sources to power the current fleet of mobile, diesel workover rigs. The adaptive electrification of existing mobile equipment may prove far more health and climate

¹ [Los Angeles smog woes worsen as U.S. EPA threatens to reject local pollution plan](#), Los Angeles Times, (February 4, 2024)

2-1

protective than utilizing Tier-4 engines alone, and clearly more cost effective than acquiring \$10 million electric rigs at each of 40 oil drill sites.

In 1999, the Breitburn oil company boasted that the use of an electrically-powered derrick at the Pico/Doheny Drill Site would eliminate most diesel emissions.² Diesel engine emissions are responsible for about 70% of California's estimated known cancer risk attributable to toxic air contaminants.³ It is vitally important that the Air District evaluate lower-cost electrification alternatives to protect public health, rather than simply ruling out the most expensive approach.

Zero toxics in odor counteractants

AB617 communities raised concerns about odorants because they contain powerful, toxic chemicals that cause birth defects, damage fertility, and cause multi-generational reproductive harm. Banning odorants while defining a new class of "neutralizing agents" that are permitted to have toxic air contaminants in their formulation up to 0.1%-by weight, does not address our community's concerns. It appears to be a change in words, but not practice.

The National Institute of Environmental Health Sciences notes,

"Even low doses of endocrine-disrupting chemicals may be unsafe. The body's normal endocrine functioning involves very small changes in hormone levels, yet we know even these small changes can cause significant developmental and biological effects. This observation leads scientists to think that endocrine-disrupting chemical exposures, even at low amounts, can alter the body's sensitive systems and lead to health problems."⁴

The appropriate threshold for any toxics in odor counteractants is zero. We do not want more toxics dispersed in our communities.

Chemco Odor Control Jasmine is a common odor counteractant used at oil drill sites. It contains 4-no-nyl-phenol, branched, ethoxylated, a endocrine disrupting chemical (EDC) that causes birth defects. Will the Air District categorize it as an odorant or a "neutralizing agent"? The public needs clarity from the Air District about which odor counteractants will be banned, which will be allowed, and which toxics that the Air District will allow in odor counteractant formulations, if any.

Our position remains that Chemco Odor Control Jasmine and other odor counteractants should not be permitted for use.

The staff report states that "Neutralizing agents work to 'knock out' or eliminate the odors." (page 3-5). That implies some sort of chemical manipulation, for example chemical decomposition. However, the manipulation that happens is often to human olfactory receptors--

² [Neighbors Take On Pico Oil Drilling Site](#), Jewish Journal (November 25, 1999)

³ Propper et al. 2015. Environmental Science & Technology 49(19):11329–11339.

⁴ National Institute of Environmental Health Sciences website. Downloaded 2/6/2024 from <https://www.niehs.nih.gov/health/topics/agents/endocrine#:~:text=Even%20low%20doses%20of%20endocrine,significant%20developmental%20and%20biological%20effects>.

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Cont.

2-2

knocking them out.⁵ The presence of toxic gasses such as hydrogen sulfide or benzene are not eliminated, only the ability to detect them. Odor counteractants and "neutralizing agents" solve the wrong problem precisely.

Toxic trespass into the bodies of our children and families must stop. The appropriate threshold for any toxics—including endocrine disruptors—in odor counteractants, odorants, and neutralizing agents is zero.

Zero combustion of produced methane

Reinjection of produced methane is a common zero emission oil field practice. The EPA's [Standards of Performance for New, Reconstructed, and Modified Sources and Emissions Guidelines for Existing Sources: Oil and Natural Gas Sector Climate Review](#) affirms reinjection of produced gas into the oil field as an effective strategy for regulating greenhouse gasses (GHGs) and volatile organic compounds (VOCs) emissions for the Crude Oil and Natural gas source category pursuant to the Clean Air Act. We ask the [District](#) to evaluate reinjection of produced methane as a viable and cost effective zero emission practice that will enhance air quality and public health, especially for residents living near oil field operations.

STAND-LA would welcome the opportunity to discuss these concerns with the 1148.1 rule-making team. Thank you for your consideration.

Sincerely,

Richard Parks, President, Redeemer Community Partnership

Maro [Kakoussian](#), Director of Climate and Health Programs, Physicians for Social Responsibility
Los Angeles & STAND-LA Coalition Coordinator

Tianna Shaw Wakeman, Environmental Justice Program Manager, Black Women for Wellness

Reverend Louis Chase, Holman United Methodist Church

[Rabeva Sen](#), Policy Director, Esperanza Community Housing

cc:

Mayor Pro [Tem](#) Larry McCallon, Chair
Supervisor Holly J. Mitchell, Vice Chair
Councilmember Michael A. Cacciotti

⁵ Yosuke [Fukutani](#), Masashi Abe, Haruka Saito, Ryo Eguchi, Toshiaki Tazawa, Claire A. de March, Masafumi [Yohda](#), Hiroaki Matsunami, [Antagonistic interactions between odorants alter human odor perception](#), Current Biology, Volume 33, Issue 11, 2023, Pages 2235-2245.e4, <https://doi.org/10.1016/j.cub.2023.04.072>. Accessed 2/8/2024 from <https://www.sciencedirect.com/science/article/pii/S0960982223005547/>

2-2
Cont.

2-3

Senator (Ret.) Vanessa Delgado
Board Member Veronica Padilla-Campos
Mayor José Luis Solache
Trish Johnson, CARB Office of Community Air Protection
Liliana Nunez, CARB Air Pollution Specialist
Michael Krause, SCAQMD Assistant Deputy Executive Officer
Michael Morris, SCAQMD Planning and Rules Manager
Rodolfo Chacon, SCAQMD Program Supervisor
Jose Enriquez, SCAQMD Air Quality Specialist

Comment 2-1: Staff conducted cost-effective and emission reduction analysis for both Tier-4 Final engine upgrades and for electrification and found that while it was cost-effective to upgrade to Tier-4 Final engines it was not cost-effective to upgrade to electrification options. The cost to upgrade to Tier 4 Final engines was found to be \$13,700/ton of NOx reduced whereas the cost to electrify was found to be \$521,080/ton of NOx reduced.

In addition, staff researched a company that already manufactures electric drilling rigs and found that their footprint and power requirements would be too large for the majority of oil and gas sites that are found within South Coast AQMD's jurisdiction as many of these sites are less than a half-acre in size. Also, a substation would be necessary, as well as power lines and electric grid that could handle the power requirements of 373 kilowatts which is equivalent to a 500-HP diesel engine.

Staff acknowledges that future developments in electrification and other technologies such as fuel cells may mature enough to be usable in a variety of oil and gas sites including smaller urban and remote sites. This rule may be reopened in the future to add the use of cleaner technologies. In addition, CARB's Advanced Clean Fleet Regulation, as of 2024, will require electrification of workover rigs starting in year 2036 which would cover the entire state.

Comment 2-2: Staff has proposed the ban of the use of odorants. Additionally, staff has also restricted the use of neutralizing agents by prohibiting the use of any neutralizing agents that contain more than 0.1% by weight of toxic air contaminants pursuant to South Coast AQMD Rule 1401 – New Source Review of Toxic Air Contaminants. The Safety Data Sheet for the chemical that was referenced, “Chemco Odor Control Jasmine” includes a chemical listed in South Coast AQMD's Rule 1401 and would therefore no longer be allowed to be used once the effective date of this amended rule passes. To further reduce the chance of fugitive odors, staff is also prohibiting the atomizing of neutralizing agents whenever they are used.

Comment 2-3: Staff reviewed how produced gas is handled and recognizes that there are four options to use it: selling to a gas company, using it in onsite equipment such as microturbines or engines, reinjecting back into the ground, or flaring it.

Staff researched the reinjection of the produced gas into the ground and found that the City of Los Angeles discourages the practice of reinjection within urban areas due to concerns of back pressure build up underneath residents' homes and with the major gas leak that took place at Aliso Canyon a few years ago. In addition, CalGEM has jurisdiction over the reinjection and storage of gas underground and carries its own permit requirements.

The use of produced gas in microturbines is more favorable to the City of Los Angeles. Another advantage of using produced gas in microturbines is that it would provide some relief to the area's power grid and is a cleaner way to use it compared to flaring. Staff has added NO_x requirements to ensure these emissions remain low. Staff has also added NO_x emissions if the facility uses the produced gas in engines that drive oil and gas wells.

Comment Letter 3: Center for Biological Diversity, Received 2/15/2024



CENTER for BIOLOGICAL DIVERSITY

Because life is good.

February 15, 2024

Jose Enriquez
 Planning, Rule Development, and Implementation
 South Coast Air Quality Management District
 21865 Copley Drive, Diamond Bar, CA 91765

Re: Comments on Proposed Amended Rule 1148.1 – Oil and Gas

Dear Mr. Enriquez:

These comments are submitted on behalf of the Center for Biological Diversity regarding the Proposed Amended Rule 1148.1. Though the proposed amendments take positive steps in curbing harmful emissions from oil and gas production facilities, we remain concerned that the proposed amendments do not go far enough, namely in three areas:

1. Establishing zero-emission workover rig operations
2. Eliminating concerns regarding the use of odorants
3. Alerting the public in the event of leak detection

The Stand Together Against Neighborhood Drilling (STAND-LA) coalition is submitting comments with many of the same concerns. We agree with STAND-LA’s comments and see our comments as supporting those while contributing added perspective.

1. Establishing Zero-Emission Workover Rig Operations

There is no disputing that electrifying workover rigs would drastically reduce harmful emissions from oil and gas well workover operations, but SCAQMD staff ultimately did not recommend electric rigs because of concerns about cost-effectiveness. It is indeed the case that electrified workover rigs exceed the cost-effectiveness threshold based on SCAQMD staff’s analysis. However, it is noted that a “cost-effectiveness that is greater than the threshold of \$325,000 per ton of NOx reduced would also require additional analysis and a hearing before the Governing Board on costs.”¹ Similar guidance is given for exceeding the cost-effectiveness threshold for VOC reductions. Thus, the initial assessment Staff provided of cost-effectiveness does not preclude further consideration of electrifying workover rigs. Given that maximizing public health benefit should not be relegated to a mere cost equation, it seems appropriate to conduct additional analysis (perhaps including a search for lower-cost electrification alternatives) along with a hearing by the Governing Board to further weigh the merits of electrifying workover operations.

¹ Staff Report, p. 4-6.

Arizona · California · Colorado · Florida · N. Carolina · Nevada · New Mexico · New York · Oregon · Washington, D.C. · La Paz, Mexico

BiologicalDiversity.org

3-1

2. Eliminating Concerns Regarding the Use of Odorants

SCAQMD staff propose eliminating the use of odorants which have been traditionally used to mask odors coming from oil and gas production sites. This is the right action since odorants themselves can be a nuisance to communities and present health harms. However, as a substitute, staff propose what essentially constitutes another category of odorant—neutralizing agent. Purportedly, neutralizing agents “work to ‘knock out’ or eliminate the odors, as opposed to masking the odors,” while containing none of the toxics “listed in Rule 1401 in quantities greater than 0.1 percent by weight.”² This new category of odorant gives several reasons for concern.

First, the Rule 1401 list is not exhaustive, and could not possibly capture the full list of potential toxics that could be found in neutralizing agents. This is more so the case given that the neutralizing agents to be used are not identified. If neutralizing agents are to be taken as an innocuous alternative to odorants, the neutralizing agents allowed should be limited and clearly identified so that it is certain that none have the potential of yielding toxic emissions.

Second, the proposal limits Rule 1401 toxics to quantities less than 0.1 percent by weight, but this ignores the fact that some toxics have no true safe limit, including some on the Rule 1401 list.³ For instance, bis(2-ethylhexyl)phthalate is on the Rule 1401 list, but it is part of the chemical group *phthalates*, which are well known endocrine disruptors.⁴ Even low doses of endocrine-disrupting chemicals may be unsafe. Phthalates are very common, found in various fragrances, packaging, and cosmetics. Given their ubiquity, it is possible that such a chemical could end up in an unspecified neutralizing agent. Therefore, the provision on limiting neutralizing agents based on the Rule 1401 list is not rigorous enough to ensure non-harmful emissions.

Third, we are skeptical that a neutralizing agent would truly “knock out” or eliminate odors. To truly eliminate an odor would mean either eliminating the source of the odor or capturing vapors before they reach individuals. If this is truly the function of the proposed neutralizing agents, then great, but otherwise neutralizing agents constitute nothing more than a masking agent, same as classic odorants. And masking agents, rather than lessening the public nuisance posed by noxious fumes, merely cover up the presence of those fumes, thereby hiding the threat posed. Concerns regarding this could at least be partially addressed by providing a list of neutralizing agents to be used and the mechanisms by which they eliminate odors.

3. Alerting the Public in the Event of Leak Detection

SCAQMD staff have proposed the use of optical gas imaging (OGI) cameras to identify leaks at oil and gas production sites. This comes with two requirements: (1) “If a visible vapor is observed while inspecting with an OGI camera, the operator will be required to quantify in parts per million by volume (ppmv), any VOC emissions within 48 hours of when visible vapors are

² Staff Report, p. 3-6.

³ SCAQMD, Regulation XIV – Toxics and Other Non-Criteria Pollutants, Rule 1041 – New Source Review of Toxic Air Contaminants (Accessed February 14, 2024), <http://www.aqmd.gov/docs/default-source/rule-book/reg-xiv/rule-1401.pdf>.

⁴ National Institute of Environmental Health Sciences, Endocrine Disruptors (Accessed February 14, 2024), <https://www.niehs.nih.gov/health/topics/agents/endocrine>.

3-2

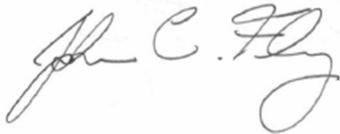
3-3

detected”; and (2) “should a visible vapor be quantified where the emission level triggers a repair, replacement, or removal of a component...then a notification to South Coast AQMD will also be required to be made within 24 hours of such quantification.”⁵ These requirements should come with additional notifications to the public.

In the event of a leak, the public should be made aware of the leak quantity and composition and be provided with an assessment of whether there is a community threat posed. Further, should a repair be necessary, the public should be made aware of when the issue will be resolved, whether emissions will be ongoing during the repair, and whether there will be any nuisances resulting from the repair, such as noise or further emissions. Similar to the disclosures required under Rule 1148.2 of chemical usage and operations at oil and gas sites, Rule 1148.1 should require disclosures on leaks and measures to repair them.

We appreciate your engagement thus far on the proposed Rule 1148.1 amendments. We implore you to consider these remaining concerns to make Rule 1148.1 the most robust and the most protective of community health.

Respectfully submitted,



John Fleming, Ph.D.
Senior Scientist
Center for Biological Diversity

⁵ Staff Report, p. 3-6.

3-3
Cont.

Comment 3-1: Please see response under comment 2-1.

Comment 3-2: Please see response under comment 2-2.

Comment 3-3: Staff has added an amendment to this rule to require the operator to submit a notification whenever a leak is quantified and found to be greater than 25,000 ppmv VOC. Notifications of reported leaks will be included in Rule 1148.2 notifications, for those who have signed up to receive them.

Comment Letter 4: FracTracker Alliance, Received 4/11/2024



FRACTRACKER

ALLIANCE

Oil and Gas Fugitive Emissions from Combustors in the South Coast Air District

Requirements for California Air Resources Board (CARB)-approved emissions reduction technology and infrastructure cannot be a replacement for stringent monitoring and inspections. The existing work of grassroots organizations, including Redeemer Community Partnership, STAND-LA, PSR-LA and research groups like FracTracker Alliance, has monitored the compliance of drill sites in the Los Angeles Basin, and has shown [the failures of engineering protections when sites are not regularly and thoroughly inspected](#).¹ This work includes the filmed documentation of many California Air Resources Board-approved burners observed to be operating poorly, inefficiently combusting methane and other volatile organic compounds (VOCs) that were still observable at concentrated levels in the exhaust streams. This is not an issue limited to southern California, as [other geographies such as Colorado are also addressing the issue](#), as required by recent rulings of the U.S. Environmental Protection Agency.²

The implementation of the [California Air Resources Board \(CARB\) Oil and Gas Methane Regulation](#) in 2018 was the first time that regulators even considered that oil and gas operators should not be directly venting toxic and carcinogenic VOCs from wash and crude tanks. The elimination of venting was the most important regulatory intervention for reducing community exposures to hydrocarbon emissions. Operators were no longer able to completely disregard the uncontrolled release of pollutants and subsequent degradation of local airsheds, due to the establishment of actionable limits to methane concentrations in fugitive emissions. While the rule applies to all fugitive emissions and leaks, tank venting was by far the most widespread source of fugitive emissions, present at nearly every wellsite without existing evaporative emissions control systems (EVAP).

The various California air districts have taken a range of different approaches to the implementation of the CARB methane regulation. While the Yolo-Solano Air Quality Management District, with natural gas fields in the northern San Joaquin Valley, has largely ignored the rule altogether, districts such as the San Joaquin Valley Air Pollution Control District, Ventura County, and Santa Barbara County have all stepped up inspections and have all issued violations for tank emissions. The South Coast Air Quality Management District has taken a leadership position, utilizing existing [local rule 1148.1](#) to require operators to install EVAP

¹<https://www.fractracker.org/2022/08/fractracker-finds-widespread-hydrocarbon-emissions-from-active-idle-oil-and-gas-wells-and-infrastructure-in-california/>

²<https://biologicaldiversity.org/w/news/press-releases/epa-rejects-air-pollution-permits-for-oil-gas-wells-in-colorado-2024-02-01/>

4-1

4-2

4-3

systems and require the use of CARB-certified combustors to ensure the destruction of methane and other VOCs into carbon dioxide prior to being released into the atmosphere.³

4-3
Cont.

Since the implementation of the methane rule, FracTracker has conducted dozens of thermographic inspections of oil and gas facilities in the LA Basin using Forward Looking Infrared (FLIR) optical gas imaging (OGI) cameras. Inspections were completed in collaboration with grassroots organizations by the FracTracker Alliance Western Program Director, a certified thermographer. The installation of EVAP systems and combustors drastically reduced the documented volumes of fugitive emissions, as compared to on-site OGI inspections conducted prior to the installation of combustors.

4-4

While the concentrations and volumes of VOCs emitted from tank venting were vastly reduced, the combustion units themselves were observed to be a new source of methane and VOC releases. The exhaust streams of multiple units had observable concentrations of hydrocarbons.

[Example 1: Warren E&P Field](#)

[Example 2: Murphy Drill Site](#)

[Example 3: Deist Tank Farm](#)

[Example 4: Rosecrans Field](#)

Industry and regulators alike often stress the perspective that oil and gas extraction operations can occur in populated areas without degrading the environmental health of communities, if proper engineering protections are in place and best practices followed. Such organizations point to a variety of engineering protections such as EVAP systems and low-NOx burners that, when functioning properly, can prevent leaks from key components of wellhead infrastructure and efficiently combust waste gas. They say that with these engineering standards, hydrocarbons can be extracted from even urban residential environments without harming communities.

4-5

This perspective is patently false. Engineering protections alone are not effective, because oil and gas wellheads are incredibly leak-prone. The many opportunities for large leaks and the combination of many small undetectable leaks provide ample exposure pathways to degrade local and regional air quality with a cocktail of harmful volatile organic compounds. Wellhead infrastructure includes a variety of pipelines, connected by gasketed flanges and valves, all operating under high pressure. Leaks form regularly, and while they are often easily fixed by replacing equipment or just retorquing bolts, they cannot be addressed if they are not identified.

In lieu of eliminating oil and gas extraction operations in communities or requiring all associated gas be collected and refined, FracTracker Alliance urges the South Coast Air District to establish a robust inspection program that increases the oversight of exhaust streams from combustors. In addition to on-site inspections by SCAQMD staff using OGI cameras and methane sniffers, concentrations of methane and VOCs in the inflow and exhaust streams of combustion units should be measured to ensure the units are performing at the maximum possible efficiency. Additionally, these units should be sampled regularly, at least monthly, to ensure the operational efficiency remains within regulatory parameters.

4-6

³ <https://www.aqmd.gov/docs/default-source/rule-book/reg-xi/rule-1148-1.pdf>

Comment 4-1: Staff recognizes the challenges involved in creating stringent requirements versus verifying compliance with such requirements and appreciates the involvement of grassroots organizations to verify compliance.

Comment 4-2: South Coast AQMD Rule 463 – Organic Liquid Storage applies to most storage tanks and includes requirements for leak detection and repair, domes, seals, and other control equipment. For tanks that are exempt from Rule 463, Rule 1148.1 covers produced gas emissions from smaller tanks located in oil and gas sites.

Comment 4-3: Thank you for your comment.

Comment 4-4: Staff recognizes the effectiveness of using OGI technology in assisting in locating leaks and has therefore proposed implementing the use of such technology in Rule 1148.1 and other rules.

Comment 4-5: Staff is implementing NO_x limits and source tests to the combustion equipment that is used on oil and gas sites, such as microturbines and engines that drive wells. Also, staff is implementing the use of OGI technology and notification submission of quantified leaks greater than 25,000 ppmv VOC.

Comment 4-6: Staff is adding a new requirement to PAR 1148.1 that would require oil and gas operators to perform monthly inspections with an optical gas imaging camera. Additionally, for any leaks that are quantified to be greater than 25,000 ppmv VOC the operator will be required to submit a notification.

ATTACHMENT H



**South Coast
Air Quality Management District**

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

SUBJECT: NOTICE OF EXEMPTION FROM THE CALIFORNIA ENVIRONMENTAL QUALITY ACT

PROJECT TITLE: PROPOSED AMENDED RULE 1148.1 – OIL AND GAS PRODUCTION WELLS

Pursuant to the California Environmental Quality Act (CEQA) Guidelines, the South Coast Air Quality Management District (South Coast AQMD), as Lead Agency, has prepared a Notice of Exemption pursuant to CEQA Guidelines Section 15062 – Notice of Exemption for the project identified above.

If the proposed project is approved, the Notice of Exemption will be filed for posting with the county clerks of Los Angeles, Orange, Riverside, and San Bernardino Counties. The Notice of Exemption will also be electronically filed with the State Clearinghouse of the Governor's Office of Planning and Research for posting on their CEQAnet Web Portal which may be accessed via the following weblink: <https://ceqanet.opr.ca.gov/search/recent>. In addition, the Notice of Exemption will be electronically posted on the South Coast AQMD's webpage which can be accessed via the following weblink: <http://www.aqmd.gov/nav/about/public-notices/ceqa-notices/notices-of-exemption/noe---year-2024>.

**NOTICE OF EXEMPTION FROM THE
CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)**

To: County Clerks for the Counties of Los Angeles, Orange, Riverside, and San Bernardino; and Governor's Office of Planning and Research – State Clearinghouse
From: South Coast Air Quality Management District
21865 Copley Drive
Diamond Bar, CA 91765

Project Title: Proposed Amended Rule 1148.1 – Oil and Gas Production Wells

Project Location: The proposed project is located within the South Coast Air Quality Management District's (South Coast AQMD) jurisdiction, which includes 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 portion of the Salton Sea Air Basin and the non-Palo Verde, Riverside County portion of the Mojave Desert Air Basin.

Description of Nature, Purpose, and Beneficiaries of Project: Rule 1148.1 was developed to reduce emissions of volatile organic compounds (VOC), toxic air contaminants, and total organic compounds from the operation of wellheads, well cellars, and the handling of produced gas at oil and gas production facilities. The objective of Proposed Amended Rule (PAR) 1148.1 is to further reduce and control these emissions. PAR 1148.1 will : 1) add new definitions to clarify rule requirements; 2) require the use of enhanced leak detection technology; 3) require equipment that uses produced gas to meet specific oxides of nitrogen (NOx) limits and to verify compliance via source tests; 4) require workover rigs to use minimum Tier 4 Final diesel engines; 5) ban the use of odorants that are used to mask odors emanating from oil production sites; 6) update signage requirements to include a minimum size and certain instructions; and 7) include additional minor changes to rule language for consistency and clarity. Initial projections indicate that PAR 1148.1 is expected to require some physical modifications involving minimal to no construction activities associated with: 1) upgrading the engines of approximately 30 workover rigs from Tier 2 to Tier 4 Final; 2) retrofitting approximately 17 engines with 3-way catalysts; 3) installing approximately four microturbines; and 4) conducting optical gas imaging inspections. Implementation of PAR 1148.1 is expected to result in emission reductions of 98.55 tons per year of VOC by 2025, 18.47 tons per year of NOx by 2026, and 186.15 tons per year of NOx by 2027 which will benefit public health and ambient air quality.

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) – Common Sense Exemption

Reasons why project is exempt: South Coast AQMD, as Lead Agency, has reviewed the proposed project (PAR 1148.1) 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. The analysis of the anticipated physical changes that may occur as a result of implementing PAR 1148.1 indicates that since minimal to no construction activities are expected, it can be seen with certainty that implementing the proposed project would not cause a significant adverse effect on the environment. Therefore, the proposed project is exempt from CEQA pursuant to CEQA Guidelines Section 15061(b)(3) – Common Sense Exemption.

Date When Project Will Be Considered for Approval (subject to change):

South Coast AQMD Governing Board Public Hearing: August 2, 2024

CEQA Contact Person: Sina Taghvaei, Ph.D.	Phone Number: (909) 396-2192	Email: staghvaei@aqmd.gov	Fax: (909) 396-3982
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PAR 1148.1 Contact Person: Jose Enriquez	Phone Number: (909) 396-2640	Email: jenriquez1@aqmd.gov	Fax: (909) 396-3982
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Date Received for Filing: _____ **Signature:** _____ *(Signed and Dated Upon Board Approval)*
Kevin Ni
Program Supervisor, CEQA
Planning, Rule Development, and Implementation

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

Final Socioeconomic Impact Assessment For: Proposed Amended Rule 1148.1 – Oil and Gas Production Wells

August 2024

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EXECUTIVE OFFICER:
WAYNE NASTRI

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EXECUTIVE SUMMARY

On March 17, 1989, the South Coast Air Quality Management District (South Coast AQMD) Governing Board adopted a resolution which requires an analysis of the economic impacts associated with adopting and amending rules and regulations. In addition, Health and Safety Code Section 40440.8 requires a socioeconomic impact assessment for any proposed rule, rule amendment, or rule repeal which “will significantly affect air quality or emissions limitations.” Lastly, Health and Safety Code Section 40920.6 requires an incremental cost-effectiveness analysis for a proposed rule or amendment which imposes Best Available Retrofit Control Technology (BARCT) or “all feasible measures” requirements relating to emissions of ozone, carbon monoxide (CO), sulfur oxides (SO_x), nitrogen oxides (NO_x), volatile organic compounds (VOC), and their precursors.

Proposed Amended Rule 1148.1 (PAR 1148.1) has been developed to reduce the emissions of volatile organic compounds (VOC), toxic air contaminants (TAC), and total organic compounds (TOC) from wellheads and well cellars located at oil and gas production facilities. A socioeconomic impact assessment has been conducted accordingly, and the following presents a summary of the analysis and findings of the socioeconomic impact assessment conducted for PAR 1148.1.

Key Elements of PAR 1148.1 PAR 1148.1 would require oil and gas production facilities to take measures to reduce VOC, TAC, and TOC emissions from the operation of wellheads and well cellars and improve the handling of produced gas. These emission reductions would be achieved by requiring enhanced leak detection, establishing emission limits for internal combustion engines (ICEs) and microturbines powered by produced gas, and requiring cleaner engines on workover rigs.

Affected Facilities and Industries PAR 1148.1 affects approximately 323 facilities, with 240 located in Los Angeles County, 81 located in Orange County, and two located in San Bernardino County. All the affected facilities are classified under the Oil and Gas Extraction industry according to the North American Industry Classification System (NAICS) code 211.

A small business analysis was also conducted for the facilities affected by PAR 1148.1. The following table presents the number of affected facilities that qualify as a small business under each definition used in the analysis.

Definition	Number of Facilities
South Coast AQMD Rule 102	59
South Coast AQMD's Small Business Assistance Office	241
U.S. Small Business Administration	255

Assumptions for the Analysis

The key requirements of PAR 1148.1 that have cost impacts include: 1) Optical Gas Imaging (OGI) cameras and inspection for leak detection; 2) NOx emission limits for engines and microturbines that are powered by produced gas; 3) source testing of engine and microturbine emissions; and 4) more stringent engine standards for workover rigs.

Specifically, PAR 1148.1 would likely cause the purchase and maintenance of OGI cameras, as well as training and labor costs to use these cameras for leak detection. Compliance with new emission limits for engines powered by produced gas would likely be achieved by the installation of 3-way catalysts and associated air pollution control equipment which requires annual maintenance and would be verified periodically by source tests. Finally, workover rigs would be retrofitted with Tier 4 Final engines which also require incremental annual maintenance expenditures.

This analysis projects the costs of implementing the control measures from 2025 to 2046. This analysis assumes that affected facilities purchase OGI cameras, 3-way catalysts, and Tier 4 Final engines in 2025, 2026, and 2027, respectively, which are the most cost-effective control strategies to comply with the requirements of PAR 1148.1.

Compliance Costs

The total present value of the compliance cost for PAR 1148.1 is estimated at \$92.0 million and \$66.4 million for a 1% and 4% discount rate, respectively. The average annual compliance cost of PAR 1148.1 is estimated to range from \$4.1 million to \$4.7 million for a 1% to 4% real interest rate, respectively. When using a 4% real interest rate, this analysis indicates roughly 53% of the annual average compliance cost would be incurred by Tier 4 Final engine expenses, followed by OGI expenses (43%), 3-way catalyst expenses (3%), and source testing expenses (1%).

The following table presents a summary of the average annual cost of PAR 1148.1 by cost category.

Cost Categories	Annual Average Cost of PAR 1148.1 (2025-2046)	
	1% Real Interest Rate	4% Real Interest Rate
Capital Costs		
OGI Camera	\$1,254,441	\$1,422,588
3-Way Catalyst & Air/Fuel Controller	\$48,203	\$49,611
3-Way Catalyst Installation	\$40,169	\$41,342
Workover Rig with Tier 4 Final Engine	\$1,496,363	\$1,929,591
Recurring Costs		
OGI Inspection Labor	\$480,000	\$480,000
OGI Camera Maintenance	\$100,000	\$100,000
OGI Camera Training	\$50,000	\$50,000
3-Way Catalyst & Air/Fuel Controller Maintenance	\$23,864	\$23,864
Tier 4 Final Engine Maintenance	\$545,455	\$545,455
Source Testing	\$64,773	\$64,773
Total	\$4,103,267	\$4,707,223

Job Impacts

Direct costs and corresponding spending of PAR 1148.1 are used as inputs to the Regional Economic Models, Inc (REMI PI+) model to assess job impacts and secondary/induced impacts for all the industries in the four-county economy on an annual basis from 2025-2046.

When the compliance cost is annualized using a 4% real interest rate, the REMI analysis forecasted 28 net jobs foregone annually in the four-county region on average over the forecast period, relative to the baseline forecast. Note that the jobs foregone mainly implies less job growth compared to the baseline scenario, not necessarily indicating the loss of current jobs. The jobs foregone are mainly attributable to the necessary equipment that facilities would have to install and purchase due to the implementation of PAR 1148.1. The largest job impacts occur in year 2033 when the REMI model forecasts 44 jobs foregone relative to the baseline scenario. However, the model also predicts 35 and 16 jobs gained in 2025 and 2027, respectively, due to the benefits from capital expenditures of affected facilities.

**Competitiveness
and Price
Impacts**

The overall impacts of PAR 1148.1 on production cost and delivered prices in the region are expected to be minimal. The REMI model indicates PAR 1148.1 will lead to a maximum increase of 0.44% and 0.02% on production cost and delivered price, respectively, in year 2027.

INTRODUCTION

In 2004, the South Coast AQMD Governing Board adopted Rule 1148.1, which sought to reduce VOC emissions from wellheads and well cellars at oil and gas production facilities through increased inspection and maintenance, and controls for produced gas emissions. Rule 1148.1 applies to facilities engaged in activities like drilling, well completion, well rework, and well injection.

Rule 1148.1 was amended in 2015 after South Coast AQMD took enforcement action at an urban oil and gas production facility due to odor nuisances, ~~in addition to increased concerns in local communities about potential environmental impacts from oil extraction techniques such as hydraulic fracturing.~~ The objectives of these amendments were to: 1) minimize impacts on residents and sensitive receptors; 2) improve work practices; and 3) establish odor mitigation procedures.

PAR 1148.1 was developed to further reduce emissions of volatile organic compound (VOC), toxic air contaminants (TAC), and total organic compounds (TOC) from the operation of wellheads, well cellars, and handling of produced gas at oil and gas production facilities.

LEGISLATIVE MANDATES

The legal mandates directly related to the socioeconomic impact assessment of PAR 1148.1 include South Coast AQMD Governing Board resolutions and various sections of the Health and Safety Code.

South Coast AQMD Governing Board Resolution

On March 17, 1989, the South Coast AQMD Governing Board adopted a resolution that requires an analysis of the economic impacts associated with adopting and amending rules and regulations that considers all of the following elements:

- Affected industries;
- Range of probable costs;
- Cost-effectiveness of control alternatives; and
- Public health benefits.

Health and Safety Code Requirements

The state legislature adopted legislation which reinforces and expands the South Coast AQMD Governing Board resolution requiring socioeconomic impact assessments for rule development projects. Health and Safety Code Section 40440.8, which went into effect on January 1, 1991, requires a socioeconomic impact assessment for any proposed rule, rule amendment, or rule repeal which "will significantly affect air quality or emissions limitations."

To satisfy the requirements in Health and Safety Code Section 40440.8, the scope of the socioeconomic impact assessment should include all of the following information:

- 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; and
- 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 went into effect on January 1, 1992, requires the South Coast AQMD Governing Board to: 1) actively consider the socioeconomic impacts of regulations; 2) make a good faith effort to minimize adverse socioeconomic impacts; and 3) include small business impacts. To satisfy the requirements in Health and Safety Code Section 40728.5, the socioeconomic impact assessment should include the following information:

- Type of industries or business affected, including small businesses; and
- Range of probable costs, including costs to industry or business, including small business.

Finally, Health and Safety Code Section 40920.6, which went into effect on January 1, 1996, requires an incremental cost-effectiveness analysis for a proposed rule or amendment which imposes Best Available Retrofit Control Technology (BARCT) or “all feasible measures” requirements relating to emissions of ozone, carbon monoxide (CO), sulfur oxides (SO_x), nitrogen oxides (NO_x), VOC, and their precursors. A BARCT assessment has been conducted and can be found in Chapter 2 of the ~~Final Draft~~ Staff Report.¹

AFFECTED FACILITIES

PAR 1148.1 would affect an estimated 323 onshore oil and/or gas well facilities. Out of these 323 affected facilities, 240 (74%) are located in Los Angeles County, 81 (25%) are located in Orange County, and two (1%) are located in San Bernardino County. All the affected facilities are classified under the Oil and Gas Extraction industry according to the North American Industry Classification System (NAICS) code 211 and either belong to the industries of Crude Petroleum Extraction (NAICS 211120) or Natural Gas Extraction (NAICS 211130). Staff estimated that the 323 affected facilities are owned by approximately 100 parent companies.

SMALL BUSINESS

The South Coast AQMD 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. The South Coast AQMD also defines “small business” for the purpose of qualifying for access to services from the South Coast AQMD’s Small Business Assistance Office (SBAO) as a business with an annual receipt of \$5 million or less, or with 100 or fewer employees. In addition to the South Coast AQMD’s definition of a small business, the federal Small Business Administration (SBA) and the federal 1990 Clean Air Act Amendments (1990 CAAA) each have their own definition of a small business.

The 1990 CAAA classifies a business as a “small business stationary source” if it: 1) employs 100 or fewer employees; 2) does not emit more than 10 tons per year of either VOC or NO_x; and 3) is a small business as defined by the SBA. Based on firm revenue and employee count, the SBA

¹ South Coast AQMD, Preliminary Draft Staff Report for Proposed Amended Rule 1148.1 – Oil and Gas Production Wells, https://www.aqmd.gov/docs/default-source/rule-book/Proposed-Rules/1148_2/par-1148-1-preliminary-draft-staff-report-final.pdf, accessed July 16, 2024. The Final Staff Report is located in Attachment G of the August 2, 2024 Governing Board package for PAR 1148.1, which upon posting, will be available 72 hours prior to the Governing Board meeting at <https://www.aqmd.gov/home/news-events/meeting-agendas-minutes>.

definition of a small business varies by six-digit NAICS codes.² For example, facilities in the Crude Petroleum Extraction (NAICS 211120) and Natural Gas Extraction (NAICS 211130) sectors will be considered a small business if they employ 1,250 or fewer people.

South Coast AQMD mostly relies on Dun & Bradstreet data to conduct a small business analysis on privately owned companies. In cases where the Dun & Bradstreet data are unavailable or unreliable, other external data sources such as Manta, Hoover, and LinkedIn data will be used. The determination of data reliability is based on data quality confidence codes in the Dun & Bradstreet data as well as staff’s discretion. Revenue and employee data for publicly owned companies is gathered from Securities and Exchange Commission (SEC) filings. Since subsidiaries under the same parent company are interest-dependent, the revenue and employee data of a facility’s parent company will be used for the determination of its small business status. Employment and revenue data from 2023 Dun & Bradstreet as well as other external sources are available for only 291 facilities. Note that although the employment and revenue data for some facilities are unknown or missing, the current data used for this small business analysis represent the most thorough and accurate information obtainable as of the date of the final report. However, staff was unable to determine small business classification for the affected facilities using the 1990 CAAA definition because most of these facilities are not required to submit annual emission reports under South Coast AQMD Rule 222 – Filing Requirements for Specific Emission Sources Not Requiring a Written Permit Pursuant to Regulation II and thus, their emissions data are not available.³ Table 1 presents the number of small businesses based on each definition.

**Table 1
Number of Affected Small Business Facilities Based on Various Definitions**

Definition	Number of Facilities
South Coast AQMD Rule 102	59
South Coast AQMD’s Small Business Assistance Office	241
U.S. Small Business Administration	255

² U.S. Small Business Administration, 2023 Small Business Size Standards, <https://www.sba.gov/document/support-table-size-standards>, accessed July 16, 2024.

³ South Coast AQMD, Rule 222 – Filing Requirements for Specific Emission Sources Not Requiring a Written Permit Pursuant to Regulation II, <https://www.aqmd.gov/docs/default-source/rule-book/reg-ii/Rule-222.pdf>, accessed July 16, 2024.

COMPLIANCE COST

The elements of PAR 1148.1 which have potential cost impacts include: 1) enhanced leak detection requirements involving OGI inspections, 2) NOx emission limits for equipment using produced gas and compliance verification through source testing, and 3) Tier 4 Final engine standards for workover rigs.

This analysis assumes equipment purchases and services for control measures required by PAR 1148.1 are paid directly to equipment suppliers and service providers, and that OGI inspections are administered by the facilities using their own staff. Overall, this socioeconomic impact assessment takes a conservative approach to cost estimation, and some of the cost estimates may be slightly higher than the estimates discussed in the Final Draft Staff Report in order to account for uncertainty in certain costs. Capital and other one-time costs include OGI cameras, 3-way catalysts and air/fuel controllers for ICEs powered by produced gas, and Tier 4 Final Engines for workover rigs. Recurring costs include maintenance for OGI cameras, 3-way catalysts, and Tier 4 Final engines, OGI camera inspection labor, OGI camera training, and source testing for ICE engines and microturbines. Manufacturer-provided specifications for microturbines indicate that this equipment can achieve the NOx emission limit of 9 parts per million by volume (ppmv), and this analysis assumes that no additional emissions control technology will be required for these units.

While there are alternative air pollution control technologies discussed in the Final Draft Staff Report which affected facilities could use to comply with the requirements of PAR 1148.1, this analysis assumes that facilities will choose the lowest cost technologies and will purchase equipment in the year the compliance deadline goes into effect. The compliance cost for PAR 1148.1 is forecasted for a 22-year period from 2025 to 2046, reflecting the expected purchase of OGI cameras in 2025 and a 20-year useful life of Tier 4 Final engines, which are expected to be purchased in 2027. The expected purchase dates are based on the proposed compliance deadlines of PAR 1148.1. All estimates of the compliance cost are presented in 2023 dollars.

Many of the costs estimated in this analysis are dependent on site-specific factors and on business decisions made by facilities subject to PAR 1178.⁴ Staff strove to represent costs as realistically as possible, given that many factors would ultimately dictate what price a business will pay to implement a control. The estimated cost for each item was either estimated based on quotes from equipment manufacturers or service providers, data provided by affected facilities, or internal South Coast AQMD data. The procedure and assumptions for each cost estimate are discussed in the next section and the costs are presented in 2023 dollars.

Capital/One-Time Costs

OGI Cameras

PAR 1148.1 requires monthly Optical Gas Imaging (OGI) inspection to detect leaks from equipment more promptly than current inspection techniques and frequency allow. OGI cameras can detect vapors from leaking equipment by visualizing a variety of gas wavelengths. Staff

⁴ South Coast AQMD Rule 1178 – Further Reductions of VOC Emissions from Storage Tanks at Petroleum Facilities was amended in September 2023 to include OGI inspections, <https://www.aqmd.gov/home/rules-compliance/rules/scaqmd-rule-book/proposed-rules/rule-1178>, Accessed July 16, 2024.

identified roughly 100 parent companies for the 323 affected facilities. Each parent company is assumed to purchase an OGI camera in 2025, the first year of rule compliance, and that OGI cameras will be used to perform leak inspections at all the affected facilities owned by the parent company. According to vendors and affected facilities, each camera will cost approximately \$120,000 and have an anticipated 10-year useful life. Since costs are forecasted until 2046, each parent company is expected to purchase an OGI camera three times within the forecast horizon, with a total cost of \$36 million.

3-way Catalyst and Air/Fuel Controller

For the affected facilities that utilize produced gas to power stationary ICEs onsite, PAR 1148.1 would require those engines to comply with a NOx emission standard of 11 ppmv, corrected to 15% oxygen (O₂) on a dry basis, which is the same as what is required in Rule 1110.2 for stationary engines. Based on the BARCT analysis discussed in the Final Draft Staff Report, this analysis assumes that 3-way catalysts paired with air/fuel controllers will be installed on the affected equipment to meet this NOx emission standard. Staff obtained cost estimates both from equipment manufacturers and existing cost information on exhaust emission controls collected during the November 2019 amendment to Rule 1110.2. The cost of a 3-way catalyst, air/fuel ratio controller, and installation of these components is estimated to be \$5,000, \$1,000, and \$5,000, respectively. Based on site visits to the affected facilities, an estimated 25 ICEs fueled by produced gas will each need to be retrofitted with a 3-way catalyst and an air/fuel ratio controller. The estimated useful life for this equipment is three years. The 3-way catalysts and air/fuel controllers are assumed to be installed in 2026, with a total of seven replacements over the forecast period, yielding an estimated total cost of \$1.9 million.

Tier 4 Final Workover Rigs

PAR 1148.1 would require workover rigs be equipped with an engine that meets the emissions standards of a Tier 4 Final engine. Staff estimated that there are currently 40 workover rigs utilized at the affected facilities to conduct maintenance activities on oil producing wells or water injection wells. Staff was able to obtain costs from several operators that have already retrofitted their workover rigs with Tier 4 Final engines, which is approximately \$1,000,000 per workover rig, with an expected useful life of 20 years. On site visits, staff observed that 10 workover rigs have already been retrofitted with Tier 4 Final engines, with 30 remaining workover rigs requiring a retrofit. This analysis assumes the 30 workover rigs will be retrofitted in 2027, with an estimated total cost of \$30 million.

Recurring Costs

OGI Camera Training

Training by OGI camera manufacturers is required to ensure proper operation of this equipment. Training is expected to occur every two years and cost approximately \$1,000 per trainee. Staff assumed one existing employee at each of the 100 parent companies will receive OGI training, resulting in a total cost of \$100,000 every two years. The first training is anticipated to occur in 2025, with 11 total training sessions over the forecast period, yielding a total cost of \$1.1 million.

Labor for OGI Inspection

PAR 1148.1 requires monthly OGI inspections at each facility to detect potential leaks. This

analysis assumes that the inspections will be conducted by employees of facilities' parent companies and that the monthly inspection will take one day on average to inspect all the facilities under the same parent company. With an assumed wage rate of \$50 per hour, the total annual labor cost associated with the inspection is estimated at \$4,800 for each parent company (1 person x 8 hrs/day x \$50/hr x 12 inspections/yr). For all 100 parent companies, the total yearly cost will be \$480,000. Since inspections will occur once a month over the 22-year forecast period, the total labor cost for OGI inspections is estimated to be \$10.6 million.

OGI Camera Maintenance

Annual maintenance is necessary for OGI cameras to ensure that equipment is calibrated and working properly. Each camera has an expected annual maintenance cost of \$1,000, yielding a total annual cost of \$100,000 for the 100 cameras. Maintenance will begin in 2025, the first year when OGI cameras are purchased, and will occur annually throughout the forecast period, bringing the total cost of OGI camera maintenance to roughly \$2.2 million.

3-Way Catalyst and Air/Fuel Controller Maintenance

Annual maintenance and calibration are necessary for 3-way catalysts and air/fuel controllers to ensure the equipment is operating at maximum efficiency. Each 3-way catalyst has an annual maintenance cost of approximately \$1,000 and all of the 25 ICEs fueled by produced gas will need to be retrofitted with a 3-way catalyst. As such, maintenance expenses are projected to begin in 2026 with an average annual maintenance cost of \$25,000, resulting in a total estimated maintenance cost of \$525,000 over the forecast period.

Tier 4 Final Workover Rig Maintenance

Starting in 2027, annual maintenance will be necessary for workover rigs equipped with Tier 4 Final engines to ensure that they continue to meet the more stringent emission standards in PAR 1148.1. Each workover rig has an estimated annual maintenance cost of \$20,000, yielding a total annual maintenance cost of \$600,000 for all 30 rigs and a total cost of \$12 million over the forecast period.

Source Testing

Periodic source testing of ICEs and microturbines powered by produced gas will be required within two years after PAR 1148.1 is adopted and every five years thereafter. According to discussions with vendors and affected facilities, each source test is estimated to cost between \$3,000 and \$5,000. As a conservative approach, this analysis assumes a cost of \$5,000 per source test. Source tests are required on an estimated universe of 32 existing microturbines and 25 ICEs, for a cost of \$285,000 in the years when source testing is required, and a total cost of \$1.4 million over the forecast period.

Total Compliance Cost

The average annual cost of implementing PAR 1148.1 includes the estimated amortized capital and recurring compliance costs averaged over the period from 2025 to 2046. For the calculation of the present value of total compliance costs, all the annual compliance costs will be discounted

to 2024, the anticipated first year PAR 1148.1 is adopted.⁵

The present value of estimated compliance cost is estimated at \$92.0 million and \$66.4 million for a 1% and 4% discount rate, respectively. The average annual compliance cost of PAR 1148.1 is estimated to range from \$4.1 million to \$4.7 million for a 1% to 4% real interest rate, respectively.⁶ Table 2 presents the present value of estimated compliance costs and the average annual compliance cost of PAR 1148.1 by cost categories.

Table 2
Total Present Value and Annual Average Estimated Costs of PAR 1148.1

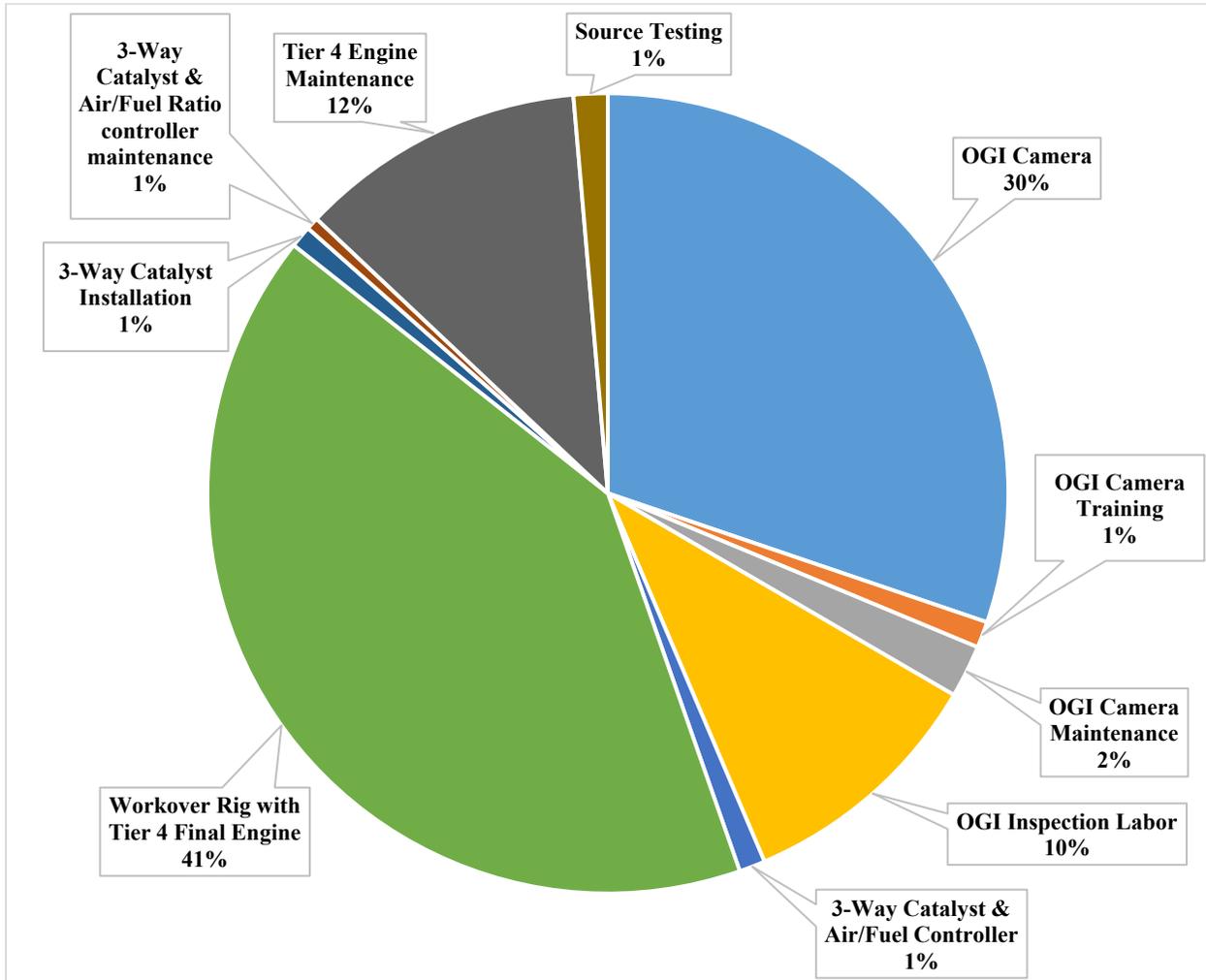
Cost Categories	Present Value (2024)		Annual Average (2025 – 2046)	
	1% Discount Rate	4% Discount Rate	1% Real Interest Rate	4% Real Interest Rate
Capital Costs				
OGI Camera	\$27,968,616	\$20,557,981	\$1,254,441	\$1,422,588
3-Way Catalyst & Air/Fuel Controller	\$970,357	\$701,098	\$48,203	\$49,611
3-Way Catalyst Installation	\$808,631	\$584,249	\$40,169	\$41,342
Workover Rig with Tier 4 Final Engine	\$37,547,885	\$26,669,891	\$1,496,363	\$1,929,591
Recurring Costs				
OGI Inspection Labor	\$9,436,982	\$6,936,535	\$480,000	\$480,000
OGI Camera Maintenance	\$1,966,038	\$1,445,112	\$100,000	\$100,000
OGI Camera Training	\$987,910	\$736,724	\$50,000	\$50,000
3-Way Catalyst & Air/Fuel Controller Maintenance	\$466,757	\$337,239	\$23,864	\$23,864
Tier 4 Final Engine Maintenance	\$10,613,991	\$7,539,012	\$545,455	\$545,455
Source Testing	\$1,264,748	\$924,654	\$64,773	\$64,773
Total	\$92,034,913	\$66,432,495	\$4,103,267	\$4,707,223

Figure 1 presents the estimated average annual compliance costs of PAR 1148.1 by cost category. Maintenance of workover rigs, OGI cameras and Tier 4 Final engines account for the largest portions of the average annual compliance cost at 41%, 30% and 12%, respectively. All the estimated compliance costs will be incurred by the industry of Oil and Gas Extraction (NAICS 211).

⁵ A discount rate is used to find the present value of a stream of future payments, reflecting the idea that costs borne in the future are worth less than costs incurred in the present day.

⁶ Real interest rate is defined as the nominal interest rate adjusted for inflation, reflecting the true cost of borrowing.

Figure 1
Total Annual Estimated Costs of the PAR 1148.1 by Expense Category



MACROECONOMIC IMPACTS ON THE REGIONAL ECONOMY

The Regional Economic Models, Inc (REMI) 2024 PI+ v3 model was used to assess the socioeconomic impacts of PAR 1148.1.⁷ The model links the economic activities in the counties of Los Angeles, Orange, Riverside, and San Bernardino, and 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.⁸

⁷ Regional Economic Modeling Inc. (REMI). Policy Insight® for the South Coast Area (70-sector model). Version 3. 2023.

⁸ 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>).

It should be noted that the REMI model is not designed to assess impacts on individual operations. The model was used to assess the impacts of the proposed amended rule on various industries that make up the local economy. Cost impacts on individual operations were assessed outside of the REMI model and were aggregated to the 70-sector NAICS code level to be used as inputs into the REMI model.

Impact of PAR 1148.1

This assessment is performed relative to a baseline (“business as usual”) forecast where PAR 1148.1 would not be implemented. The analysis assumed that the 323 affected facilities would finance the capital and installation costs of equipment at a 4% real interest rate, and that these one-time costs are amortized and incurred over the useful life of the equipment.

Direct costs of PAR 1148.1 are used as inputs to the REMI model which relies on this information to assess secondary and induced impacts for all the industries in the four-county economy on an annual basis over the 2025-2046 period. Direct effects of PAR 1148.1 include equipment, labor, training, and other costs discussed in the previous compliance cost section.

While the compliance expenditures that are expected to be incurred by the affected facilities would increase their cost of doing business, the purchase of the required equipment and services would increase the sales and subsequent spending of businesses in various sectors, some of which may be located in South Coast AQMD’s jurisdiction. Table 3 lists the 70-sector NAICS codes modeled in REMI that would incur either as a direct cost or direct benefit from this anticipated compliance costs/spending.

**Table 3
Industries Incurring and Benefitting from Compliance Costs/Spending**

Source of Compliance Cost	REMI Industries Incurring Compliance Costs (NAICS)	REMI Industries Benefitting from Compliance Spending (NAICS)
OGI Camera	Oil and Gas Extraction (211)	<i>Capital & Recurring:</i> Computer and Electronic Product Manufacturing (334)
OGI Camera Maintenance		
OGI Camera Training		
OGI Inspections		N/A*
3-Way Catalyst & Air/Fuel Controller		<i>Capital:</i> Machinery Manufacturing (333)
3-Way Catalyst Installation		<i>Recurring:</i> Repair and Maintenance (811)
3-Way Catalyst & Air/Fuel Controller Maintenance		
Tier 4 Final Engine Maintenance		
Workover Rig with Tier 4 Final Engine		
Source Testing		<i>Capital:</i> Transportation Equipment Manufacturing (336)
	<i>Recurring:</i> Professional, Scientific, and Technical Services (541)	

*The wage income earned by employees conducting OGI inspections is modeled as an increase in compensation for employees in the Oil and Gas Extraction industry and thus does not directly benefit a single industry.

Regional Job Impacts

In the REMI model, costs were distributed to each county based on the share of affected facilities in that county. Table 4 presents the forecasted jobs foregone and gained in the four-county economy for selected industries and years. When the compliance cost is annualized using a 4% real interest rate, the REMI model projects that there will be 28 jobs foregone on average over the 2025-2046 period relative to the baseline forecast. However, the jobs foregone can be considered minimal as they only represent 0.002% of the average forecasted baseline number of jobs in the regional economy. The largest forecasted jobs foregone occur in 2032 with 42 jobs foregone relative to the baseline forecast. For specific industries, the sectors of Construction (NAICS 23), Professional, Scientific, and Technical Services (NAICS 54), Oil and Gas Extraction (NAICS 211), and State and Local Government are expected to lose seven, four, four and three jobs on average, respectively, relative to the baseline forecast. The anticipated jobs foregone can be attributed to the increased spending that affected facilities have to incur to comply with PAR

1148.1. However, the REMI analysis shows that the sectors of Repair and Maintenance (NAICS 811) and Computer and Electronic Product Manufacturing (NAICS 334) are expected to gain three and two jobs on average, respectively, relative to the baseline forecast. The anticipated job gains are the result of the purchase of capital equipment and maintenance expenditures. Note that in Table 4, the “All Industries” row includes the full set of 70 industrial sectors modeled in the REMI software, including the 10 selected industries.

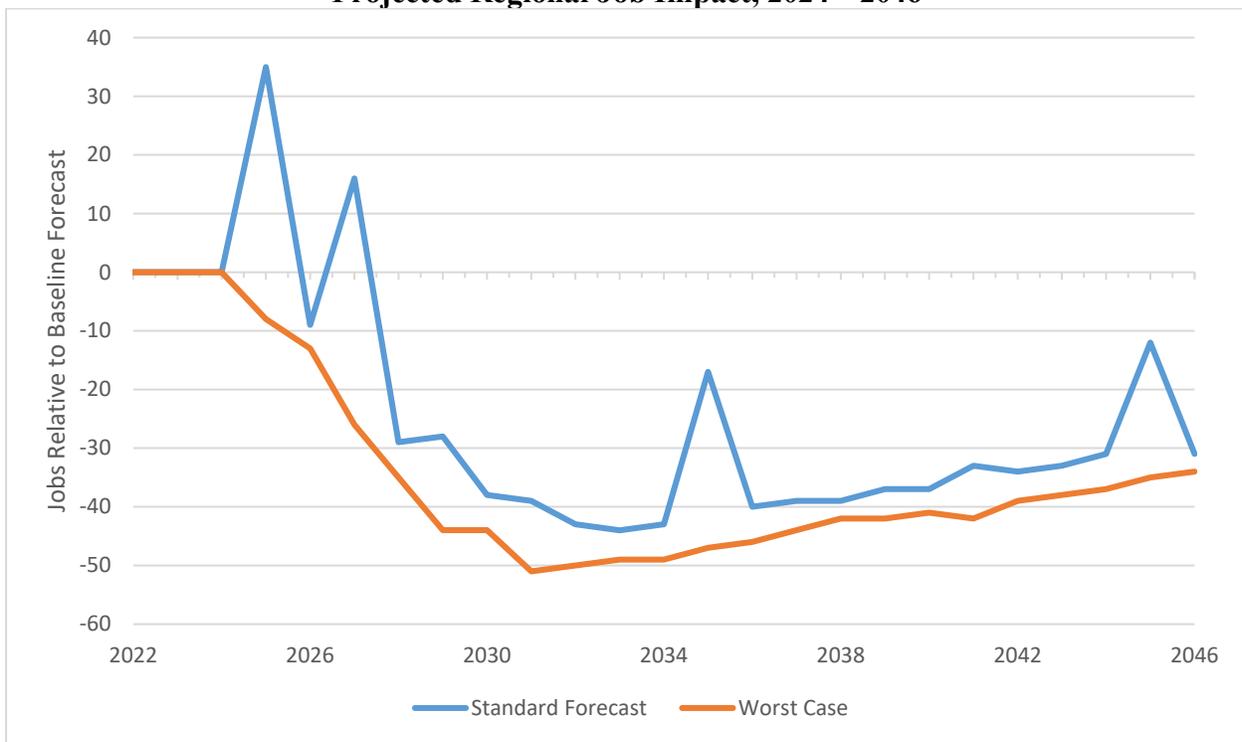
Table 4
Projected Job Impact of PAR 1148.1 for Selected Industries and Years

Industry (NAICS)	2025	2027	2033	2040	2046	Annual Average (2025-2046)	Baseline Number of Jobs (Average, 2024-2046)	Percent Relative to Baseline
Construction (23)	3	-3	-12	-6	-4	-7	514,757	0.0014%
Professional, Scientific and Technical Services (54)	2	0	-5	-6	-5	-4	967,340	0.0004%
Oil and Gas Extraction (211)	-1	-2	-5	-4	-3	-4	2,769	0.1445%
State and Local Government (92)	1	1	-5	-5	-4	-3	948,156	0.0003%
Retail Trade (44-45)	2	1	-3	-3	-3	-2	805,513	0.0002%
Administrative and Support Services (561)	2	1	-3	-3	-3	-2	816,654	0.0002%
Primary Metal Manufacturing (331)	0	1	0	0	0	0	13,132	0%
Motor Vehicles, Bodies and Trailers, and Parts Manufacturing (3361-3363)	0	5	0	0	0	0	9,034	0%
Computer and Product Manufacturing (334)	16	0	0	0	0	2	119,459	0.0017%
Repair and Maintenance (811)	0	5	3	2	2	3	120,046	0.0024%
Other Industries	10	8	-14	-12	-11	-9	7,130,286	0.0002%
All Industries	35	16	-44	-37	-31	-28	11,447,145	0.0002%

Note: Totals may not sum due to rounding.

In addition, in 2013, South Coast AQMD contracted with Abt Associates Inc. to review the South Coast AQMD socioeconomic assessments for Air Quality Management Plans and individual rules with the goal of providing recommendations that could enhance South Coast AQMD's socioeconomic analyses. In 2014, Abt Associates Inc. published a report which included a recommendation for South Coast AQMD to enhance socioeconomic analyses by testing major assumptions through conducting a scenario analysis. As such, South Coast AQMD generally includes an alternative worst-case scenario in Socioeconomic Impact Assessments which analyzes a scenario that assumes the affected facilities would purchase all feasible monitoring equipment and services from providers located outside of the South Coast AQMD's jurisdiction.⁹ In short, this alternative worst-case scenario only models the impacts of the costs of compliance with the proposed amended rule and excludes any market benefits associated with revenue realized by service providers in the four-county region. This also excludes benefits derived from the wages earned by employees performing OGI inspections. This hypothetical scenario is designed to test the sensitivity of the REMI analysis to the assumptions regarding how compliance costs and revenues would be distributed inside and outside of South Coast AQMD's jurisdiction. In practice, however, materials and labor for installation are more likely to be provided by local suppliers. As shown in Figure 2, this worst-case scenario would result in an annual average of approximately 39 jobs foregone relative to the baseline scenario. However, the job impact can be considered as minimal since the 39 jobs foregone only represent 0.0003% of the average forecasted baseline jobs in the regional economy.

Figure 2
Projected Regional Job Impact, 2024 – 2046



⁹ Abt Associates Inc., August 2014, Review of the SCAQMD Socioeconomic Impact Assessment Chapter 6, Section 3, <https://www.aqmd.gov/docs/default-source/Agendas/aqmp/scaqmd-report---review-socioeconomic-assessments.pdf>, accessed July 16, 2024.

Price Impact and Competitiveness

The impact of PAR 1148.1 on production costs and delivered prices in the South Coast AQMD region is not expected to be substantial. According to the REMI Model, PAR 1148.1 is projected to increase the relative delivered price of products in the industry of Oil and Gas Extraction (NAICS 211) by 0.02% in the year 2027 and will have even smaller increases in that industry over the remainder of the forecast period. Similarly, the relative cost of production in the industry of Oil and Gas Extraction is expected to increase by 0.44% in 2027 and will see even smaller increases in the industry throughout the remainder of the forecasted period. Given the minimal potential increase in delivered prices and cost of production, PAR 1148.1 is not expected to affect the ability of firms to compete with producers located outside of South Coast AQMD's jurisdiction.

REFERENCES

Abt Associates Inc., August 2014, Review of the SCAQMD Socioeconomic Assessments, Chapter 6, Section 3, <https://www.aqmd.gov/docs/default-source/Agendas/aqmp/scaqmd-report---review-socioeconomic-assessments.pdf>.

Regional Economic Modeling Inc. (REMI). Policy Insight® for the South Coast Area (70-sector model). Version 3, 2024.

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South Coast AQMD, August 2023, PAR 1178 - Further Reductions of VOC Emissions from Storage Tanks at Petroleum Facilities, <https://www.aqmd.gov/home/rules-compliance/rules/scaqmd-rule-book/proposed-rules/rule-1178>

South Coast AQMD, July 2024, Draft Staff Report for Proposed Amended Rule 1148.1 – Oil and Gas Production Wells, https://www.aqmd.gov/docs/default-source/rule-book/Proposed-Rules/1148_2/par-1148-1-preliminary-draft-staff-report-final.pdf?sfvrsn=6

U.S. Small Business Administration, March 2023, Table of Small Business Size Standards, <https://www.sba.gov/document/support-table-size-standards>.



South Coast
AQMD

Proposed Amended Rule 1148.1 - Oil and Gas Production Wells



Board Meeting
August 2, 2024

Rule 1148.1 Regulatory History

Adopted on March 5, 2004

Purpose: Reduce VOC emissions from wellheads, well cellars, and handling of produced gas

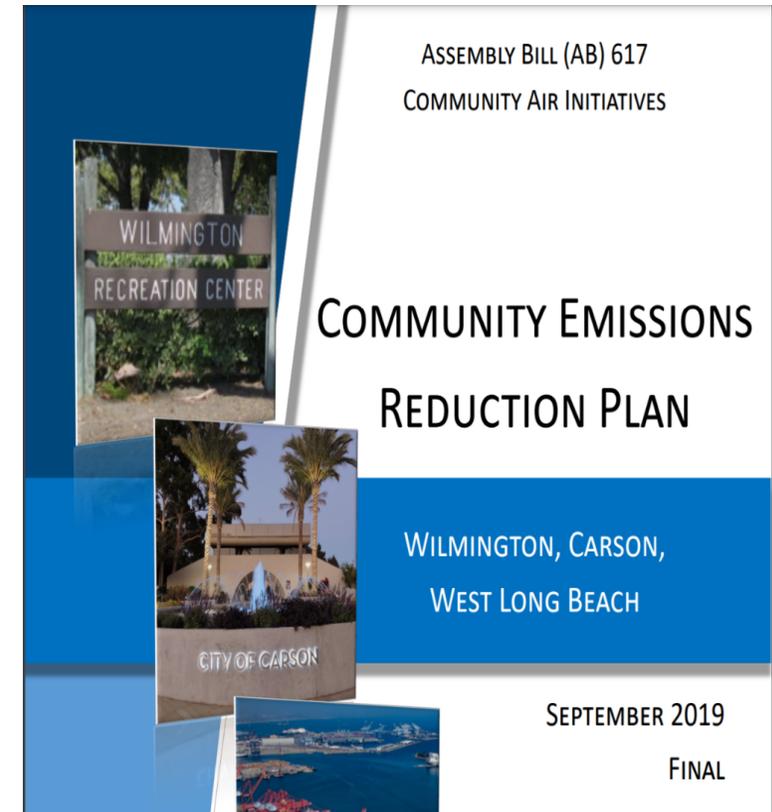
Applicable to onshore oil producing wells, well cellars and produced gas handling operation and associated maintenance activities

Approximately 80 companies representing 330 sites are regulated by this rule



AB 617 and Community Emission Reduction Plans

- Two AB 617 communities identified oil and gas production emissions as objectives in their Community Emission Reduction Plans (CERP)
 - Wilmington, Carson, West Long Beach (WCWLB)
 - South Los Angeles (SLA)
- Staff worked with AB 617 community stakeholders and the regulated industry through a public process
 - Multiple site visits conducted to address key issues brought by stakeholders
- PAR 1148.1 also partially implements the 2022 Air Quality Management Plan control measure FUG-01: *Improved Leak Detection and Repair*
- Staff is not aware of any remaining key issues



Summary of Key Proposals



Monthly use of Optical Gas Imaging (OGI) for enhanced leak detection



Use of Tier 4 Final diesel engines on workover rigs



Notification for quantified leaks > 25,000 ppm



Establish NOx limits for combustion equipment



Ban the use of odorants and limit air toxics in odor neutralizers

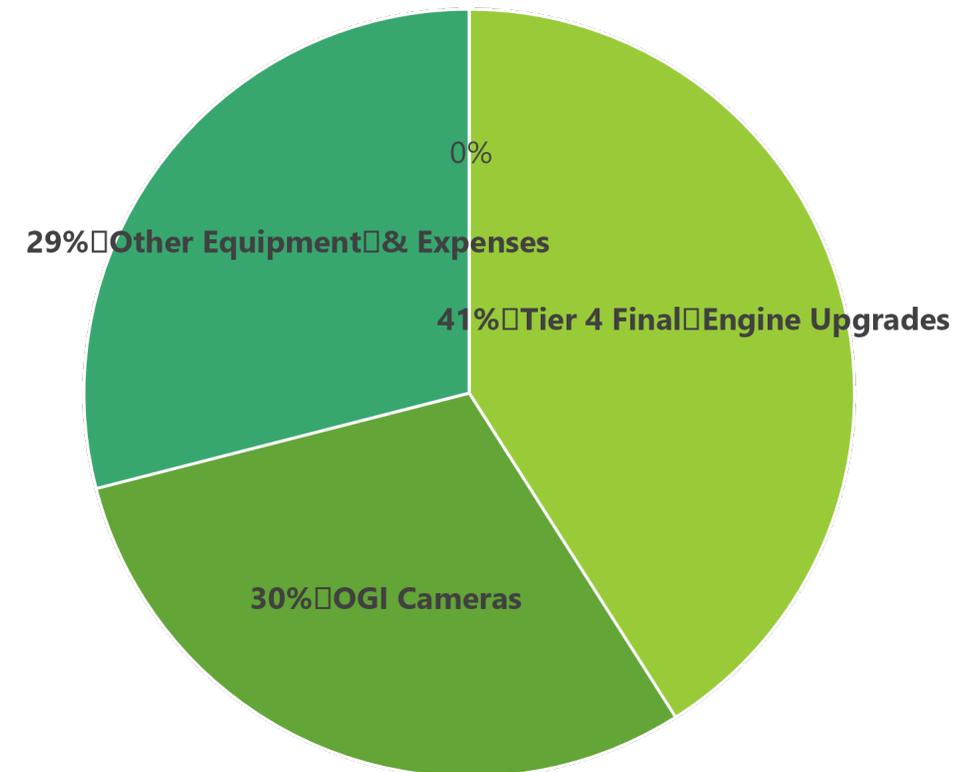
Emission Reductions & Cost-Effectiveness

Proposed Measure	Emission Reductions (tons/day)	Annual Cost (\$)	Cost-Effectiveness (\$/ton reduced)
Enhanced Leak Detection	0.27 VOC	\$1,369,000	\$13,800
NOx Limits for Combustion Equipment	0.005 NOx	\$4,600 to \$56,100	\$7,000 to \$30,700
Tier 4 Final Workover Rigs	0.51 NOx	\$2,544,000	\$13,700
Ban of Odorant Use	N/A	N/A	N/A
Leak Notification	N/A	N/A	N/A

Socioeconomic Impact Assessment and California Environmental Quality Act (CEQA)

- **Compliance Costs**
 - Average annual cost ranges from ~\$4.1 million to ~\$4.7 million using a real interest rate from 1% to 4%, respectively
- **Job Impacts**
 - 28 jobs foregone annually on average from 2025 - 2046
- **CEQA**
 - Proposed project involves minimal to no construction activities
 - No significant adverse environmental impacts are expected
 - A Notice of Exemption has been prepared

Total Annual Estimated Cost % by Expense Category



Staff Recommendation

Adopt resolution:

- Determining that PAR 1148.1 is exempt from the requirements of CEQA
- Amending Rule 1148.1

BOARD MEETING DATE: August 2, 2024

AGENDA NO. 26

PROPOSAL: Determine That Proposed Rule 2306 – Freight Rail Yards Does Not Require New Environmental Document; Determine That Proposed Rule 316.2 – Fees for Rule 2306 is Exempt From CEQA; and Adopt Rules 2306 and 316.2

SYNOPSIS: Proposed Rule 2306 (PR 2306) establishes emission reductions targets to ensure that NOx reductions from freight rail yards within the South Coast AQMD jurisdiction will be achieved at levels that are proportional or more-than-proportional to reductions throughout California from implementation of state regulations affecting freight rail yard emission sources. PR 2306 further requires facility-reporting on zero emission infrastructure, and for non-federal public agencies to include PR 2306 compliance requirements in contracting with a freight rail yard owner or operator. Proposed Rule 316.2 establishes fees to recover reasonable costs for South Coast AQMD in implementing PR 2306.

COMMITTEE: Mobile Source, January 19, April 19 and June 21, 2024, Reviewed

RECOMMENDED ACTIONS:

Adopt the attached Resolution:

1. Determining that Proposed Rule 2306 – Freight Rail Yards is a later activity within the scope of the Final Program Environmental Impact Report (EIR) for the 2022 AQMP and the Final Program EIR for the 2016 AQMP such that no new environmental document is required;
2. Determining that Proposed Rule 316.2 – Fees for Rule 2306 is exempt from the requirements of the CEQA;
3. Adopting Rule 2306 and Rule 316.2; and
4. Approving Rule 2306 Calculation Methodology and Data Appendix.

Wayne Natri
Executive Officer

Background

Proposed Rule 2306 – Freight Rail Yards (PR 2306) is part of the suite of Facility Based Mobile Source Measures (FBMSMs) included in the 2016 and 2022 AQMPs. The FBMSMs aim at collectively addressing emissions related to goods movement and to assist in meeting state and federal ambient air quality standards for ozone and PM2.5 and improving public health, especially for communities located near freight hubs including freight rail yards. NOx is the key pollutant that must be controlled to meet state and federal air quality standards, and over 80 percent of the NOx in the South Coast AQMD region is from mobile sources, especially the heavy-duty vehicles and equipment used in the goods movement sector.

In 2023, CARB adopted an In-Use Locomotive Regulation and Advanced Clean Fleets (ACF) Regulation. Both regulations implement control measures included in the 2022 State SIP Strategy and address key emission sources associated with freight rail yard operations. PR 2306 is designed to supplement these state regulations as they are implemented statewide based on the characteristics of the affected fleets deployed in the state as a whole. Therefore, South Coast AQMD may not necessarily benefit proportionally from statewide implementation of CARB’s regulations. PR 2306 will implement the AQMP FBMSMs to achieve emission reductions at all freight rail yards located within the South Coast AQMD region, including but not limited to intermodal facilities and classification yards. PR 2306 will also implement several actions to reduce rail yard emissions that are included in the Community Emission Reduction Plans adopted by the Board for the communities of Wilmington/Carson/West Long Beach, San Bernardino/Muscoy, East Los Angeles/Boyle Heights/West Commerce, and Southeast Los Angeles.

Proposed Rule 316.2 – Fees for Rule 2306 (PR 316.2) is a companion fee rule to PR 2306 to recover the reasonable administrative and implementation costs of PR 2306 in accordance with Health and Safety Code Section 40522.5.

Proposal

PR 2306 seeks to reduce NOx emissions associated with freight rail yard operations by requiring operators of freight rail yards to meet emission reductions targets to ensure the South Coast AQMD region achieves emission reductions that are at least proportional to statewide emission reductions from implementation of CARB’s In-Use Locomotive and ACF regulations. The proposed rule requires demonstration and reporting that emission reductions targets for every milestone year are met, using PR 2306 Calculation Methodology and Data Appendix. PR 2306 also requires reporting on zero emission infrastructure planning, development, and utilization as part of facility emission reduction efforts. PR 2306 additionally includes notification and recordkeeping requirements to facilitate rule compliance and enforcement.

PR 2306 applies to owners and operators of proposed, new, and existing freight rail yards, and any non-federal public agency who enters into a contractual agreement with the owner or operator of a freight rail yard in relation to its lease, construction, or operation. PR 2306 requires such non-federal public agencies to include provision(s) that have the effect of requiring the contracted freight rail yard owner or operator to comply with PR 2306.

PR 2306 offers three pathways through which operators can comply with the emission reductions requirements. First, freight rail yard operators are required to meet or exceed the predetermined emission reductions targets specified in the proposed rule that are consistent with emission reductions projected by CARB for the statewide implementation of their In-Use Locomotive and ACF regulations. Second, alternative emission reductions targets may be used in lieu of the predetermined targets, as long as the freight rail yard operator is able to successfully demonstrate that the alternative targets are consistent with actual compliance with the statewide regulations at all freight rail yards throughout the state that are operated by the same operator. A third option is available to the operator of a freight rail yard that experiences throughput declines, where any emission reductions resulting from lower levels of activities may be counted towards meeting or exceeding either the predetermined or the alternative emission reductions targets.

By setting emission reductions targets in accordance with implementation of statewide regulations, PR 2306 will ensure necessary NO_x reductions occurring at facility level within the South Coast AQMD region. For all compliance pathways, freight rail yards may obtain emission reductions from not only locomotives and drayage trucks, but also from cargo handling equipment, transportation refrigeration units, and other on-site supporting equipment, to meet or exceed the emission reductions targets. Initial and milestone compliance reports are required to demonstrate compliance with the emission reductions requirements.

PR 2306 additionally requires freight rail yard owners and operators to submit initial and milestone update reports on the planning, developmental status, and use of on- and off-site zero emission infrastructure in support of freight rail yard operations. This reporting will facilitate information sharing and coordination to expedite the development of necessary infrastructure and deployment of zero emission technologies. If the freight rail yard owner and operator identify and report a need to upgrade the electrical service being provided to the freight rail yard, they are required to submit a request to the local electrical utility for such an upgrade according to a specified schedule.

PR 2306 includes exemptions for freight rail yards that meet specific conditions. First, freight rail yards that are not intermodal rail yards and have low activity levels as specified in the proposed rule are exempt from specific provisions and requirements.

Second, certain freight rail yards that are owned or operated by the ports of Long Beach or Los Angeles are exempt from complying with PR 2306, including all intermodal on-dock rail facilities at the two ports, as well as non-intermodal rail facilities whose operations are limited to moving railcars to and/or from marine terminals for the purpose of on-port switching.

If adopted, PR 2306 will become effective when U.S. EPA has approved the inclusion of PR 2306 in the California SIP, granted an authorization for CARB's In-Use Locomotive Regulation, and granted a waiver and/or an authorization for CARB's ACF Regulation either as a whole or in part for its drayage truck requirements. The In-Use Locomotive and ACF regulations are currently under U.S. EPA's review for federal authorization and/or waiver, and CARB is not enforcing them.

PR 316.2 is the companion rule to PR 2306 and establishes fees to recover reasonable costs incurred by South Coast AQMD for the implementation of PR 2306. PR 316.2, which applies to owners and operators of freight rail yards, specifies fee rates for each PR 2306 report and notification, payment due dates, and service charge for returned check, and will be effective upon adoption.

Public Process

PR 2306 and PR 316.2 were developed through a thorough public process that included a series of Working Group and Community Workshop meetings, as well as a Public Workshop. Since the adoption of the 2016 AQMP, staff has conducted 13 Working Group meetings and six Community Workshops. The Working Group included affected facilities, environmental and community representatives, public agencies, consultants, equipment vendors, electrical utilities, labor groups, and other interested parties. Community Workshops were organized to inform the communities affected by freight rail yard operations of this rulemaking, as well as to provide community members and the general public additional opportunities to provide feedback and suggestions. Staff has also conducted freight rail yard visits and had several meetings with individual businesses and community advocate groups during development of the proposed rules. Throughout the public process, staff also held several meetings with other public agencies including CARB, U.S. EPA, the California High Speed Rail Authority, city governments, and other air districts.

Key Issues

Throughout the rulemaking process, staff worked with stakeholders to resolve issues, and the proposed rules include revisions in response to comments received. The remaining key issues pertain to PR 2306 and are listed as follows.

- *Communicating rule performance with the public*

Some community groups have requested that more is needed to communicate to the public whether the rule is working as intended. This could include through air quality

monitoring around freight rail yards, providing information about rule compliance and enforcement, and making freight rail yard data publicly available. Extensive air quality monitoring has already been conducted around freight rail yards as part of Community Air Monitoring Plan implementation for AB 617 communities.¹ Staff is not recommending to include air quality monitoring as part of PR 2306 given this already available data, and that PR 2306 is designed to reduce regional pollution such as ozone and fine particulate matter. Fenceline monitors would not be able to readily detect the impact of emission reductions from PR 2306 and state rules given other emissions sources near freight rail yards, and because the bulk of emission reductions may occur offsite on the rail lines and truck routes leading to these facilities. Rule performance will be evaluated and made available through reporting required by PR 2306. This reported information is detailed and is unlikely to be readily understandable by the public in raw form, though it will be crucial for determining rule compliance and performance. The Board Resolution therefore directs staff to conduct public outreach to identify an appropriate approach to make information and summaries from PR 2306 reports publicly available in a user-friendly format, and to report back to the Mobile Source Committee with a recommended approach that demonstrates the rule's effectiveness.

- *Some environmental stakeholders request that the emission reductions targets in PR 2306 be stronger and take into account more than trucks and locomotives*

PR 2306 emission reductions targets are set at levels to ensure that emission reductions achieved at the facility-level in the South Coast AQMD region will be at least proportional relative to emission reductions from implementation of statewide regulations. This is expected to achieve up to 82 percent NO_x emissions reductions by 2037. Compliance with PR 2306 emission reduction requirements can also be achieved through emission reductions from one or more mobile sources associated with freight rail yard operations, such as locomotives, drayage trucks, cargo handling equipment, transportation refrigeration units, and other on-site support equipment, as long as the emission reductions targets are met or exceeded. Compliance with PR 2306 could potentially result in further emission reductions from any mobile sources associated with freight rail yard operations, particularly in the event that statewide compliance with CARB regulations alone does not achieve proportional or greater emission reductions at the applicable freight rail yards as mandated by PR 2306.

- *Concern about potentially overlapping requirements between PR 2306 and implementation of other AQMP FBMSMs*

PR 2306 is part of the suite of AQMP FBMSMs aimed at collectively reducing freight emissions in the South Coast AQMD region. Each FBMSM is designed to address facility emissions from different groups of freight hubs, including freight rail yards. A single freight hub will not be subject to requirements resulting from the implementation of multiple FBMSMs. For example, the exemption from PR 2306 compliance for

¹ <https://www.aqmd.gov/nav/about/initiatives/environmental-justice/ab617-134/ab-617-community-air-monitoring>

certain port-owned or port-operated freight rail yards is proposed such that these exempted freight rail yards, which are an integral part of commercial marine port operations, will be subject to separate emission reduction obligations through the implementation of another AQMP FBMSM for commercial marine ports.

Emission Reductions and Public Health Benefits

PR 2306, in conjunction with CARB's In-Use Locomotive and ACF regulations, is projected to reduce NOx emissions by an average of 10.5 tons per day over the 2027 - 2050 period. The associated health benefits are estimated based on the health impact modeling completed for the 2022 AQMP. Overall, implementation of PR 2306 in conjunction with the state regulations is expected to result in about 300 premature deaths avoided annually from 2027-2050, and about 2,100 reduced emergency department visits and hospital admissions per year due to various illnesses (asthma, cardiovascular, respiratory, Alzheimer's disease, Parkinson's disease, and ischemic stroke). Expected monetized public health benefits are estimated to be \$5 billion annually during the same time period.

California Environmental Quality Act (CEQA)

Pursuant to CEQA and South Coast AQMD's certified regulatory program (Public Resources Code Section 21080.5, CEQA Guidelines Section 15251(I) and South Coast AQMD Rule 110), South Coast AQMD, as lead agency, reviewed PR 2306 and determined that: 1) PR 2306 implements three control measures that were previously adopted in the 2022 AQMP and the 2016 AQMP; 2) the Final Program Environmental Impact Report (EIR) for the 2022 AQMP and the Final Program EIR for the 2016 AQMP evaluated the control measures which are being relied upon for PR 2306, and analyzed their potential environmental impacts; 3) no subsequent EIR would be required per CEQA Guidelines Section 15168 (c)(2) because there are no new or modified physical changes that would result from implementing PR 2306 which were not previously analyzed in the Final Program EIR for the 2022 AQMP and the Final Program EIR for the 2016 AQMP; and 4) the Final Program EIR for the 2022 AQMP and the Final Program EIR for the 2016 AQMP can be relied on for CEQA compliance. Thus, PR 2306 qualifies as a later activity within the scope of the programs approved earlier in the 2022 AQMP and the 2016 AQMP per CEQA Guidelines 15168 (c), and the Final Program EIR for the 2022 AQMP and the Final Program EIR for the 2016 AQMP adequately describe and analyze the activities associated with implementing PR 2306 for the purposes of CEQA such that no new environmental document is required. The analysis supporting this conclusion can be found in Appendix A of the Final Staff Report (Attachment I of this Board Letter).

In addition, pursuant to CEQA Guidelines Sections 15002(k) and 15061, PR 316.2 involves charges by public agencies for the purpose of meeting operating expenses which are statutorily exempt from CEQA pursuant to CEQA Guidelines Section 15273. A Notice of Exemption has been prepared for PR 316.2 pursuant to CEQA Guidelines

Section 15062 and is included as Attachment K of this Board Letter. If PR 316.2 is approved, the Notice of Exemption will be filed for posting with the county clerks of Los Angeles, Orange, Riverside, and San Bernardino counties, and with the State Clearinghouse of the Governor's Office of Planning and Research.

Socioeconomic Impact Assessment

PR 2306 and PR 316.2 will be applicable to approximately 25 freight rail yards within the South Coast AQMD jurisdiction. The portion of estimated compliance costs due to the implementation of PR 2306 are expected to be nominal because the majority share of the costs expected to accrue in the South Coast AQMD jurisdiction will result from the combined implementation of statewide regulations (e.g., CARB's In-Use Locomotive Regulation and CARB's ACF Regulation), which will overlay the implementation of PR 2306. For context and informational purposes, based on an analysis of CARB's staff reports, the estimated South Coast AQMD region-specific portion of statewide costs across all years (2027-2050) to be approximately \$2.27 billion in undiscounted 2023 dollars over the period 2027-2050, with \$2.87 billion associated with locomotives and -\$596 million (i.e., a cost-savings) related to drayage trucks. The net costs are only roughly two percent of the annual monetized health benefits.

In addition, the implementation of PR 2306 involves incremental report and notification preparation costs, which are estimated at \$255,290 in undiscounted 2023 dollars, on an annual basis, while PR 316.2 establishes fees for PR 2306 reports and notifications to be paid by freight rail yard owners and operators subject to PR 2306. The annual reporting fees for PR 316.2 are estimated at \$106,640, while the notification fees are not estimated because the frequency of notification is unknown and unable to be forecasted. The details of the Socioeconomic Impact Assessment can be found in the Final Staff Report (Attachment I of this Board Letter).

AQMP and Legal Mandates

Pursuant to Health and Safety Code Section 40460 (a), South Coast AQMD is required to adopt an AQMP demonstrating compliance with all federal regulations and standards. South Coast AQMD is also required to adopt rules and regulations that carry out the objectives of the AQMP. The 2016 AQMP committed South Coast AQMD to implement FBMSMs, one of which included MOB-02 – Emission Reductions at Rail Yards and Intermodal Facilities and was subsequently bifurcated to MOB-02A – Emission Reductions at New Rail Yards and Intermodal Facilities and MOB-02B – Emission Reductions at Existing Rail Yards and Intermodal Facilities in the 2022 AQMP. U.S. EPA approved the 2016 AQMP into the SIP, including control measure MOB-02. PR 2306 is needed to reduce NOx emissions to assist in meeting state and federal ambient air quality standards for ozone and fine particulate matter. The South Coast AQMD is required by the California Clean Air act, Health and Safety Code Section 40914, to adopt all feasible measures to attain air quality standards.

Implementation and Resource Impacts

PR 2306 implementation and compliance activities will include review of reports and notifications, audits, inspections, and enforcement activities. Additional staff will be required to administer the PR 2306 program once the rule becomes effective, and the need for added staffing resources will be included in future budget actions. The cost of these staffing resources will be offset through fee revenues collected under PR 316.2.

Attachments

- A. Summary of Proposal
- B. Key Issues and Responses
- C. Rule Development Process
- D. Key Contacts List
- E. Resolution
- F. PR 2306
- G. PR 316.2
- H. PR 2306 Calculation Methodology and Data Appendix
- I. Final Staff Report
- J. Supplemental Information for Proposed Rule 316.2 Fee Rates
- K. Notice of Exemption from CEQA for PR 316.2
- L. Board Presentation

ATTACHMENT A
SUMMARY OF PROPOSAL

Proposed Rule 2306 – Freight Rail Yards

Purpose

- Proposed Rule 2306 (PR 2306) seeks to reduce NO_x emissions associated with freight rail yards and the mobile sources attracted to freight rail yards in order to assist in meeting state and federal air quality standards for ozone and fine particulate matter, and to ensure that proportional or greater emission reductions occur in the South Coast AQMD jurisdiction from implementation of state regulations addressing freight rail yard emission sources.

Applicability

- PR 2306 applies to owners and operators of proposed, new, and existing freight rail yards located within the South Coast AQMD jurisdiction, and any non-federal public agency contracting with the owner or operator of a freight rail yard subject to PR 2306.

Requirements

- Freight rail yard operators are required to meet or exceed NO_x emission reductions targets in milestone years through multiple compliance pathway options:
 - Meet or exceed the predetermined emission reductions targets as specified in the proposed rule based on compliance projections in CARB’s regulatory documentation for CARB’s In-Use Locomotive and Advanced Clean Fleets regulations.
 - Meet or exceed the alternative emission reductions targets in lieu of the predetermined targets, provided that the freight rail yard operator can demonstrate successfully that these alternative targets are consistent with the operator’s overall state compliance with CARB regulations for all of its operated freight rail yards in the state.
 - An additional compliance pathway is available to the operator of a freight rail yard experiencing throughput declines, where the operator may count emission reductions resulting from decreased activity levels towards meeting or exceeding either the predetermined or alternative emission reductions targets.
- Freight rail yard owners and/or operators are required to submit initial reports and milestone year reports to demonstrate compliance with emission reduction requirements, and to report status and progress on zero emission infrastructure planning, development, and utilization.

- Freight rail yard owners and operators are required to submit to their electrical utility a request to upgrade the electrical service if it is indicated in the initial or milestone zero emission reports that the electrical capacity is insufficient for future operation and compliance needs of the freight rail yard.
- Any non-federal public agency who enters, renews, or amends a contractual agreement in relation to the lease, construction, or operation of a freight rail yard subject to PR 2306 shall include provision(s) that have the effect of requiring the contracted freight rail yard owner or operator to comply with PR 2306.

Reporting

- Freight rail yard operators are required to submit an Initial Facility Information Report, including information about the freight rail yard, throughput data, equipment and vehicles operated on or through the facility to transport or assist in transporting cargo or goods and their associated emissions, and the freight rail yard's aggregate emission factor.
- Freight rail yard owners and operators are required to submit an Initial Zero Emission Infrastructure Report, including the planning, development status, and use of on- and off-site zero emission infrastructure in support of freight rail yard operations.
- Freight rail yard operators are required to submit Milestone Compliance Reports to demonstrate compliance with emission reductions requirements and also include updates to facility information, throughput, equipment and vehicles, and aggregate emission factor.
- Freight rail yard owners and operators are required to submit Zero Emission Infrastructure Status Update Reports and provide updates on information from the Initial Zero Emission Infrastructure Report.

Notifications

- Freight rail yard owners and/or operators shall submit the following notifications to the Executive Officer according to the specified schedule for each notification:
 - Change of Freight Rail Yard Operator Notification
 - Change of Freight Rail Yard Owner Notification
 - Freight Rail Yard Shutdown Notification
 - Exceedance of Low Activity Exemption Threshold Notification
 - Proposed Freight Rail Yard Construction, Conversion, or Expansion Notification

Recordkeeping

- Freight rail yard owners and operators are required to keep all records and supplementary documents that may support the accuracy and validity of submitted information in compliance with PR 2306, to be made available to the Executive Officer upon written request.

Exemptions

- Freight rail yards that are not intermodal rail yards and have switching activities occurring no more than 30 calendar days per year are exempt from specific provisions and requirements.

Proposed Rule 2306 – Freight Rail Yards

- Certain freight rail yards that are owned or operated by the ports of Long Beach or Los Angeles are exempt from complying with PR 2306, including all intermodal on-dock rail facilities at the two ports, as well as non-intermodal rail facilities whose operations are limited to moving rail cars to and/or from marine terminals for the purpose of on-port switching.

Effective Date

- If adopted, PR 2306 will become effective after the U.S. EPA has approved it as part of California's State Implementation Plan (SIP), granted an authorization for CARB's In-Use Locomotive Regulation, and granted an authorization and/or waiver for CARB's Advanced Clean Fleets Regulation as a whole or in part for its drayage truck requirements.

Appendix

- PR 2306 Appendix specifies the equations to calculate the percent reduction of NO_x emissions to demonstrate compliance with PR 2306. The equations shall be used along with the accompanying PR 2306 Calculation Methodology and Data Appendix.

Proposed Rule 316.2 – Fees for Rule 2306

Purpose

- Proposed Rule 316.2 (PR 316.2) is intended to collect fees from freight rail yard owners and operators to recover reasonable costs incurred by the South Coast AQMD associated with the implementation of PR 2306.

Applicability

- Freight rail yard owners and operators subject to reporting and notification requirements of PR 2306 will also be subject to the respective fees of PR 316.2.

Requirements

- Freight rail yard owners and operators shall pay the specified fees for each required report and notification submitted pursuant to PR 2306, at the time of report or notification submission.
- A service charge shall be paid for return checks.

ATTACHMENT B
KEY ISSUES AND RESPONSES

Proposed Rule 2306 – Freight Rail Yards
Proposed Rule 316.2 – Fees for Rule 2306

Throughout the rule development process, staff worked with stakeholders to address and resolve key issues. The key remaining issues are listed as follows.

1) Communicating rule performance with the public

Some community groups have requested that more is needed to communicate to the public whether the rule is working as intended. This could include through air quality monitoring around freight rail yards, providing information about rule compliance and enforcement, and making freight rail yard data publicly available. Extensive air quality monitoring has already been conducted around freight rail yards as part of Community Air Monitoring Plan implementation for AB 617 communities.¹ Staff is not recommending to include air quality monitoring as part of PR 2306 given this already available data, and that PR 2306 is designed to reduce regional pollution such as ozone and fine particulate matter. Fenceline monitors would not be able to readily detect the impact of emission reductions from PR 2306 and state rules given other emissions sources near freight rail yards, and because the bulk of emission reductions may occur offsite on the rail lines and truck routes leading to these facilities. Rule performance will be evaluated and made available through reporting required by PR 2306. This reported information is detailed and is unlikely to be readily understandable by the public in raw form, though it will be crucial for determining rule compliance and performance. The Board Resolution therefore directs staff to conduct public outreach to identify an appropriate approach to make information and summaries from PR 2306 reports publicly available in a user-friendly format and in manners consistent with transparency obligations under the California Public Records Act. Staff will subsequently report back to the Mobile Source Committee with a recommended approach that demonstrates the rule's effectiveness.

2) Some environmental stakeholders request that the emission reductions targets in PR 2306 be stronger and take into account more than trucks and locomotives

PR 2306 emissions reduction targets are set at levels to ensure that emission reductions achieved at the facility-level in the South Coast AQMD region will be at least

¹ <https://www.aqmd.gov/nav/about/initiatives/environmental-justice/ab617-134/ab-617-community-air-monitoring>

proportional relative to emission reductions from statewide implementation of CARB's In-Use Locomotive and ACF regulations. PR 2306 is designed to supplement these state regulations as they are implemented statewide based on the characteristics of the affected fleets deployed in the state as a whole. Therefore, South Coast AQMD may not necessarily benefit proportionally from statewide implementation of CARB's regulations. PR 2306, in conjunction with the implementation of CARB's statewide regulations, is expected to achieve up to 82% NOx emissions reductions by 2037.

Compliance with PR 2306 emission reduction requirements can be achieved through emission reductions from one or more mobile sources associated with freight rail yard operations, such as locomotives, drayage trucks, cargo handling equipment, transportation refrigeration units, and other on-site support equipment, as long as the emission reductions targets are met or exceeded. Compliance with PR 2306 could potentially result in further emission reductions from any of these mobile sources, particularly in the event that statewide compliance with CARB regulations alone does not achieve proportional or greater emission reductions at the applicable freight rail yards as mandated by PR 2306.

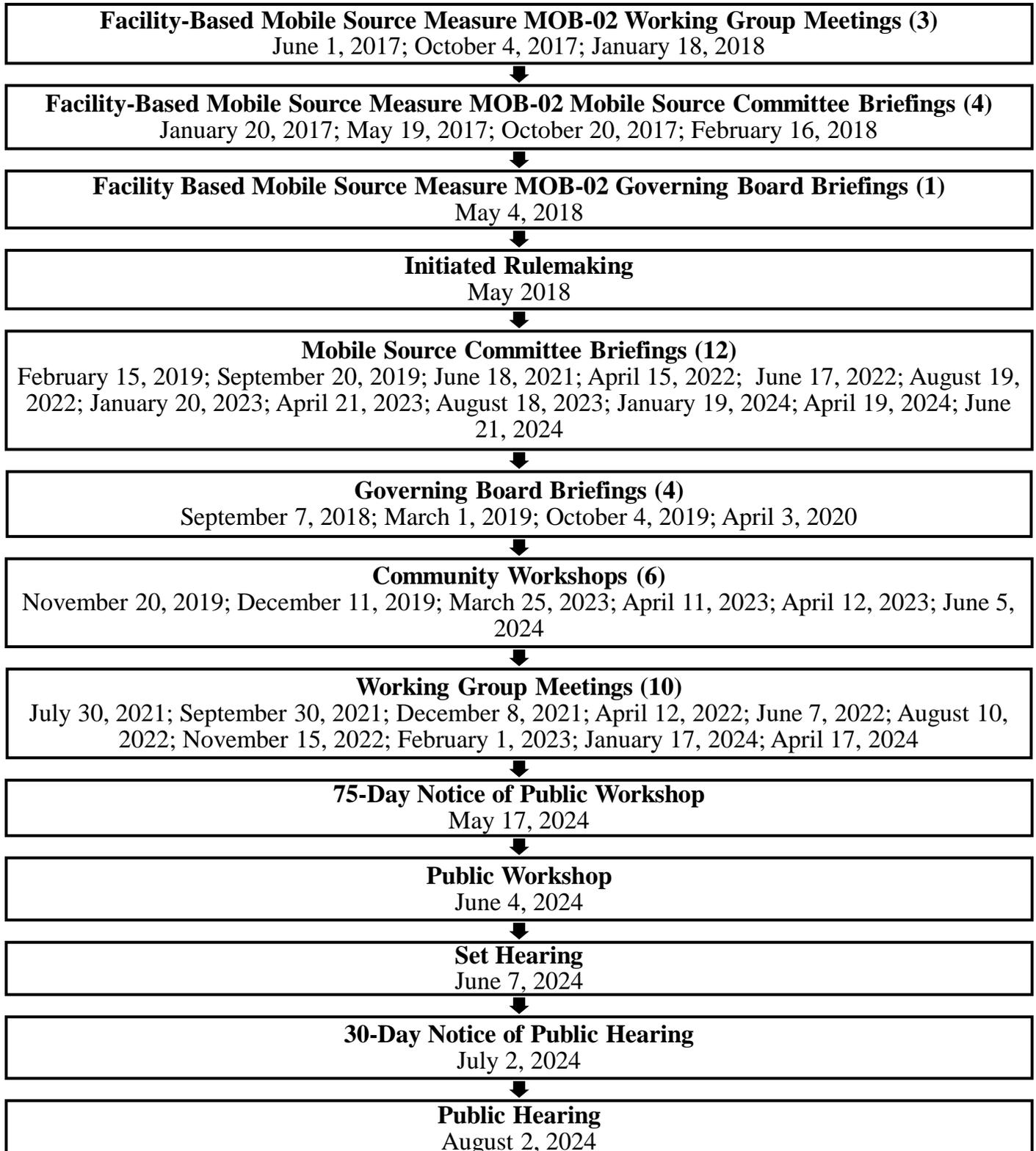
3) Concern about potentially overlapping requirements between PR 2306 and implementation of other AQMP Facility-Based Mobile Source Measures (FBMSM)

PR 2306 is part of the suite of AQMP FBMSMs aimed at collectively addressing freight emissions in the South Coast AQMD region. Each FBMSM is designed to address facility emissions from different groups of freight hubs, including freight rail yards. A single freight hub will not be subject to requirements resulting from the implementation of multiple FBMSMs. For example, the exemption from PR 2306 compliance for certain port-owned or port-operated freight rail yards is proposed such that these exempted freight rail yards, which are an integral part of commercial marine port operations, will be subject to separate emission reduction obligations through the implementation of another AQMP FBMSM for commercial marine ports.

PR 2306 requires a freight rail yard operator to demonstrate compliance with the proposed rule requirements by including any activities that are associated with that specific freight rail yard, whether or not the activities are also associated with the operation of other freight hubs such as another freight rail yard or a marine terminal (e.g., cargo transportation by drayage trucks from a container terminal to an intermodal rail yard). A freight rail yard operator does not need be concerned by the eventual accounting of SIP creditable emission reductions for the South Coast AQMD region. Prior to submitting SIP credit planning requirements to U.S. EPA, staff from South Coast AQMD will evaluate and address any 'double counting' of emission reductions that may occur across multiple regulations. This analysis is not the responsibility of a freight rail yard owner or operator under PR 2306.

ATTACHMENT C
RULE DEVELOPMENT PROCESS

Proposed Rule 2306 – Freight Rail Yards
Proposed Rule 316.2 – Fees for Rule 2306



Eighty Six (86) months spent in rule development
Thirteen (13) Working Group Meetings
Six (6) Community Workshops
One (1) Public Workshop
Five (5) Governing Board Briefings
Sixteen (16) Mobile Source Committee Meetings

ATTACHMENT D

KEY CONTACTS LIST

Proposed Rule 2306 – Freight Rail Yards Proposed Rule 316.2 – Fees for Rule 2306

Facilities

- 4th Street
- Anaheim
- Arlington
- City of Industry
- Commerce Eastern
- Dolores
- East Los Angeles
- Hobart
- Intermodal Container Transfer Facility (ICTF)
- Inland Empire
- Kaiser
- La Mirada
- Los Angeles Transportation Center (LATC)
- Los Nietos
- Malabar
- Mead
- Mira Loma
- Montclair
- Montebello
- Pico Rivera
- San Bernardino
- Santa Fe Springs
- Sheila
- Watson
- West Colton

Associations or Entities

- American Short Line and Regional Railroad Association
- Association of American Railroads
- Burlington Northern Santa Fe Railway
- Center for Community Action and Environmental Justice
- Coalition for Clean Air
- Earthjustice
- East Yard Communities for Environmental Justice
- Long Beach Alliance for Children with Asthma
- Move LA
- National Resources Defense Council
- Pacific Environment
- Pacific Harbor Line
- People's Collective for Environmental Justice

- San Pedro Peninsula Homeowners Coalition
- Sierra Club
- Union Pacific Railroad
- United Electrical, Radio & Machine Workers of America
- Westside Long Beach Neighborhood Association

Government Agencies

- California Air Resources Board
- California High-Speed Rail Authority
- City of Colton Electric Department
- City of Long Beach Harbor Department (Port of Long Beach)
- City of Los Angeles Department of Water and Power
- City of Los Angeles Harbor Department (Port of Los Angeles)
- Mojave Desert Air Quality Management District
- U.S. Environmental Protection Agency

Other Interested Parties

- CEA Consulting
- Community Environmental Services
- Pacific Merchant Shipping Association
- Southern California Edison

ATTACHMENT E

RESOLUTION NO. 24-_____

A Resolution of the South Coast Air Quality Management District (South Coast AQMD) Governing Board determining that Proposed Rule 2306 – Freight Rail Yards qualifies as a later activity within the scope of the program approved earlier for the 2022 Air Quality Management Plan (AQMP) and the 2016 AQMP per California Environmental Quality Act (CEQA) Guidelines Section 15168 (c), and the Final Program Environmental Impact Report (EIR) for the 2022 AQMP and the Final Program EIR for the 2016 AQMP adequately describe the activity for the purposes of CEQA such that no new environmental document is required.

A Resolution of the South Coast AQMD Governing Board determining that Proposed Rule 316.2 – Fees for Rule 2306 is exempt from the requirements of CEQA.

A Resolution of the South Coast AQMD Governing Board adopting Rule 2306 – Freight Rail Yards and Rule 316.2 – Fees for Rule 2306, and approving the accompanying Rule 2306 Calculation Methodology and Data Appendix.

WHEREAS, the South Coast AQMD Governing Board finds and determines that Proposed Rule 2306 and Proposed Rule 316.2 are considered a "project" as defined by CEQA; and

WHEREAS, South Coast AQMD 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 2306 and Proposed Rule 316.2 pursuant to such program (South Coast AQMD Rule 110); and

WHEREAS, the South Coast AQMD Governing Board finds and determines that: 1) Proposed Rule 2306 implements Control Measure MOB-02A – Emission Reductions at New Rail Yards and Intermodal Facilities, and Control Measure MOB-02B – Emission Reductions at Existing Rail Yards and Intermodal Facilities which were previously adopted in the 2022 AQMP, and Control Measure MOB-02 – Emission Reductions at Rail Yards and Intermodal Facilities which was previously adopted in the 2016 AQMP; 2) no subsequent Environmental Impact Report (EIR) would be required per CEQA Guidelines Section 15168 (c)(2) because there are no new or modified physical changes that would result from implementing Proposed Rule 2306 which were not previously analyzed either in the Final Program EIR for the 2022 AQMP specific to Control Measures MOB-02A and MOB-02B or the Final Program EIR for the 2016 AQMP specific to Control Measure MOB-02; and 3) the Final Program EIR for the 2022 AQMP and the Final Program EIR for the 2016 AQMP can be relied on for CEQA compliance; and

WHEREAS, the South Coast AQMD Governing Board finds and determines that Proposed Rule 2306 is a later activity within the scope of the program approved earlier in the 2022 AQMP and the 2016 AQMP per CEQA Guidelines Section 15168 (c)(2), and the Final Program EIR for the 2022 AQMP and the Final Program EIR for the 2016 AQMP adequately describe and analyze the activities associated with implementing Proposed Rule 2306 for the purposes of CEQA such that no new environmental document is required; and

WHEREAS, the South Coast AQMD Governing Board finds and determines that based on substantial evidence in the record and in accordance with the noticing requirements in CEQA Guidelines Section 15168 (e), Proposed Rule 2306 qualifies as a later activity within the scope of the program approved earlier for the 2022 AQMP and 2016 AQMP, and the Final Program EIR for the 2022 AQMP and the Final Program EIR for the 2016 AQMP adequately describe the activity for the purposes of CEQA; and

WHEREAS, the South Coast AQMD Governing Board finds and determines after conducting a review of Proposed Rule 316.2 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 Proposed Rule 316.2 is exempt from CEQA, that Proposed Rule 316.2 is exempt from CEQA; and

WHEREAS, the South Coast AQMD Governing Board hereby finds and determines that it can be seen with certainty that Proposed Rule 316.2 establishes fees, for the purpose of meeting operating expenses including the administration and enforcement of Rule 2306, which are statutorily exempt from CEQA pursuant to Public Resources Code Section 21080(b)(8) and CEQA Guidelines Section 15273; and

WHEREAS, the South Coast AQMD staff has prepared a Notice of Exemption for Proposed Rule 316.2, that is completed in compliance with CEQA Guidelines Section 15062 – Notice of Exemption; and

WHEREAS, Proposed Rule 2306, Proposed Rule 316.2, and supporting documentation, including but not limited to, Proposed Rule 2306 Calculation Methodology and Data Appendix, Supplemental Information for Proposed Rule 316.2 Fee Rates, the Notice of Exemption for Proposed Rule 316.2, and the Final Staff Report which includes Detailed CEQA Analysis and the Final Socioeconomic Impact Assessment, were presented to the South Coast AQMD Governing Board and the South Coast AQMD 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 South Coast AQMD Governing Board finds and determines, taking into consideration the factors in Section (d)(4)(D) of the Governing Board Procedures (Section 30.5(4)(D)(i) of the Administrative Code), that no modifications have been made to Proposed Rule 2306 and Proposed Rule 316.2 since the Notice of Public Hearing was published that are so substantial as to significantly affect the meaning of Proposed Rule 2306 and Proposed Rule 316.2 within the meaning of Health and Safety Code Section 40726 because: (a) the changes do not impact emission reductions, (b) the changes do not affect the number or type of sources regulated by the

rules, (c) the changes are consistent with the information contained in the Notice of Public Hearing, and (d) the consideration of the range of CEQA alternatives is not applicable because: i) the consideration of the range of CEQA alternatives was conducted in the Final Program EIR for the 2022 AQMP, which evaluated Control Measures MOB-02A and MOB-02B, and the Final Program EIR for the 2016 AQMP which evaluated Control Measure MOB-02, upon which Proposed Rule 2306 relies, and ii) Proposed Rule 316.2 is exempt from CEQA; and

WHEREAS, the South Coast AQMD Governing Board has determined that there is a problem that Proposed Rule 2306 will help alleviate which is that South Coast AQMD is not in attainment of state and federal standards for ozone and fine particulate matter, and a need exists to adopt Proposed Rule 2306 to reduce oxides of nitrogen emissions to assist in meeting state and federal air quality standards for ozone and fine particulate matter, and to facilitate emission reductions from these pollutants related to freight rail yard operations; and

WHEREAS, the South Coast AQMD Government Board adopted the 2016 Air Quality Management Plan and the 2022 Air Quality Management Plan to establish a path toward the goal of attainment of state and federal ambient air quality standards, which included a suite of Facility-Based Mobile Source Measures to address emissions from the goods movement sector, including measures directed at freight rail yards; and

WHEREAS, the South Coast AQMD Governing Board has determined that adoption of Proposed Rule 2306 would also be consistent with Community Emission Reduction Plans adopted for the AB 617 communities in San Bernardino/Muscoy, Wilmington/Carson/West Long Beach, East Los Angeles/Boyle Heights/West Commerce, and Southeast Los Angeles; and

WHEREAS, Proposed Rule 316.2 has been developed to establish fees for freight rail yard owners and operators to fund the South Coast AQMD compliance activities associated with Proposed Rule 2306 pursuant to Health and Safety Code Section 40522.5 that authorizes South Coast AQMD to collect fees to recover reasonable costs associated with regulatory programs for areawide or indirect sources; and

WHEREAS, the South Coast AQMD Governing Board has determined that the Socioeconomic Impact Assessment of Proposed Rule 2306 and Proposed Rule 316.2, as presented in the Final Staff Report, is consistent with the March 17, 1989, Governing Board Socioeconomic Resolution for rule adoption; and

WHEREAS, the South Coast AQMD Governing Board has determined that the Socioeconomic Impact Assessment for Proposed Rule 2306 and Proposed Rule 316.2, as presented in the Final Staff Report, is consistent with the provisions of Health and Safety Code Sections 40440.8 and 40728.5; and

WHEREAS, the South Coast AQMD Governing Board has determined Proposed Rule 2306 and Proposed Rule 316.2 will result in increased costs to the affected industries, with a total annualized cost as specified in the Socioeconomic Impact Assessment, as presented in the Final Staff Report; and

WHEREAS, the South Coast AQMD Governing Board has actively considered the Socioeconomic Impact Assessment and has made a good faith effort to minimize such impacts; and

WHEREAS, the South Coast AQMD staff conducted a Public Workshop regarding Proposed Rule 2306 and Proposed Rule 316.2 on June 4, 2024; and

WHEREAS, Proposed Rule 2306 and the accompanying Proposed Rule 2306 Calculation Methodology and Data Appendix will be submitted to the California Air Resources Board and the United States Environmental Protection Agency for inclusion into the State Implementation Plan; and

WHEREAS, Health and Safety Code Section 40727 requires that prior to adopting, amending, or repealing a rule or regulation, the South Coast AQMD 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 South Coast AQMD Governing Board has determined that Proposed Rule 2306 implements sections of the Federal Clean Air Act including 42 U.S.C. Sections 7410, 7416, 7502, 7511a, and 7513a, and a need exists to adopt Proposed Rule 2306 to reduce oxides of nitrogen emissions to assist in meeting state and federal air quality standards for ozone and fine particulate matter, and to facilitate emission reductions from these pollutants related to freight rail yard operations; and

WHEREAS, the South Coast AQMD Governing Board obtains its authority to adopt, amend or repeal rules and regulations from Health and Safety Code Sections 39002, 39650 through 39669, 40000, 40001, 40440, 40441, 40522.5, 40701, 40702, 40716, 40717, 40725 through 40728, 40910, 40920.5, 41508, 41511 and 41700 and the Federal Clean Air Act; and

WHEREAS, the South Coast AQMD Governing Board has determined that Proposed Rule 2306 and Proposed Rule 316.2 are written or displayed so that its meaning can be easily understood by the persons directly affected by it; and

WHEREAS, the South Coast AQMD Governing Board has determined that Proposed Rule 2306 and Proposed Rule 316.2 are in harmony with, and not in conflict with or contradictory to, existing statutes, court decision, or state or federal regulations; and

WHEREAS, the South Coast AQMD Governing Board has determined that Proposed Rule 2306 and Proposed Rule 316.2 do not impose the same requirements as any existing state or federal regulations, and Proposed Rule 2306 and Proposed Rule 316.2 are necessary and proper to execute the powers and duties granted to, and imposed upon, South Coast AQMD; and

WHEREAS, the South Coast AQMD Governing Board, in adopting Proposed Rule 2306 and Proposed Rule 316.2, references the following statutes which South Coast AQMD hereby implements, interprets, or makes specific: Federal Clean Air Act Sections 110(a)(5)(C) and 116; Health and Safety Code Sections 40440, 40716, 40717, and 40522.5; and

WHEREAS, Health and Safety Code Section 40727.2 requires the South Coast AQMD to prepare a written analysis of all existing state and federal air pollution control requirements, all existing and proposed South Coast AQMD rules and regulations, and all pollution control requirements and guidelines that apply to the same equipment or source type being regulated whenever it adopts, or amends a rule, and that the South Coast AQMD's comparative analysis of Proposed Rule 2306 and Proposed Rule 316.2 are included in the Final Staff Report; and

WHEREAS, the Public Hearing has been properly noticed in accordance with all provisions of Health and Safety Code Sections 40725 and 40440.5; and

WHEREAS, the South Coast AQMD Governing Board has held a Public Hearing in accordance with all provisions of state and federal law; and

WHEREAS, the South Coast AQMD Governing Board specifies the Planning, Rule Development, and Implementation Manager overseeing the rule development for Proposed Rule 2306 and Proposed Rule 316.2 as the custodian of the documents or other materials which constitute the record of proceedings upon which the adoption of Proposed Rule 2306 and Proposed Rule 316.2 is 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 South Coast AQMD Governing Board does hereby determine, pursuant to the authority granted by law, that: Proposed Rule 2306 qualifies as a later activity within the scope of the program approved earlier for the 2022 AQMP and 2016 AQMP per CEQA Guidelines 15168 (c), and the Final Program EIR for the 2022 AQMP and the Final Program EIR for the 2016 AQMP adequately describe the activity for the purposes of CEQA such that no new environmental document is required; and Proposed Rule 316.2 is statutorily exempt from CEQA pursuant to Public Resources Code Section 21080(b)(8) and CEQA Guidelines Section 15273. This information was presented to the South Coast AQMD Governing Board, whose members exercised their independent judgement and reviewed, considered, and approved the information therein prior to acting on Proposed Rule 2306 and Proposed Rule 316.2; and

BE IT FURTHER RESOLVED, that the South Coast AQMD Governing Board does hereby adopt, pursuant to the authority granted by law, Proposed Rule 2306 and Proposed Rule 316.2 as set forth in the attached, and incorporated herein by reference, and approve the accompanying Proposed Rule 2306 Calculation Methodology and Data Appendix as set forth in the attached, and incorporated herein by reference; and

BE IT FURTHER RESOLVED, that the South Coast AQMD Governing Board does hereby authorize the Executive Officer to make subsequent technical corrections, clarifications or updates to the approved Proposed Rule 2306 Calculation Methodology and Data Appendix that include but are not limited to addition of emission rates and other parameters related to newly adopted engine standards, and revised emission rates and other parameters in accordance with emission rates and other parameters used or revised by the California Air Resources Board or the United States Environmental Protection Agency for the same emission source category or sub-category; and

BE IT FURTHER RESOLVED, the Executive Officer is hereby directed to conduct public outreach to identify an appropriate approach to make information from Proposed Rule 2306 reports publicly available in a user-friendly format, and to report back to Mobile Source Committee following this outreach with a recommended approach that will demonstrate the effectiveness of the rule to the public and disclose information consistent with transparency obligations under the California Public Records Act; and

BE IT FURTHER RESOLVED, that the Executive Officer is hereby directed to report significant updates in writing to the South Coast AQMD Mobile Source Committee, and have an agendaized status update to the Mobile Source Committee in March or April 2025, on the status and progress of United States Environmental Protection Agency actions in relation to the California In-Use Locomotive Regulation (CCR, Title 13, Sections 2478 through 2478.17), the California Advanced Clean Fleets Regulation, either as a whole (CCR, Title 13, Sections 2013 through 2013.4, 2014 through 2014.3, 2015 through 2015.6, and 2016) or in part for its Drayage Truck Requirements (CCR, Title 13, Sections 2014 through 2014.3), and the State Implementation Plan review of Proposed Rule 2306 or other actions bearing on the effective date of Proposed Rule 2306; and

BE IT FURTHER RESOLVED, the Executive Officer is hereby directed to conduct outreach to facilities subject to Proposed Rule 2306 when the specific effective date is known to inform them of Proposed Rule 2306 requirements and timelines, and of the fees for Proposed Rule 2306 reports and notifications as required by Proposed Rule 316.2 which is effective upon adoption; and

BE IT FURTHER RESOLVED, that the South Coast AQMD Governing Board requests that Proposed Rule 2306 and the accompanying Proposed Rule 2306 Calculation Methodology and Data Appendix be submitted for inclusion in the State Implementation Plan; and

BE IT FURTHER RESOLVED, that the Executive Officer is hereby directed to forward a copy of this Resolution, Proposed Rule 2306, and the accompanying Proposed Rule 2306 Calculation Methodology and Data Appendix to the California Air Resources Board for approval and subsequent submittal to the United States Environmental Protection Agency for inclusion into the State Implementation Plan.

DATE: _____

CLERK OF THE BOARDS

ATTACHMENT F

(Adopted [Date of Rule Adoption])~~Draft Rule Language~~

[RULE INDEX TO BE ADDED AFTER RULE ADOPTION]~~(Board Consideration August 2, 2024)~~

PROPOSED RULE 2306 FREIGHT RAIL YARDS

(a) Purpose

The purpose of this rule is to reduce emissions of Nitrogen Oxides (NOx) associated with Freight Rail Yards and the mobile sources attracted to Freight Rail Yards in order to assist in meeting state and federal air quality standards for Ozone and Fine Particulate Matter, and to ensure that proportional or greater emission reductions occur in the South Coast AQMD jurisdiction from implementation of state regulations addressing Freight Rail Yard emission sources.

(b) Applicability

This rule applies to owners or operators of proposed, new, and existing Freight Rail Yards located within the South Coast AQMD jurisdiction, and any state or local government agency or any non-federal public agency or combination of public agencies such as a joint powers authority who enters into a Contractual Agreement with the owner or operator of such Freight Rail Yards.

(c) Definitions

- (1) AGGREGATE EMISSION FACTOR (AEF) means the average rate of NOx emissions per unit of energy consumed across all Applicable Mobile Sources that are attracted to a Freight Rail Yard during a calendar year.
- (2) APPLICABLE MOBILE SOURCES means the following mobile sources of emissions that may be operated on or through a Freight Rail Yard to transport or assist in transporting cargo or goods: Cargo Handling Equipment, Drayage Trucks, Line Haul Locomotives, Switch Locomotives, Transportation Refrigeration Units, and/or Other On-Site Support Equipment.
- (3) BASE PERIOD (BP) means the period over the first two full calendar years immediately following the calendar year when the rule becomes effective, except that for a New Freight Rail Yard, “Base Period” means the first two full calendar years immediately following the calendar year when the New Freight Rail Yard begins Freight Rail Yard Operations.
- (4) CARGO HANDLING EQUIPMENT (CHE) means any self-propelled vehicle or equipment primarily used onsite at a Freight Rail Yard to lift or move containerized

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or non-containerized freight, ~~including which may include~~ empty containers and chassis, carried to or from the Freight Rail Yard by Drayage Truck, Locomotive, or another vehicle.

- (5) CLASSIFICATION YARD means a Freight Rail Yard in which Railcars are classified, separated, grouped or moved with the purpose of transporting Railcars and their containerized or non-containerized freight, ~~including which may include~~ empty containers and chassis, to different destinations.
- (6) CONTRACTUAL AGREEMENT means a legally enforceable agreement entered into by two or more parties to do, or refrain from doing, one or more actions specified in a written contract, memorandum of understanding, or other binding agreement in relation to the lease, construction, or operation of a Freight Rail Yard.
- (7) DRAYAGE TRUCK means any in-use on-road vehicle with a gross vehicle weight rating greater than 26,000 pounds operating at and travelling to and from Freight Rail Yard property, for the purpose of loading, unloading, or transporting containerized and non-containerized freight, ~~including which may include~~ empty containers and chassis.
- (8) FINE PARTICULATE MATTER (PM2.5) means particulate matter with an aerodynamic diameter less than or equal to 2.5 micrometers.
- (9) FREIGHT RAIL YARD means any Rail Yard where Switching Activities occur or where containerized or non-containerized freight, ~~including which may include~~ empty containers and chassis, are loaded to or unloaded from Railcars for transportation to or from a location outside of the Freight Rail Yard by Locomotive(s) operated by the Freight Rail Yard Operator, including but not limited to Intermodal Rail Yards and Classification Yards.
- (10) FREIGHT RAIL YARD OPERATIONS means operations associated with Freight Rail Yards, such as Switching Activities; loading, unloading, moving, and transferring of containerized or non-containerized freight, ~~including which may~~ include empty containers and chassis; fueling, maintenance, service, and repair of Locomotives and/or other Applicable Mobile Sources; and other similar operations conducted by a Freight Rail Yard Operator or an entity that is controlled by or is under common control with a Freight Rail Yard Operator.
- (11) FREIGHT RAIL YARD OPERATOR means a Railroad that is, controls, or is under common control with the entity who conducts day-to-day business

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operations at a Freight Rail Yard, either with its employees or through contracting out of services for all or parts of the Freight Rail Yard Operations.

- (12) FREIGHT RAIL YARD OWNER means the legal, beneficial, and/or equitable owner or owners of part or whole of a Freight Rail Yard, which may or may not be a Railroad.
- (13) FUEL TYPE means the fuel used to power a vehicle, including but not limited to electricity, hydrogen, natural gas, gasoline, or diesel fuel.
- (14) INTERMODAL RAIL YARD means any Freight Rail Yard where freight transportation involves two or more different modes of transportation.
- (15) LINE HAUL LOCOMOTIVE means a Locomotive that is powered by an engine with a maximum Rated Power (or combination of engines having a total Rated Power) of greater than 2,300 horsepower.
- (16) LOCOMOTIVE means a self-propelled piece of on-track equipment designed for moving or propelling Railcars that are designed to carry containerized or non-containerized freight, ~~including~~ which may include empty containers and chassis, but which itself is not designed or intended to carry freight.
- (17) LOCOMOTIVE ENGINE CERTIFICATION DATA means the duty cycle weighted emission test results after deterioration factor and all other applicable adjustments have been applied, used by the United States Environmental Protection Agency to certify Locomotives.
- (18) MARINE TERMINAL means one or more structures used for the transmission, care, and convenience of cargo or goods in the interchange of same between land and ships or between ships. The structure(s) may comprise of one or more of the following: docks, berths, piers, aprons, wharves, moorings, rail tracks, truck lanes, pipelines, temporary storage spaces, and other structures that are designed for the operation or maintenance of vehicles and equipment used in transporting or assisting in transporting cargo or goods.
- (19~~8~~) MILESTONE YEAR (MY) means any of the calendar years including the third calendar year immediately after the calendar year when the rule becomes effective and every third calendar year thereafter, except that for a New Freight Rail Yard, a “Milestone Year” means any of these calendar years that does not overlap with its Base Period.

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- (204) NEW FREIGHT RAIL YARD means any Freight Rail Yard beginning Freight Rail Yard Operations, or resuming Freight Rail Yard Operations following a Shutdown, on or after the date the rule becomes effective.
- (210) NITROGEN OXIDES (NO_x) mean the sum of nitric oxides and nitrogen dioxides emitted, calculated as nitrogen dioxide, which are a precursor pollutant to the formation of Ozone and PM_{2.5}.
- (224) OTHER ON-SITE SUPPORT EQUIPMENT (OSE) means any mobile source equipment that is assigned to a Freight Rail Yard and takes part in day-to-day Freight Rail Yard Operations that is not a CHE, Drayage Truck, Line Haul Locomotive, Switch Locomotive, or Transportation Refrigeration Unit.
- (232) OZONE means tropospheric or ground-level ozone which is formed in the atmosphere from photochemical reactions between NO_x and volatile organic compounds in the presence of sunlight.
- (243) RAIL YARD means a facility, structure, installation, or real property within the South Coast AQMD jurisdiction that may consist of one or more contiguous properties, the whole or part of which is laid with a system of rail tracks, crossovers, and/or switches that may be connected or adjacent to but are not part of the main line, branch line, or other rail tracks used by Through Traffic, which are in actual physical contact or separated solely by a roadway or other right-of-way, are owned or operated by the same entity or by entities under common control, and where one or more Work Crews are assigned to conduct day-to-day business operations such as Freight Rail Yard Operations.
- (254) RAILCAR means a rail-mounted equipment also known as a “car” designed to carry freight. Railcars may include, but are not limited to, autoracks, boxcars, covered and open-top hoppers, coil cars, flatcars, gondolas, tank cars, intermodal cars, and well cars.
- (265) RAILCAR MOVER means an off-road vehicle fitted with rail couplers and capable of traveling on both roads and rail tracks.
- (276) RAILROAD means a commercial entity that operates Locomotives to transport containerized or non-containerized freight, ~~including~~ which may include empty containers and chassis.
- (287) RATED POWER means the maximum brake power point on the nominal power curve for a Locomotive configuration.

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- (298) REFERENCE SCENARIO means a scenario of Freight Rail Yard emissions in a Milestone Year absent the In-Use Locomotive Regulation and the Advanced Clean Fleets Regulation in the California Code of Regulations (CCR), and also absent this rule.
- (302) RESPONSIBLE OFFICIAL means:
- 9)
- (A) For a corporation:
- (i) President, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or a person who performs similar policy-making functions for the corporation; or
- (ii) Duly authorized representative provided the representative is responsible for the overall operational control of the Freight Rail Yard, and the Executive Officer has approved a request from the original Responsible Official to delegate this authority.
- (B) For a partnership or sole proprietorship: general partner or proprietor, respectively.
- (C) For a municipality, State, federal, or other public agency: a principal executive officer or ranking elected official.
- (310) SHUTDOWN means the cessation of all Freight Rail Yard Operations at a Freight Rail Yard for a full calendar year or longer.
- (324) SWITCH LOCOMOTIVE or SWITCHER means a Locomotive that is powered by an engine with a maximum Rated Power (or combination of engines having a total Rated Power) of 2,300 horsepower or less.
- (332) SWITCHING ACTIVITY means classification of Railcars according to cargo or destination; assembling of multiple Railcars into trains and/or adding, removing, or repositioning of a Locomotive or Locomotives for train movements; changing the position of Railcars for purposes of loading, unloading, or weighing; placing of Locomotives and Railcars for repair or storage; or moving of rail equipment in connection with work service. Switching Activities may be performed by a Switch Locomotive, a Line Haul Locomotive, or a Railcar Mover.

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- (343) THROUGH TRAFFIC means the continuous movement of a train that does not come to a complete stop at a Freight Rail Yard except for safety or emergency considerations.
- (354) THROUGHPUT means the total number of visits by Railcars that move through a Freight Rail Yard over a set period of time. A Railcar entering a Freight Rail Yard and then leaving that yard counts as one visit.
- (365) TRANSPORTATION REFRIGERATION UNIT (TRU) means any refrigeration system powered by an integrated power source and designed to control the environment of temperature sensitive products transported in trucks, trailers, containers, or Railcars, from which the TRU may be but is not necessarily detachable.
- (376) TRUCK TRIP means the one-way trip a Drayage Truck makes to or from a Freight Rail Yard to deliver or pick up containerized or non-containerized freight, ~~including~~ which may include empty containers and chassis. A Drayage Truck entering a Freight Rail Yard and then leaving that yard counts as two trips.
- (387) WORK CREW means two or more workers who are assigned as a team to perform a common task or multiple common tasks as part of the day-to-day business operations of their employer, or of an entity that contracts with their employer(s) for the latter to provide such services.
- (398) ZERO EMISSION (ZE) CONFIGURATION means an operational mode or condition under which a Locomotive, vehicle, or equipment never emits any criteria pollutant (or precursor pollutant) or toxic pollutant from any onboard source of power at any power setting, including any propulsion power that is connected to and moves with the Locomotive, vehicle, or equipment when it is in motion, or under which a Locomotive, vehicle, or equipment relies solely on grid power when it is connected to the electric grid. A Locomotive, vehicle, or equipment may be but is not necessarily designed to always operate in ZE Configuration.
- (403 9) ZERO EMISSION (ZE) INFRASTRUCTURE means infrastructure that provides the appropriate Fuel Type or power to support the operation of CHE, Drayage Trucks, Locomotives, TRU, or OSE in ZE Configuration.

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(d) Requirements

- (1) For each of its operated Freight Rail Yards, the Freight Rail Yard Operator shall meet or exceed:
 - (A) The NO_x emission reductions target for each Milestone Year, as specified in Table 1 – Emission Reductions Targets for the corresponding calendar year; or
 - (B) The NO_x emission reductions target based on emission reductions occurring during the corresponding Milestone Year from all Freight Rail Yards within the State of California operated by the same Freight Rail Yard Operator, provided that the Freight Rail Yard Operator:
 - (i) Has not been issued a citation, notice of violation, or any equivalent document by the California Air Resource Board (CARB) during or prior to the corresponding Milestone Year for noncompliance with the In-Use Locomotive Regulation or the Advanced Clean Fleets Regulation;
 - (ii) Submits Freight Rail Yard Operator’s statewide data for the corresponding Milestone Year pursuant to subparagraph (f)(1)(H), as an attachment to the corresponding Milestone Compliance Report as specified in paragraph (f)(1); and
 - (iii) Calculates the NO_x emission reductions target using Equation A-1 and the methodology as specified in Rule 2306 Calculation Methodology and Data Appendix, using the Freight Rail Yard Operator’s statewide data for the corresponding Milestone Year pursuant to subparagraph (f)(1)(H).
- (2) The Freight Rail Yard Operator shall demonstrate compliance with the requirements of paragraph (d)(1) in the Milestone Compliance Report as specified in paragraph (f)(1), using Equation A-2 and the methodology specified in Rule 2306 Calculation Methodology and Data Appendix.
- (3) For any Freight Rail Yard with an annual average Throughput during a Milestone Year and its two preceding calendar years that is less than the annual average Throughput over the Base Period, the Freight Rail Yard Operator may elect to comply with the following in lieu of paragraph (d)(2):

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- (A) Demonstrate in the Milestone Compliance Report as specified in paragraph (f)(1), that the Aggregate Emission Factor for the corresponding Milestone Year as calculated and reported pursuant to subparagraph (f)(1)(E) are less than or equal to the annual average Aggregate Emission Factor as calculated and reported for the Base Period pursuant to subparagraph (e)(1)(E); and
 - (B) Demonstrate compliance with the requirements of paragraph (d)(1) in the Milestone Compliance Report as specified in paragraph (f)(1), using Equation A-3 and the methodology specified in Rule 2306 Calculation Methodology and Data Appendix.
- (4) The following reports shall be prepared in the manner specified by the Executive Officer, certified and signed by a Responsible Official of the Freight Rail Yard Owner and/or Freight Rail Yard Operator, as applicable, for the truthfulness, accuracy, and completeness of its submitted report, and submitted to the Executive Officer:
- (A) ~~The~~ Initial Facility Information Report as specified in paragraph (e)(1) shall be:
 - (i) Submitted no later than 90 calendar days after the Base Period ends, or no later than 90 calendar days after a Freight Rail Yard Shutdown date as specified in subparagraph (g)(3)(F), if the Shutdown occurs during the Base Period; and
 - (ii) Prepared and submitted by the current Freight Rail Yard Operator, or if applicable, the former Freight Rail Yard Operator preceding the Shutdown, for each Freight Rail Yard;
 - (B) ~~The~~ Initial Zero Emission Infrastructure Report as specified in paragraph (e)(2) shall be:
 - (i) Submitted no later than 120 calendar days after the Base Period ends; and
 - (ii) Prepared and submitted by the Freight Rail Yard Owner and Freight Rail Yard Operator, either individually for each Freight Rail Yard or jointly for multiple Freight Rail Yards operated by the same Freight Rail Yard Operator;
 - (C) ~~The~~ Milestone Compliance Report as specified in paragraph (f)(1) shall be:

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- (i) Submitted no later than July 15 of the calendar year following a Milestone Year, or no later than 90 calendar days after a Freight Rail Yard Shutdown date as specified in subparagraph (g)(3)(F), if the Shutdown occurs during the Milestone Year; and
 - (ii) Prepared and submitted by the current Freight Rail Yard Operator, or if applicable, the former Freight Rail Yard Operator preceding the Shutdown, for each Freight Rail Yard; and
- (D) ~~The~~ Zero Emission Infrastructure Status Update Report as specified in paragraph (f)(2) shall be:
 - (i) Submitted no later than October 15 of the calendar year following a Milestone Year; and
 - (ii) Prepared and submitted by the Freight Rail Yard Owner and Freight Rail Yard Operator, either individually for each Freight Rail Yard or jointly for multiple Freight Rail Yards operated by the same Freight Rail Yard Operator.
- (5) The Freight Rail Yard Owner or Operator shall submit a request to the local electrical utility to upgrade the electrical service no later than 180 calendar days after the submittal of the Initial Zero Emission Infrastructure Report as specified in paragraph (e)(2) or the Zero Emission Infrastructure Status Update Report as specified in paragraph (f)(2), if the Freight Rail Yard Owner or Operator identifies in such reports the need to upgrade the electrical service provided to the Freight Rail Yard.
- (6) In the event there is a change of Freight Rail Yard Operator, the new Freight Rail Yard Operator pursuant to paragraph (g)(1) shall obtain the following information and records:
 - (A) All required information pursuant to paragraphs (e)(1) and (e)(2) for the Base Period, and paragraphs (f)(1) and (f)(2) for the most recent Milestone Year before the date of change of operator (if applicable) and the next Milestone Year; and
 - (B) All records pursuant to subdivision (h).
- (7) In the event there is a change of Freight Rail Yard Owner, the new Freight Rail Yard Owner pursuant to paragraph (g)(2) shall obtain the following information and records:

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- (A) All required information pursuant to paragraph (e)(2) for the Base Period, and paragraph (f)(2) for the most recent Milestone Year before the date of change of ownership (if applicable) and the next Milestone Year; and
 - (B) All records pursuant to subdivision (h).
- (8) In the event there is a Freight Rail Yard Shutdown, the Freight Rail Yard Owner shall obtain the following information and records:
- (A) All required information pursuant to paragraph (e)(2) for the Base Period, and paragraph (f)(2) for the most recent Milestone Year before the Shutdown date as specified in subparagraph (g)(3)(F) (if applicable) and the next Milestone Year; and
 - (B) All records pursuant to subdivision (h).
- (e) Initial Reports
- (1) Initial Facility Information Report
- The Freight Rail Yard Operator required to submit an Initial Facility Information Report pursuant to paragraph (d)(4) and subparagraph (d)(4)(A) shall include in the report the following information about the Base Period:
- (A) Freight Rail Yard information as specified in Table 2 – Freight Rail Yard Information;
 - (B) Applicable Mobile Sources information as specified in Table 3 – Applicable Mobile Sources Information for each Locomotive, Drayage Truck, TRU, and each unit of CHE and OSE operating at and travelling to and from the Freight Rail Yard;
 - (C) Total number of calendar days within a calendar year when Switching Activities occur at the Freight Rail Yard, for each calendar year of the Base Period, and the annual average over the Base Period;
 - (D) Annual Throughput of the Freight Rail Yard for each calendar year of the Base Period, and the annual average Throughput over the Base Period; and
 - (E) Annual Aggregate Emission Factors for each calendar year of the Base Period, and the annual average over the Base Period, along with detailed steps of the calculations using the methodology specified in Rule 2306 Calculation Methodology and Data Appendix.

(Board Consideration August 2, 2024)

(2) Initial Zero Emission Infrastructure Report

The Freight Rail Yard Owner and Freight Rail Yard Operator required to submit an Initial Zero Emission Infrastructure Report pursuant to paragraph (d)(4) and subparagraph (d)(4)(B) shall:

- (A) Specify in the report any on-site and off-site ZE Infrastructure that has previously been designed, developed, or installed to support the Freight Rail Yard Owner's and/or the Freight Rail Yard Operator's compliance with the In-Use Locomotive Regulation, to support the implementation of the Advanced Clean Fleets Regulation, and/or any other ZE infrastructure requirements and initiatives;
- (B) Specify in the report any future on-site and off-site ZE infrastructure that will be needed for the Freight Rail Yard Owner and/or the Freight Rail Yard Operator to fully comply with the In-Use Locomotive Regulation, and/or to support the implementation of the Advanced Clean Fleets Regulation, and the control measures for TRUs and CHE as specified in the 2022 State Strategy for the State Implementation Plan; and
- (C) Include in the report the following information over the Base Period:
 - (i) Description of installed and operative ZE Infrastructure pursuant to subparagraph (e)(2)(A), including the information as specified in Table 4 – Information on Installed and Operative ZE Infrastructure;
 - (ii) Description of ongoing ZE Infrastructure currently under design and development, at time of report submittal, pursuant to subparagraph (e)(2)(A), including the information as specified in Table 5 – Information on ZE Infrastructure in Development; and
 - (iii) Description of the planning of future on-site and off-site ZE infrastructure, at time of report submittal, needed to meet expected energy demand from regulations and plans pursuant to subparagraph (e)(2)(B), including the information as specified in Table 6 – Information on Future ZE Infrastructure Being Planned.

(Board Consideration August 2, 2024)

(f) Milestone Year Reports

(1) Milestone Compliance Report

The Freight Rail Yard Operator required to submit a Milestone Compliance Report pursuant to paragraph (d)(4) and subparagraph (d)(4)(C) shall include in the report the following information:

- (A) Any changes in Freight Rail Yard information compared to the Initial Facility Information Report previously submitted pursuant to subparagraph (e)(1)(A), or compared to the most recent Milestone Compliance Report pursuant to this subparagraph;
- (B) Applicable Mobile Sources information as specified in Table 3, for each Locomotive and Drayage Truck, and if applicable pursuant to paragraph (d)(2), for each TRU and each unit of CHE and OSE operating at and travelling to and from the Freight Rail Yard during the corresponding Milestone Year;
- (C) Total number of calendar days within a calendar year when Switching Activities occur at the Freight Rail Yard, for the corresponding Milestone Year and each of its two preceding calendar years, and the annual average over these three calendar years;
- (D) Annual Throughput of the Freight Rail Yard for the corresponding Milestone Year and each of its two preceding calendar years, and the annual average over these three calendar years;
- (E) Annual Aggregate Emission Factor for the corresponding Milestone Year, along with detailed steps of the calculations using the methodology specified in Rule 2306 Calculation Methodology and Data Appendix, if the Freight Rail Yard Operator elects to comply with the requirements in paragraph (d)(3) in lieu of paragraph (d)(2);
- (F) Emission reductions target
 - (i) Emission reductions target elected by the Freight Rail Yard Operator for the corresponding Milestone Year pursuant to paragraph (d)(1); and
 - (ii) If the alternative emission reductions target is elected pursuant to subparagraph (d)(1)(B):

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- (A) Attestation of the Freight Rail Yard Operator’s eligibility for electing the alternative target pursuant to clause (d)(1)(B)(i); and
 - (B) Detailed steps of the calculations pursuant to clause (d)(1)(B)(iii), to demonstrate the determination of the alternative emission reductions target;
 - (G) Demonstration of compliance with the requirements specified in paragraph (d)(1), by including detailed steps of the calculations pursuant to paragraph (d)(2), or paragraph (d)(3) if applicable, for the corresponding Milestone Year; and
 - (H) Attachment: Statewide Data
All applicable information as specified in Table 3 for each Locomotive and Drayage Truck operating at and travelling to and from any of the Freight Rail Yards within the State of California that are operated by the same Freight Rail Yard Operator during the corresponding Milestone Year, if the alternative emission reductions target is elected pursuant to subparagraph (d)(1)(B) and specified pursuant to subparagraph (f)(1)(F).
- (2) Zero Emission Infrastructure Status Update Report
- The Freight Rail Yard Owner ~~or~~ and Freight Rail Yard Operator required to submit a Zero Emission Infrastructure Status Update Report pursuant to paragraph (d)(4) and subparagraph (d)(4)(D) shall:
- (A) Specify in the report any on-site and off-site ZE Infrastructure that has been designed, developed, or installed since submittal of the Initial Zero Emission Infrastructure Report or the most recent Zero Emission Infrastructure Status Update Report, whichever is later, to support the Freight Rail Yard Owner’s and/or the Freight Rail Yard Operator’s compliance with the In-Use Locomotive Regulation, to support the implementation of the Advanced Clean Fleets Regulation and/or any other ZE infrastructure requirements and initiatives;
 - (B) Specify in the report any updates to the future needs of on-site and off-site ZE infrastructure pursuant to subparagraph (e)(2)(B);
 - (D) Include in the report the following information for the Milestone Year:

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- (i) Description of ZE Infrastructure installed and operative after submittal of the Initial Zero Emission Infrastructure Report or the most recent Zero Emission Infrastructure Status Update Report, whichever is later, pursuant to subparagraph (f)(2)(A), including the information as specified in Table 4;
 - (ii) Description of new or ongoing ZE Infrastructure currently under design and development, at time of report submittal, pursuant to subparagraph (f)(2)(A), including the information as specified in Table 5; and
 - (iii) Description of any updates to the planning of future on-site and off-site ZE infrastructure, at time of report submittal, to meet expected energy demand from regulations and plans pursuant to subparagraph (f)(2)(B), including the information as specified in Table 6.
- (g) Notifications
- (1) Change of Freight Rail Yard Operator Notification
 - (A) No later than 30 calendar days before a change of operator, the owner or current operator of the Freight Rail Yard shall submit a notification to the Executive Officer including the following information:
 - (i) Current Name of the Freight Rail Yard;
 - (ii) Address of the Freight Rail Yard;
 - (iii) Current Freight Rail Yard Operator;
 - (iv) New Freight Rail Yard Operator;
 - (v) Date of change of operator; and
 - (vi) Any other anticipated changes in Freight Rail Yard information upon or after change of operator, compared to the Initial Facility Information Report pursuant to subparagraph (e)(1)(A), or compared to the most recent Milestone Compliance Report pursuant to subparagraph (f)(1)(A).
 - (B) No later than 30 calendar days after a change of operator, the new operator of the Freight Rail Yard shall submit a secondary notification to the Executive Officer including the following information:

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- (i) Whether the information submitted pursuant to subparagraph (g)(1)(A) remains accurate; and
 - (ii) Any necessary updates to the information submitted pursuant to subparagraph (g)(1)(A).
- (2) Change of Freight Rail Yard Owner Notification
 - (A) No later than 30 calendar days before a change of ownership, the current owner or operator of the Freight Rail Yard shall submit ~~to the Executive Officer~~ a notification to the Executive Officer including the following information:
 - (i) Current Name of the Freight Rail Yard;
 - (ii) Address of the Freight Rail Yard;
 - (iii) Current Freight Rail Yard Owner;
 - (iv) New Freight Rail Yard Owner;
 - (v) Date of ownership change; and
 - (vi) Any other anticipated changes in Freight Rail Yard information upon or after change of ownership, compared to the Initial Facility Information Report pursuant to subparagraph (e)(1)(A), or compared to the most recent Milestone Compliance Report pursuant to subparagraph (f)(1)(A).
 - (B) No later than 30 calendar days after a change of owner, the new owner of the Freight Rail Yard shall submit a secondary notification to the Executive Officer including the following information:
 - (i) Whether the information submitted pursuant to subparagraph (g)(2)(A) remains accurate; and
 - (ii) Any necessary updates to the information submitted pursuant to subparagraph (g)(2)(A).
- (3) Freight Rail Yard Shutdown Notification

No later than 30 calendar days before the Freight Rail Yard Shutdown date, the Freight Rail Yard Owner or Operator shall submit a notification to the Executive Officer including the following information:

 - (A) Name of the Freight Rail Yard;

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- (B) Address of the Freight Rail Yard;
 - (C) Current Freight Rail Yard Owner;
 - (D) Current Freight Rail Yard Operator;
 - (E) Reason for Shutdown;
 - (F) Date of Freight Rail Yard Shutdown; and
 - (G) Anticipated Date to resume Freight Rail Yard Operations, if applicable.
- (4) Exceedance of Low Activity Exemption Threshold Notification
- No later than January 31 of the calendar year after a Freight Rail Yard exceeds the annual Switching Activity threshold as specified in paragraph (j)(1), the Freight Rail Yard Operator shall submit a notification to the Executive Officer including the following information:
- (A) Name of the Freight Rail Yard;
 - (B) Address of the Freight Rail Yard; and
 - (C) Total number of calendar days within the immediately preceding calendar year when Switching Activities occur at the Freight Rail Yard.
- (5) Proposed Freight Rail Yard Construction, Conversion, or Expansion Notification
- No later than 365 calendar days prior to the construction of or conversion into a New Freight Rail Yard or the expansion of an existing Freight Rail Yard, or as soon as practicable if such construction, conversion, or expansion occurs within 365 calendar days from the date the rule becomes effective, the Freight Rail Yard Owner shall submit a notification to the Executive Officer including the following information:
- (A) Proposed project type, including construction of a New Freight Rail Yard, conversion of an existing Rail Yard into a New Freight Rail Yard, or expansion of an existing Freight Rail Yard;
 - (B) Name of the proposed project, if applicable;
 - (C) Location of the proposed project;
 - (D) Freight Rail Yard Owner;
 - (E) Anticipated Freight Rail Yard Operator; and
 - (F) Estimated date when the proposed project site will begin Freight Rail Yard Operations.

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(h) Recordkeeping

The Freight Rail Yard Owner or Operator shall keep the records and documentations that support the accuracy and validity of all information reported and submitted to the Executive Officer pursuant to subdivisions (d) through (g), as applicable, for a minimum of seven years from the submittal deadline and make the records and documents available to the Executive Officer upon a written request.

(i) ~~State or Local~~ Agency Responsibility

Any state or local government agency or any non-federal public agency or combination of public agencies such as a joint powers authority who enters, renews, or amends a Contractual Agreement, which is separately enforceable independent of this rule and the California Environmental Quality Act, shall include in such Contractual Agreement(s) provision(s) that have the effect of requiring that the applicable countersigned party or parties, unless exempt from some or all requirements of this rule pursuant to subdivision (j), must comply with the following requirements of this rule as applicable:

- (1) Compliance with emissions reduction targets as specified in paragraphs (d)(1) through (d)(3);
- (2) Timely and complete submittal of the following reports and notifications:
 - (A) Initial Facility Information Report as specified in subparagraph (d)(4)(A) and paragraph (e)(1);
 - (B) Initial Zero Emission Infrastructure Report as specified in subparagraph (d)(4)(B) and paragraph (e)(2);
 - (C) Milestone Compliance Report as specified in subparagraph (d)(4)(C) and paragraph (f)(1);
 - (D) Zero Emission Infrastructure Status Update Report as specified in subparagraph (d)(4)(D) and paragraph (f)(2);
 - (E) Change of Freight Rail Yard Operator Notification as specified in paragraph (g)(1);
 - (F) Change of Freight Rail Yard Owner Notification as specified in paragraph (g)(2);
 - (G) Freight Rail Yard Shutdown Notification as specified in paragraph (g)(3);

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- (H) Exceedance of Low Activity Exemption Threshold Notification as specified in paragraph (g)(4); and
 - (I) Proposed Freight Rail Yard Construction, Conversion, or Expansion Notification as specified in paragraph (g)(5);
 - (3) Recordkeeping as specified in subdivision (h);
 - (4) Request to the local electrical utility to upgrade the electrical service, if applicable, as specified in paragraph (d)(5); and
 - (5) Obtaining applicable information and records as specified in paragraphs (d)(6) through (d)(8) in the event of a change in Freight Rail Yard Operator, a change in Freight Rail Yard Owner, or a Freight Rail Yard Shutdown.
- (j) Exemptions
- (1) The Freight Rail Yard Owner or Operator is not subject to the requirements in paragraphs (d)(1) through (d)(3), subparagraphs (d)(4)(C) through (d)(4)(D), paragraph (d)(5), and subdivision (f) of this rule for any of its owned- or operated-Freight Rail Yards that is not an Intermodal Rail Yard and where Switching Activities occur no more than 30 calendar days per year within a Milestone Year and any of the two preceding calendar years.
 - (2) The City of Long Beach, the City of Los Angeles, and/or any third party under contractual operating agreement(s) with the City of Long Beach and/or the City of Los Angeles are not subject to the requirements of this rule for any of its owned- or operated-Freight Rail Yard that meets one of the following: is not an Intermodal Rail Yard and where the primary Freight Rail Yard Operations are to move Railcars to and from marine terminal(s) located within the Long Beach Harbor District or the Los Angeles Harbor District.
 - (A) An Intermodal Rail Yard located on dock at a Marine Terminal that is wholly or partially located within the Long Beach Harbor District or the Los Angeles Harbor District (Harbor Districts); or
 - (B) A Freight Rail Yard that is not an Intermodal Rail Yard and where the Freight Rail Yard Operations are solely for the purpose of moving Railcars to and/or from Marine Terminal(s) that are wholly or partially located within the Harbor Districts.

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(k) Effective Date

The provisions of this rule are effective on the latest of:

- (1) The date the United States Environmental Protection Agency takes final action approving inclusion of the rule in the California State Implementation Plan;
- (2) The date the United States Environmental Protection Agency grants an authorization under the Clean Air Act Section 209(e)(2) to the California In-Use Locomotive Regulation (CCR, Title 13, Sections 2478 through 2478.17); and
- (3) The date the United States Environmental Protection Agency grants a waiver under the Clean Air Act Section 209(b) and/or an authorization under the Clean Air Act Section 209(e)(2) to the California Advanced Clean Fleets Regulation either as a whole (CCR, Title 13, Sections 2013 through 2013.4, 2014 through 2014.3, 2015 through 2015.6, and 2016), or in part for its Drayage Truck Requirements (CCR, Title 13, Sections 2014 through 2014.3).

(l) Severability

- (1) If any provision of this rule is held by judicial order to be unlawful or otherwise invalid, such order shall not affect the operation or implementation of the remainder of this rule.
- (2) If any provision of this rule is held by judicial order to be inapplicable to any person or circumstance, such order shall not affect the application of such provision to other persons or circumstances.
- (3) If a federal court stays, invalidates, or delays, in whole or in part, federal approval of inclusion of this rule in the California State Implementation Plan, the provisions of this rule shall be enforceable only to the extent they are not stayed or invalidated.

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Table 1 – NO_x Emission Reductions Targets

Calendar Year	Percent Emission Reductions Targets (%)
2027	9.2
2028	13.6
2029	16.9
2030	56.5
2031	61.0
2032	61.7
2033	62.3
2034	62.2
2035	71.6
2036	76.3
2037	82.4
2038	81.8
2039	81.3
2040	80.7
2041	80.0
2042	79.0
2043	77.8
2044	76.4
2045	76.0
2046	75.6
2047	74.6
2048	74.9
2049	75.7
2050	76.5

Table 2 – Freight Rail Yard Information

Information Type	Information Description
REQUIRED	<ul style="list-style-type: none">(i) Name of the Freight Rail Yard(ii) Address of the Freight Rail Yard(iii) Footprint of the Freight Rail Yard in square footage(iv) Map of the Freight Rail Yard and the immediately surrounding public roadway and/or public right-of-way(v) Freight Rail Yard Owner(vi) Freight Rail Yard Operator(vii) Duration of Contractual Agreement between Freight Rail Yard Owner and Freight Rail Yard Operator (if applicable)(viii) Name and contact information for Responsible Official of the Freight Rail Yard Operator(ix) Whether the Freight Rail Yard is an Intermodal Rail Yard

Table 3 – Applicable Mobile Sources Information

Information Type	Information Description
Locomotive	
REQUIRED	<ul style="list-style-type: none"> (i) Locomotive road number (ii) Locomotive serial number (iii) Engine tier (iv) Engine power rating in horsepower (v) Original engine build date (vi) Latest remanufacture date (vii) Total number of days within a calendar year operating at and travelling to and from the Freight Rail Yard (viii) Annual usage per within the South Coast AQMD jurisdiction in megawatt-hours (ix) Annual usage in ZE Configuration within the South Coast AQMD jurisdiction in megawatt-hours (if applicable) (x) Annual fuel consumption by Fuel Type (if used to estimate annual usage) <p><i>Information items (xi) through (xiii) in this table shall only be submitted for the purpose of statewide data reporting pursuant to subparagraph (f)(1)(H) in lieu of information items (vii) through (x) in this table.</i></p> <ul style="list-style-type: none"> (xi) Annual usage in California in megawatt-hours (xii) Annual usage in ZE Configuration in California in megawatt-hours (if applicable) (xiii) Annual fuel consumption by Fuel Type (if used to estimate annual usage) (xiv) Certification showing Locomotive Engine Certification Data value(s) for NOx (if used to demonstrate compliance pursuant to paragraph (d)(2) or subparagraph (d)(3)(B))

Table 3 – Applicable Mobile Sources Information (Cont.)

Information Type	Information Description	
Locomotive (Cont.)		
OPTIONAL	(xv)	Locomotive model number
	(xvi)	Engine serial number
	(xvii)	Engine family
	(xviii)	Engine manufacturer name
	(xix)	Date acquired
Drayage Truck		
REQUIRED	(xx)	Vehicle Identification Number
	(xxi)	License plate number and state of issuance
	(xxii)	Total number of unique entry date(s) per Freight Rail Yard
OPTIONAL	(xxiii)	Actual average vehicle miles traveled per Truck Trip
TRU		
REQUIRED*	(xxiv)	Serial number
	(xxv)	CARB identification number (IDN) (if applicable)
	(xxvi)	TRU type
	(xxvii)	Estimated annual operating hours within the South Coast AQMD jurisdiction associated with visit(s) to the Freight Rail Yard**
	(xxviii)	Estimated annual operating hours in ZE Configuration within the South Coast AQMD jurisdiction associated with visit(s) to the Freight Rail Yard (if applicable)**
	(xxix)	Total number of days within a calendar year operating at and travelling to and from the Freight Rail Yard
OPTIONAL	(xxx)	Maximum rated horsepower
	(xxx1)	Model year
	(xxxii)	Fuel type(s)

* if applicable pursuant to (e)(1) or (f)(1)

** Using the estimation methodology provided in Rule 2306 Calculation Methodology and Data Appendix

Table 3 – Applicable Mobile Sources Information (Cont.)

Information Type	Information Description
CHE and OSE	
REQUIRED*	<p>(xxxiii) Equipment type</p> <p>(xxxiv) Make and model</p> <p>(xxxv) Engine tier</p> <p>(xxxvi) Fuel Type(s)</p> <p>(xxxvii) Maximum rated horsepower</p> <p>(xxxviii) Annual operating hours at the Freight Rail Yard</p> <p><i>Annual operating hours shall be reported using the operational information pursuant to the following order of hierarchy, if available, consistently for Initial Facility Information Report and all Milestone Compliance Reports for the same unit of CHE or OSE.</i></p> <p>(A) Annual operating hours recorded using a non-resettable hour-meter</p> <p>(B) Annual operating hours recorded in equipment maintenance records</p> <p>(C) Calculated annual operating hours using equipment operational data (including, but not limited to, fuel consumption, fuel type, equipment rated horsepower, equipment load factor)</p> <p>(xxxix) Annual operating hours in ZE Configuration at the Freight Rail Yard (if applicable)</p>

* *if applicable pursuant to (e)(1) or (f)(1)*

Table 4 – Information on Installed and Operative ZE Infrastructure

Information Description	
(A)	List of installed and operative projects, including the project’s individual components such as, but not limited to, fuel dispensers (stationary or mobile), fuel reformers, electrolyzers, fuel compressors, fuel transportation pipelines and related components, electric chargers, conduits, transformers, substations, and any on-site or near-site power generation and energy storage components
(B)	Description of each project, including but not limited to Fuel Type and maximum energy capacity
(C)	Date of complete installation (inclusive of any required inspection) for each project
(D)	Date of beginning operation for each project (if different than the date of completed installation)
(E)	Documentation from responsible party or parties certifying completion of installation for each project
(F)	Name(s) of energy provider(s), such as utilities and fuel suppliers
(G)	Name(s) of infrastructure operator(s), if different from energy provider(s)
(H)	Annual usage of each Fuel Type for the ZE Infrastructure that has been installed and operative to date

Table 5 – Information on ZE Infrastructure in Development

Information Description	
(A)	List of projects under design and development, including the project’s individual components such as, but not limited to, fuel dispensers (stationary or mobile), fuel reformers, electrolyzers, fuel compressors, fuel transportation pipelines and related components, electric chargers, conduits, transformers, substations, and any on-site or near-site power generation and energy storage components
(B)	Description of each project, including but not limited to Fuel Type and maximum energy capacity
(C)	Name(s) of responsible party or parties for the design, planning, development, or installation of each project
(D)	Anticipated dates of installation milestones for each project
(E)	Documentation from the Freight Rail Yard Owner or Freight Rail Yard Operator to the local electrical utility for any request to upgrade the electrical service, as well as the response(s) from the utility estimating the amount of time it will take to provide the upgrade, if applicable and has not been previously submitted to Executive Officer
(F)	Most updated documentation from responsible party or parties of agreement for each project with an estimated date or date range of complete installation (inclusive of any required inspection) for Fuel Types other than electricity, if applicable and has not been previously submitted to Executive Officer

Table 6 – Information on Future ZE Infrastructure Being Planned

Information Description	
(A)	Current Freight Rail Yard energy consumption by Applicable Mobile Sources equipment category
(B)	Estimated range of percent energy consumption pursuant to information item (A) of this table, to be supplied by ZE infrastructure by Fuel Type
(C)	Initial assessment of the need to upgrade the electrical service provided to the Freight Rail Yard based on information item (B) of this table and any other supplemental information
(D)	Name(s) of responsible party or parties for future planning, design, or development of infrastructure, if available

Appendix – Rule 2306 Equations

Section 1: Alternative Milestone Year Emission Reductions Target

Freight Rail Yard Operator shall calculate the alternative Milestone Year emission reductions target pursuant to subparagraph (d)(1)(B), using the following equation:

$$ER_{Statewide}^{MY} = \left(1 - \frac{\sum_y CAFRYEm_y^{MY}}{\sum_y CAFRYEm_{RS,y}^{MY}} \right) \times 100 \quad (Equation 1)$$

Where:

$ER_{Statewide}^{MY}$ = Percent emission reductions achieved for all Freight Rail Yards within the State of California that are operated by the same Freight Rail Yard Operator compared to the Reference Scenario (*RS*) for Milestone Year *MY*

$CAFRYEm_y^{MY}$ = Sum of actual NOx emissions from all Locomotives and Drayage Trucks operating at and travelling to and from any Freight Rail Yard *y* within the State of California that is operated by the same Freight Rail Yard Operator in Milestone Year *MY*, as calculated using Rule 2306 Calculation Methodology and Data Appendix

$CAFRYEm_{RS,y}^{MY}$ = Sum of NOx emissions from all Locomotives and Drayage Trucks operating at and travelling to and from any Freight Rail Yard *y* within the State of California that is operated by the same Freight Rail Yard Operator in Milestone Year *MY* under Reference Scenario (*RS*), as calculated using Rule 2306 Calculation Methodology and Data Appendix

Section 2: Percent NOx Emission Reductions for Milestone Year

Freight Rail Yard Operator shall calculate the percent NOx emission reductions of the Freight Rail Yard for any Milestone Year pursuant to paragraph (d)(2), using the following equation:

$$ER_{Achieved}^{MY} = \left(1 - \frac{FRYEm^{MY} - OER^{MY}}{FRYEm_{RS}^{MY}} \right) \times 100 \quad (Equation 2)$$

Where:

$ER_{Achieved}^{MY}$ = Percent emission reductions achieved for the Freight Rail Yard for Milestone Year *MY*, compared to the Reference Scenario (*RS*)

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$FRYEm^{MY}$ = Sum of actual NOx emissions from all Locomotives and Drayage Trucks operating at and travelling to and from the Freight Rail Yard in Milestone Year MY , as calculated using Rule 2306 Calculation Methodology and Data Appendix

$FRYEm_{RS}^{MY}$ = Sum of NOx emissions from all Locomotives and Drayage Trucks operating at and travelling to and from the Freight Rail Yard in Milestone Year MY under Reference Scenario (RS), as calculated using Rule 2306 Calculation Methodology and Data Appendix

OER^{MY} = Sum of actual NOx emission reductions from other Applicable Mobile Sources operating at and travelling to and from the Freight Rail Yard in Milestone Year MY , including TRUs, CHE, and OSE, compared to NOx emissions from the same equipment category in Milestone Year MY under Reference Scenario (RS), using the following equation:

$$OER^{MY} = (ETRU_{RS}^{MY} + ECHE_{RS}^{MY} + EOSE_{RS}^{MY}) - (ETRU^{MY} + ECHE^{MY} + EOSE^{MY})$$

(Equation 2.a)

Where:

$ETRU_{RS}^{MY}$ = Sum of Reference Scenario (RS) NOx emissions from all TRUs operating at and travelling to and from the Freight Rail Yard in Milestone Year MY , as calculated using Rule 2306 Calculation Methodology and Data Appendix

$ECHE_{RS}^{MY}$ = Sum of Reference Scenario (RS) NOx emissions from all CHE operating at and travelling to and from the Freight Rail Yard in Milestone Year MY , as calculated using Rule 2306 Calculation Methodology and Data Appendix

$EOSE_{RS}^{MY}$ = Sum of Reference Scenario (RS) NOx emissions from all OSE operating at and travelling to and from the Freight Rail Yard in Milestone Year MY , as calculated using Rule 2306 Calculation Methodology and Data Appendix

$ETRU^{MY}$ = Sum of actual NOx emissions from all TRUs operating at and travelling to and from the Freight Rail Yard in Milestone Year MY , as calculated using Rule 2306 Calculation Methodology and Data Appendix

$ECHE^{MY}$ = Sum of actual NOx emissions from all CHE operating at and travelling to and from the Freight Rail Yard in Milestone Year MY , as calculated using Rule 2306 Calculation Methodology and Data Appendix

$EOSE^{MY}$ = Sum of actual NOx emissions from all OSE operating at and travelling to and from the Freight Rail Yard in Milestone Year MY , as calculated using Rule 2306 Calculation Methodology and Data Appendix

(Board Consideration August 2, 2024)

Section 3: Percent NOx Emission Reductions Between a Milestone Year and the Base Period

Freight Rail Yard Operator shall calculate the percent NOx emission reductions of the Freight Rail Yard between a Milestone Year and the Base Period pursuant to paragraph (d)(3), using the following equation:

$$ER_{Achieved}^{MYBP} = \left(1 - \frac{FRYEm_{AMS}^{MY}}{FRYEm_{AMS}^{BP}} \right) \times 100 \quad (Equation 3)$$

Where:

$ER_{Achieved}^{MYBP}$ = Percent emission reductions achieved for the Freight Rail Yard for Milestone Year MY , compared to the Base Period (BP)

$FRYEm_{AMS}^{MY}$ = Sum of actual NOx emissions from Applicable Mobile Sources (AMS) operating at and travelling to and from the Freight Rail Yard in Milestone Year MY , as calculated using Rule 2306 Calculation Methodology and Data Appendix

$FRYEm_{AMS}^{BP}$ = Annual average of the respective sums of actual NOx emissions from Applicable Mobile Sources (AMS) operating at and travelling to and from the Freight Rail Yard in each calendar year of the Base Period (BP), as calculated using Rule 2306 Calculation Methodology and Data Appendix

ATTACHMENT G

(Adopted [Date of Rule Adoption])~~Draft Rule Language~~

[RULE INDEX TO BE ADDED AFTER RULE ADOPTION]~~(Board Consideration August 2, 2024)~~

PROPOSED RULE 316.2 FEES FOR RULE 2306

(a) Purpose

California Health and Safety Code Section 40522.5 provides authority for the South Coast AQMD to adopt a fee schedule for areawide or indirect sources of emissions which are regulated, but for which permits are not issued, to recover the costs of programs related to these sources. The purpose of this rule is to recover the South Coast AQMD's cost of implementing Rule 2306.

(b) Applicability

This rule applies to owners and operators of proposed, new, and existing Freight Rail Yards subject to Rule 2306 that submit an Initial Facility Information Report, Initial Zero Emission Infrastructure Report, Milestone Compliance Report, Zero Emission Infrastructure Status Update Report, Change of Freight Rail Yard Operator Notification, Change of Freight Rail Yard Owner Notification, Freight Rail Yard Shutdown Notification, Exceedance of Low Activity Exemption Threshold Notification, or Proposed Freight Rail Yard Construction, Conversion, or Expansion Notification.

(c) Definitions

- (1) EXCEEDANCE OF LOW ACTIVITY EXEMPTION THRESHOLD NOTIFICATION is the notification submitted to the Executive Officer by the Freight Rail Yard Operator pursuant to Rule 2306 paragraph (g)(4).
- (2) FREIGHT RAIL YARD is as defined in Rule 2306 paragraph (c)(9).
- (3) FREIGHT RAIL YARD OPERATOR is as defined in Rule 2306 paragraph (c)(11).
- (4) FREIGHT RAIL YARD OWNER is as defined in Rule 2306 paragraph (c)(12).
- (5) FREIGHT RAIL YARD SHUTDOWN NOTIFICATION is the notification submitted to the Executive Officer by the Freight Rail Yard Owner or Operator pursuant to Rule 2306 paragraph (g)(3).
- (6) INITIAL CHANGE OF FREIGHT RAIL YARD OPERATOR NOTIFICATION is the notification submitted to the Executive Officer by the Freight Rail Yard

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Owner or current Freight Rail Yard Operator pursuant to Rule 2306 subparagraph (g)(1)(A).

- (7) INITIAL CHANGE OF FREIGHT RAIL YARD OWNER NOTIFICATION is the notification submitted to the Executive Officer by the current Freight Rail Yard Owner or Freight Rail Yard Operator pursuant to Rule 2306 subparagraph (g)(2)(A).
 - (8) INITIAL FACILITY INFORMATION REPORT is the report submitted to the Executive Officer by the Freight Rail Yard Operator pursuant to Rule 2306 subparagraph (d)(4)(A) and paragraph (e)(1).
 - (9) INITIAL ZERO EMISSION INFRASTRUCTURE REPORT is the report submitted to the Executive Officer by the Freight Rail Yard Owner and Operator pursuant to Rule 2306 subparagraph (d)(4)(B) and paragraph (e)(2).
 - (10) MILESTONE COMPLIANCE REPORT is the Milestone Year report submitted to the Executive Officer by a Freight Rail Yard Operator demonstrating compliance with the percent emission reduction target pursuant to Rule 2306 subparagraph (d)(4)(C) and paragraph (f)(1).
 - (11) PROPOSED FREIGHT RAIL YARD CONSTRUCTION, CONVERSION, OR EXPANSION NOTIFICATION is the notification submitted to the Executive Officer by the owner of the proposed Freight Rail Yard project pursuant to Rule 2306 paragraph (g)(5).
 - (12) SECONDARY CHANGE OF FREIGHT RAIL YARD OPERATOR NOTIFICATION is the notification submitted to the Executive Officer by the new Freight Rail Yard Operator pursuant to Rule 2306 subparagraph (g)(1)(B).
 - (13) SECONDARY CHANGE OF FREIGHT RAIL YARD OWNER NOTIFICATION is the notification submitted to the Executive Officer by the new Freight Rail Yard Owner pursuant to Rule 2306 subparagraph (g)(2)(B).
 - (14) ZERO EMISSION INFRASTRUCTURE STATUS UPDATE REPORT is the report submitted to Executive Officer by the Freight Rail Yard Owner and Operator pursuant to Rule 2306 subparagraph (d)(4)(D) and paragraph (f)(2).
- (d) Fees for Rule 2306 Reports and Notifications
- (1) Freight Rail Yard Owners and Operators that submit reports or notifications required by Rule 2306 shall pay applicable fees pursuant to Table 1 for each

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submitted report or notification, except for an Initial Zero Emission Infrastructure Report or a Zero Emission Infrastructure Status Update Report that is jointly submitted for multiple Freight Rail Yards.

- (2) For a Freight Rail Yard Owner or Operator that submits a single Initial Zero Emission Infrastructure Report jointly for multiple Freight Rail Yards operated by the same Freight Rail Yard Operator pursuant to Rule 2306 clause (d)(4)(B)(ii), or a single Zero Emission Infrastructure Status Update Report jointly for multiple Freight Rail Yards operated by the same Freight Rail Yard Operator pursuant to Rule 2306 clause (d)(4)(D)(ii), the owner or operator shall pay applicable fees pursuant to Table 1 for each individual Freight Rail Yards covered by the joint report.

Table 1 – Fees for Rule 2306 Reports and Notifications

Reports	Fees
Initial Facility Information Report	\$3,397.71
Initial Zero Emission Infrastructure Report	\$1,520.07
Milestone Compliance Report	\$11,728.26
Zero Emission Infrastructure Status Update Report	\$1,520.07
Notifications	Fees
Initial Change of Freight Rail Yard Operator Notification	\$78.32
Secondary Change of Freight Rail Yard Operator Notification	\$52.21
Initial Change of Freight Rail Yard Owner Notification	\$78.32
Secondary Change of Freight Rail Yard Owner Notification	\$52.21
Freight Rail Yard Shutdown Notification	\$130.53
Exceedance of Low Activity Exemption Threshold Notification	\$130.53
Proposed Freight Rail Yard Construction, Conversion, or Expansion Notification	\$130.53

- (e) Payment Due Date

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Payment of all applicable fees in subdivision (d) shall be due at the time that the applicable report must be submitted pursuant to Rule 2306 paragraph (d)(4), or at the time that the applicable notification must be submitted pursuant to Rule 2306 subdivision (g). The report or notification fee payment shall be considered to be timely received by the South Coast AQMD if the full fee payment is delivered, postmarked, or electronically paid on or before the payment due date. If the payment due date falls on a Saturday, Sunday, or a state holiday, the full fee payment may be delivered, postmarked, or electronically paid on the next business day following the Saturday, Sunday, or the state holiday with the same effect as if it had been delivered, postmarked, or electronically paid on the payment due date.

(f) Service Charge for Returned Check

Any Freight Rail Yard Owner or Operator who submits a check to the South Coast AQMD on insufficient funds or on instructions to stop payment on the check, absent an overcharge or other legal entitlement to withhold payment, shall be subject to a \$25 service charge.

ATTACHMENT H

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

Proposed Rule 2306 Calculation Methodology and Data Appendix

Proposed Rule 2306 – Freight Rail Yards
Proposed Rule 316.2 – Fees for Rule 2306

August 2024

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EXECUTIVE OFFICER:

WAYNE NASTRI

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This document provides the methodology for calculating: 1) Actual Annual NOx Emissions for the Freight Rail Yard; 2) Annual Reference NOx Emissions for the Freight Rail Yard; and 3) Aggregate Emission Factor for the Freight Rail Yard, as required under Proposed Rule 2306 – Freight Rail Yards (PR 2306).

The data tables for input parameters referenced in emissions calculation equations in this methodology document are provided in ~~the its Data Appendix to Draft Proposed Rule 2306 Calculation Methodology~~ (herein “Data Appendix”).

For all emission calculations described below, supporting documentation must be provided if actual operating parameters are used in lieu of default parameters (if provided in equations) for applicable mobile sources operating at and travelling through the freight rail yards.

1. Actual Annual NOx Emissions for a Freight Rail Yard

This section outlines the methodologies to calculate the actual NOx emissions for a freight rail yard for each milestone year from the applicable mobile sources, including locomotives, drayage trucks, CHE, TRU, and OSE, to be used in PR 2306 Equation 1, Equation 2, and Equation 3, as applicable.

A. Locomotives

This section provides the detailed methodology to calculate the actual annual NOx emissions for each milestone year from all locomotives operating at the freight rail yard(s), which are operated by the same freight rail yard operator, within the State of California or within South Coast AQMD.

The statewide actual annual NOx emissions from all locomotives operated by the same freight rail yard within the State of California are calculated based on the annual usage in megawatt-hours (MWhr) in non-zero-emissions (ZE) configuration for all locomotives operating at all freight rail yards in California operated by the same freight rail yard operator in conjunction with the corresponding average NOx emission factors by locomotive Tier level using the following equation:

$$CAEL_i = \left\{ \sum_l \left[(CAMW hr_{l,i} - CAMW hr_{l,i}^{ze}) \times CF \times EF_l \right] \right\} \times U \quad (\text{Equation 1.A.1})$$

Where:

$CAEL_i$ = Actual NOx emissions (in tons) from all Locomotives operated by the same Freight Rail Yard Operator within the State of California in year i

$CAMW hr_{l,i}$ = Annual usage (in megawatt-hours) of Locomotive l operated by the same Freight Rail Yard Operator within the State of California in year i

$CAMW hr_{l,i}^{ze}$ = Annual usage (in megawatt-hours) in ZE Configuration of Locomotive l operated by the same Freight Rail Yard Operator within the State of California in year i

CF = Conversion factor for megawatt to horsepower (1341.02)

EF_l = Average NOx emission factor for Locomotive l (in grams per brake horsepower-hour), as specified in Data Appendix, Table A-1

U = Unit conversion factor for grams to tons (1/907,180¹)

The average NOx emission factors for locomotives are based on EPA’s average emission factors for line-haul and switcher locomotives by locomotive Tier level² and are provided in Data Appendix, Table A-1.

The actual annual NOx emissions for all locomotives operating at and travelling to and from a freight rail yard within South Coast AQMD is calculated based on the total annual usage in MWhr in non-ZE configuration for locomotives operating within South Coast AQMD, NOx emission factors for locomotives, and the number of days locomotives operated at and travelling to and from this freight rail yard compared to the total number of days that locomotives operated at and travelling to and from all freight rail yards by the same freight rail yard operator within South Coast AQMD using the following equation:

$$EL_i = \left\{ \sum_l \left[(MWhr_{l,i} - MWhr_{l,i}^{ze}) \times CF \times EF_l \times \frac{DaysFRY_{l,i}}{\sum_y DaysALLFRY_{l,i,y}} \right] \right\} \times U$$

(Equation 1.A.2)

Where:

EL_i = Actual NOx emissions (in tons) from all Locomotives operating at and travelling to and from the Freight Rail Yard in year i

$MWhr_{l,i}$ = Annual usage (in megawatt-hours) by Locomotive l operating within the South Coast AQMD jurisdiction in year i

$MWhr_{l,i}^{ze}$ = Annual usage (in megawatt-hours) in ZE Configuration by Locomotive l operating within the South Coast AQMD jurisdiction in year i

¹ Tons to grams conversion: 453.59 grams/pound X 2000 pounds/ton = 907,180 grams/ton

² EPA’s Emission Factors for Locomotives (Tables 1 and 2), EPA-420-F-09-025, April 2009

CF = Conversion factor for megawatt to horsepower (1341.02)

EF_l = NOx emission rate based on the duty cycle weighted emission test results as provided in Locomotive l 's Locomotive Engine Certification Data, or the average NOx emission factor for Locomotive l (in grams per brake horsepower-hour) as specified in Data Appendix, Table A-1

$DaysFRY_{l,i}$ = Total number of days Locomotive l operating at and travelling to and from the Freight Rail Yard in year i

$DaysALLFRY_{l,i,y}$ = Total number of days Locomotive l operating at and travelling to and from any Freight Rail Yard y within the South Coast AQMD jurisdiction in year i

U = Unit conversion factor for grams to tons (1/907,180)

The NOx emission factors for locomotives in this equation can be based on the locomotive engine certification data (i.e., duty cycle weighted emission test result), if available, or based on the EPA's average emission factors by locomotive Tier level provided in Data Appendix, Table A-1. The locomotive engine certification data must be provided as supporting documentation if used in emission calculation for any locomotive in this equation.

The total annual MWhr usage of locomotives may be directly obtained from locomotives megawatt-hour meters or calculated based on the locomotives fuel consumption in gallons using the following equation and conversion factors for line-haul and switcher locomotives provided in Data Appendix Table A-2.

$$MWhr_{l,i} = Fuel\ Consumption_{l,i} \times Conversion\ Factor_l \quad (Equation\ 1.A.2.a)$$

The conversion factors for line-haul and switcher locomotives in MWhr/gal are extracted from CARB's In-Use Locomotive Regulation.³

³ CARB's In-Use Locomotive Regulation, Table 1; <https://ww2.arb.ca.gov/rulemaking/2022/locomotive>

B. Drayage Trucks

This section provides the detailed methodology to calculate the actual annual NOx emissions for each milestone year from all drayage trucks operating at and travelling to and from the freight rail yard(s) within the State of California or within South Coast AQMD based on the number of individual truck trips to the freight rail yard(s) within the applicable jurisdiction, miles traveled to and from the freight rail yard(s) using the actual mileage or a default mileage (39.9 miles per trip), and the corresponding composite NOx emission factors by truck model year provided in Data Appendix, Tables B-1 through B-4 using the following equation:

$$EDT_i = \sum_d [NT_{d,i} \times VMT_{d,i} \times EF_{d,i}] \times U \quad (\text{Equation 1.B.1})$$

Where:

EDT_i = Actual NOx emissions (in tons) from all Drayage Truck operating at and travelling to and from the Freight Rail Yard within the applicable jurisdiction in year i

$NT_{d,i}$ = Number of Truck Trips by Drayage Truck d in year i to and from the Freight Rail Yard, calculated as total number of unique entry date(s) multiplied by 2

$VMT_{d,i}$ = Actual vehicle miles traveled by Drayage Truck d in year i to and from the Freight Rail Yard, or use default factor of 39.9 miles/trip

$EF_{d,i}$ = Composite emission factor for Drayage Truck d (in grams per mile by model year) in year i , as specified in Data Appendix, Tables B-1 through B-4, or 0 if Drayage Truck d operates in ZE Configuration

U = Unit conversion factor for grams to tons (1/907,180)

The composite NOx emission factors for drayage trucks by truck model year are derived from CARB's EMFAC2021 Model⁴ for T7 Tractor Class 8 category by calendar year (EMFAC2021 Emissions Run for statewide or South Coast regions at aggregate speed), and they also reflect the impact of CARB's Heavy-Duty Inspection and Maintenance Regulation⁵. The default mileage of

⁴ EMFAC2021: <https://arb.ca.gov/emfac/>

⁵ CARB's Heavy-Duty Inspection and Maintenance Program: <https://ww2.arb.ca.gov/our-work/programs/CTC>

39.9 miles per round trip for drayage trucks visiting a freight rail yard is derived from 2016 Regional Transportation Plan documents.⁶

The model year and fuel type of the drayage trucks operating at and travelling to and from the freight rail yard can be directly tracked by the freight rail yard operator or obtained from the truck’s vehicle identification number (VIN) tracked by the freight rail yard operator using publicly available tools such as from the National Highway Traffic Safety Administration (NHTSA) at: <https://vpic.nhtsa.dot.gov/api/>.

C. TRU

This section provides the detailed methodology to calculate the actual annual NOx emissions for each milestone year from all TRU operating at and travelling to and from a freight rail yard within South Coast AQMD. The actual annual NOx emissions for TRU operating at and travelling to and from the freight rail yard are calculated based on the maximum rated horsepower (hp), load factor, annual operating hours, fuel correction factor, and emission factor for each TRU using the following equation:

$$ETRU_i = \sum_r [HP_{r,i} \times LF_{r,i} \times (HR_{r,i} - HR_{r,i}^{ZE}) \times EF_{r,i} \times FCF_{r,i}] \times U \quad (\text{Equation 1.C.1})$$

Where:

$ETRU_i$ = Actual NOx emissions (in tons) from all TRUs operating at and travelling to and from the Freight Rail Yard in year i

$HP_{r,i}$ = Maximum rated horsepower for TRU r operating at and travelling to and from the Freight Rail Yard in year i

$LF_{r,i}$ = Load factor for TRU r operating at and travelling to and from the Freight Rail Yard in year i , as specified in Data Appendix, Table C-1

$HR_{r,i}$ = Annual operating hours for TRU r operating at and travelling to and from the Freight Rail Yard in year i

$HR_{r,i}^{ZE}$ = Annual operating hours in ZE Configuration for TRU r operating at and travelling to and from the Freight Rail Yard in year i

$EF_{r,i}$ = Emission factor (in grams per brake horsepower-hour) for TRU r operating at and travelling to and from the Freight Rail Yard in year i , using Equation 1.C.1.a

⁶ 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy <https://scag.ca.gov/2016-rtpscs>

$FCF_{r,i}$ = Fuel Correction Factor for TRU r operating at and travelling to and from the Freight Rail Yard in year i , as specified in Data Appendix, Table F-1

U = Unit conversion factor for grams to tons (1/907,180)

Load factors for various TRU types and horsepower categories are provided in Data Appendix, Table C-1 and are based on CARB's TRU documentation⁷. The fuel correction factors for TRU by fuel type are provided in Data Appendix, Table F-1 and are based on CARB's Offroad documentation⁸.

If hp data for TRU is not available, the default hp values provided in Data Appendix, Table C-4 may be used in Equation 1.C.1. The default hp values are based on CARB's TRU documentation⁹.

The emission factor for each TRU is calculated based on the zero-hour emission factor (EF_{zh}), deterioration rate (DR), and accumulated operating hours (reflecting equipment age and capped at 12,000 hours) for each TRU operating at the freight rail yard using the following equation:

$$EF_{r,i} = [EF_{zh,r,i} + (DR_{r,i} \times AccumulatedHours_{r,i})] \quad (Equation 1.C.1.a)$$

Where:

$EF_{zh,r,i}$ = Zero-hour emission factor (in gram per brake horsepower-hour) for TRU r operating at and traveling to and from the Freight Rail Yard in year i , pursuant to Data Appendix, Tables F-2 through F-10

$DR_{r,i}$ = Deterioration rate (in grams per break horsepower per squared-hour) for TRU r operating at and travelling to and from the Freight Rail Yard in year i , pursuant to Data Appendix, Tables F-2 through F-10

$AccumulatedHours_{r,i}$ = Total hours from the unit's non-resettable hour-meter, if available; otherwise, the average annual operating hours times the age of TRU r (capped at 12,000 hours) in year i

⁷ CARB's TRU documentation (Table 10 in Appendix H);

<https://ww2.arb.ca.gov/sites/default/files/barcu/board/rulemaking/tru2021/apph.pdf>

⁸ 2017 OffRoad Diesel, Propane and Gasoline Emission Factors; <https://ww2.arb.ca.gov/our-work/programs/msei/road-categories/road-diesel-models-and-documentation>

⁹ CARB's TRU documentation (Table 3 in Appendix H);

<https://ww2.arb.ca.gov/sites/default/files/barcu/board/rulemaking/tru2021/apph.pdf>

The zero-hour emission factors and deterioration rates for each TRU type, fuel type, hp bin, and model year are provided in Data Appendix, Tables F-2 to F-10 and are based on CARB’s OffRoad documentation¹⁰. The accumulated hours for each OSE can be determined based on the total hours from the unit’s non-resettable hour-meter or calculated based on the average annual operating hours times the age of the unit. The accumulated hours are capped at 12,000 hours based on CARB’s documentation¹¹. If model year data is not available for each TRU, then a default age of 7 years can be used for all TRUs.¹²

The annual operating hours for each TRU must be based on the following order of hierarchy pending availability of operational data: 1) non-resettable hour-meters, 2) maintenance records, 3) fuel consumption data, or 4) default average operating hours for each TRU type provided in Data Appendix, Table C-2. adjusted for the TRU operating at and traveling to and from the freight rail yard. For each TRU, only one method for annual operating hours can be used for all milestone years to prevent potential variations between these methods affecting the actual annual emissions.

If the fuel consumption data for TRU operating at and traveling to and from the rail yard is available, the annual operating hours can be estimated using the following equation and fuel consumption conversion factors conversion factors in Data Appendix, Table F-11.

$$HR_{r,i} = Fuel\ Consumption_{r,i} \times Conversion\ Factor_{A2} \div (HP_{r,i} \times LF_{r,i})$$

(Equation 1.C.1.b)

¹⁰ 2017 OffRoad Diesel, Propane and Gasoline Emission Factors; <https://ww2.arb.ca.gov/our-work/programs/msei/road-categories/road-diesel-models-and-documentation>

¹¹ CARB 2011 CHE Documentation
<https://ww2.arb.ca.gov/our-work/programs/mobile-source-emissions-inventory/road-documentation/msei-documentation-road>

¹² Figure 6 from CARB’s TRU Emissions Inventory shows that 7 years is a conservative default age assumption based on actual data. <https://ww2.arb.ca.gov/sites/default/files/barcu/board/rulemaking/tru2021/apph.pdf>

The fuel consumption conversion factors in Data Appendix, Table F-11 are derived from brake-specific fuel consumption rates from CARB's Offroad documentation¹³ and density for each fuel type.

The total annual operating hours for TRU r operating and travelling to and from the rail yard can also be proportioned from the total operating hours for TRU r within the South Coast AQMD jurisdiction and the number of days TRU r operated at and travelled to and from this freight rail yard compared to the total number of days that TRU r operated at South Coast AQMD jurisdiction using Equation 1.C.1.c below.

$$HR_{r,i} = HrSC_{r,i} \times \frac{DaysFRY_{r,i}}{DaysALLSC_{r,i}} \quad (\text{Equation 1.C.1.c})$$

Where:

$HrSC_{r,i}$ = Total number of hours TRU r operating within the South Coast AQMD jurisdiction in year i

$DaysFRY_{r,i}$ = Total number of days TRU r operating at and travelling to and from the Freight Rail Yard in year i

$DaysALLSC_{r,i}$ = Total number of days TRU r operating within the South Coast AQMD jurisdiction in year i

For TRU, the annual operating hours can also be calculated using Equation 1.C.1.d below.

$$HR_{r,i} = Time_{Onroad,r} + Time_{Onrail,r} + Time_{Onyard,r} \quad (\text{Equation 1.C.1.d})$$

Where:

$Time_{Onroad,r}$ = 39.9 miles per trip ÷ 47 miles per hour (using default values from the Regional Transportation Plan)¹⁴. This parameter is 0 for railcar TRUs.

¹³ 2017 OffRoad Diesel, Propane and Gasoline Emission Factors; <https://ww2.arb.ca.gov/our-work/programs/msei/road-categories/road-diesel-models-and-documentation>

¹⁴ SCAG 2016 RTP and [Regional Travel Demand Model Validation](#)

$Time_{onrail,r}$ = Distance via rail from rail yard to South Coast AQMD boundary (miles) ÷ annual average intermodal velocity (miles per hour)¹⁵

$Time_{onyard,r}$ = Annual average terminal dwell time¹⁶

D. CHE

This section provides the detailed methodology to calculate the actual annual NOx emissions for each milestone year from all CHE operating at and travelling to and from a freight rail yard within South Coast AQMD. The actual annual NOx emissions for CHE operating at and travelling to and from the freight rail yard are calculated based on the maximum rated horsepower (hp), load factor, annual operating hours, fuel correction factor, and emission factors for each CHE using the following equation:

$$ECHE_i = \sum_c [HP_{c,i} \times LF_{c,i} \times (HR_{c,i} - HR_{c,i}^{ZE}) \times EF_{c,i} \times FCF_{c,i}] \times U \quad (\text{Equation 1.D.1})$$

Where:

$ECHE_i$ = Actual NOx emissions (in tons) from all CHE operating at and traveling to and from the Freight Rail Yard in year i

$HP_{c,i}$ = Maximum rated horsepower for CHE c operating at and traveling to and from the Freight Rail Yard in year i

$LF_{c,i}$ = Load factor for CHE c operating at and traveling to and from the Freight Rail Yard in year i , as specified in Data Appendix, Table D-1

$HR_{c,i}$ = Annual operating hours for CHE c operating at and traveling to and from the Freight Rail Yard in year i

$HR_{c,i}^{ZE}$ = Annual operating hours in ZE Configuration for CHE c operating at and traveling to and from the Freight Rail Yard in year i

$EF_{c,i}$ = Emission factor (in grams per brake horsepower-hour) for CHE c operating at and traveling to and from the Freight Rail Yard in year i , using Equation 1.D.1.a

$FCF_{c,i}$ = Fuel Correction Factor for CHE c operating at and traveling to and from Freight Rail Yard y in year i , as specified in Data Appendix, Table F-1

¹⁵ Available in reports to Surface Transportation Board here: <https://www.stb.gov/reports-data/rail-service-data/>

¹⁶ Ibid

U = Unit conversion factor for grams to tons (1/907,180)

Load factors for various CHE types and horsepower categories and the fuel correction factors are provided in Data Appendix, Table D-1 and Table F-1, respectively and are based on CARB's OffRoad documentation¹⁷.

The emission factor for each CHE is calculated based on the zero-hour emission factor, deterioration rate, and accumulated operating hours (reflecting equipment age and capped at 12,000 hours) for each CHE operating at the freight rail yard using the following equation:

$$EF_{c,i} = [EFzh_{c,i} + (DR_{c,i} \times AccumulatedHours_{c,i})] \quad (Equation 1.D.1.a)$$

Where:

$EFzh_{c,i}$ = Zero-hour emission factor (in gram per brake horsepower-hour) for CHE c operating at and traveling to and from the Freight Rail Yard in year i , pursuant to Data Appendix, Tables F-2 through F-10

$DR_{c,i}$ = Deterioration rate (in grams per break horsepower per squared-hour) for CHE c operating at and traveling to and from the Freight Rail Yard in year i , pursuant to Data Appendix, Tables F-2 through F-10

$AccumulatedHours_{c,i}$ = Total hours from the unit's non-resettable hour-meter, if available; otherwise, the average annual operating hours times the age of CHE c (capped at 12,000 hours) in year i

The zero-hour emission factors and deterioration rates for each CHE type, fuel type, hp bin, and model year are provided in Data Appendix, Tables F-2 to F-10 are based on CARB's OffRoad documentation¹⁸. The accumulated hours for each CHE can be determined based on the total hours from the unit's non-resettable hour-meter or calculated based on the average annual operating

¹⁷ 2017 OffRoad Diesel, Propane and Gasoline Emission Factors; <https://ww2.arb.ca.gov/our-work/programs/msei/road-categories/road-diesel-models-and-documentation>

¹⁸ 2017 OffRoad Diesel, Propane and Gasoline Emission Factors; <https://ww2.arb.ca.gov/our-work/programs/msei/road-categories/road-diesel-models-and-documentation>

hours times the age of the unit. The accumulated hours are capped at 12,000 hours based on CARB's documentation¹⁹.

The annual operating hours for each CHE must be based on the following order of hierarchy pending availability of operational data: 1) non-resettable hour-meters, 2) maintenance records, or 3) fuel consumption data. If the fuel consumption data for CHE operating at and traveling to and from the rail yard is available, the annual operating hours can be estimated using the Equation 1.C.1.b and the fuel consumption conversion factors in Data Appendix, Table F-11. For each CHE, only one method for annual operating hours can be used for all milestone years to prevent potential variations between these methods affecting the actual annual emissions.

The fuel consumption conversion factors in Data Appendix, Table F-11 are derived from brake-specific fuel consumption rates from CARB's Offroad documentation²⁰ and density for each fuel type.

E. OSE

This section provides the detailed methodology to calculate the actual annual NOx emissions for each milestone year from all OSE operating at and travelling to and from a freight rail yard within South Coast AQMD. The actual annual NOx emissions for OSE operating at and travelling to and from the freight rail yard are calculated based on the maximum rated horsepower (hp), load factor, annual operating hours, fuel correction factor, and emission factor for each OSE using the following equation:

$$EOSE_i = \sum_o [HP_{o,i} \times LF_{o,i} \times (HR_{o,i} - HR_{o,i}^{ZE}) \times EF_{o,i} \times FCF_{o,i}] \times U$$

(Equation 1.E.1)

Where:

$EOSE_i$ = Actual NOx emissions (in tons) for all OSE operating at and traveling to and from the Freight Rail Yard in year i

¹⁹ CARB 2011 CHE Documentation

<https://ww2.arb.ca.gov/our-work/programs/mobile-source-emissions-inventory/road-documentation/msei-documentation-road>

²⁰ 2017 OffRoad Diesel, Propane and Gasoline Emission Factors; <https://ww2.arb.ca.gov/our-work/programs/msei/road-categories/road-diesel-models-and-documentation>

$HP_{o,i}$ = Maximum rated horsepower for OSE o operating at and traveling to and from the Freight Rail Yard in year i

$LF_{o,i}$ = Load factor for OSE o operating at and traveling to and from the Freight Rail Yard in year i , as specified in Data Appendix, Table E-1

$HR_{o,i}$ = Annual operating hours for OSE o operating at and traveling to and from the Freight Rail Yard in year i

$HR_{o,i}^{ZE}$ = Annual operating hours in ZE Configuration for OSE o operating at and traveling to and from the Freight Rail Yard in year i

$EF_{o,i}$ = Emission factor (in grams per brake horsepower-hour) for OSE o operating at and traveling to and from the Freight Rail Yard in year i , using Equation 1.E.1.a

$FCF_{o,i}$ = Fuel Correction Factor for OSE o operating at and traveling to and from the Freight Rail Yard in year i , as specified in Data Appendix, Table F-1

U = Unit conversion factor for grams to tons (1/907,180)

Load factors for various OSE types and horsepower categories and the fuel correction factors are provided in Data Appendix, Table E-1 and Table F-1, respectively, and are based on CARB's OffRoad documentation²¹.

The emission factor for each OSE is calculated based on the zero-hour emission factor, deterioration rate, and accumulated operating hours (reflecting equipment age and capped at 12,000 hours) for each OSE operating at the freight rail yard using the following equation:

$$EF_{o,i} = [EFzh_{o,i} + (DR_{o,i} \times AccumulatedHours_{o,i})] \quad (\text{Equation 1.E.1.a})$$

Where:

$EFzh_{o,i}$ = Zero-hour emission factor (in gram per brake horsepower-hour) for OSE o operating at and traveling to and from the Freight Rail Yard in year i , pursuant to Data Appendix, Tables F-2 through F-10

²¹ 2017 OffRoad Diesel, Propane and Gasoline Emission Factors; <https://ww2.arb.ca.gov/our-work/programs/msei/road-categories/road-diesel-models-and-documentation>

$DR_{o,i}$ = Deterioration rate (in grams per break horsepower per squared-hour) for OSE o operating at and traveling to and from the Freight Rail Yard in year i , pursuant to Data Appendix Tables F-2 through F-10

$AccumulatedHours_{o,i}$ = Total hours from the unit's non-resettable hour-meter, if available; otherwise, the average annual operating hours times the age of OSE o (capped at 12,000 hours) in year i

The zero-hour emission factors and deterioration rates for each OSE type, fuel type, hp bin, and model year are provided in Data Appendix, Tables F-2 through F-10 are based on CARB's OffRoad documentation²². The accumulated hours for each OSE can be determined based on the total hours from the unit's non-resettable hour-meter or calculated based on the average annual operating hours times the age of the unit. The accumulated hours are capped at 12,000 hours based on CARB's documentation²³.

The annual operating hours for each OSE must be based on the following order of hierarchy pending availability of operational data: 1) non-resettable hour-meters, 2) maintenance records, or 3) fuel consumption data. If the fuel consumption data for OSE operating at and traveling to and from the rail yard is available, the annual operating hours can be estimated using the Equation 1.C.1.b and the fuel consumption conversion factors in Data Appendix, Table F-11. For each OSE, only one method for annual operating hours can be used for all milestone years to prevent potential variations between these methods affecting the actual annual emissions.

The fuel consumption conversion factors in Data Appendix, Table F-11 are derived from brake-specific fuel consumption rates from CARB's Offroad documentation²⁴ and density for each fuel type.

²² 2017 OffRoad Diesel, Propane and Gasoline Emission Factors; <https://ww2.arb.ca.gov/our-work/programs/msei/road-categories/road-diesel-models-and-documentation>

²³ CARB 2011 CHE Documentation
<https://ww2.arb.ca.gov/our-work/programs/mobile-source-emissions-inventory/road-documentation/msei-documentation-road>

²⁴ 2017 OffRoad Diesel, Propane and Gasoline Emission Factors; <https://ww2.arb.ca.gov/our-work/programs/msei/road-categories/road-diesel-models-and-documentation>

2. Annual Reference NOx Emissions for a Freight Rail Yard

This section outlines the methodologies to calculate the annual reference scenario NOx emissions for each milestone year from applicable mobile sources including locomotives, drayage trucks, CHE, TRU, and OSE, to be used in PR 2306 Equation 1 and Equation 2, as applicable.

A. Locomotives

This section provides the detailed methodology to calculate the annual reference NOx emissions for each milestone year from locomotives operating at the freight rail yard(s) by the same freight rail yard operator within the State of California or within South Coast AQMD.

The statewide annual reference NOx emissions are calculated based on the annual usage in megawatt-hours (MWhr) in non-zero-emissions (ZE) configuration for all locomotives operating at all freight rail yards in California operated by the same freight rail yard operator in conjunction with the composite emission factors by locomotive type (line-haul or switcher) and by calendar year in Data Appendix, Table A-3 using the following equation:

$$CAEL_{i,RS} = \left[\sum_l (CAMW hr_{l,i} \times CF \times EF_{l,RS}) \right] \times U \quad (\text{Equation 2.A.1})$$

Where:

$CAEL_{i,RS}$ = Reference Scenario (RS) NOx emissions (in tons) from all Locomotives operated by the same Freight Rail Yard Operator within the State of California in year i

$CAMW hr_{l,i}$ = Annual usage (in megawatt-hours) of Locomotive l operated by the same Freight Rail Yard Operator within the State of California in year i

CF = Conversion factor for megawatt to horsepower (1341.02)

$EF_{l,RS}$ = Composite NOx emission factor for Locomotive l (in grams per brake horsepower-hour) under Reference Scenario (RS), as specified in Data Appendix, Table A-3

U = Unit conversion factor for grams to tons (1/907,180)

The annual reference NOx emissions for all locomotives operating at and travelling to and from a freight rail yard within South Coast AQMD is calculated based on the annual usage in MWhr in non-ZE configuration for these locomotives in conjunction with the composite emission factors by locomotive type (line-haul or switcher) and by calendar year, and the number of days locomotives operated at this freight rail yard compared to the total number of days that locomotives operated

at all freight rail yards operated by the same operator within South Coast AQMD using the following equation:

$$EL_{i,RS} = \left[\sum_l \left(MWhr_{l,i} \times CF \times \frac{DaysFRY_{l,i}}{\sum_y DaysALLFRY_{l,i,y}} \right) \right] \times EF_{i,RS} \times U \quad (Equation 2.A.2)$$

Where:

$EL_{i,RS}$ = Reference Scenario (RS) NOx emissions (in tons) from all Locomotives operating at and travelling to and from the Freight Rail Yard in year i

$MWhr_{l,i}$ = Annual usage (in megawatt-hours) by Locomotive l operating within the South Coast AQMD jurisdiction in year i

CF = Conversion factor for megawatt to horsepower (1341.02)

$EF_{i,RS}$ = Composite NOx emission factor (in grams per brake horsepower-hour) under Reference Scenario (RS) in year i , as specified in Data Appendix, Table A-3

$DaysFRY_{l,i}$ = Total number of days Locomotive l operating at and travelling to and from the Freight Rail Yard in year i

$DaysALLFRY_{l,i,y}$ = Total number of days Locomotive l operating at and travelling to and from any Freight Rail Yard y within the South Coast AQMD jurisdiction in year I

U = Unit conversion factor for grams to tons (1/907,180)

The composite NOx emission factors by locomotive type (line-haul and switcher) and by calendar year are provided in Data Appendix, Table A-3 and are based on CARB's In-Use Locomotive Regulation.²⁵

The total annual MWhr usage of locomotives may be directly obtained from locomotives megawatt-hour meters or calculated based on the locomotives fuel consumption in gallons using Equation 1.A.2.a. and conversion factors provided in Data Appendix, Table A-2 for line-haul and switcher locomotives.

²⁵ CARB's In-Use Locomotive Regulation; <https://ww2.arb.ca.gov/rulemaking/2022/locomotive>

B. Drayage Trucks

This section provides the detailed methodology to calculate the annual reference NOx emissions for each milestone year from all drayage trucks visiting freight rail yards within the State of California or within South Coast AQMD.

The annual reference NOx emissions from drayage trucks are calculated based on the number of individual truck trips to the freight rail yard(s) within the applicable jurisdiction, miles traveled to and from the freight rail yard(s) using the actual mileage or a default mileage and the corresponding composite NOx emission factors by calendar year using the following equation:

$$EDT_{i,RS} = \sum_d (NT_{d,i} \times VMT_{d,i}) \times EF_{i,RS} \times U \quad (\text{Equation 2.B.1})$$

Where:

$EDT_{i,RS}$ = Reference Scenario NOx emissions (in tons) from all Drayage Truck operating at and travelling to and from the Freight Rail Yard within the applicable jurisdiction in year i

$NT_{d,i}$ = Number of Truck Trips by Drayage Truck d in year i to and from the Freight Rail Yard, calculated as total number of unique entry date(s) multiplied by 2

$VMT_{d,i}$ = Actual vehicle miles traveled by Drayage Truck d in year i to and from the Freight Rail Yard, or use default factor of 39.9 miles/trip

$EF_{i,RS}$ = Composite emission factor (in grams per mile by calendar year) in year i under Reference Scenario (RS), as specified in Data Appendix, Table B-5

U = Unit conversion factor for grams to tons (1/907,180)

The composite NOx emission factors (EF) for drayage trucks by calendar year are derived from CARB's EMFAC2021 Model²⁶ for T7 Tractor Class 8 category by calendar year (EMFAC2021 Emissions Run for statewide or South Coast region at aggregate model year and aggregate speed), and they also reflect the impact of CARB's Heavy-Duty Inspection and Maintenance Regulation²⁷.

²⁶ EMFAC2021: <https://arb.ca.gov/emfac/>

²⁷ CARB's Heavy-Duty Inspection and Maintenance Program: <https://ww2.arb.ca.gov/our-work/programs/CTC>

C. TRU

This section provides the detailed methodology to calculate the annual reference NOx emissions for each milestone year from all TRU operating at and travelling to and from a freight rail yard within South Coast AQMD. The annual reference NOx emissions for TRU operating at and travelling to and from the freight rail yard are calculated based on the annual operating hours for each TRU type (i.e., same equipment type, fuel, hp bin, model year) and the average emission factor for each TRU type using the following equation:

$$ETRU_i^{RS} = \sum_t \left[\left(\sum_{r \in t} HR_{r,i} \right) \times ER_{t,i}^{RS} \right] \quad (\text{Equation 2.C.1})$$

Where:

$ETRU_i^{RS}$ = Reference Scenario NOx emissions (in tons) from all TRUs operating at and travelling to and from the Freight Rail Yard in year i

$HR_{r,i}$ = Annual operating hours for TRU r associated with TRU type t operating at and travelling to and from the Freight Rail Yard in year i

$ER_{t,i}^{RS}$ = NOx emissions rate of TRU type t (in grams per hour) in year i under Reference Scenario (RS), as specified in Data Appendix, Tables C-3

The annual operating hours and emission rates in the above equation are for each TRU type which is defined as TRU with the same equipment type, fuel type, hp, and model year (referred to TRU r type t in above equation).

The annual operating hours for each TRU must be based on the following order of hierarchy pending availability of operational data: 1) non-resettable hour-meters, 2) maintenance records, 3) fuel consumption data, or 4) default average operating hours for each TRU type from Data Appendix, Table C-2. If the fuel consumption data is available, the annual operating hours can be estimated using Equation 1.C.1.b, and the fuel consumption conversion factors in Data Appendix, Table F-11. Annual operating hours may also be calculated using Equation 1.C.1.c. or 1.C.1.d. If model year data is not available for each TRU, then a default age of 7 years can be used for all TRUs.²⁸

²⁸ Figure 6 from CARB's TRU Emissions Inventory shows that 7 years is a conservative default age assumption based on actual data. <https://ww2.arb.ca.gov/sites/default/files/barcu/board/rulemaking/tru2021/apph.pdf>

For each TRU, the same method for annual operating hours used for calculating the actual annual NOx emissions should also be used for calculating the annual reference NOx emissions to prevent potential variations between these methods affecting annual reference emissions as well as for consistent comparison between the actual and reference emissions for the same milestone year.

D. CHE

This section provides the detailed methodology to calculate the annual reference NOx emissions for each milestone year from all CHE operating at and travelling to and from a freight rail yard within South Coast AQMD. The annual reference NOx emissions for CHE operating at and travelling to and from the freight rail yard are calculated based on the annual operating hours for each CHE type (i.e., same equipment type, fuel, hp bin, model year) and the average emission factors for each CHE type using the following equation:

$$ECHE_i^{RS} = \sum_t \left[\left(\sum_{c \in t} HR_{c,i} \right) \times ER_{t,i}^{RS} \right] \quad (\text{Equation 2.D.1})$$

Where:

$ECHE_i^{RS}$ = Reference Scenario NOx emissions (in tons) from all CHE operating at and travelling to and from the Freight Rail Yard in year i

$HR_{c,i}$ = Annual operating hours for CHE c associated with CHE type t operating at and travelling to and from the Freight Rail Yard in year i

$ER_{t,i}^{RS}$ = NOx emissions rate of CHE type t (in grams per hour) in year i under Reference Scenario (RS), as specified in Data Appendix, Tables D-2 through D-4

The annual operating hours and emission rates in the above equation are for each CHE type which is defined as CHE with the same equipment type, fuel type, hp, and model year (referred to CHE c type t in above equation).

The annual operating hours for each CHE must be based on the following order of hierarchy pending availability of operational data: 1) non-resettable hour-meters, 2) maintenance records, or 3) fuel consumption data. If the fuel consumption data is available, the annual operating hours can be estimated using Equation 1.C.1.b, and the fuel consumption conversion factors in Data Appendix, Table F-11. For each CHE, the same method for annual operating hours used for calculating the actual annual NOx emissions should also be used for calculating the annual reference NOx emissions to prevent potential variations between these methods affecting annual

reference emissions as well as for consistent comparison between the actual and reference emissions for the same milestone year.

E. OSE

This section provides the detailed methodology to calculate the annual reference NOx emissions for each milestone year from all OSE operating at and travelling to and from a freight rail yard within South Coast AQMD. The annual reference NOx emissions for OSE at and travelling to and from the freight rail yard are calculated based on the annual operating hours for each OSE type (i.e., same equipment type, fuel, hp bin, model year) and the average emission factor for each OSE type using the following equation:

$$EOSE_i^{RS} = \sum_t [(\sum_{o \in t} HR_{o,i}) \times ER_{t,i}^{RS}] \quad (\text{Equation 2.E.1})$$

Where:

$EOSE_{i,RS}$ = Reference Scenario NOx emissions (in tons) from all OSE operating on the Freight Rail Yard in year i

$HR_{o,i}$ = Annual operating hours for OSE o associated with OSE type t operating at and travelling to and from the Freight Rail Yard in year i

$ER_{t,i}^{RS}$ = NOx emissions rate of OSE type t (in gram per hour) in year i , as specified in Data Appendix Tables E-2 and E-3

The annual operating hours and emission rates in the above equation are for each OSE type which is defined as OSE with the same equipment type, fuel type, hp, and model year (referred to OSE o type t in above equation).

The annual operating hours for each OSE must be based on the following order of hierarchy pending availability of operational data: 1) non-resettable hour-meters, 2) maintenance records, or 3) fuel consumption data. If the fuel consumption data is available, the annual operating hours can be estimated using Equation 1.C.1.b, and the fuel consumption conversion factors in Data Appendix, Table F-11. For each OSE, the same method for annual operating hours used for calculating the actual annual NOx emissions should also be used for calculating the annual reference NOx emissions to prevent potential variations between these methods affecting annual reference emissions as well as for consistent comparison between the actual and reference emissions for the same milestone year.

3. Aggregate Emission Factor for a Freight Rail Yard

This section outlines the methodology for the owner or operator of a freight rail yard within the South Coast AQMD jurisdiction to calculate the annual aggregate NOx emission factor (AEF) for the freight rail yard for the milestone year and the base period encompassing all applicable mobile sources including locomotives, drayage trucks, CHE, TRU, and OSE as part of the Initial Facility Information Report pursuant to subparagraph (e)(1)(E) and the Milestone Compliance Report pursuant to subparagraph (f)(1)(E) of this rule.

The annual AEF for each freight rail yard is expressed in grams per brake-horsepower-hour (g/hp-hr) for NOx emissions and is calculated based on the actual annual NOx emissions in tons and the energy consumed in hp-hr for the applicable mobile sources using the following equation:

$$AEF_i = \frac{(EL_i + EDT_i + ETRU_i + ECHE_i + EOSE_i) \times V}{L_i + DT_i + TRU_i + CHE_i + OSE_i} \quad (\text{Equation 3})$$

Where:

AEF_i = Aggregate Emission Factor in g/hp-hr in year i

EL_i = Actual NOx emissions (in tons) from all Locomotives operating at and travelling to and from the Freight Rail Yard in year i , as calculated by Equation 1.A.1

EDT_i = Actual NOx emissions (in tons) from all Drayage Trucks operating at and travelling to and from the Freight Rail Yard in year i , as calculated by Equation 1.B.1

$ETRU_i$ = Actual NOx emissions (in tons) for all TRUs operating at and travelling to and from the Freight Rail Yard in year i , as calculated by Equation 1.C.1

$ECHE_i$ = Actual NOx emissions (in tons) for all CHE operating at and travelling to and from the Freight Rail Yard in year i , as calculated by Equation 1.D.1

$EOSE_i$ = Actual NOx emissions (in tons) for all OSE operating at and travelling to and from the Freight Rail Yard in year i , as calculated by Equation 1.E.1

V = Unit conversion factor for tons to grams (907,180)

L_i = Total energy consumed (in hp-hr) by all Locomotives operating at and travelling to and from the Freight Rail Yard in year i

DT_i = Total energy consumed (in hp-hr) by all Drayage Trucks operating at and travelling to and from the Freight Rail Yard in year i

TRU_i = Total energy consumed (in hp-hr) by all TRU operating at and travelling to and from the Freight Rail Yard in year i

CHE_i = Total energy consumed (in hp-hr) by all CHE operating at and travelling to and from the Freight Rail Yard in year i

OSE_i = Total energy consumed (in hp-hr) by all OSE operating at and travelling to and from the Freight Rail Yard in year i

The actual NO_x emissions in tons for each milestone year for the freight rail yard from the applicable mobile sources are calculated based on the detailed methodologies provided in Section 1 of this document and converted to grams using the unit conversion factor (907,180 grams per ton²⁹).

A. Locomotives

The total annual energy consumed for locomotives at each freight rail yard is calculated based on the annual usage in MWhr for all locomotives operating at and travelling to and from the freight rail yard and the number of days locomotives operated at the freight rail yard compared to the total number of days that locomotives operated at all freight rail yards by the same freight rail yard operator within South Coast AQMD using the following equation:

$$L_i = \sum_l \left(MWhr_{l,i} \times \frac{DaysFRY_{l,i}}{\sum_y DaysALLFRY_{l,i,y}} \right) \times CF \quad (Equation 3.A.1)$$

Where:

$MWhr_{l,i}$ = Annual usage (in megawatt-hours) by Locomotive l operating within the South Coast AQMD jurisdiction in year i

$DaysFRY_{l,i}$ = Total number of days Locomotive l operating at and travelling to and from the Freight Rail Yard in year i

$DaysALLFRY_{l,i,y}$ = Total number of days Locomotive l operating at and travelling to and from any Freight Rail Yard y within the South Coast AQMD jurisdiction in year i

CF = Conversion factor for megawatt to horsepower (1341.02)

²⁹ Grams to tons conversion: 453.59 grams/pound X 2000 pounds/ton = 907,180 grams/ton

B. Drayage Trucks

The total annual energy consumed for drayage trucks visiting each freight rail yard is calculated based on the total number of individual truck trips to and from the freight rail yard, miles traveled to and from the freight rail yard using the actual mileage or default mileage, and a conversion factor (to convert miles to hp-hr) using the following equation:

$$DT_i = \sum_d (NT_{d,i} \times VMT_{d,i} \times CF) \quad (\text{Equation 3.B.1})$$

Where:

$NT_{d,i}$ = Number of Truck Trips by Drayage Truck d in year i to and from the Freight Rail Yard, calculated as total number of unique entry date(s) multiplied by 2

$VMT_{d,i}$ = Actual vehicle miles traveled by Drayage Truck d in year i to and from the Freight Rail Yard, or use default factor of 39.9 miles/trip

CF = Conversion factor (2.9 hp-hr/mile for diesel trucks and 3.65 hp-hr/mile for CNG trucks)³⁰

C. TRU

The total annual energy consumed for TRU for each freight rail yard is calculated based on the maximum rated horsepower (hp), load factor, and annual operating hours for TRUs operating at and travelling to and from the freight rail yard using the following equation:

$$TRU_i = \sum_r (HP_{r,i} \times LF_{r,i} \times HR_{r,i}) \quad (\text{Equation 3.C.1})$$

Where:

$HP_{r,i}$ = Maximum rated horsepower for TRU r operating at and travelling to and from the Freight Rail Yard in year i

³⁰ Methods to Find the Cost-Effectiveness of Funding Air Quality Projects (for diesel trucks): https://ww2.arb.ca.gov/sites/default/files/2023-01/Cost%20Effectiveness%20Tables%202022_final.pdf, and In-Use Emissions Testing and Activity Profiles for On-Road Heavy-Duty Vehicles (for CNG trucks): <https://www.energy.ca.gov/sites/default/files/2023-03/CEC-500-2023-002.pdf>.

$LF_{r,i}$ = Load factor for TRU r operating at and travelling to and from the Freight Rail Yard in year i , as specified in Data Appendix, Table C-1

$HR_{r,i}$ = Annual operating hours for TRU r operating at and travelling to and from the Freight Rail Yard in year i

D. CHE

The hp, load factor and the annual operating hours for each TRU used in this equation must be the same as the ones used for calculating the actual NOx emissions based on the detailed methodologies specified in Section 1 of this document.

The total annual energy consumed for CHE for each freight rail yard is calculated based on the maximum rated horsepower (hp), load factor, and annual operating hours for CHE operating at the freight rail yard using the following equation:

$$CHE_i = \sum_c (HP_{c,i} \times LF_{c,i} \times HR_{c,i}) \quad (\text{Equation 3.D.1})$$

Where:

$HP_{c,i}$ = Maximum rated horsepower for CHE c operating at and travelling to and from the Freight Rail Yard in year i

$LF_{c,i}$ = Load factor for CHE c operating at and travelling to and from the Freight Rail Yard in year i , as specified in Data Appendix, Table D-1

$HR_{c,i}$ = Annual operating hours for CHE c operating at and travelling to and from the Freight Rail Yard in year i

E. OSE

The hp, load factor and the annual operating hours for each CHE used in this equation must be the same as the ones used for calculating the actual NOx emissions based on the detailed methodologies specified in Section 1 of this document.

The total annual energy consumed for OSE for each freight rail yard is calculated based on the maximum rated horsepower (hp), load factor, and annual operating hours for OSE operating at the freight rail yard using the following equation:

$$OSE_i = \sum_o (HP_{o,i} \times LF_{o,i} \times HR_{o,i}) \quad (\text{Equation 3.E.1})$$

Where:

$HP_{o,i}$ = Maximum rated horsepower for OSE o operating at and travelling to and from the Freight Rail Yard in year i

$LF_{o,i}$ = Load factor for OSE o operating at and travelling to and from the Freight Rail Yard in year i , as specified in Data Appendix, Table E-1

$HR_{o,i}$ = Annual operating hours for OSE o operating at and travelling to and from the Freight Rail Yard in year i

The hp, load factor and the annual operating hours for each OSE used in this equation must be the same as the ones used calculating the actual NOx emissions based on the detailed methodologies specified in Section 1 of this document.

DATA APPENDIX

TABLE A-1 – A-3

TABLE B-1 – B-5

TABLE C-1 – C-4

TABLE D-1 – D-4

TABLE E-1 – E-3

TABLE F-1 – F-11

Table A-1 : EPA Average NOx Emission Factors (g/bhp-hr)		
Tier Level	Line Haul Locomotive	Switch Locomotive
Pre- Tier 0	13	17.4
Tier 0	8.6	12.6
Tier 0+	7.2	10.6
Tier 1	6.7	9.9
Tier 1+		
Tier 2	4.95	7.3
Tier 2+		
Tier 3		1
Tier 4	1	

Table A-2 : Locomotive Fuel Conversion Factors		
Locomotive Type	Rated Horsepower	Conversion Factor (MWhr/gal)
Line Haul	≥ 4000	0.0155
	2,301-3,999	0.0137
Switch	≤ 2300	0.0133

Table A-3 : Reference Scenario Composite NOx Emissions Factors (g/bhp-hr)		
Locomotive Type	Line-Haul	Switchers
2025	5.3	10.69
2026	5.26	10.69
2027	5.24	10.69
2028	5.21	10.69
2029	5.19	10.69
2030	5.17	10.08
2031	5.07	10.08
2032	4.93	10.08
2033	4.78	10.08
2034	4.56	10.08
2035	4.37	10.08
2036	4.02	10.08
2037	3.67	10.08
2038	3.43	10.08
2039	3.15	10.08
2040	2.93	10.08
2041	2.72	10.08
2042	2.51	10.08
2043	2.29	10.08
2044	2.07	10.08
2045	1.97	10.08
2046	1.87	10.08
2047	1.77	10.08
2048	1.68	10.08
2049	1.59	10.08
2050	1.5	10.08

Table B-1 : South Coast Composite NOx Emission Factor for T7 Tractor Class 8 (g/mi)

Diesel	Calendar Year	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	
	Model Year																											
1981	18.967	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
1982	18.967	18.970	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
1983	18.967	18.970	18.959	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
1984	18.967	18.970	18.959	18.959	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
1985	18.967	18.970	18.959	18.959	18.959	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
1986	18.967	18.970	18.959	18.959	18.959	18.959	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
1987	19.010	19.013	19.002	19.002	19.002	19.002	19.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
1988	19.010	19.013	19.002	19.002	19.002	19.002	19.002	19.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
1989	19.010	19.013	19.002	19.002	19.002	19.002	19.002	19.002	18.989	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
1990	19.010	19.013	19.002	19.002	19.002	19.002	19.002	19.002	18.989	18.989	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
1991	22.608	22.608	22.613	22.613	22.613	22.613	22.613	22.615	22.618	22.618	22.618	22.618	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
1992	22.608	22.608	22.613	22.613	22.613	22.613	22.613	22.615	22.618	22.618	22.618	22.618	22.617	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
1993	20.912	20.912	20.916	20.916	20.916	20.916	20.916	20.916	20.918	20.920	20.920	20.920	20.919	20.919	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
1994	18.295	18.295	18.297	18.297	18.297	18.297	18.297	18.297	18.298	18.299	18.299	18.299	18.298	18.298	18.299	18.299	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
1995	18.295	18.295	18.297	18.297	18.297	18.297	18.297	18.297	18.298	18.299	18.299	18.299	18.298	18.298	18.299	18.299	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
1996	18.052	18.052	18.054	18.054	18.054	18.054	18.054	18.054	18.055	18.056	18.056	18.056	18.055	18.055	18.056	18.056	18.056	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
1997	18.052	18.052	18.054	18.054	18.054	18.054	18.054	18.054	18.055	18.056	18.056	18.056	18.055	18.055	18.056	18.056	18.056	18.056	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
1998	18.096	18.096	18.098	18.098	18.098	18.098	18.098	18.098	18.099	18.100	18.100	18.100	18.099	18.099	18.100	18.100	18.100	18.100	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
1999	22.722	22.722	22.727	22.727	22.727	22.727	22.727	22.727	22.729	22.732	22.732	22.732	22.731	22.731	22.737	22.737	22.737	22.737	22.737	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
2000	22.722	22.722	22.727	22.727	22.727	22.727	22.727	22.727	22.729	22.732	22.732	22.732	22.731	22.731	22.737	22.737	22.737	22.737	22.737	22.737	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2001	22.722	22.722	22.727	22.727	22.727	22.727	22.727	22.727	22.729	22.732	22.732	22.732	22.731	22.731	22.737	22.737	22.737	22.737	22.737	22.737	22.737	22.737	22.737	22.737	22.737	22.737	22.737	0.000
2002	22.722	22.722	22.727	22.727	22.727	22.727	22.727	22.727	22.729	22.732	22.732	22.732	22.731	22.731	22.737	22.737	22.737	22.737	22.737	22.737	22.737	22.737	22.737	22.737	22.737	22.737	22.737	0.000
2003	12.391	12.393	12.383	12.383	12.383	12.383	12.383	12.383	12.371	12.371	12.371	12.371	12.371	12.371	12.351	12.351	12.351	12.351	12.351	12.351	12.351	12.351	12.351	12.351	12.351	12.351	12.351	0.000
2004	10.534	10.538	10.522	10.522	10.522	10.522	10.522	10.522	10.502	10.502	10.502	10.502	10.503	10.503	10.472	10.472	10.472	10.472	10.472	10.472	10.472	10.472	10.472	10.472	10.472	10.472	10.472	0.000
2005	10.534	10.538	10.522	10.522	10.522	10.522	10.522	10.522	10.502	10.502	10.502	10.502	10.503	10.503	10.472	10.472	10.472	10.472	10.472	10.472	10.472	10.472	10.472	10.472	10.472	10.472	10.472	0.000
2006	10.542	10.545	10.529	10.529	10.529	10.529	10.529	10.529	10.510	10.510	10.510	10.510	10.510	10.510	10.480	10.480	10.480	10.480	10.480	10.480	10.480	10.480	10.480	10.480	10.480	10.480	10.480	0.000
2007	9.740	9.743	9.729	9.729	9.729	9.729	9.729	9.729	9.729	9.712	9.712	9.712	9.712	9.712	9.687	9.687	9.687	9.687	9.687	9.687	9.687	9.687	9.687	9.687	9.687	9.687	9.687	0.000
2008	7.854	7.856	7.846	7.846	7.846	7.846	7.846	7.846	7.846	7.835	7.835	7.835	7.835	7.835	7.819	7.819	7.819	7.819	7.819	7.819	7.819	7.819	7.819	7.819	7.819	7.819	7.819	0.000
2009	7.764	7.772	7.762	7.762	7.762	7.762	7.762	7.762	7.751	7.751	7.751	7.751	7.752	7.752	7.736	7.736	7.736	7.736	7.736	7.736	7.736	7.736	7.736	7.736	7.736	7.736	7.736	0.000
2010	7.046	7.065	7.067	7.067	7.067	7.067	7.067	7.067	7.066	7.059	7.059	7.059	7.058	7.058	7.046	7.046	7.046	7.046	7.046	7.046	7.046	7.046	7.046	7.046	7.046	7.046	7.046	0.000
2011	4.212	4.246	4.278	4.287	4.287	4.287	4.287	4.287	4.285	4.291	4.291	4.291	4.284	4.284	4.285	4.285	4.285	4.285	4.285	4.285	4.285	4.285	4.285	4.285	4.285	4.285	4.285	0.000
2012	3.503	3.551	3.598	3.619	3.628	3.628	3.628	3.628	3.626	3.634	3.634	3.634	3.626	3.626	3.629	3.629	3.629	3.628	3.628	3.628	3.628	3.628	3.628	3.628	3.628	3.628	3.628	0.000
2013	3.249	3.305	3.360	3.391	3.410	3.418	3.418	3.418	3.416	3.423	3.423	3.423	3.416	3.416	3.417	3.417	3.417	3.417	3.417	3.417	3.417	3.417	3.417	3.417	3.417	3.417	3.417	0.000
2014	0.513	0.477	0.460	0.434	0.418	0.406	0.398	0.391	0.386	0.383	0.381	0.378	0.377	0.375	0.374	0.373	0.373	0.372	0.372	0.371	0.371	0.371	0.371	0.371	0.371	0.371	0.371	0.000

Table B-1 : South Coast Composite NOx Emission Factor for T7 Tractor Class 8 (g/mi) (con.)																																								
Diesel	Calendar Year	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050													
	Model Year	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050			
	2015	0.514	0.478	0.462	0.436	0.421	0.410	0.401	0.394	0.388	0.384	0.382	0.379	0.378	0.375	0.375	0.374	0.373	0.372	0.372	0.371	0.371	0.371	0.371	0.371	0.371	0.371	0.371	0.371	0.371	0.371	0.371	0.371	0.371	0.371	0.371				
	2016	0.514	0.480	0.465	0.439	0.424	0.413	0.405	0.398	0.392	0.387	0.384	0.381	0.379	0.376	0.375	0.374	0.373	0.373	0.372	0.372	0.372	0.372	0.372	0.372	0.372	0.372	0.372	0.372	0.372	0.372	0.372	0.372	0.372	0.372	0.372	0.372			
	2017	0.515	0.482	0.467	0.441	0.427	0.417	0.409	0.403	0.396	0.390	0.386	0.383	0.381	0.377	0.376	0.375	0.374	0.373	0.372	0.372	0.372	0.372	0.372	0.372	0.372	0.372	0.372	0.372	0.372	0.372	0.372	0.372	0.372	0.372	0.372	0.372			
	2018	0.515	0.484	0.470	0.444	0.430	0.420	0.413	0.407	0.401	0.395	0.390	0.386	0.383	0.379	0.378	0.376	0.375	0.374	0.373	0.372	0.372	0.372	0.372	0.372	0.372	0.372	0.372	0.372	0.372	0.372	0.372	0.372	0.372	0.372	0.372	0.372			
	2019	0.516	0.487	0.473	0.447	0.433	0.424	0.417	0.411	0.405	0.400	0.395	0.390	0.386	0.381	0.379	0.377	0.376	0.374	0.373	0.373	0.373	0.373	0.373	0.373	0.373	0.373	0.373	0.373	0.373	0.373	0.373	0.373	0.373	0.373	0.373	0.373			
	2020	0.516	0.489	0.476	0.450	0.436	0.427	0.421	0.415	0.409	0.404	0.400	0.394	0.390	0.384	0.381	0.379	0.377	0.375	0.374	0.373	0.373	0.373	0.373	0.373	0.373	0.373	0.373	0.373	0.373	0.373	0.373	0.373	0.373	0.373	0.373	0.373	0.373		
	2021	0.516	0.491	0.480	0.452	0.439	0.431	0.424	0.419	0.413	0.408	0.404	0.399	0.395	0.388	0.384	0.381	0.379	0.377	0.375	0.374	0.373	0.373	0.373	0.373	0.373	0.373	0.373	0.373	0.373	0.373	0.373	0.373	0.373	0.373	0.373	0.373	0.373		
	2022	0.517	0.494	0.483	0.455	0.443	0.434	0.428	0.422	0.417	0.413	0.409	0.404	0.400	0.393	0.388	0.384	0.381	0.378	0.378	0.376	0.375	0.375	0.375	0.375	0.375	0.375	0.375	0.375	0.375	0.375	0.375	0.375	0.375	0.375	0.375	0.375	0.375		
	2023	0.513	0.494	0.484	0.456	0.444	0.436	0.430	0.424	0.419	0.415	0.411	0.407	0.403	0.397	0.392	0.386	0.382	0.379	0.378	0.376	0.375	0.374	0.373	0.373	0.373	0.373	0.373	0.373	0.373	0.373	0.373	0.373	0.373	0.373	0.373	0.373	0.373		
	2024	0.510	0.497	0.488	0.459	0.447	0.440	0.434	0.428	0.423	0.419	0.415	0.411	0.407	0.402	0.397	0.392	0.386	0.382	0.379	0.378	0.376	0.375	0.374	0.373	0.373	0.373	0.373	0.373	0.373	0.373	0.373	0.373	0.373	0.373	0.373	0.373	0.373		
	2025	0.470	0.446	0.444	0.420	0.418	0.420	0.419	0.416	0.410	0.406	0.402	0.398	0.395	0.390	0.386	0.381	0.376	0.371	0.367	0.364	0.362	0.360	0.359	0.359	0.359	0.359	0.359	0.359	0.359	0.359	0.359	0.359	0.359	0.359	0.359	0.359	0.359		
	2026	0.463	0.462	0.445	0.414	0.413	0.417	0.419	0.419	0.415	0.411	0.406	0.402	0.399	0.394	0.390	0.386	0.382	0.376	0.371	0.367	0.364	0.362	0.361	0.360	0.360	0.360	0.360	0.360	0.360	0.360	0.360	0.360	0.360	0.360	0.360	0.360	0.360		
	2027	0.000	0.464	0.463	0.409	0.409	0.413	0.418	0.419	0.419	0.416	0.411	0.406	0.403	0.398	0.395	0.391	0.387	0.382	0.377	0.372	0.368	0.365	0.363	0.361	0.360	0.360	0.360	0.360	0.360	0.360	0.360	0.360	0.360	0.360	0.360	0.360	0.360		
	2028	0.000	0.000	0.356	0.338	0.349	0.364	0.379	0.392	0.399	0.404	0.403	0.398	0.394	0.390	0.387	0.384	0.380	0.377	0.372	0.367	0.362	0.358	0.355	0.353	0.352	0.351	0.351	0.351	0.351	0.351	0.351	0.351	0.351	0.351	0.351	0.351	0.351		
	2029	0.000	0.000	0.000	0.358	0.339	0.351	0.365	0.380	0.393	0.401	0.405	0.403	0.399	0.394	0.391	0.388	0.385	0.382	0.378	0.373	0.368	0.363	0.359	0.356	0.354	0.353	0.353	0.353	0.353	0.353	0.353	0.353	0.353	0.353	0.353	0.353	0.353		
	2030	0.000	0.000	0.000	0.000	0.360	0.341	0.352	0.367	0.382	0.395	0.403	0.406	0.405	0.399	0.395	0.392	0.389	0.386	0.383	0.379	0.374	0.369	0.364	0.360	0.357	0.355	0.355	0.355	0.355	0.355	0.355	0.355	0.355	0.355	0.355	0.355	0.355		
	2031	0.000	0.000	0.000	0.000	0.000	0.362	0.342	0.353	0.368	0.384	0.397	0.404	0.407	0.405	0.400	0.396	0.394	0.391	0.388	0.384	0.380	0.375	0.370	0.365	0.361	0.358	0.358	0.358	0.358	0.358	0.358	0.358	0.358	0.358	0.358	0.358	0.358		
	2032	0.000	0.000	0.000	0.000	0.000	0.000	0.345	0.323	0.334	0.352	0.371	0.387	0.397	0.400	0.400	0.396	0.392	0.389	0.386	0.383	0.380	0.376	0.371	0.366	0.361	0.357	0.357	0.357	0.357	0.357	0.357	0.357	0.357	0.357	0.357	0.357	0.357		
	2033	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.344	0.323	0.334	0.352	0.370	0.387	0.395	0.400	0.400	0.396	0.392	0.389	0.386	0.383	0.380	0.376	0.371	0.366	0.361	0.361	0.361	0.361	0.361	0.361	0.361	0.361	0.361	0.361	0.361	0.361	0.361	
	2034	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.344	0.323	0.334	0.351	0.370	0.385	0.395	0.400	0.400	0.396	0.392	0.389	0.386	0.383	0.380	0.376	0.371	0.366	0.361	0.361	0.361	0.361	0.361	0.361	0.361	0.361	0.361	0.361	0.361	0.361	
	2035	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.344	0.323	0.333	0.351	0.369	0.385	0.395	0.400	0.400	0.396	0.392	0.389	0.386	0.383	0.380	0.376	0.369	0.369	0.369	0.369	0.369	0.369	0.369	0.369	0.369	0.369	0.369	0.369	0.369	
	2036	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.344	0.322	0.333	0.350	0.369	0.385	0.395	0.400	0.400	0.396	0.392	0.389	0.386	0.383	0.380	0.372	0.372	0.372	0.372	0.372	0.372	0.372	0.372	0.372	0.372	0.372	0.372	0.372	
	2037	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.343	0.322	0.332	0.350	0.369	0.385	0.395	0.400	0.400	0.396	0.392	0.389	0.386	0.383	0.380	0.372	0.372	0.372	0.372	0.372	0.372	0.372	0.372	0.372	0.372	0.372	0.372	
	2038	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.343	0.321	0.332	0.350	0.369	0.385	0.395	0.400	0.400	0.396	0.392	0.389	0.386	0.383	0.380	0.372	0.372	0.372	0.372	0.372	0.372	0.372	0.372	0.372	0.372	0.372	
	2039	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.342	0.321	0.332	0.350	0.369	0.385	0.395	0.401	0.400	0.396	0.392	0.389	0.380	0.380	0.380	0.380	0.380	0.380	0.380	0.380	0.380	0.380	0.380	0.380	0.380	
	2040	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.342	0.321	0.332	0.350	0.369	0.385	0.395	0.401	0.400	0.396	0.392	0.389	0.386	0.386	0.386	0.386	0.386	0.386	0.386	0.386	0.386	0.386	0.386	0.386	0.386
	2041	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.342	0.321	0.332	0.350	0.369	0.385	0.395	0.401	0.400	0.396	0.392	0.389	0.388	0.388	0.388	0.388	0.388	0.388	0.388	0.388	0.388	0.388	0.388	0.388
	2042	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.342	0.321	0.332	0.350	0.369	0.385	0.395	0.401	0.400	0.396	0.392	0.389	0.388	0.388	0.388	0.388	0.388	0.388	0.388	0.388	0.388	0.388	0.388
	2043	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.342	0.321	0.332	0.350	0.369	0.385	0.395	0.401	0.400	0.396	0.392	0.389	0.388	0.388	0.388	0.388	0.388	0.388	0.388	0.388	0.388	0.388
	2044	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.342	0.321	0.332	0.350	0.369	0.385	0.395	0.401	0.400	0.396	0.3										

Table B-5 : Reference Composite NOx Emission Factors for T7 Tractor Class 8 (g/mi)		
Calendar Year	South Coast	Statewide
2025	0.868	0.902
2026	0.791	0.823
2027	0.728	0.749
2028	0.650	0.674
2029	0.593	0.617
2030	0.549	0.572
2031	0.514	0.536
2032	0.483	0.503
2033	0.454	0.473
2034	0.429	0.447
2035	0.407	0.425
2036	0.389	0.406
2037	0.375	0.391
2038	0.362	0.378
2039	0.352	0.367
2040	0.343	0.358
2041	0.335	0.350
2042	0.329	0.343
2043	0.323	0.337
2044	0.319	0.332
2045	0.315	0.328
2046	0.312	0.325
2047	0.310	0.322
2048	0.307	0.320
2049	0.306	0.318
2050	0.298	0.310

Table C-1 : TRU Load Factors				
Category	Below 23 hp	Between 23 and 25 hp (All Years)	Over 25 hp (2012 and Older)	Over 25 hp (2013 and Newer)
California TRU	0.56	0.46	0.46	0.38
Out-of-State TRU	-	0.46	0.46	0.38
California Gen sets	-	0.33	0.33	0.27
Out-of-State Gen set	-	0.33	0.33	0.27
Railcars	-	0.46	0.46	0.38

Table C-2 : Default Average Annual TRU Operating Hours												
Fuel Type	Calendar Year	Transport Refrigeration Unit - Instate Genset		Transport Refrigeration Unit - Instate Trailer		Transport Refrigeration Unit - Instate Truck	Transport Refrigeration Unit - Out-Of-State Genset		Transport Refrigeration Unit - Out-Of-State Trailer		Transport Refrigeration Unit - Railcar TRU	
		Horsepower Bin		Horsepower Bin		Horsepower Bin	Horsepower Bin		Horsepower Bin		Horsepower Bin	
		25	50	25	50	23	25	50	25	50	25	50
Diesel	2025	781.19	781.38	1781.78	1781.73	952.13	124.01	124.02	272.00	272.01	327.47	326.83
	2026	781.21	781.41	1793.21	1793.16	748.11	124.00	124.02	272.00	272.01	327.48	326.82
	2027	781.18	781.39	1767.42	1767.39	544.07	124.01	124.02	272.00	272.01	327.41	327.22
	2028	781.19	781.46	1793.44	1793.41	340.05	124.01	124.02	272.00	272.01	327.39	327.29
	2029	781.17	781.49	1776.92	1776.90	136.02	124.01	124.02	272.00	272.01	327.37	327.41
	2030	781.16	781.53	1804.93	1804.89	0.00	124.01	124.02	272.00	272.01	327.32	327.62
	2031	781.14	781.52	1795.47	1795.42	0.00	124.01	124.02	272.00	272.01	327.31	327.63
	2032	781.17	781.64	1800.37	1800.32	0.00	124.01	124.02	272.00	272.01	327.31	327.76
	2033	781.14	781.58	1790.92	1790.88	0.00	124.01	124.02	272.00	272.01	327.28	327.79
	2034	781.13	781.67	1787.39	1787.32	0.00	124.01	124.02	272.00	272.01	327.31	327.75
	2035	781.14	781.68	1789.20	1789.14	0.00	124.00	124.02	272.00	272.01	327.29	327.75
	2036	781.14	781.71	1781.17	1781.10	0.00	124.01	124.03	272.00	272.01	327.28	327.78
	2037	781.14	781.67	1790.61	1790.54	0.00	124.01	124.02	272.00	272.01	327.28	327.72
	2038	781.14	781.67	1786.56	1786.50	0.00	124.01	124.02	272.00	272.01	327.27	327.71
	2039	781.13	781.65	1794.40	1794.32	0.00	124.00	124.02	272.00	272.01	327.27	327.76
	2040	781.14	781.63	1791.74	1791.66	0.00	124.00	124.02	272.00	272.01	327.26	327.78
	2041	781.12	781.57	1792.26	1792.19	0.00	124.00	124.02	272.00	272.01	327.27	327.85
	2042	781.13	781.68	1788.37	1788.29	0.00	124.01	124.02	272.00	272.01	327.26	327.78
	2043	781.14	781.61	1786.98	1786.91	0.00	124.00	124.02	272.00	272.01	327.26	327.75
	2044	781.13	781.57	1787.61	1787.54	0.00	124.00	124.02	272.00	272.01	327.27	327.79
2045	781.13	781.58	1786.05	1785.98	0.00	124.00	124.02	272.00	272.01	327.27	327.77	
2046	781.13	781.62	1789.33	1789.26	0.00	124.00	124.02	272.00	272.01	327.27	327.74	
2047	781.11	781.54	1789.09	1789.02	0.00	124.00	124.02	272.00	272.01	327.27	327.73	
2048	781.12	781.55	1791.50	1791.43	0.00	124.00	124.02	272.00	272.01	327.26	327.70	
2049	781.12	781.52	1790.67	1790.60	0.00	124.00	124.02	272.00	272.01	327.26	327.78	
2050	781.12	781.57	1790.07	1790.02	0.00	124.00	124.02	272.00	272.01	327.25	327.71	

Proposed Rule 2306 Calculation Methodology and Data Appendix

Table C-3 : TRU NOx Emissions Rate (g/hr)												
Fuel Type	Calendar Year	Transport Refrigeration Unit - Instate Genset		Transport Refrigeration Unit - Instate Trailer		Transport Refrigeration Unit - Instate Truck	Transport Refrigeration Unit - Out-Of-State Genset		Transport Refrigeration Unit - Out-Of-State Trailer		Transport Refrigeration Unit - Railcar TRU	
		Horsepower Bin		Horsepower Bin		Horsepower Bin	Horsepower Bin		Horsepower Bin		Horsepower Bin	
		25	50	25	50	23	25	50	25	50	25	50
Diesel	2025	30.00	29.73	36.30	37.08	28.62	29.98	33.00	37.08	36.81	41.78	38.07
	2026	30.00	28.34	36.44	35.80	31.02	29.97	31.19	37.17	36.73	41.79	37.85
	2027	29.97	27.27	36.94	35.56	34.83	29.97	29.81	36.52	36.02	41.79	37.97
	2028	29.98	26.70	36.35	34.59	35.29	29.97	28.51	35.95	34.72	41.78	37.95
	2029	29.98	26.61	36.19	33.78	35.29	29.97	27.07	36.23	33.53	41.78	37.94
	2030	29.97	26.57	36.29	33.87	0.00	29.97	26.60	36.35	32.68	41.79	37.90
	2031	29.97	26.41	36.67	32.75	0.00	29.97	26.20	37.21	32.14	41.79	37.87
	2032	29.98	26.20	36.94	32.58	0.00	29.98	26.00	37.69	31.70	41.79	37.86
	2033	29.98	26.03	35.53	32.51	0.00	29.98	25.95	37.12	31.42	41.79	37.92
	2034	29.96	25.89	36.36	33.37	0.00	29.98	25.92	37.52	31.20	41.77	37.94
	2035	29.97	25.81	36.14	32.38	0.00	29.97	25.93	37.27	31.01	41.78	38.01
	2036	29.98	25.77	36.95	33.09	0.00	29.97	25.92	36.75	31.82	41.78	38.07
	2037	29.98	25.73	36.60	32.41	0.00	29.98	25.91	36.55	32.57	41.77	38.13
	2038	29.97	25.72	36.17	33.91	0.00	29.97	25.88	36.33	33.31	41.77	38.11
	2039	29.98	25.77	35.89	33.23	0.00	29.97	25.87	36.41	34.97	41.79	38.09
	2040	29.98	25.77	36.44	32.97	0.00	29.97	25.86	36.76	35.64	41.79	38.09
	2041	29.98	25.76	36.73	33.67	0.00	29.97	25.86	36.52	35.38	41.78	38.05
	2042	29.98	25.81	36.52	35.00	0.00	29.98	25.86	36.27	36.04	41.77	38.05
	2043	29.97	25.81	36.28	34.63	0.00	29.97	25.86	36.02	35.79	41.78	38.04
	2044	29.98	25.79	36.52	34.76	0.00	29.97	25.86	36.32	35.54	41.77	38.04
2045	29.98	25.80	36.25	35.53	0.00	29.98	25.86	36.06	36.14	41.79	38.06	
2046	29.97	25.77	35.95	35.00	0.00	29.98	25.86	36.34	35.86	41.78	38.06	
2047	29.97	25.75	35.89	35.12	0.00	29.97	25.87	36.08	35.58	41.78	38.08	
2048	29.97	25.75	36.07	35.25	0.00	29.97	25.86	36.58	35.30	41.78	38.07	
2049	29.97	25.74	36.01	34.71	0.00	29.97	25.86	37.06	35.04	41.78	38.08	
2050	29.97	25.74	35.97	34.16	0.00	29.98	25.84	37.26	34.79	41.79	38.06	

Table C-4 : TRU Default Horsepower	
Category	Average hp
California TRU	25.3
Out-of-State TRU	29.2
California Gen sets	29.0
Out-of-State Gen set	29.0
Railcars	29.2

Table D-1 : CHE Load Factors	
Equipment Type	Load Factor
Compactor (Portable)	0.51
Container Handling Equipment	0.59
Crane	0.43
Electric Pallet Jack	0.50
Excavator	0.55
Forklift	0.30
Lift	0.51
Other	0.51
Rail Car Mover	0.51
RTG Crane	0.20
Skid-steer Loaders	0.55
STS Crane	0.43
Tractor	0.55
Tractors/Loaders/Backhoes	0.55
Truck	0.51
Yard Truck	0.39

Table D-2 : CHE NOx Emissions Rate (g/hr)																				
Fuel Type	Calendar Year	Cargo Handling Equipment - Port Container Handling Equipment				Cargo Handling Equipment - Port Crane				Cargo Handling Equipment - Port Excavator	Cargo Handling Equipment - Port Forklift						Cargo Handling Equipment - Port Lift			
		Horsepower Bin				Horsepower Bin				Horsepower Bin	Horsepower Bin						Horsepower Bin			
		175	300	600	9999	175	300	600	9999	75	50	75	100	175	300	600	50	75	100	175
Diesel	2025	59.24	315.58	272.97	1726.58	52.07	12.79	18.08	1059.66	188.25	48.67	66.26	80.39	81.45	105.58	155.40	132.97	112.87	119.45	48.57
	2026	59.24	315.55	244.57	1726.58	52.31	12.74	18.10	1070.98	188.25	48.71	66.37	80.40	73.55	105.69	155.41	133.00	112.87	118.94	49.18
	2027	59.24	242.90	222.50	1726.58	52.29	12.79	21.03	1080.58	188.25	48.66	66.39	79.13	73.34	105.74	155.40	132.99	113.57	74.07	49.06
	2028	59.24	187.35	216.36	1726.58	51.95	12.77	20.97	1080.58	108.06	48.62	63.56	79.90	69.67	53.94	153.95	81.00	111.89	73.76	49.16
	2029	59.24	38.51	191.06	1726.58	52.31	12.79	21.00	1080.58	125.09	48.50	64.16	80.40	59.55	51.55	90.87	93.34	102.64	74.09	49.16
	2030	59.24	39.51	187.50	1726.58	52.31	12.78	20.92	1080.58	125.09	48.64	63.45	80.40	59.51	51.55	91.35	93.35	98.88	64.75	49.17
	2031	59.24	39.53	190.29	1726.58	52.10	12.78	20.92	1080.58	125.09	39.00	63.89	80.41	57.07	51.56	89.97	77.10	107.12	64.37	45.62
	2032	59.24	39.50	184.11	1726.58	52.29	12.78	21.02	1080.58	109.54	39.05	62.66	80.40	54.47	28.59	90.67	77.23	105.74	64.61	45.62
	2033	59.24	30.17	164.12	1726.58	52.32	12.77	21.00	1080.58	125.09	38.88	63.57	80.41	48.75	20.78	90.95	80.95	106.26	55.77	45.78
	2034	59.24	30.29	97.53	1726.58	52.30	12.77	20.97	1080.58	125.09	48.69	62.62	80.40	40.41	13.57	51.14	80.99	106.28	46.17	45.74
	2035	59.24	26.51	80.67	1726.58	28.31	12.78	20.93	497.90	125.09	48.63	83.24	80.40	24.30	13.62	14.65	80.97	105.16	46.17	49.21
	2036	59.24	26.58	47.87	797.72	28.56	12.77	21.00	575.21	125.09	48.59	60.21	0.76	15.03	13.64	14.95	80.88	106.24	35.76	23.86
	2037	7.48	24.59	32.59	921.59	9.00	12.77	20.95	575.21	125.09	48.51	64.22	0.88	12.84	13.61	15.42	80.90	106.95	35.77	24.36
	2038	8.64	20.23	31.09	921.59	9.45	12.79	21.00	575.21	125.09	48.65	64.41	0.88	10.56	8.80	15.42	80.95	105.91	8.87	8.68
	2039	8.64	20.50	31.00	921.59	9.46	12.65	20.95	575.21	125.09	48.56	64.12	0.88	7.22	9.12	15.11	80.96	104.10	8.92	8.95
	2040	8.64	20.53	31.36	921.59	9.22	12.55	20.99	575.21	125.09	48.68	64.53	0.88	7.31	9.19	15.23	80.98	105.92	8.95	8.94
	2041	8.50	20.55	31.38	921.59	9.06	11.83	18.06	575.21	125.09	48.57	64.65	0.88	6.49	9.17	15.43	77.48	106.03	8.95	8.69
	2042	8.53	20.54	31.37	921.59	9.44	11.95	20.97	575.21	125.09	38.95	64.31	0.88	6.50	9.17	15.14	77.54	107.51	8.94	8.48
	2043	8.54	20.45	31.38	921.59	9.45	11.98	20.97	575.21	125.09	38.88	64.41	0.88	6.47	9.17	15.43	77.54	108.00	8.95	8.48
	2044	8.55	20.05	31.33	921.59	9.47	12.03	20.96	575.21	125.09	48.55	64.34	0.88	6.47	9.16	15.43	80.98	107.72	1.60	8.42
2045	8.55	20.52	31.36	921.59	9.06	12.78	20.94	575.21	125.09	48.64	64.54	0.88	6.47	9.18	15.44	80.98	106.68	1.65	8.95	
2046	8.55	20.55	31.31	921.59	9.24	12.79	18.15	564.09	125.09	48.67	64.68	0.88	6.44	9.12	15.43	80.95	106.65	1.49	8.44	
2047	8.55	20.55	31.27	921.59	9.46	12.75	18.10	570.10	125.09	48.67	64.78	0.88	6.44	9.14	15.43	80.95	106.64	1.47	8.94	
2048	8.55	20.24	31.29	921.59	9.45	12.78	20.99	575.21	125.09	48.63	64.80	0.87	6.49	9.19	15.43	80.98	107.42	1.45	8.95	
2049	8.55	20.16	31.36	921.59	9.10	12.79	20.97	575.21	108.06	48.55	64.20	0.88	6.46	8.86	15.35	68.66	107.41	1.48	8.95	
2050	8.55	19.54	31.21	921.59	9.44	12.78	20.94	575.21	125.09	48.58	64.80	0.88	6.41	9.18	14.95	80.97	101.51	1.49	8.95	

Table D-2 : CHE NOx Emissions Rate (g/hr) (cont.)																	
Fuel Type	Calendar Year	Cargo Handling Equipment - Port Other		Cargo Handling Equipment - Port Rail Car Mover		Cargo Handling Equipment - Port RTG Crane					Cargo Handling Equipment - Port Skid Steer Loaders	Cargo Handling Equipment - Port Tractor	Cargo Handling Equipment - Port Tractors/Loaders/Backhoes				
		Horsepower Bin		Horsepower Bin		Horsepower Bin					Horsepower Bin	Horsepower Bin	Horsepower Bin				
		25	300	175	300	175	300	600	750	9999	75	75	50	75	175	300	600
Diesel	2025	25.77	404.77	161.22	197.98	80.06	25.40	125.71	313.58	587.54	146.95	105.69	89.10	98.75	176.78	215.38	300.43
	2026	25.77	404.77	162.84	197.97	80.06	25.40	125.78	181.46	452.73	146.86	105.80	89.10	98.75	176.78	184.87	300.52
	2027	25.76	404.77	163.90	197.97	80.06	25.41	125.78	97.45	459.96	146.79	105.79	89.10	98.75	176.78	185.00	224.61
	2028	25.76	15.67	163.90	197.97	80.06	25.41	125.78	91.99	459.98	101.10	105.80	89.10	98.75	176.78	148.72	136.77
	2029	25.76	18.17	163.90	197.98	80.06	25.41	125.78	92.01	459.98	110.75	105.95	89.10	79.24	176.78	148.77	137.43
	2030	25.76	18.16	163.90	197.97	3.36	25.41	125.78	91.99	459.50	110.23	85.12	89.10	85.80	7.39	148.95	137.61
	2031	24.28	18.15	163.90	196.82	3.88	25.41	125.78	100.91	459.81	110.73	98.38	86.88	91.73	8.58	116.97	136.29
	2032	24.28	18.15	163.90	197.27	3.88	23.17	114.18	101.48	459.98	110.16	98.48	89.10	91.73	8.58	74.20	136.30
	2033	24.28	18.15	163.90	143.84	3.88	23.20	86.38	118.72	459.59	105.17	98.31	89.10	91.73	8.58	74.66	121.61
	2034	24.28	18.17	9.37	13.59	3.88	23.20	21.40	30.59	357.04	108.69	98.35	89.10	91.73	8.57	35.90	97.32
	2035	24.28	18.16	10.85	15.01	3.89	23.20	22.26	31.33	303.86	109.13	98.32	89.10	91.73	8.58	22.03	97.36
	2036	24.28	18.17	10.84	14.39	3.88	23.88	13.21	21.50	313.33	108.63	98.31	89.10	91.73	8.59	19.88	31.92
	2037	24.28	18.16	10.86	15.01	3.81	8.32	13.37	21.77	313.33	109.23	98.48	89.10	91.73	8.57	20.24	33.43
	2038	24.28	18.15	10.85	15.02	3.87	10.03	13.43	21.77	312.88	109.23	98.43	89.10	91.73	8.57	16.54	30.84
	2039	24.28	17.83	10.85	15.01	3.88	6.06	13.44	21.77	313.18	109.23	98.31	89.10	90.81	8.57	16.89	31.30
	2040	24.28	18.03	10.84	14.90	3.89	6.58	13.45	21.76	313.12	109.23	98.47	89.10	90.60	8.58	16.91	31.33
	2041	24.28	18.17	10.85	14.90	3.89	6.53	13.45	21.77	313.14	109.11	98.40	89.10	91.44	8.45	16.88	31.33
	2042	24.28	18.16	10.84	15.00	3.89	6.58	13.45	21.77	313.06	109.03	98.48	89.10	91.73	8.54	16.91	31.24
	2043	24.28	18.16	10.84	15.01	3.88	6.57	13.45	21.33	313.26	109.19	86.11	89.10	91.73	8.58	16.92	30.68
	2044	24.28	18.16	10.84	15.01	3.89	6.55	13.42	21.75	313.27	109.22	86.17	89.10	91.73	8.58	16.85	31.20
2045	24.28	18.16	10.85	15.02	3.89	6.56	13.45	21.55	311.52	109.23	86.36	71.29	91.73	8.57	16.87	31.30	
2046	24.28	18.16	10.67	15.01	3.88	6.58	13.37	21.74	299.66	109.23	98.40	89.10	91.73	8.57	16.77	31.30	
2047	24.28	18.16	10.78	15.02	3.89	6.58	13.45	21.01	306.13	109.14	98.48	89.10	91.73	8.58	16.80	31.32	
2048	24.28	18.16	10.85	15.01	3.88	6.58	13.45	21.27	313.32	109.11	98.48	89.10	91.73	8.57	16.93	30.94	
2049	24.28	15.68	10.85	15.02	3.89	6.58	13.45	21.72	313.33	99.47	98.39	89.10	91.73	8.58	16.70	30.55	
2050	24.28	18.16	10.85	15.02	3.88	6.58	13.45	21.74	313.33	109.12	98.41	89.10	79.24	8.57	16.74	31.15	

Table D-2 : CHE NOx Emissions Rate (g/hr) (cont.)																			
Fuel Type	Calendar Year	Cargo Handling Equipment - Port Truck						Cargo Handling Equipment - Port Yard Truck			Cargo Handling Equipment - Rail Compactor (Portable)		Cargo Handling Equipment - Rail Container Handling Equipment				Cargo Handling Equipment - Rail Forklift		
		Horsepower Bin						Horsepower Bin			Horsepower Bin		Horsepower Bin				Horsepower Bin		
		25	50	75	100	175	300	600	175	300	600	600	175	300	600	750	100	175	
Diesel	2025	47.28	75.66	113.39	159.66	60.84	114.40	700.39	72.63	45.02	594.17	431.23	54.43	606.21	606.46	666.80	104.21	61.56	
	2026	47.28	75.74	113.39	159.78	60.84	89.35	465.42	72.04	41.58	594.17	431.23	54.43	126.66	606.46	666.80	104.21	52.28	
	2027	47.28	75.74	113.39	159.77	55.39	73.93	213.67	71.48	44.00	498.21	431.23	54.43	128.67	336.85	666.80	104.21	52.35	
	2028	47.28	75.74	113.39	159.77	55.61	77.97	115.13	57.16	36.12	227.76	431.23	54.43	19.11	85.25	666.80	0.70	40.84	
	2029	47.28	75.74	113.39	3.42	55.64	29.51	115.72	53.12	24.25	229.58	19.28	54.43	19.81	86.95	666.80	0.82	40.99	
	2030	47.28	75.74	113.39	3.64	55.64	24.14	50.59	53.08	22.34	45.97	22.33	54.43	19.81	86.95	666.80	0.82	41.07	
	2031	47.28	61.13	113.39	3.63	55.50	24.86	50.67	52.30	21.24	47.28	22.33	54.43	19.81	86.95	666.80	0.82	35.34	
	2032	47.28	64.61	113.39	3.63	55.57	24.25	50.73	52.42	21.96	47.07	21.97	54.43	19.81	86.95	666.80	0.82	35.37	
	2033	47.28	64.61	113.39	3.64	55.64	23.75	45.56	52.43	19.11	47.34	22.33	54.43	19.81	86.95	54.38	0.82	35.37	
	2034	46.70	64.61	113.39	3.64	39.21	23.20	45.54	51.97	14.96	47.14	22.33	54.43	19.81	86.95	62.98	0.82	31.20	
	2035	46.70	60.56	113.39	3.63	39.37	16.05	28.12	52.91	14.18	29.18	22.33	54.43	19.81	86.95	62.98	0.82	21.45	
	2036	46.70	61.62	100.20	3.48	39.35	15.72	28.57	34.83	13.86	29.56	22.33	112.14	19.81	86.95	62.98	0.82	16.93	
	2037	46.70	52.16	115.99	3.49	27.96	6.50	28.73	35.12	3.07	29.56	22.33	116.21	19.81	30.07	62.98	0.82	10.15	
	2038	46.70	57.33	115.99	3.49	28.15	6.74	28.76	35.21	4.51	29.56	22.33	120.28	19.81	31.38	62.98	0.82	7.95	
	2039	46.70	57.66	115.99	3.64	28.19	5.94	28.55	11.58	2.81	29.51	22.33	54.43	19.81	31.38	62.98	0.82	7.98	
	2040	46.70	57.60	115.99	3.63	28.17	7.92	36.94	7.20	4.57	29.56	22.33	54.43	19.81	31.38	62.98	0.80	7.98	
	2041	46.70	57.69	115.99	3.64	28.12	7.76	45.25	8.17	4.80	29.56	22.33	10.83	19.81	31.38	62.98	0.81	7.98	
	2042	46.70	57.83	115.99	3.53	10.83	6.09	46.29	6.81	2.62	29.56	22.33	12.55	35.37	31.38	62.98	0.82	6.96	
	2043	46.70	57.68	115.99	3.54	11.82	6.47	37.21	7.66	2.96	29.56	22.33	12.55	36.47	31.38	62.98	0.82	6.33	
	2044	46.70	57.73	115.99	1.65	12.09	8.20	28.61	7.23	4.46	29.56	22.33	12.55	37.57	31.38	62.98	0.82	6.53	
2045	46.70	57.77	115.99	1.66	12.10	7.03	28.62	6.87	3.16	29.56	22.33	12.55	19.81	31.38	62.98	0.82	6.57		
2046	46.70	57.77	115.99	1.65	12.11	7.09	28.47	7.17	3.51	29.56	22.33	12.55	19.81	31.38	62.98	0.82	6.55		
2047	46.70	57.83	115.99	1.65	12.11	6.53	27.64	6.83	3.13	29.56	22.33	12.55	17.81	31.38	62.98	0.82	6.50		
2048	46.70	57.83	115.99	1.66	12.01	6.42	27.44	7.56	2.86	29.11	22.33	12.55	19.81	30.10	62.98	0.82	6.51		
2049	46.70	57.83	115.99	1.66	12.09	5.97	27.99	6.83	3.66	27.74	22.33	12.55	19.11	29.67	62.98	0.71	6.46		
2050	46.70	57.84	115.99	1.44	12.11	6.20	28.43	6.89	2.98	29.56	19.28	12.55	19.81	31.38	62.98	0.82	6.55		

Table D-2 : CHE NO_x Emissions Rate (g/hr) (cont.)								
Fuel Type	Calendar Year	Cargo Handling Equipment - Rail Lift		Cargo Handling Equipment - Rail RTG Crane		Cargo Handling Equipment - Rail Truck		Cargo Handling Equipment - Rail Yard Truck
		Horsepower Bin		Horsepower Bin		Horsepower Bin		Horsepower Bin
		25	50	175	600	25	50	300
Diesel	2025	46.79	133.21	80.06	88.06	47.10	97.58	28.69
	2026	46.92	133.14	80.06	87.19	47.10	97.58	27.48
	2027	46.75	133.04	80.06	87.19	47.10	97.58	35.11
	2028	46.86	64.75	80.06	84.33	47.10	97.58	28.98
	2029	46.95	64.84	80.06	79.12	47.10	47.60	28.90
	2030	46.75	80.85	3.35	79.16	47.10	59.49	27.42
	2031	46.93	80.84	3.88	79.16	47.10	59.49	12.96
	2032	46.83	81.08	3.88	68.49	47.10	59.49	19.91
	2033	46.72	81.04	3.88	27.76	47.10	59.49	5.45
	2034	46.87	80.98	3.88	22.53	46.86	59.49	5.61
	2035	46.74	80.90	3.88	17.01	46.86	59.49	4.23
	2036	46.72	81.07	3.88	13.48	46.70	59.49	5.28
	2037	46.69	80.96	3.88	10.28	46.70	59.49	1.75
	2038	46.64	66.18	8.32	9.66	46.70	59.49	4.35
	2039	46.58	66.27	3.88	9.72	46.70	59.49	2.42
	2040	46.75	66.35	3.88	11.16	46.70	59.49	2.95
	2041	46.66	81.00	3.88	15.26	46.70	59.49	3.17
	2042	46.80	81.01	3.88	10.36	46.70	59.49	1.68
	2043	46.70	81.02	3.88	10.71	46.70	150.72	3.21
	2044	46.61	81.02	3.88	10.55	46.70	158.08	3.26
2045	46.75	81.03	3.88	10.38	46.70	165.45	3.19	
2046	46.65	81.04	3.88	10.21	46.70	59.49	3.33	
2047	46.79	81.05	3.88	9.72	46.70	59.49	3.15	
2048	46.70	81.05	3.88	9.72	46.70	59.49	3.27	
2049	46.60	64.80	3.88	9.70	46.70	59.49	3.64	
2050	46.74	64.99	3.88	9.68	46.70	47.60	2.05	

Table D-3 : CHE NOx Emissions Rate (g/hr)								
Fuel Type	Calendar Year	Cargo Handling Equipment - Port Forklift			Cargo Handling Equipment - Port Lift		Cargo Handling Equipment - Port Truck	Cargo Handling Equipment - Port Yard Truck
		Horsepower Bin			Horsepower Bin		Horsepower Bin	Horsepower Bin
		50	75	100	75	100	300	600
Gasoline	2025	7.64	11.95	17.98	65.43	19.08	312.92	92.55
	2026	7.64	11.89	18.14	65.56	19.17	55.41	92.55
	2027	7.64	11.85	17.99	65.52	29.65	74.23	92.50
	2028	7.52	11.95	18.05	9.41	29.62	74.23	92.59
	2029	7.64	11.91	18.10	19.52	29.74	74.23	92.63
	2030	7.64	11.86	18.13	19.51	29.68	74.23	92.29
	2031	7.44	11.92	17.57	19.53	29.76	74.23	92.34
	2032	7.55	10.71	17.70	19.52	29.65	74.23	64.86
	2033	7.64	11.68	17.18	19.53	29.71	74.23	83.81
	2034	7.64	7.46	13.77	19.51	29.76	74.23	92.58
	2035	7.64	11.58	18.13	19.53	19.98	74.23	92.41
	2036	7.64	10.97	16.52	19.51	20.07	74.23	92.62
	2037	7.64	10.90	16.51	19.52	20.15	74.23	92.76
	2038	7.64	11.76	17.41	19.52	29.69	74.23	92.55
	2039	7.64	12.01	18.09	19.52	29.70	74.23	81.19
	2040	7.55	12.01	17.97	10.32	29.71	74.23	83.88
	2041	7.58	11.71	18.00	10.38	29.64	74.23	91.05
	2042	3.60	11.52	17.22	19.52	29.67	74.23	91.90
	2043	6.46	12.01	18.13	19.57	29.67	74.23	91.99
	2044	7.01	12.00	16.85	19.58	25.22	55.41	91.93
2045	7.65	11.88	16.96	19.58	29.65	74.23	92.23	
2046	7.65	11.95	17.99	19.56	19.09	74.23	92.55	
2047	7.64	11.90	18.14	19.53	19.18	55.41	92.55	
2048	7.64	11.85	17.99	19.48	29.71	74.23	92.50	
2049	7.53	11.95	18.05	9.42	29.72	74.23	92.59	
2050	7.64	11.91	18.09	19.51	29.72	74.23	92.63	

Table D-4 : CHE NOx Emissions Rate (g/hr)												
Fuel Type	Calendar Year	Cargo Handling Equipment - Port Forklift					Cargo Handling Equipment - Port Tractor	Cargo Handling Equipment - Port Truck			Cargo Handling Equipment - Port Yard Truck	
		Horsepower Bin					Horsepower Bin	Horsepower Bin			Horsepower Bin	
		50	75	100	175	300	175	50	75	175	175	300
Natural Gas	2025	7.14	13.89	21.32	37.29	71.40	42.55	115.17	10.46	52.43	60.40	75.48
	2026	7.14	13.94	22.15	24.20	71.40	42.55	9.87	16.25	36.34	60.38	81.00
	2027	7.14	11.94	22.20	29.76	71.40	42.55	9.93	16.24	54.38	40.78	81.08
	2028	7.14	12.12	21.08	25.23	71.40	42.55	9.93	16.23	54.43	60.38	54.48
	2029	5.18	10.36	20.85	26.75	18.61	42.55	9.93	16.25	54.40	60.39	49.10
	2030	5.18	10.53	21.27	27.68	21.34	41.05	9.92	16.25	52.48	42.77	58.73
	2031	5.18	10.65	20.95	28.12	45.96	42.12	9.87	16.24	52.47	51.87	57.70
	2032	5.18	10.95	20.83	27.59	45.96	42.55	9.88	16.24	54.43	51.93	52.88
	2033	5.18	10.78	21.32	27.27	45.96	42.55	9.93	16.24	54.41	51.89	57.11
	2034	5.18	10.57	15.83	27.86	45.96	42.55	9.93	9.82	54.38	50.04	57.44
	2035	5.18	10.72	18.20	28.15	45.96	42.55	9.93	9.87	54.39	51.92	57.66
	2036	5.18	10.14	20.17	26.07	45.96	42.55	9.93	16.24	51.25	51.88	57.96
	2037	5.18	10.75	20.80	28.23	45.96	42.55	9.92	16.24	54.34	51.90	57.88
	2038	5.18	10.92	21.32	27.85	43.22	42.55	9.97	16.26	54.35	51.89	57.85
	2039	5.18	10.76	21.06	28.22	45.96	42.55	9.91	16.24	51.26	51.89	57.83
	2040	5.18	10.82	20.83	28.13	45.96	42.55	9.93	16.24	54.39	51.91	57.79
	2041	5.17	10.85	21.19	21.01	45.96	42.55	9.93	16.25	31.47	45.32	57.88
	2042	5.18	10.50	20.48	26.83	45.96	17.47	9.91	16.25	50.05	45.35	57.91
	2043	5.17	10.60	20.97	27.99	45.96	37.04	9.96	16.25	54.38	51.89	58.03
	2044	5.17	9.58	19.95	26.57	45.96	42.55	9.94	10.36	54.44	30.15	57.88
2045	5.18	9.86	21.35	27.85	45.96	42.55	9.90	10.40	46.97	51.93	57.89	
2046	5.18	10.76	20.54	22.27	45.96	42.55	9.93	10.45	52.41	51.91	52.25	
2047	5.18	10.77	21.37	20.52	45.96	42.55	9.88	16.27	36.32	51.90	57.42	
2048	5.18	10.71	21.42	27.22	45.96	42.55	9.95	16.26	54.38	32.25	57.93	
2049	5.18	10.89	20.70	25.01	45.96	42.55	9.90	16.23	54.41	51.91	44.03	
2050	5.17	10.36	20.84	26.78	18.60	42.55	9.95	16.19	54.40	51.90	47.87	

Table E-1 : Other On-Site Support Equipment Load Factors	
Equipment Type	Load Factor
Other General Industrial Equipment	0.34
Other Material Handling Equipment	0.4
Sweepers/Scrubbers	0.46

Table E-2 : OSE NO_x Emissions Rate (g/hr)									
Fuel Type	Calendar Year	Industrial - Misc - Other General Industrial Equipment							
		Horsepower Bin							
		50	75	100	175	300	600	750	9999
Diesel	2025	48.64	73.68	89.32	78.37	147.82	192.87	324.43	938.67
	2026	47.17	71.39	78.30	69.13	129.41	148.07	273.70	912.31
	2027	45.90	69.95	70.18	62.93	118.00	132.92	246.46	884.69
	2028	44.17	66.71	53.97	49.39	99.55	107.23	217.25	799.42
	2029	43.17	65.96	48.90	45.25	92.23	97.22	196.36	781.97
	2030	41.88	64.55	42.01	39.73	78.77	86.20	179.20	734.52
	2031	41.24	64.19	38.59	36.62	72.96	78.23	163.82	725.08
	2032	39.95	61.85	33.42	32.90	66.09	70.52	146.13	693.33
	2033	39.62	62.00	30.99	30.20	61.49	65.43	135.99	688.36
	2034	39.32	62.12	28.73	27.78	57.06	61.20	127.82	683.54
	2035	39.04	62.18	26.71	25.65	52.89	57.38	121.42	678.99
	2036	38.16	60.45	19.66	19.51	29.77	42.07	98.79	675.00
	2037	38.16	60.62	18.35	18.21	28.35	40.62	94.99	670.86
	2038	38.19	60.79	17.12	17.09	27.27	39.53	92.34	667.06
	2039	38.22	60.94	15.96	16.13	26.50	38.69	90.46	663.81
	2040	38.25	61.09	14.83	15.31	25.84	38.00	88.90	661.24
	2041	38.27	61.21	13.73	14.65	25.34	37.38	87.51	659.38
	2042	38.29	61.31	12.82	14.07	24.90	36.89	86.26	658.12
	2043	38.26	61.41	12.04	13.58	24.45	36.32	85.08	657.34
	2044	38.20	61.47	11.23	13.14	23.93	35.80	83.75	656.60
2045	38.11	61.51	10.43	12.74	23.40	35.10	81.75	656.19	
2046	37.97	61.53	9.69	12.46	22.73	34.29	79.98	656.10	
2047	37.81	61.54	9.16	12.19	22.02	33.32	79.37	655.90	
2048	37.64	61.52	8.64	11.88	21.29	32.60	78.49	655.74	
2049	37.49	61.48	8.12	11.61	20.52	32.03	76.44	655.62	
2050	37.35	61.43	7.63	11.30	19.67	31.38	74.64	655.22	

Table E-3 : OSE NOx Emissions Rate (g/hr)									
Fuel Type	Calendar Year	Industrial - Misc - Other General Industrial Equipment			Industrial - Misc - Other Material Handling Equipment		Industrial - Misc - Sweepers/Scrubbers		
		Horsepower Bin			Horsepower Bin		Horsepower Bin		
		50	100	175	50	100	50	100	175
Gasoline	2025	42.16	105.71	220.15	65.26	84.35	54.27	110.40	227.68
	2026	42.20	105.74	220.42	64.76	82.01	54.31	110.42	225.29
	2027	42.24	105.78	220.16	64.02	79.91	54.16	110.29	226.17
	2028	42.09	105.60	219.94	64.10	78.13	54.17	110.30	224.56
	2029	42.09	105.59	219.91	63.00	76.60	54.19	110.31	225.61
	2030	42.09	105.62	219.72	63.01	75.36	54.20	110.33	224.74
	2031	42.11	105.64	220.21	61.45	74.48	54.21	110.33	225.24
	2032	42.12	105.63	219.35	60.51	73.79	54.20	110.32	226.46
	2033	42.12	105.63	219.93	60.86	73.36	54.14	110.27	225.05
	2034	42.12	105.66	219.69	61.09	73.14	54.14	110.26	225.01
	2035	42.06	105.59	220.02	60.67	73.06	54.16	110.27	224.97
	2036	42.07	105.57	219.19	60.51	73.00	54.17	110.29	226.20
	2037	42.08	105.59	220.16	60.47	72.88	54.17	110.29	226.14
	2038	42.09	105.58	219.50	60.35	72.87	54.17	110.28	224.76
	2039	42.10	105.59	219.60	60.34	72.88	54.15	110.26	224.61
	2040	42.11	105.65	219.84	61.04	72.98	54.15	110.27	225.06
	2041	42.11	105.65	219.84	61.04	72.98	54.15	110.27	225.06
	2042	42.11	105.65	219.84	61.04	72.98	54.15	110.27	225.06
	2043	42.11	105.65	219.84	61.04	72.98	54.15	110.27	225.06
	2044	42.11	105.65	219.84	61.04	72.98	54.15	110.27	225.06
2045	42.11	105.65	219.84	61.04	72.98	54.15	110.27	225.06	
2046	42.11	105.65	219.84	61.04	72.98	54.15	110.27	225.06	
2047	42.11	105.65	219.84	61.04	72.98	54.15	110.27	225.06	
2048	42.11	105.65	219.84	61.04	72.98	54.15	110.27	225.06	
2049	42.11	105.65	219.84	61.04	72.98	54.15	110.27	225.06	
2050	42.11	105.65	219.84	61.04	72.98	54.15	110.27	225.06	

Table F-1 : NOx Fuel Correction Factor			
Diesel		Gasoline	
Model Year	NOx Fuel Correction Factor	Model Year	NOx Fuel Correction Factor
<2007	0.93	<1998	0.867
2007+	0.95	1998+	0.977

Table F-2 : NOx Zero Hour Emission Factors and Deterioration Rates CHE, TRU, and OSE with Engine Ratings Less Than or Equal to 25 Horsepower								
Diesel			Gasoline			Propane		
Model Year	EFzh (g/hphr)	DR (g/hphr/hr)	Model Year	EFzh (g/hphr)	DR (g/hphr/hr)	Model Year	EFzh (g/hphr)	DR (g/hphr/hr)
1920-1999	7.000	0.0000000	1950-1994	3.480	0.0010900	1950-1994	1.770	0.0004410
2000	5.685	0.0000000	1995-2001	2.320	0.0000000	1995-1998	8.440	0.0004410
2001	5.614	0.0000000	2002-2008	2.680	0.0032100	1999-2050	2.700	0.0004410
2002-2003	5.422	0.0000000	2009-2050	1.710	0.0032400			
2004	5.389	0.0000000						
2005-2006	4.132	0.0000000						
2007	4.248	0.0000000						
2008	4.148	0.0000000						
2009	3.879	0.0000000						
2010	4.090	0.0000000						
2011-2012	3.832	0.0000000						
2013	3.903	0.0000000						
2014	3.866	0.0000000						
2015	3.879	0.0000000						
2016-2050	3.855	0.0000000						

Table F-3 : NOx Zero Hour Emission Factors and Deterioration Rates CHE, TRU, and OSE with Engine Ratings from 26-50 Horsepower								
Diesel			Gasoline			Propane		
Model Year	EFzh (g/hphr)	DR (g/hphr/hr)	Model Year	EFzh (g/hphr)	DR (g/hphr/hr)	Model Year	EFzh (g/hphr)	DR (g/hphr/hr)
1920-1987	7.000	0.0001050	1950-2000	8.010	0.0000406	1950-2000	13.000	0.0000662
1988-1998	7.000	0.0001055	2001	6.910	0.0001440	2001	10.400	0.0001560
1999	5.327	0.0000989	2002	5.520	0.0003080	2002	7.790	0.0002450
2000	5.283	0.0000980	2003	4.520	0.0004020	2003	5.190	0.0003350
2001	5.143	0.0000954	2004-2006	1.330	0.0004710	2004-2006	1.950	0.0002760
2002-2003	5.078	0.0000942	2007-2009	0.887	0.0001190	2007-2009	1.300	0.0000011
2004	4.462	0.0000816	2010-2050	0.266	0.0000250	2010-2050	0.390	0.0000002
2005	4.536	0.0000886						
2006	4.536	0.0000914						
2007	4.514	0.0000909						
2008	4.476	0.0000932						
2009	4.069	0.0000848						
2010	4.475	0.0000932						
2011-2012	4.534	0.0000945						
2013	3.122	0.0000650						
2014	3.271	0.0000681						
2015	3.116	0.0000649						
2016	3.162	0.0000659						
2017-2050	2.729	0.0000568						

Table F-4 : NOx Zero Hour Emission Factors and Deterioration Rates CHE, TRU, and OSE with Engine Ratings from 51-75 Horsepower								
Diesel			Gasoline			Propane		
Model Year	EFzh (g/hphr)	DR (g/hphr/hr)	Model Year	EFzh (g/hphr)	DR (g/hphr/hr)	Model Year	EFzh (g/hphr)	DR (g/hphr/hr)
1920-1987	13.000	0.0003010	1950-2000	9.925	0.0000504	1950-2000	11.765	0.0000598
1988-1997	8.302	0.0001917	2001	8.245	0.0001540	2001	9.470	0.0001510
1998	8.302	0.0001925	2002	6.420	0.0002870	2002	7.175	0.0002420
1999	5.308	0.0001231	2003	4.790	0.0003850	2003	4.880	0.0003330
2000	5.399	0.0001252	2004-2006	1.555	0.0003390	2004-2006	1.765	0.0003130
2001	5.368	0.0001245	2007-2009	1.028	0.0000925	2007-2009	1.170	0.0000068
2002-2003	5.180	0.0001201	2010-2050	0.308	0.0000275	2010-2050	0.350	0.0000191
2004	4.653	0.0000850						
2005	4.552	0.0000732						
2006	4.552	0.0000677						
2007	4.077	0.0000606						
2008	2.968	0.0000390						
2009	2.965	0.0000390						
2010	2.937	0.0000386						
2011-2012	2.903	0.0000382						
2013	2.632	0.0000346						
2014	2.688	0.0000353						
2015	2.696	0.0000354						
2016	2.757	0.0000363						
2017-2050	2.757	0.0000362						

Table F-5 : NO_x Zero Hour Emission Factors and Deterioration Rates CHE, TRU, and OSE with Engine Ratings from 76-100 Horsepower								
Diesel			Gasoline			Propane		
Model Year	EFzh (g/hphr)	DR (g/hphr/hr)	Model Year	EFzh (g/hphr)	DR (g/hphr/hr)	Model Year	EFzh (g/hphr)	DR (g/hphr/hr)
1920-1987	13	0.0003010	1950-2000	11.84	0.0000601	1950-2000	10.53	0.0000533
1988-1997	8.302	0.0001917	2001	9.58	0.0001630	2001	8.54	0.0001460
1998	8.302	0.0001925	2002	7.32	0.0002660	2002	6.56	0.0002390
1999	5.682	0.0001318	2003	5.060	0.0003680	2003	4.570	0.0003310
2000	5.593	0.0001297	2004-2006	1.780	0.0002070	2004-2006	1.580	0.0003500
2001	5.590	0.0001296	2007-2009	1.170	0.0000660	2007-2009	1.040	0.0000125
2002-2003	5.413	0.0001255	2010-2050	0.350	0.0000300	2010-2050	0.310	0.0000380
2004	4.494	0.0000821						
2005	4.553	0.0000733						
2006	4.553	0.0000677						
2007	3.738	0.0000556						
2008	2.997	0.0000394						
2009	2.844	0.0000374						
2010	2.817	0.0000370						
2011	2.786	0.0000366						
2012	2.786	0.0000367						
2013	2.563	0.0000338						
2014	2.491	0.0000328						
2015	2.722	0.0000359						
2016	2.365	0.0000312						
2017	1.836	0.0000242						
2018	1.652	0.0000218						
2019	1.467	0.0000193						
2020	1.283	0.0000169						
2021	1.099	0.0000145						
2022	0.914	0.0000121						
2023	0.730	0.0000096						
2024	0.546	0.0000072						
2025	0.361	0.0000048						
2026	0.177	0.0000023						
2027-2050	0.030	0.0000004						

Table F-6 : NO_x Zero Hour Emission Factors and Deterioration Rates CHE, TRU, and OSE with Engine Ratings from 101-175 Horsepower								
Diesel			Gasoline			Propane		
Model Year	EFzh (g/hphr)	DR (g/hphr/hr)	Model Year	EFzh (g/hphr)	DR (g/hphr/hr)	Model Year	EFzh (g/hphr)	DR (g/hphr/hr)
1920-1987	11.000	0.0002540	1950-2000	12.94	0.0001270	1950-2000	10.51	0.0001040
1988-1996	9.607	0.0002222	2001	10.29	0.0001090	2001	8.53	0.0000908
1997-1998	5.892	0.0001366	2002	7.64	0.0000917	2002	6.54	0.0000777
1999	5.838	0.0001354	2003	4.980	0.0000740	2003	4.560	0.0000645
2000	5.772	0.0001339	2004-2006	1.940	0.0002780	2004-2006	1.580	0.0002640
2001	5.651	0.0001310	2007-2009	1.170	0.0000660	2007-2009	1.040	0.0000125
2002	5.440	0.0001262	2010-2050	0.350	0.0000300	2010-2050	0.310	0.0000380
2003	5.440	0.0000997						
2004	4.188	0.0000667						
2005-2006	3.966	0.0000577						
2007	2.856	0.0000373						
2008	2.760	0.0000360						
2009	2.659	0.0000347						
2010	2.992	0.0000391						
2011-2012	2.673	0.0000349						
2013	1.950	0.0000254						
2014	1.874	0.0000244						
2015	1.126	0.0000148						
2016	0.896	0.0000118						
2017	1.152	0.0000152						
2018	0.954	0.0000126						
2019	0.757	0.0000100						
2020	0.559	0.0000074						
2021	0.362	0.0000048						
2022	0.165	0.0000022						
2023-2050	0.129	0.0000017						

Table F-7 : NOx Zero Hour Emission Factors and Deterioration Rates CHE, TRU, and OSE with Engine Ratings from 176-300 Horsepower								
Diesel			Gasoline			Propane		
Model Year	EFzh (g/hphr)	DR (g/hphr/hr)	Model Year	EFzh (g/hphr)	DR (g/hphr/hr)	Model Year	EFzh (g/hphr)	DR (g/hphr/hr)
1920-1987	11.000	0.0002540	1950-2000	12.94	0.0001270	1950-2000	10.51	0.0001040
1988-1995	7.339	0.0001698	2001	10.29	0.0001090	2001	8.53	0.0000908
1996	5.788	0.0001343	2002	7.64	0.0000917	2002	6.54	0.0000777
1997-1998	5.739	0.0001331	2003	4.980	0.0000740	2003	4.560	0.0000645
1999	5.958	0.0001382	2004-2006	1.940	0.0002780	2004-2006	1.580	0.0002640
2000	5.907	0.0001370	2007-2009	1.170	0.0000660	2007-2009	1.040	0.0000125
2001	5.696	0.0001321	2010-2050	0.350	0.0000300	2010-2050	0.310	0.0000380
2002	5.527	0.0001282						
2003	5.527	0.0001000						
2004	4.373	0.0000690						
2005	4.078	0.0000589						
2006	4.078	0.0000589						
2007	2.697	0.0000350						
2008	2.583	0.0000335						
2009	2.579	0.0000335						
2010	2.673	0.0000347						
2011-2012	1.515	0.0000197						
2013	1.631	0.0000212						
2014	0.837	0.0000110						
2015	0.645	0.0000085						
2016	0.886	0.0000117						
2017	0.332	0.0000044						
2018-2050	0.121	0.0000016						

Table F-8 : NOx Zero Hour Emission Factors and Deterioration Rates CHE, TRU, and OSE with Engine Ratings from 301-600 Horsepower								
Diesel			Gasoline			Propane		
Model Year	EFzh (g/hphr)	DR (g/hphr/hr)	Model Year	EFzh (g/hphr)	DR (g/hphr/hr)	Model Year	EFzh (g/hphr)	DR (g/hphr/hr)
1920-1987	11.000	0.0001830	1950-2000	12.94	0.0001270	1950-2000	10.51	0.0001040
1988-1995	7.339	0.0001222	2001	10.29	0.0001090	2001	8.53	0.0000908
1996	5.832	0.0000970	2002	7.64	0.0000917	2002	6.54	0.0000777
1997-1998	5.906	0.0000983	2003	4.980	0.0000740	2003	4.560	0.0000645
1999	5.743	0.0000956	2004-2006	1.940	0.0002780	2004-2006	1.580	0.0002640
2000	5.668	0.0000943	2007-2009	1.170	0.0000660	2007-2009	1.040	0.0000125
2001	5.449	0.0000808	2010-2050	0.350	0.0000300	2010-2050	0.310	0.0000380
2002	5.276	0.0000739						
2003	5.276	0.0000714						
2004	4.161	0.0000563						
2005	4.041	0.0000535						
2006	4.041	0.0000525						
2007	2.807	0.0000364						
2008	2.567	0.0000333						
2009	2.542	0.0000330						
2010	2.550	0.0000331						
2011-2012	1.234	0.0000161						
2013	1.497	0.0000195						
2014	0.973	0.0000128						
2015	0.813	0.0000107						
2016	0.904	0.0000119						
2017	0.231	0.0000031						
2018-2050	0.133	0.0000017						

Table F-9 : NOx Zero Hour Emission Factors and Deterioration Rates CHE, TRU, and OSE with Engine Ratings from 601-750 Horsepower								
Diesel			Gasoline			Propane		
Model Year	EFzh (g/hphr)	DR (g/hphr/hr)	Model Year	EFzh (g/hphr)	DR (g/hphr/hr)	Model Year	EFzh (g/hphr)	DR (g/hphr/hr)
1920-1987	11.000	0.0001830	1950-2000	12.94	0.0001270	1950-2000	10.51	0.0001040
1988-1996	7.339	0.0001222	2001	10.29	0.0001090	2001	8.53	0.0000908
1997-1998	6.264	0.0001042	2002	7.64	0.0000917	2002	6.54	0.0000777
1999	6.199	0.0001032	2003	4.980	0.0000740	2003	4.560	0.0000645
2000	5.688	0.0000946	2004-2006	1.940	0.0002780	2004-2006	1.580	0.0002640
2001	5.651	0.0000940	2007-2009	1.170	0.0000660	2007-2009	1.040	0.0000125
2002	5.461	0.0000810	2010-2050	0.350	0.0000300	2010-2050	0.310	0.0000380
2003	5.461	0.0000765						
2004	3.951	0.0000535						
2005	3.904	0.0000529						
2006	3.904	0.0000507						
2007	2.598	0.0000337						
2008	2.747	0.0000357						
2009	2.692	0.0000349						
2010	2.610	0.0000339						
2011-2012	1.641	0.0000214						
2013	1.881	0.0000245						
2014	1.099	0.0000145						
2015	0.986	0.0000130						
2016	1.496	0.0000197						
2017	0.706	0.0000093						
2018	0.486	0.0000064						
2019	0.267	0.0000035						
2020-2050	0.155	0.0000020						

Table F-10 : NOx Zero Hour Emission Factors and Deterioration Rates CHE, TRU, and OSE with Engine Ratings Greater Than 750 Horsepower								
Diesel			Gasoline			Propane		
Model Year	EFzh (g/hphr)	DR (g/hphr/hr)	Model Year	EFzh (g/hphr)	DR (g/hphr/hr)	Model Year	EFzh (g/hphr)	DR (g/hphr/hr)
1920-1987	11.000	0.0001830	1950-2000	12.94	0.0001270	1950-2000	10.51	0.0001040
1988-1999	7.339	0.0001222	2001	10.29	0.0001090	2001	8.53	0.0000908
2000	5.725	0.0000953	2002	7.64	0.0000917	2002	6.54	0.0000777
2001	5.928	0.0000986	2003	4.980	0.0000740	2003	4.560	0.0000645
2002-2003	5.793	0.0000964	2004-2006	1.940	0.0002780	2004-2006	1.580	0.0002640
2004	5.948	0.0000990	2007-2009	1.170	0.0000660	2007-2009	1.040	0.0000125
2005	5.842	0.0000972	2010-2050	0.350	0.0000300	2010-2050	0.310	0.0000380
2006	5.842	0.0000866						
2007	3.533	0.0000495						
2008	3.346	0.0000453						
2009	3.559	0.0000482						
2010	3.699	0.0000480						
2011-2012	3.342	0.0000433						
2013	3.185	0.0000413						
2014	3.048	0.0000395						
2015	3.040	0.0000394						
2016	2.967	0.0000385						
2017	1.944	0.0000252						
2018	1.697	0.0000220						
2019-2050	1.623	0.0000210						

Table F-11 : Brake-Specific Fuel Consumption Rate				
		CARB	Density	Conversion Factor
Fuel Type	HP Range	BSFC (lb/hp-hr)	(lb/gal)	(hp-hr/gal)
Diesel	Up to 100 hp	0.408	7	17.2
Diesel	>100 hp	0.367	7	19.1
Gasoline	All	0.484	6	12.4
Propane	All	0.406	4.2	10.3

ATTACHMENT I

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

Final Staff Report

Proposed Rule 2306 – Freight Rail Yards Proposed Rule 316.2 – Fees for Rule 2306

August 2024

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EXECUTIVE SUMMARY

The 2016 and 2022 Air Quality Management Plans (AQMP) included a suite of facility-based mobile source measures to collectively reduce emissions of nitrogen oxides (NOx) from the goods movement sector, to assist in meeting state and federal air quality standards for ozone and fine particulate matter. NOx is the key pollutant that must be controlled in order to meet federal air quality standards, and over 80 percent of the NOx in our area is from mobile sources. In May 2018, the South Coast Air Quality Management District (South Coast AQMD) Governing Board directed staff to initiate rulemaking to address one of the 2016 AQMP facility-based mobile source measures, namely Control Measure MOB-02: Emission Reductions at Rail Yards and Intermodal Facilities. Consistent with that direction and the subsequent adoption of similar facility-based measures in the 2022 AQMP, staff proceeded with rulemaking for Proposed Rule 2306 and PR 316.2 to address emissions from both new and existing freight rail yards. In the meantime, additional rules to implement other facility-based measures have been adopted or initiated, including Rule 2305 – Warehouse Indirect Source Rule – Warehouse Actions and Investments to Reduce Emissions (WAIRE) Program, which was adopted in 2021 and has been implemented ever since, and Proposed Rule 2304 – Commercial Marine Ports – Container Terminals, which is currently in rule development. All three rulemakings are designed to be part of an overall effort to facilitate and further emission reductions from key freight transportation hubs and are supplemented by concurrent incentive programs and other non-regulatory measures.

PR 2306 establishes emission reductions and zero emission infrastructure reporting requirements for owners and operators of new and existing freight rail yards. These emission reductions will help to attain both California and National Ambient Air Quality Standards (CAAQS and NAAQS, respectively), as well as air quality priorities outlined in the corresponding AB 617 Community Emissions Reduction Plans (CERPs). When implemented, PR 2306 will provide additional health benefits to the local communities surrounding new and existing freight rail yards that operate within the South Coast AQMD jurisdiction. PR 316.2 establishes fees to be paid by freight rail yard owners or operators subject to PR 2306 to recover the South Coast AQMD's reasonable regulatory costs associated with PR 2306 implementation and compliance, such as costs associated with review of reports and notifications and the associated auditing, inspection, and enforcement activities.

Specifically, PR 2306 seeks to reduce NOx emissions associated with freight rail yard operations by requiring operators of freight rail yards to meet or exceed emission reductions targets. The proposed rule will ensure that emission reductions at each freight rail yard within the South Coast AQMD jurisdiction will be achieved at levels that are proportional or more-than-proportional to reductions throughout California from implementation of recently adopted statewide regulations affecting freight rail yard emission sources. Additional emission reductions may be achieved in South Coast AQMD if implementation of statewide regulations alone does not result in compliance with PR 2306. Additionally, any ~~state or local government~~ non-federal public agency contracting with the owner or operator of a freight rail yard in relation to its lease, construction, or operation will be required to include requirements for rule compliance in the new, renewed, or amended contract.

PR 2306 and PR 316.2 were developed through a public process including 13 Working Group Meetings and several Community Meetings. The Working Group is composed of affected facilities, environmental and community representatives, public agencies, consultants, equipment vendors, and other interested parties.

CHAPTER 1 : BACKGROUND

INTRODUCTION

RULEMAKING BACKGROUND

PUBLIC PROCESS

LEGAL AUTHORITY

INTRODUCTION

Proposed Rule 2306 – Freight Rail Yard Rule (PR 2306) and Proposed Rule 316.2 – Fees for Rule 2306 (PR 316.2) are part of the suite of Facility Based Mobile Source Measures (FBMSMs) aimed at collectively addressing emissions related to the goods movement. NO_x is the key pollutant that must be controlled to meet both ozone and fine particulate matter (PM_{2.5}) standards in our region. Over 80 percent of the NO_x emissions in the South Coast Air Basin (Basin) are from mobile sources, and nearly half of these come from mobile sources associated with goods movement.¹ South Coast AQMD continues to address emissions associated with the goods movement sector through the development of PR 2306, as well as the adopted Rule 2305 – Warehouse Indirect Source Rule – Warehouse Actions and Investments to Reduce Emissions (WAIRE) Program and Proposed Rule 2304 – Commercial Marine Ports - Container Terminals, which are indirect source rules designed to be part of an overall effort to facilitate and further emission reductions from key mobile sources associated with warehouses and ports, respectively.

Environmental Justice (EJ) communities in the South Coast AQMD region are disproportionately impacted by various types of pollution and experience health, social, and economic inequities. These communities are often located near multiple air pollution sources including mobile sources and commercial and industrial facilities, such as freight rail yards. Communities adjacent to freight rail yards are exposed to higher levels of emissions from the associated mobile sources and activities. These emissions not only contain NO_x, but also PM_{2.5}. Short-term exposure to PM_{2.5} is well known to worsen pre-existing heart and lung conditions, while long term exposure can be linked to premature mortality especially among those with chronic heart or lung disease. Like PM_{2.5}, ozone is known to cause airway and lung irritation, and is associated with increased asthma cases, as well as decreased lung capacity, especially among children and the elderly. Exposure to air toxics emitted from heavy-duty diesel engines used in freight transportation further worsens the health risk for residents in the EJ communities.

PR 2306 and PR 316.2 are applicable to owners and operators of freight rail yards located in the South Coast AQMD jurisdiction. Freight rail yards are rail yards where switching activities occur or where cargos, either in containers or not, are loaded onto or unloaded from railcars for transportation to or from a rail yard. Emissions associated with freight rail yards are emitted from locomotives, drayage trucks, cargo handling equipment (CHE), and miscellaneous off-road equipment like transportation refrigeration units (TRUs).

PR 2306 requires operators of freight rail yards to reduce NO_x emissions associated with freight rail yard operations by meeting or exceeding specific emission reductions targets. The proposed targets will ensure that emission reductions at each freight rail yard within the South Coast AQMD jurisdiction will be achieved at levels that are proportional or more-than-proportional to implementation of recently adopted statewide regulations throughout California. The key statewide regulations relative to PR 2306 addressing freight rail yard emission sources are California Air Resources Board's (CARB) In-Use Locomotive and Advanced Clean Fleets (ACF) regulations, both adopted in 2023. Emission reductions targets are expected to be achieved through reductions from one or more freight rail yard emission sources, including locomotives and drayage trucks subject to these two CARB regulations, as well as from all other mobile sources associated

¹ Southern California Association of Governments. Transportation System Goods Movement: https://scag.ca.gov/sites/main/files/file-attachments/0903fconnectsocial_goods-movement.pdf?1606001690

with freight rail yards to transport or assist in transporting cargo or goods. Additional emission reductions may be achieved in South Coast AQMD if implementation of statewide regulations alone does not result in compliance with PR 2306. Owners and operators of freight yards would also pay fees as established by PR 316.2 to reimburse South Coast AQMD for reasonable administrative costs associated with implementation of PR 2306.

RULEMAKING BACKGROUND

In 2006, South Coast AQMD adopted Regulation XXXV – Railroad and Railroad Operations to address emissions from rail yards and locomotives, seeking to control emissions generated from locomotive idling and requiring operators of rail yards to develop emissions inventories and conduct health risk assessments. This regulation was enjoined by a federal district court and that decision was upheld on appeal. As a result of this litigation, Regulation XXXV cannot be implemented.

The South Coast AQMD develops Air Quality Management Plans (AQMPs) to show how the region will attain ambient air quality standards. In the 2016 AQMP, the South Coast AQMD committed to assist the California Air Resources Board (CARB) and U.S. Environmental Protection Agency (U.S. EPA) in developing the “Further Deployment of Cleaner Technologies” control measures (Further Deployment Measures), based on a combination of incentive funding and development of new regulations. These measures are aimed at achieving the substantial NOx emission reductions needed to meet ozone and PM2.5 standards in our region. This process initiated the development of local FBMSMs. Control measure MOB-02: Emission Reductions at Rail Yards and Intermodal Facilities, is one of these FBMSMs.

The 2016 AQMP described a year-long process for staff to evaluate potential emissions reduction strategies for the FBMSMs and report back to the Governing Board on the most promising approach. South Coast AQMD staff convened a working group to explore potential voluntary and regulatory approaches for both new and existing rail yards consistent with what was outlined in the 2016 AQMP for control measure MOB-02. After considering the results of that year-long process, in May 2018, the South Coast AQMD Governing Board directed staff to initiate rulemaking for new and existing rail yards.

The 2022 AQMP reflects a continued effort on implementation of Further Deployment Measures for control measure MOB-02 as well as CARB’s 2022 State Strategy for the State Implementation Plan (2022 SIP Strategy). After staff explored both regulatory and voluntary approaches, rulemaking for PR 2306 was reinitiated to include both new and existing freight rail yards.

Air Quality Management Plan

South Coast AQMD is the regional air quality regulatory agency for all of Orange County, and large portions of Los Angeles, Riverside, and San Bernardino counties. It is responsible for developing and enforcing air pollution control rules and regulations and implementing strategies to attain ambient air quality standards for the Basin and the Riverside County portions of both the Salton Sea Air Basin (SSAB) and the Mojave Desert Air Basin (MDAB). The federal Clean Air Act (CAA) requires the submission of State Implementation Plans (SIP) for nonattainment areas that do not meet the federal NAAQS. Additionally, the California Clean Air Act (CCAA) imposes further requirements on meeting state ambient air quality standards for criteria pollutants. The South Coast AQMD’s ozone levels are the highest in the nation, and the region is currently classified as being in extreme nonattainment status for the federal NAAQS ozone standards.

Per the Health and Safety Code, South Coast AQMD is required to adopt plans to demonstrate how the region will meet both federal and state ambient air quality standards for South Coast AQMD’s jurisdiction.⁷ The AQMP is a blueprint for meeting federal and state air quality standards in South Coast AQMD’s jurisdiction. On December 2, 2022, South Coast AQMD’s Governing Board adopted the 2022 AQMP.⁸ Based on analysis in the 2022 AQMP the total NOx emissions in the Basin must be further reduced by approximately 124 tons per day (tpd) beyond reductions from in-place regulations in 2037 - an additional 67 percent reduction in NOx beyond baseline 2037 levels in order to meet the 2015 8-hour ozone standard by the 2037 deadline. Based on the information in Figure 1-1, approximately 80 percent of NOx emissions in 2037 will be from mobile sources.

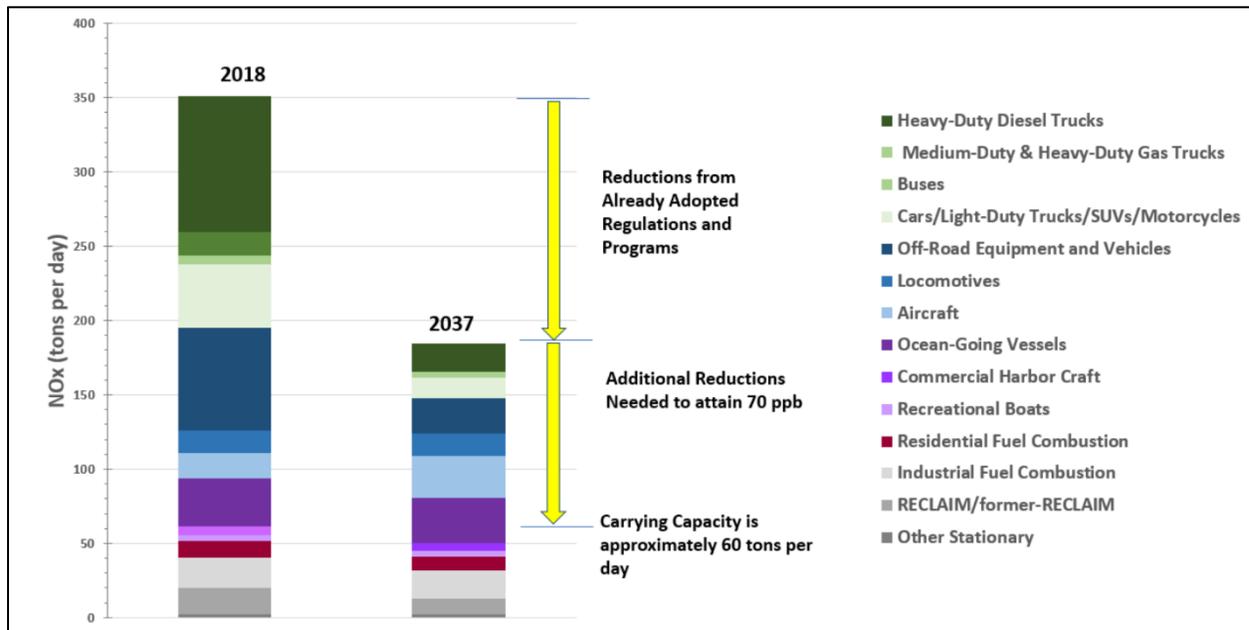


Figure 1-1. Baseline NOx Emissions and Reductions Needed to Achieve Federal 8-Hour Ozone NAAQS in the Basin

The control strategy in the 2022 AQMP includes many stationary and mobile source measures that will be carried out by the South Coast AQMD and CARB (Figure 1-2). To attain the federal ozone and PM2.5 NAAQS, the 2022 AQMP relies on reducing regional NOx emissions as a primary strategy as NOx is a precursor to the formation of both ozone and PM2.5 but also includes measures to reduce directly emitted PM2.5.

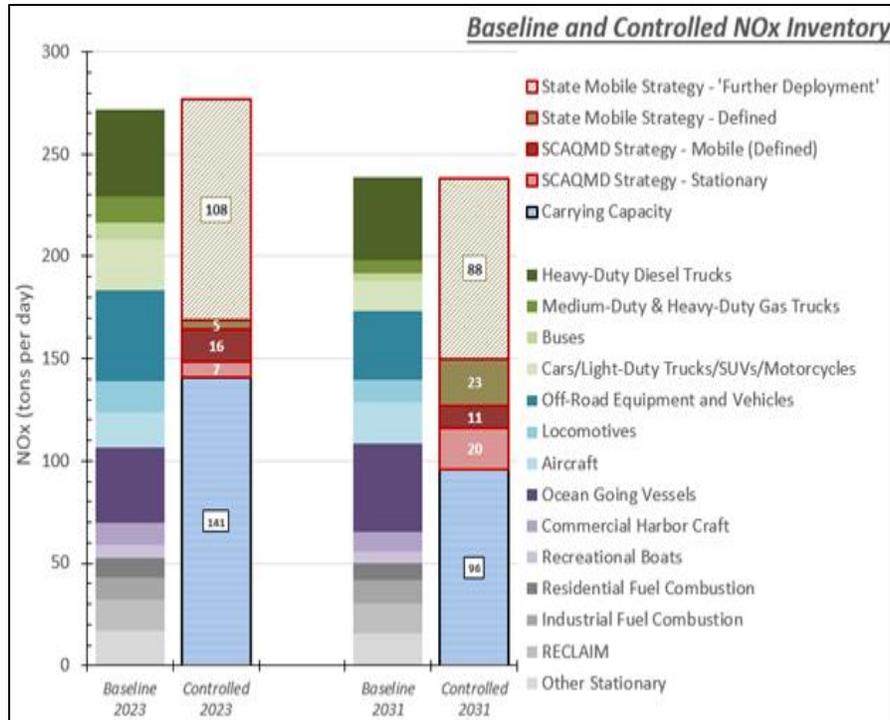


Figure 1-2. Summary of Approach to Reducing NOx Emissions by Major Source Category

Assembly Bill 617 Community Emission Reduction Plans

The South Coast AQMD Governing Board has approved several other plans since adoption of the 2016 AQMP that would also benefit from adoption of PR 2306. These include Community Emission Reduction Plans (CERPs) prepared pursuant to Assembly Bill (AB) 617. These plans provide a strategic framework to lower air pollution emissions and exposure, targeting the top air quality concerns for each community.

Assembly Bill (AB) 617 is a program established to address the disproportionate burden of air pollution on EJ communities, by providing funding and enabling selected communities to shape the actions to reduce emissions. South Coast AQMD currently has six designated communities where CERPs have been developed to prioritize these actions. Rail yard emissions are an area of concern and an air quality priority in CERPs for the following AB 617 communities: San Bernardino/Muscoy (SBM), Wilmington/Carson/West Long Beach (WCWLB), East Los Angeles/Boyle Heights/West Commerce (ELABHWC), and Southeast Los Angeles (SELA). These AB 617 communities identify specific measures needed to reduce emissions from rail yards.

AB 617 CERP Actions

PR 2306 and PR 316.2 address a portion of the actions outlined in the CERPs for SBM, WCWLB, ELABHWC, and SELA. Some of the actions outlined in these CERPs include working with CARB to reduce air pollution at rail yards, replace diesel fueled equipment with cleaner technologies, and development of an indirect source rule for rail yards. The development of PR 2306 and PR 316.2 is an ongoing effort from staff to develop a rule that addresses FBMSMs pertaining to emissions from both new and existing rail yards in the 2022 AQMP, and simultaneously meet the action

items listed in the applicable CERPs. Staff also works with various outside regulatory air quality agencies, such as CARB, to develop the concepts and requirements of agency rules and regulations and continues to work on regulations to further meet the actions in AB 617 CERPs located within South Coast AQMD.

Previous South Coast AQMD Efforts

Regulation XXXV

South Coast AQMD has established three rules under Regulation XXXV on railroads and related operations, including Rule 3501 with requirements for recordkeeping of idling events to support quantification of emissions, Rule 3502 mandates minimizing unnecessary locomotive idling, and Rule 3503 with requirements to prepare emissions inventories, health risk assessments, and public notification for railroads and rail yards. However, as previously discussed, these rules cannot be enforced because they have been enjoined by the federal court.

Railroad MOU

Another effort made by South Coast AQMD to address rail yard emissions was a potential railroad memorandum of understanding (MOU). The MOU was pursued starting mid-2023 between South Coast AQMD, Union Pacific Railroad, and Burlington Northern Santa Fe Railroad. The proposed agreement between the railroads and South Coast AQMD aimed to reduce air quality impacts from existing and new rail yards by reducing emissions from locomotives applicable to the agreement, yard trucks, and rubber-tired gantry cranes. It also considered elements that included zero emission infrastructure plans and technology demonstrations. The parties did not come to an agreement and staff efforts resumed to rule development in November 2023.

PUBLIC PROCESS

PR 2306 and PR 316.2 were developed through a public process that included a series of Working Group meetings. Since the adoption of the 2016 AQMP, followed by the South Coast AQMD Governing Board's voted in May 2018 that directed staff to initiate rulemaking in May 2018, staff began the rule development process and has provided conducted five updates to the Governing Board, sixteen updates to the Mobile Source Committee (including three on the latest rule proposal), six Community Workshops, and thirteen Working Group meetings to date. The Working Group is composed of affected facilities, environmental and community representatives, public agencies, consultants, equipment vendors, and interested parties. The purpose of the Working Group meetings was to provide all stakeholders an opportunity to discuss details of the proposed rules, and for staff to listen to stakeholder concerns with the objective of building consensus and resolving any issues. Table 1-1 summarizes the public meetings held throughout the development of PR 2306 and PR 316.2 and provides a summary of the key topics discussed at each of the meetings.

Table 1-1. Overview of Public Process Activities

Date	Meeting Title	Highlights
Earlier rule development focused on existing rail yards		
June 1, 2017	Working Group Meeting	<ul style="list-style-type: none"> Working group process and metrics Overview of emission sources at rail yards Measures to improve air quality
October 4, 2017	Working Group Meeting	<ul style="list-style-type: none"> Framework on how Facility Based Mobile Source Measures are developed Emissions inventory at rail yards and intermodal facilities Emission reductions opportunities
January 18, 2018	Working Group Meeting	<ul style="list-style-type: none"> Background on previous Facility Based Mobile Source Measure activities List of opportunities and strategies for emission reductions
Staff visits to UP (Commerce and Colton) and BNSF (Hobart and San Bernardino) rail yards in Fall 2018		
November 20, 2019 December 11, 2019	Community Workshops	<ul style="list-style-type: none"> Regulatory background from CARB and South Coast AQMD CARB statewide rail yard emission reductions concepts South Coast AQMD rail yard emission reductions concepts
Rule development pivoted to new intermodal rail yards		
July 30, 2021	Working Group Meeting	<ul style="list-style-type: none"> Background and regulatory commitments Overview of two new proposed intermodal facilities in the South Coast Basin Environmental justice concerns Need for 2306 and overview of rule development process moving forward
September 30, 2021	Working Group Meeting	<ul style="list-style-type: none"> Summary of previous working group meeting Initiation of discussions with technology providers involving zero emission and near-zero emission technologies Presentation by representatives from BNSF
December 8, 2021	Working Group Meeting	<ul style="list-style-type: none"> Response to the comment letter received from BNSF on September 15, 2021 Presentations from the following technology providers: BYD, Shuttlewagon, Volvo, KLV

Date	Meeting Title	Highlights
April 12, 2022	Working Group Meeting	<ul style="list-style-type: none"> • Overview of health effects by Dr. Nichole Quick • Summary of comment letters from BNSF, environmental groups, and the community • Indirect source rule concept development applicable for new rail yards • CARB’s proposed regulatory actions for locomotives and drayage trucks
June 7, 2022	Working Group Meeting	<ul style="list-style-type: none"> • Updates on staff activities since previous working group meeting • Technology and infrastructure considerations • Overview of intermodal facility operations • Opportunities for emission reductions at new intermodal facilities
August 10, 2022	Working Group Meeting	<ul style="list-style-type: none"> • Proposed rule development • Determining emissions inventory for new facilities
October 19, 2022		Staff visit to the Intermodal Container Transfer Facility (ICTF) operated by UP
November 15, 2022	Working Group Meeting	<ul style="list-style-type: none"> • Recent staff meetings and discussion with stakeholders • Development of emission inventory methodologies • Key goals and initial rule concepts
January 28, 2023		Released First Draft Preliminary Rule Language
February 1, 2023	Working Group Meeting	<ul style="list-style-type: none"> • Status update of rule development schedule • Overview of rule concepts and requirements
March 25, 2023 April 11, 2023 April 12, 2023	Community Workshops	<ul style="list-style-type: none"> • Overview of health effects • Background for indirect source rules involving ports and rail yards • Affected communities surrounding proposed intermodal facilities • Identified applicable emission sources located at ports and rail yard and the three factors to develop and deploy zero emission technology • Preliminary rule concepts for PR 2306
May 23, 2023		Staff visit to the Pacific Harbor Line at the San Pedro Bay Ports
Rule development temporarily paused to explore a potential railroad MOU		
One consultation meeting and four community meetings		
Rule development resumed for new and existing freight rail yards		

Date	Meeting Title	Highlights
January 17, 2024	Working Group Meeting	<ul style="list-style-type: none"> • Background and rule applicability • Preliminary overview of rule concepts • Outline of initial rule design
<u>January 19, 2024</u>		<u>Mobile Source Committee</u>
March 26, 2024		Staff follow-up visit to the Pacific Harbor Line at the San Pedro Bay Ports
April 12, 2024		Released Second Draft Preliminary Rule Language
April 17, 2024	Working Group Meeting	<ul style="list-style-type: none"> • Summaries of previous working group meeting and feedback received from community stakeholders on initial rule concepts presented • Updated overview of rule concepts and requirements
April 19, 2024		Mobile Source Committee
May 17, 2024		Released Preliminary Draft Language and Preliminary Draft Staff Report
June 4, 2024	Public Workshop	<ul style="list-style-type: none"> • Presented preliminary draft proposed rule language for PR 2306 and PR 316.2
June 5, 2024	Community Workshop	<ul style="list-style-type: none"> • Provided overview of rule development and key rule components • Gathered stakeholder feedback concerning top air quality concerns surrounding freight rail yards, additional facilities of concern, and reporting programs
June 7, 2024		Set Hearing
June 21, 2024		Mobile Source Committee
July 2, 2024		Releasing Released Draft Rule Language and Draft Staff Report
August 2, 2024 (<i>tentative</i>)		Public Hearing

LEGAL AUTHORITY

The South Coast AQMD may adopt PR 2306 through the authority to “adopt and enforce rules and regulations to achieve the state and federal ambient air quality standards in all areas affected by emission sources under [South Coast AQMD’s] jurisdiction.” (Health and Safety Code Section 40001; *see also* section 40702.) Generally, CARB has primary authority over emissions from motor vehicles, and the South Coast AQMD has primary authority over all sources in the Basin, except motor vehicles. (Health and Safety Code Section 40000.) This includes locomotives and other nonroad mobile sources. Health and Safety Code section 40716 also recognizes that air districts may adopt and implement regulations that control emissions from indirect and areawide sources in order to meet state ambient air quality standards. (*See also* Health and Safety Code Section 40440(b)(3) (directing South Coast AQMD to regulate indirect source emissions in areas

where there are high-level localized levels of pollutants and new sources which will have a significant impact on air quality).)

The key pollutant of interest for PR 2306 is NO_x (a key precursor pollutant for ozone and PM_{2.5}). The South Coast AQMD is in nonattainment status of the CAAQS for both ozone and PM_{2.5}. For both ozone and PM_{2.5}, the currently applicable 8-Hour CAAQS and 8-hour NAAQS are set at equivalent levels. As a result, the South Coast AQMD relies on the same measures to meet both federal and state ozone and PM_{2.5} standards.

In addition, the Clean Air Act recognizes state’s authority to include “as part of an applicable [state] implementation plan, an indirect source review program which the State chooses to adopt and submit as part of its plan.” (Clean Air Act (CAA) § 110(a)(5)(A)(i); 42 U.S.C. § 7410(a)(5)(A)(i).) An indirect source is defined as “a facility, building, structure, installation, real property, road, or highway which attracts, or may attract, mobile sources of pollution.” (CAA § 110(a)(5)(C); 42 U.S.C. § 7410(a)(5)(C).) Rail yards come within the CAA’s definition of indirect sources. *See Ctr. for Cmty. Action & Env’t Just. v. BNSF R. Co.* (9th Cir. 2014) 764 F.3d 1019. Also, the Clean Air Act acknowledges that states and their subdivisions have the right to “adopt or enforce any standard or limitation respecting emissions of air pollutants” and also “any requirement respecting control or abatement of air pollution” so long as it is not less stringent than a federal requirement. (CAA § 116; 42 U.S.C. § 7416.)

The South Coast AQMD Governing Board approved the 2016 AQMP in March of 2017. The 2016 AQMP was subsequently approved by CARB and included in SIP; the ozone-related portion of the AQMP was approved by U.S. EPA in 2019.² The 2016 AQMP included MOB-02, a facility-based mobile source control measure to reduce mobile source emissions associated with rail yards and intermodal facilities. By approving MOB-02 into the 2016 AQMP, South Coast AQMD and CARB have committed to, and U.S. EPA has authorized, the development of an indirect source rule to achieve emission reductions from mobile sources attributable to activities associated with rail yards and intermodal facilities, in order to assist attaining the federal ozone NAAQS in 2023 and 2031. While MOB-02 was adopted as part of the NO_x emissions reduction strategy for ozone, the 2016 AQMP also recognized that the “NO_x strategy will assist in meeting the annual PM_{2.5} standard as “expeditiously as practicable” before the attainment year of 2025.” (2016 AQMP, pp. 4-52.)

Initially, the South Coast AQMD Governing Board authorized a one-year public process to identify if MOB-02 could be achieved through voluntary or regulatory measures, and then ultimately determined, in May of 2018, that staff should pursue a regulatory approach while also considering potential voluntary measures. Through November 2023 significant resources were expended exploring potential voluntary measures; however, none were agreed upon after extended discussions with stakeholders.

² The 2016 AQMP demonstrated attainment of the 1979 1-hour ozone NAAQS, the 1997 and 2008 8-hour ozone NAAQS, as well as the 2006 24-hour PM_{2.5} NAAQS and the 2012 annual PM_{2.5} NAAQS. However, the U.S. EPA did not act on the annual PM_{2.5} plan for several years, and recently asked for an updated attainment demonstration that considers newly available near-road monitoring data. As a result, South Coast AQMD withdrew the annual PM_{2.5} plan and will submit a revised plan in Spring 2024.

A California Attorney General Opinion (CA AG Opinion) from 1993 determined that a district could adopt a regulation to,

“... require the developer of an indirect source to submit the plans to the district for review and comment prior to the issuance of a permit for construction by a city or county. A district may also require the owner of an indirect source to adopt reasonable post-construction measures to mitigate particular indirect effects of the facility’s operation.”

The opinion acknowledged a district may adopt a regulation requiring new and existing indirect sources to submit plans to the district to mitigate mobile indirect source emissions from both construction and operations that are attributed to the source. However, the scope of the district’s indirect source authority is not limited to the review of plans and the implementation of reasonable post-construction measures. Health and Safety Code section 40716 broadly authorizes the implementation of measures that “reduce or mitigate” emissions from indirect sources. The only state law limitation on such regulation is a prohibition on requiring permits for an indirect source. See 76 Ops. Cal. Atty. Gen. 11 (Mar. 11, 1993). The Clean Air Act does not limit the scope of an indirect source rule adopted by a state, as confirmed by the CA AG Opinion and Health and Safety Code section 40716.

Following the 2016 AQMP, the 2022 AQMP continues to include rail yard-related, facility-based mobile source measures, specifically MOB-02A – Emission Reductions at New Rail Yards and Intermodal Facilities and MOB-02B – Emission Reductions at Existing Rail Yards and Intermodal Facilities, to further outline emission reductions strategies. Through a public process, PR 2306 will seek to reduce emissions associated with freight rail yards and implement MOB-02A and MOB-02B of the 2022 AQMP. PR 2306 will focus on reducing overall emissions from all rail yard-related mobile sources, whether from line haul locomotives, switch locomotives, drayage trucks, transportation refrigeration units, cargo handling equipment, and other on-site support equipment. PR 2306 will also require information to be reported periodically on any installed, ongoing, or planned infrastructure development used to support zero emission technologies for applicable mobile source attracted to freight rail yards.

Implementation of PR 2306 will also meet the requirement for districts in extreme nonattainment to consider all feasible measures that have been implemented in other areas in order to meet state standards. (Health and Safety Code Section 40920.5(c)) While the term “feasible” is not defined in the Health and Safety Code, it is defined in other state laws as “capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, and technological factors.” (Public Resources Code, § 21061.1)

There are several examples of indirect source rules that have already been adopted in California. For example, South Coast AQMD Rule 2305 – Warehouse Indirect Source Rule, which requires operators of warehouses greater than or equal to 100,000 square feet to reduce emissions through a menu of emission-abating or mitigation options, and South Coast AQMD Rule 2202, which requires employers of 250 or more employees to reduce mobile source emissions generated by employee commutes. Rule 2305 was recently upheld against multiple legal challenges. *Cal. Trucking Ass’n v. S. Coast Air Quality Mgt. Dist.* (C.D. Cal. Dec. 14, 2023) No. LACV2106341JAKMRWX, 2023 WL 9622548. In addition, the San Joaquin Valley Unified Air Pollution Control District adopted Rule 9510, which requires new development projects that meet certain specifications to reduce emissions of PM 10 and NOx. As other California air districts have

already adopted and implemented indirect source rules, policies, and/or the collection of reduction fees, this type of measure has been shown in a variety of areas to be “feasible.” Of course, feasibility is ultimately a rule-specific consideration. Staff has considered feasibility in drafting PR 2306 and PR 316.2. Furthermore, the authority for air districts to set emission reductions targets from indirect sources was earlier upheld in state and federal courts. *See Cal. Bldg. Indus. Assoc. v. San Joaquin Air Pollution Control District*, 178 Cal.App.4th 120 (2009); *NAHB v. San Joaquin Valley UAPCD*, 627 F.3d 730 (9th Cir. 2010).

Health and Safety Code section 40717 further requires districts to “adopt, implement, and enforce transportation control measures for the attainment of state or federal ambient air quality standards.” The section defines transportation control measures as “any strategy to reduce vehicle trips, vehicle use, vehicle miles traveled, vehicle idling, or traffic congestion for the purpose of reducing motor vehicle emissions.” (Health and Safety Code Section 40717 (g).) PR 2306 will facilitate the reductions of motor vehicle emissions associated with freight rail yards by including emission reductions from drayage trucks servicing the freight rail yards in the multiple options for freight rail yards to comply with the proposed emission reductions targets.

In addition to the above provisions, the South Coast AQMD may adopt rules or regulations that require “the owner or the operator of any air pollution emission source to take such action as the state board or the district may determine to be reasonable for the determination of the amount of such emission from such source.” (Health and Safety Code Section 41511.) Specifically, under Health and Safety Code Section 40701(g), the South Coast AQMD is authorized to collect information regarding a source, “except a noncommercial vehicular source,” including requiring an operator to provide “(1) a description of the source, and (2) disclosure of the data necessary to estimate the emissions of pollutants for which ambient air quality standards have been adopted, or their precursor pollutants.” These sections of the Health and Safety Code therefore authorize the South Coast AQMD to require owners and operators of freight rail yards to provide information that may be used to quantify emissions based on activity associated with the operation of an applicable freight rail yard.

Programs reducing emissions of precursors to ozone and PM_{2.5} for purposes of achieving and maintaining the NAAQS or CAAQS may also have concurrent benefits in reducing emissions of air toxics. The district may adopt rules to reduce emissions from sources that may affect public health. One of the duties imposed upon the district is the duty to enforce Health and Safety Code section 41700. That section provides:

“Except as otherwise provided in section 41705, no person shall discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.”

Accordingly, the South Coast AQMD may adopt regulations to prevent the potential health impacts from toxic air contaminants, including diesel PM, as well as to reduce the emissions of criteria air pollutants. The California Supreme Court has upheld the districts’ authority to regulate air toxic emissions from sources within their jurisdiction. (*Western Oil & Gas Assoc. v. Monterey Bay Unified Air Pollution Control Dist.* (1989) 49 Cal.3d 408.)

The South Coast AQMD’s earlier rules limiting rail idling and related measures were enjoined by the federal courts on the ground that they were preempted by the federal Interstate Commerce Commission Termination Act (ICCTA). In brief, the Court of Appeal held that ICCTA preempts state laws that “may reasonably be said to have the effect of managing or governing rail transportation.” *Ass’n. of Am. R.R.s v. South Coast Air Quality Mgt. Dist.*, 622 F. 3d 1094, 1097 (9th Cir. 2010) (“AAR”). But laws may escape preemption if they are “laws of general applicability that do not unreasonably interfere with interstate commerce.” AAR, p. 1097. PR 2306 can be characterized as a rule of general applicability even though it applies only to freight rail yards where it is part of a suite of rules that seek to reduce emissions from various indirect sources including aspects of the goods movement system. The Third Circuit has held that regulations governing loading of solid waste onto railcars were not necessarily discriminatory even though they applied only to the rail industry. *New York Susquehanna & Western Railway Corp. v. Jackson*, 500 F. 3d 238, 256 (3d Cir. 2007). The court held that determining any discriminatory effect required “compar[ing] the substance of the...regulation” to regulation of the same subject matter applicable to other industries. *Id.*; see also *Adrian & Blissfield v. Vill. of Blissfield*, 550 F.3d 533, 541-42 (6th Cir. 2008) (regulation that addresses “a general state concern” is not discriminatory). PR 2306 is one of a series of control measures applicable to the freight industry including warehouses, rail yards, marine ports, and airports (implemented through an MOU). It is therefore properly considered a rule of general applicability.

Moreover, once a rule is approved by the U.S. EPA into the state implementation plan, a different test applies. The Ninth Circuit held that “...to the extent that state and local agencies promulgate U.S. EPA-approved statewide plans under federal environmental laws (such as ‘statewide implementation plans’ under the Clean Air Act), ICCTA generally does not preempt those regulations, because it is possible to harmonize ICCTA with those federally-recognized regulations.” AAR, p. 1098. This is because “if an apparent conflict exists between ICCTA and a federal law, then the courts must strive to harmonize the two laws, giving effect to both laws if possible.” AAR, p. 1097.

However, until approved by the U.S. EPA into the state implementation plan, District rules “do not have the force and effect of federal law, even if they might in the future.” AAR, p. 1098. Therefore, the rules in that case were not entitled to harmonization. In contrast, PR 2306 provides that it becomes effective only upon approval by the U.S. EPA into the state implementation plan and after it also grants the requested authorization and/or waiver for CARB’s ACF Regulation and authorization for CARB’s In-Use Locomotive Regulation. Therefore, PR 2306 will have the force and effect of federal law if adopted and approved into the state implementation plan, and must be harmonized with ICCTA, and generally will not be preempted. AAR, p. 1098.

PR 316.2 establishes fees for filing specified reports as required by PR 2306. South Coast AQMD staff will need to audit the reports filed and perform investigations and inspections as needed to verify the accuracy and completeness of these reports. Also, as required, staff will need to engage in enforcement actions to ensure compliance with the provisions of Proposed Rule 2306. The fees set in PR 316.2 are based on staff estimates of the time needed for various staff members to administer and enforce PR 2306. These estimates provide the expected number of hours for each job classification multiplied by the burdened hourly rate for each position. The burdened hourly rate includes salary and benefits for that position, plus a proportionate share (based on an allocation per FTE) of district operational expenses such as costs for the building, utilities, insurance, etc. Similarly, PR 316.2 also establishes fees for specified notifications to be submitted occasionally

as required by PR 2306. These fees reflect the time and effort by the South Coast AQMD staff to administratively process the notifications, update internal records of any notified changes to the freight rail yards subject to PR 2306 for enforcement purposes, and to conduct any necessary inspections.

The state Health and Safety Code provides for the recovery of costs of regulation from indirect sources, such as the freight rail yards in this case. State law does not include a definition of “indirect source” but there is a definition in federal law as a “facility, building, structure, installation, real property, road, or highway which attracts, or may attract, mobile sources of pollution.” Clean Air Act Section 110(a)(5)(C). Freight rail yards are facilities that attract several types of mobile sources and thus are “indirect sources.” State law provides that “the south coast district may adopt, by regulation, a schedule of fees to be assessed on areawide or indirect sources of emissions which are regulated, but for which permits are not issued, by the south coast district to recover the costs of district programs related to those sources.” Health & Safety Code Section 40522.5.

District regulatory fees such as these are exempt from the requirements of Proposition 26 (2010) which generally classifies most charges by local governments as “taxes”, which are subject to specific requirements for adoption by popular vote. Exception 3 provides for local government fees “for the reasonable regulatory costs to a local government for issuing licenses and permits, performing investigations, inspections, and audits, enforcing agricultural marketing orders, and the administrative enforcement and adjudication thereof.” These fees will be used for investigations, inspections, auditing, and enforcement and are therefore exempt from Proposition 26.

CHAPTER 2 : FREIGHT RAIL YARD EMISSIONS AND AIR QUALITY NEEDS

INTRODUCTION

**FREIGHT RAIL YARD EMISSION SOURCES AND EMISSION
REDUCTIONS STRATEGIES**

**CURRENT STATE REGULATIONS ADDRESSING FREIGHT RAIL
YARD EMISSION SOURCES**

ZERO EMISSION INFRASTRUCTURE NEEDS

PUBLIC HEALTH AND AIR QUALITY NEEDS

BASELINE EMISSIONS INVENTORY OF FREIGHT RAIL YARD

INTRODUCTION

PR 2306 will reduce emissions from the goods movement sector by requiring freight rail yard operators to take actions that will achieve emission reductions from associated operations. PR 2306 would require freight rail yards to seek pathways to reduce emissions from associated sources, including locomotives, drayage trucks, CHE, and sources such as TRUs. One method to achieve such emission reductions might be to turn over lower tier engines with higher exhaust emissions to the cleanest available technologies within South Coast AQMD consistent with turnover that is expected statewide from CARB regulations. Other compliance methods could be used in accordance with the methods allowed by CARB regulations including the In-Use Locomotive Regulation and the ACF Regulation. No single regulation or rule could achieve federal air quality standards on its own, including PR 2306. This proposed rule is designed to enhance emission reductions from other programs in the South Coast AQMD jurisdiction and is part of the collection of actions needed to meet air quality standards.

FREIGHT RAIL YARD EMISSION SOURCES AND EMISSION REDUCTIONS STRATEGIES

The on-road and off-road mobile emission sources at freight rail yards covered under PR 2306 include: 1) locomotives powering inbound and outbound trains, 2) heavy-duty trucks delivering or picking up cargo (full or empty containers) to and from rail yards, 3) ~~transport refrigeration units (TRU)~~ on containers, trailers, railcars, and trucks, 4) ~~cargo handling equipment (CHE)~~ used for moving and handling cargo within the rail yard, and 5) ~~other on-site support equipment (OSE)~~. These sources account for the majority of emissions from freight rail yards.

Emission standards for diesel-powered off-road engines are set by U.S. EPA using a tier-based ranking system on exhaust emissions ranging from Tier 0 to Tier 4.³ Currently, Tier 4 engines are ranked as the cleanest available technology for off-road engines, and have generally been available since 2015.⁴ For some applications, zero emissions off-road vehicles are also becoming commercially available, and their availability is anticipated to increase through time. For on-road engines, CARB has set the cleanest engine standard in its Low NOx Omnibus regulation and has also established zero emission standards in its Advanced Clean Trucks Regulation and introduced requirements of zero emission fleets in the subsequent ACF Regulation.⁵

Emission reductions strategies across mobile sources tend to be consistent, although the plausible implementation of these strategies differ across categories. The emission reductions strategies include turnover to a cleaner fleet and the minimization of idling emissions. Minimization of idling emissions typically occurs in one of two ways, either through an operational change that would lower the time a mobile source would need to spend idling, or Zero Emissions Auxiliary Engine technology through which a source can idle without emissions.

Emission reductions can also potentially be achieved from mobile sources through a shift from one type of mobile source to another. For example, shifting passenger travel from single occupancy

³ U.S. EPA. Emission Standards Reference Guide for On-road and Nonroad Vehicles and Engines: <https://www.epa.gov/emission-standards-reference-guide>

⁴ CARB is also developing a new engine standard, Tier 5, for off-road engines. If adopted by CARB, this regulation would require authorization from EPA: <https://ww2.arb.ca.gov/our-work/programs/tier5>

⁵ CARB. Heavy Duty Low NOx Omnibus: <https://ww2.arb.ca.gov/our-work/programs/heavy-duty-low-nox>, CARB. Advanced Clean Trucks Regulation: <https://ww2.arb.ca.gov/rulemaking/2019/advancedcleantrucks>

cars with internal combustion engines to zero emission light rail transit can reduce emissions. However, not all mode shifts necessarily reduce emissions. For example, CARB has shown that current truck regulations in California will reduce NO_x and PM_{2.5} emissions so much that transporting goods will be less polluting using trucks than trains.⁶ This result could change depending on how quickly trucks or locomotives are turned over to clean technologies.

A. Locomotives

Inbound and outbound trains servicing freight rail yards are powered by several diesel “line haul” locomotives for long-haul or regional transport of cargo to and from freight rail yards. Typically, an inbound or outbound freight train is powered by three or four line haul locomotives, each rated to an average of 4,000 horsepower (hp). Line haul locomotives are also sometimes used at rail yards for on-site movements of railcars in breaking down arriving trains and assembling departing trains.

Switch locomotives are locomotives that generally operate within the freight rail yard boundary and are used for assembling and dis-assembling trains, maintenance, removing empty cars, and other operational needs. These locomotives are powered by smaller diesel engines, each rated to an average of 2,000 hp. Switch locomotives are also available as “Genset” (short for generator sets) locomotives in which typically two or three off-road diesel engines are connected in series to power the switch locomotive.

In diesel-powered locomotives, the engine’s output power generated from diesel fuel combustion is converted to electrical energy in an alternator or generator which is then transmitted to electric motors directly connected to the locomotive drive wheels for propulsion. Locomotives operate at discrete power settings or notches which include eight power notches (ranged at settings 1 to 8), corresponding to different speeds, as well as idle and dynamic brake notch settings.

New and remanufactured locomotives are required to certify to the applicable U.S. EPA emission standards. Locomotives are generally identified by Tier levels, including Tier 0, Tier 0+, Tier 1, Tier 1+, Tier 2, Tier 2+, Tier 3, and Tier 4. The U.S. EPA’s first set of locomotive emission standards in 1998 applied to newly manufactured and remanufactured locomotives which were originally manufactured in 1973 and later. Tier 0, Tier 1, and Tier 2 emission standards applied to locomotives originally manufactured from 1973 to 2001, 2002 to 2004, and 2005 and later, respectively. In 2008, U.S. EPA adopted more stringent emission standards (Tier 3 and Tier 4) for locomotives as well as more stringent remanufacturing standards for Tier 0, Tier 1, and Tier 2 locomotives (identified by plus signs). Tier 4 locomotives meet the most stringent emission standards which went into effect for locomotives originally manufactured in 2015 and later. There are also few remaining pre-Tier 0 locomotives still in operation which were manufactured prior to 1973 and are not subject to the U.S. EPA’s emissions standards.

Locomotive emissions associated with a freight rail yard are calculated based on the difference between activity level in non-zero emission and zero emission configurations, the corresponding emissions factors for locomotives based on locomotive type and Tier levels, and total number of operation days that the locomotive moves through a freight rail yard. For each inbound and outbound train servicing a freight rail yard, the locomotive emissions will depend on the number

⁶ CARB. Truck vs. Train Emissions Analysis: <https://ww2.arb.ca.gov/resources/fact-sheets/truck-vs-train-emissions-analysis>

of line haul locomotives powering the train, locomotives activity level, make-up of train locomotives (tier levels), and associated emission factors.

The primary source of emissions attracted to freight rail yards are those associated with locomotives, which can have a long useful life. As a locomotive ages, the emission of criteria pollutants tends to worsen. In addition, an owner or operator may be averse to turn an older locomotive over into a newer cleaner model due to high upfront costs. Many owners/operators opt instead to remanufacture the engine of the locomotive, which tends to be cheaper. CARB's In-Use Locomotive Regulation includes a "Spending Account" through which the operation of older, dirtier locomotives would be required to pay more charges into an account that can be used by locomotive owners/operators to purchase newer, cleaner locomotives. Besides fleet turnover, minimizing idling and cleaning idling operations are other ways in which locomotives may lower emissions. Engines tend to be at their least efficient operational state when idling, so even when no work is being done, the engine may be generating more emissions per unit of fuel compared to in-transit operations. For this reason, owner/operators may consider zero emission engines specifically for idling time and/or standardized operating procedures to lower the times in which a locomotive may be idling. With respect to turning over to zero emission capable locomotives, they are just beginning to emerge commercially for switcher operations or in combination with diesel line haul locomotives to make a hybrid consist, and recently, hybrid hydrogen fuel cell/battery technology was used to power passenger locomotives.⁷ Zero emission technology is anticipated to continue to develop, with multiple ongoing projects.⁸

B. Drayage Trucks

Drayage truck activity associated with the freight rail yard includes trucks carrying full or empty containers and other cargo in and out of freight rail yards or traveling to and from the freight rail yard without a trailer (i.e., to drop off or pick up cargo). The off-site drayage truck emissions are associated with trucks traveling through public roads transporting cargo from off-site points of origin to the freight rail yard and from the freight rail yard to the destination points. The on-site drayage truck emissions are associated with truck idling and truck traveling within the rail yard boundary. The annual emissions for drayage trucks operating at a freight rail yard are calculated based on number of truck trips, miles traveled by the truck, and the emission factor from CARB's EMFAC2021 model. These emission factors are adjusted for CARB's Heavy-Duty Inspection and Maintenance Program and ACF regulations that are not reflected in EMFAC2021. To ensure that drayage trucks have a timely transition to zero emission alternatives, CARB adopted a "useful life" mechanism into their ACF Regulation, so that a truck is not allowed to enter intermodal rail yards

⁷ Examples:

Progress Rail – A Caterpillar Company. EMD® Joule Battery Electric Locomotives:

<https://www.progressrail.com/en/Segments/RollingStock/Locomotives/FreightLocomotives/EMDJoule.html>;

Wabtec Corporation. Battery-Electric Locomotive Technology:

<https://www.wabteccorp.com/locomotive/alternative-fuel-locomotives/FLXdrive>;

CARB. Technology Feasibility Assessment for the Proposed In-Use Locomotive Regulation:

<https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2022/locomotive22/appf.pdf>; and San Bernardino County Transportation Authority: <https://www.gosbcta.com/project/zero-emission-multiple-unit-zemu/>.

⁸ For example, in 2023, the California State Transportation Agency (CalSTA) awarded grants to the South Coast AQMD for zero emission fuel cell locomotives and infrastructure, and to the Port of Long Beach to implement zero emission battery electric locomotives for port operations: <https://calsta.ca.gov/-/media/calsta-media/documents/pfip-awards-summary-narrative-7-6-23-a11y.pdf>.

or ports upon surpassing a certain mileage threshold or model year age. Zero emission trucks that can perform drayage service are now commercially available.⁹

C. Transportation Refrigeration Units

Transportation refrigeration units (TRU) are diesel-powered refrigeration units that are installed on trucks, trailers, containers, and railcars operating at freight rail yards. Emissions for a TRU are calculated based on its activity data and operating parameters (i.e., number and type of TRU, engine size, model year, operating hours, and engine load), and corresponding emission factors from CARB's OFFROAD 2021 model (i.e., emission factors, deterioration rates, load factors, fuel correction factors). TRUs differ from other mobile source categories in the sense that they perform relatively consistent operations. Therefore, operational changes are not anticipated to be an effective strategy to reduce emissions. Instead, cleaner TRUs would need to be introduced, including zero emissions technologies (e.g., for TRUs that plug in while parked) or TRUs that could meet a cleaner engine standard. CARB is actively developing a new engine standard for non-truck TRUs that are most common at freight rail yards and is evaluating emerging zero emission TRU technologies.¹⁰

D. Cargo Handling Equipment

Cargo handling equipment (CHE) refers to the on-site off-road self-propelled vehicle or equipment that is used for lifting or moving containers or bulk or liquid cargo at a freight rail yard; however, some yard trucks may be equipped with on-road engines and may travel short distance offsite. CHE equipment includes, but is not limited to, yard trucks (hostlers), forklifts, gantry cranes, top handlers, side handlers, reach stackers, aerial lifts, loaders, and other container/material handling equipment being used at freight rail yards. CHE can be equipped with diesel, gasoline, or natural gas engines or have zero emission configurations (e.g., electric/battery, hydrogen fuel cell). Diesel CHE are identified by Tier levels (Tier 0 to Tier 4) corresponding to the U.S. EPA's emission standards for new non-road diesel-powered equipment. CARB's 2005 CHE regulation established requirements for in-use and newly purchased diesel-powered CHE at ports and freight rail yards and was fully implemented by 2017. CARB has also adopted new engine emission standards and fleet requirements for large spark-ignited CHE (e.g., gasoline, propane) which have also been fully implemented.

The emissions for CHE operating at freight rail yards are calculated based on the equipment activity data (e.g., count and type of equipment, engine size, model year, annual operating hours, and fuel type) and the corresponding input parameters from CARB's OFFROAD 2021 (i.e., emission factors, deterioration rates, load factors, and fuel correction factors).

Since CHE is a broad category of equipment, some CHE categories already have commercially available zero emission alternatives (e.g., yard trucks, some container lifts)¹¹, or zero emission

⁹ Examples: Global Commercial Vehicle Drive to Zero. Zero-Emission Technology Inventory: <https://globaldrivetozero.org/tools/zeti/>; California HVIP Clean Truck and Bus Incentives. Tractor: <https://californiahvip.org/vehicle-category/heavy-duty/?type=300>.

¹⁰ CARB. Zero-Emission Truck TRU Technologies: <https://ww2.arb.ca.gov/our-work/programs/transport-refrigeration-unit/compliance-information/zero-emission-truck-tru>.

¹¹ Examples: BYD 8Y Terminal Tractor: <https://en.byd.com/truck/terminal-tractor/>; Orange EV. Husk-e® Purpose-Built for Port & Rail: <https://orangeev.com/huske/>; Taylor Machine Works, Inc. Electric Lifts: <https://taylorforklifts.com/products/electric-lift-truck>.

hybrid options (e.g., rubber-tired gantries).¹² However zero emission technology for some categories is still developing.¹³

E. Other On-Site Support Equipment

Other on-site support equipment (OSE) refers to any other on-site off-road self-propelled vehicle or equipment other than CHE operating at a freight rail yard. OSE include, but are not limited to, railcar movers, and railcar wheel change machines, used at freight rail yards. OSE can be equipped with diesel, gasoline, or natural gas engines or have zero emission configurations (e.g., electric/battery, hydrogen fuel cell). Like diesel CHE, diesel OSE are identified by Tier levels (Tier 0 to Tier 4) corresponding to the U.S. EPA's emission standards for new non-road diesel-powered equipment. Off-road OSE powered by spark-ignition engines (e.g., fueled by propane, gasoline, etc.) are regulated by CARB's Large Spark Ignition regulation, which has already been fully implemented.¹⁴ Off-road OSE powered by diesel engines would be covered by CARB's In-Use Off-Road Diesel regulation that was recently amended.¹⁵

The annual emissions for OSE operating at freight rail yards are calculated similar to annual emissions for CHE, and based on the equipment activity data (i.e., count and type of equipment, engine size, model year, annual operating hours, fuel type) and the corresponding input parameters from CARB's OFFROAD 2021 (i.e., emission factors, deterioration rates, load factors, fuel correction factors). Similar to CHE, some zero emission technologies are starting to become available for some OSE types (e.g., railcar movers, track maintenance equipment).¹⁶

CURRENT STATE REGULATIONS ADDRESSING FREIGHT RAIL YARD EMISSION SOURCES

There have been various efforts in the past to regulate emission sources that may also be associated with freight rail yard, as illustrated in Figure 2-1. State measures and regulations for drayage trucks, CHE, and TRUs have progressively aimed for a gradual transition to zero emission vehicle fleets and equipment. Development of regulations for drayage trucks began in 2007 which aimed to reduce emissions from drayage trucks used for cargo transportation to and from California intermodal rail yards and ports. These regulatory efforts started with the Statewide Drayage Truck Regulation (2007) which sought to meet or exceed the federal heavy-duty diesel-fueled engine

¹² Examples: MI-JACK Products. EcoCrane: <https://mi-jack.com/ecocrane-battery-hybrid-system/>; KoneCranes. Rubber-Tired Gantry Cranes: <https://www.konecranes.com/en-us/port-equipment-services/container-handling-equipment/rubber-tired-gantry-cranes>.

¹³ While marine port terminals are not subject to PR 2306, some of the CHE operating at ports can be used at freight rail yards. The most recent technology assessment from the Ports of Los Angeles and Long Beach is here: <https://cleanairactionplan.org/download/239/cargo-handling-equipment/5192/2021-cargo-handling-equipment-feasibility-assessment-report-final.pdf>

¹⁴ CARB. Large Spark-Ignition Regulation: <https://ww2.arb.ca.gov/our-work/programs/truckstop-resources/road-zone/large-spark-ignition-regulation>

¹⁵ CARB. In-Use Off-Road Diesel-Fueled Fleets Regulation: <https://ww2.arb.ca.gov/our-work/programs/use-road-diesel-fueled-fleets-regulation>

¹⁶ Examples: California Core. Railcar Movers and Freight Locomotives: <https://californiacore.org/equipment-category/railcar-movers-switchers/?type=110>; Jessie Lund, Justin Slosky, Jacob Whitson, Ross McLane. Technology and Market Assessment of Zero-Emission Off-Road Equipment: https://calstart.org/wp-content/uploads/2022/10/off_road_report_october_2022.pdf.

standards¹⁷, followed by CARB’s recent ACF Regulation (2023) to ultimately reach 100 percent zero emission for all drayage trucks by 2035. CHE and TRU SIP measures have been established, and regulations have also been adopted and later amended in order to make standards more stringent over time and ultimately facilitate the transition of CHE and TRU to cleaner fleets.

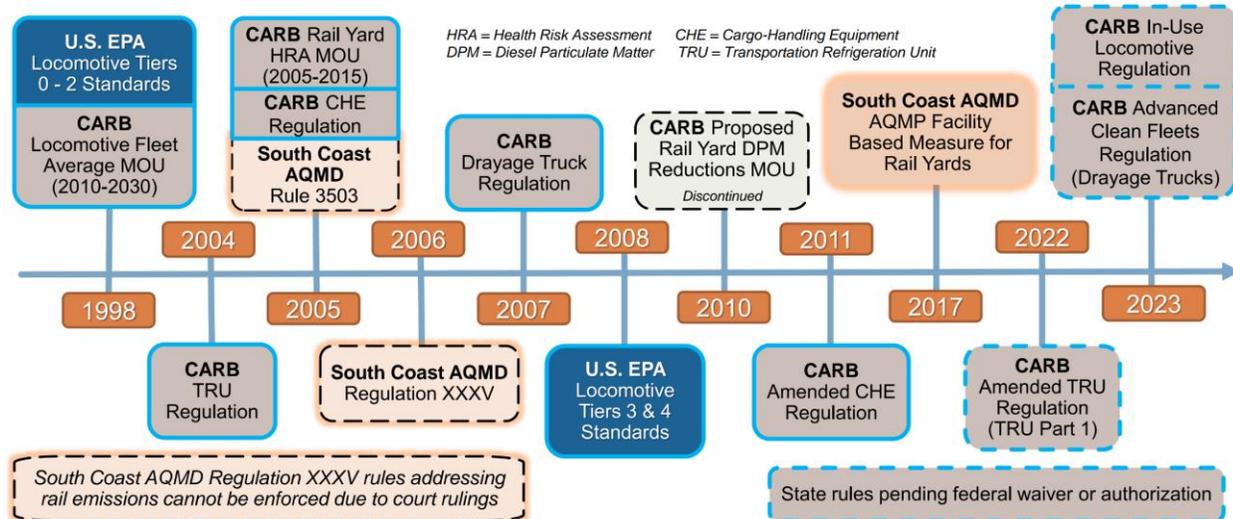


Figure 2-1. Regulatory History for Control of Emissions from Freight Rail Yards

Lately state goals have focused on the need to accelerate the adoption of lower emission technologies, in particular zero emission vehicles (ZEVs) and locomotives capable of operating in zero emission configuration. Two notable examples include CARB’s recently adopted In-Use Locomotive Regulation and ACF Regulation. PR_2306 is designed with these two rules in mind and aims to guarantee local emission reductions in freight rail yards at levels that are at least proportional to statewide emission reductions from implementing these state regulations. In addition to the recently adopted state regulations, CARB’s 2020 Mobile Source Strategy (MSS),¹⁸ the 2022 State SIP Strategy,¹⁹ and an executive order from the governor aim to accelerate the adoption of zero emission technologies.²⁰ CARB’s MSS is an integrated planning effort designed to meet state goals for criteria pollutants, greenhouse gases, and toxics. One of the key conclusions from this analysis is that a significant portion of the existing mobile source fleet (trucks, cars, off-road equipment, etc.) will need to convert to zero emission technologies quickly to meet multiple state goals, including attainment of federal air quality standards. The 2022 State SIP Strategy further describes mobile source control measures that will be needed to meet federal air quality standards. While some strategies like the In-Use Locomotive and ACF regulations have been

¹⁷ CARB. Regulation to Control Emissions from In-Use On-Road Diesel-Fueled Heavy-Duty Drayage Trucks: <https://ww2.arb.ca.gov/sites/default/files/classic/msprog/onroad/porttruck/draftreg.pdf>

¹⁸ CARB. 2020 Mobile Source Strategy: <https://ww2.arb.ca.gov/resources/documents/2020-mobile-source-strategy>

¹⁹ CARB. 2022 State Strategy for the State Implementation Plan (2022 State SIP Strategy): <https://ww2.arb.ca.gov/resources/documents/2022-state-strategy-state-implementation-plan-2022-state-sip-strategy>

²⁰ State of California. Executive Order N-79-20: <https://www.gov.ca.gov/wp-content/uploads/2020/09/9.23.20-EO-N-79-20-Climate.pdf>

adopted by CARB, other strategies are still undefined and rely on as-yet unspecified “accelerated turnover to zero emission technologies” for specific emissions sources, including some associated with freight rail yards such as railcar TRUs and CHE. Further, in September 2020, the governor of California signed an executive order directing state agencies to pursue zero emission goals for mobile sources. This includes a goal of a 100 percent zero emission truck fleet by 2045, a 100 percent zero emission drayage truck fleet (e.g., trucks that visit ports and rail yards) by 2035, and 100 percent zero emission off-road equipment operations by 2035.

Locomotives

The In-Use Locomotive Regulation was adopted by CARB in April 2023, with the final version approved through the Office of Administrative Law in October 2023.²¹ This rule aims to reduce rail emissions in California by establishing a spending account for each locomotive operator as well as placing useful life limits on in-use locomotives. The spending account would require each locomotive operator to deposit funds annually based on the NO_x and PM levels of the locomotive engines being operated in California. Between the years 2026 and 2029, funds in the spending account may only be used to purchase locomotives that meet Tier 4 emission standards or cleaner. From the year 2030 and beyond, the spending account funds may only be used to purchase zero emission capable locomotives. Funds may also be used for zero emission railcar movers, zero emission infrastructure, and pilot and demonstration projects. Beginning January 1, 2030, only locomotives less than 23 years of age may operate within the state unless operated in zero emission configuration or meeting the cleanest federal emission standards. Also starting on January 1, 2030, all new passenger, switch, and industrial locomotives with original engine build dates of 2030 or later must operate in zero emission configuration in California. Another operational requirement begins January 1, 2035, which will require all line haul locomotives with an engine build date of 2035 or later to operate in zero emission configuration when operating within the state. Lastly, the rule imposes an idling limit of 30 minutes, unless exempted, for locomotives equipped with automatic shutoff devices. There are no specific requirements in the In-Use Locomotive Regulation that apply to South Coast AQMD. As of the date of this report, the U.S. EPA has not approved the authorization request for this regulation, and CARB is not enforcing it.

There are a variety of additional flexibilities built into the In-Use Locomotive Regulation besides those described above. These include an Alternative Compliance Plan option which allows locomotive operators to reduce emissions through other strategies than described above, an Alternative Fleet Milestone Option which allows locomotive operators to reduce emissions by committing to alternative operational milestones, and Compliance Extensions for situations like delays in infrastructure installation. The result of these flexibilities is that the exact level of emission reductions in South Coast AQMD is uncertain. Locomotive operators can comply in a variety of ways, with differing results in emission reductions.

The In-Use Locomotive Regulation is the first state-level regulatory action in the U.S. Prior state efforts in reducing rail emissions relied on contractual agreements with railroads. The 1998 MOU focuses on locomotive fleet-wide average emission to meet Tier 2 emission levels or better for the Basin from 2010 through 2030. This agreement remains in effect today (see Box 2-1 for the 2020

²¹ CARB. In-Use Locomotive Regulation: <https://ww2.arb.ca.gov/rulemaking/2022/locomotive>

Box 2-1. Locomotive Fleet Composition and Average Emission Rates

While individual Class 1 railroads operate across multiple states, the emissions profiles are not uniform. Emission levels vary by railroad and geographically. As shown in the table below, in 2020 the nationwide average locomotive tier level for all seven Class 1 railroads differs from the tier level reported by both UP and BNSF in the South Coast Air Basin.

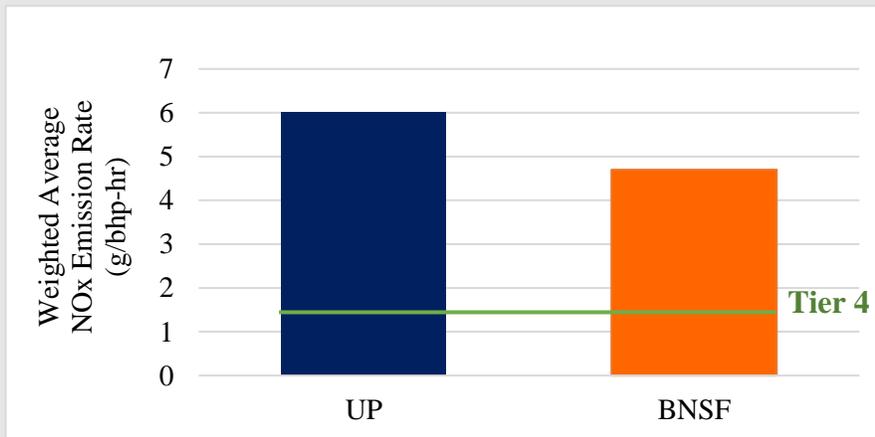
Class 1 Railroad Locomotive Fleet Composition by Tier Level for 2020

Locomotive Tier	Nationwide	South Coast Air Basin*	
	All Class 1 Railroads	UP	BNSF
Not Classified	2%	0%	6%
Tier 0/0+	19%	13%	1%
Tier 1/1+	27%	34%	25%
Tier 2/2+	28%	29%	35%
Tier 3	18%	19%	26%
Tier 4	7%	5%	6%
Total Count of Locomotives	16,787	4,602	4,927

* May not sum due to rounding

Further, even within the South Coast Air Basin, the fleet average emission rates can vary significantly between UP and BNSF. However, both railroad fleets’ average emission rates were 3-5 times higher than the cleanest federal Tier 4 standard of 1.3 g/bhp-hr.

Average Locomotive Emission Rate in South Coast Air Basin in 2020



Data Sources:

CARB. Reports from 1998 Locomotive NOx Fleet Average Emissions Agreement in the South Coast Air Basin (1998 MOU) <https://ww2.arb.ca.gov/resources/documents/rail-emission-reduction-agreements>

U.S. EPA. 2020 National Emissions Inventory Locomotive Methodology (using information from Association of American Railroads) https://gaftp.epa.gov/air/nei/2020/doc/supporting_data/nonpoint/Rail/2020_NEI_Rail_062722.pdf

compliance summary).²² The 2005 Statewide Railyard Agreement was completed in 2015 and included a statewide idle reduction program, maximized the use of ultra-low sulfur diesel fuel,

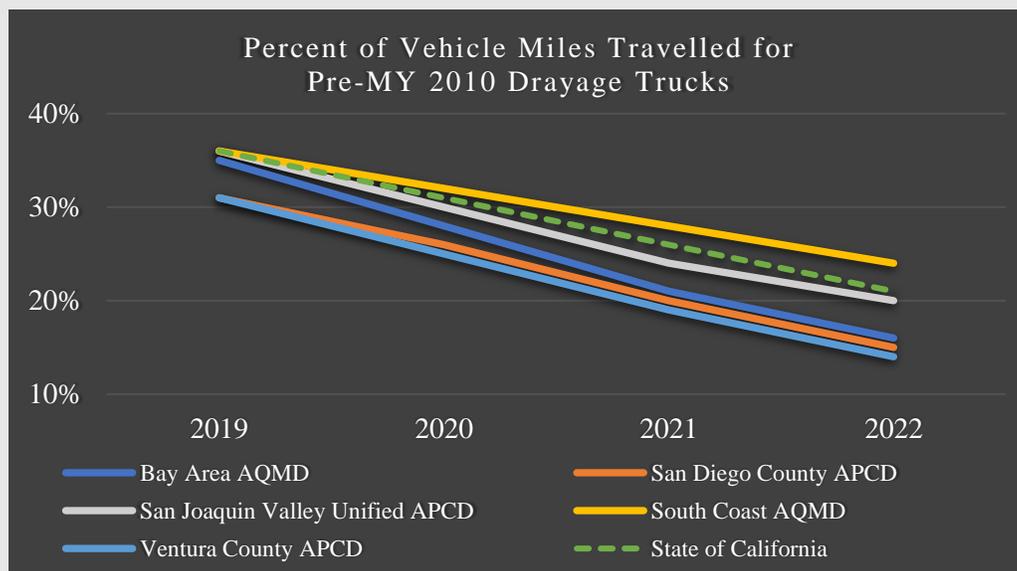
established a statewide visible emissions reduction and repair program, as well as the preparation of emission inventories and health risk assessments for 17 major rail yards across the state.

Drayage Trucks

CARB adopted its ACF Regulation in April 2023, and the final version of the rule was approved by the Office of Administrative Law in October 2023.²³ This regulation phases in zero emission vehicle requirements for state and local government fleets, drayage trucks, and high priority and federal fleets. The regulation also requires medium-duty and heavy-duty vehicle sales in California to become fully zero emission (i.e., 100 percent) starting in 2036. The ACF Regulation establishes the requirement for all drayage trucks to be registered in CARB’s reporting system. Legacy trucks, which are non-zero emission drayage trucks with a 2010 or newer engine model year, that are registered prior to 2024 will be able to remain in service until the engine age exceeds 13 years or its mileage exceeds 800,000 miles with a maximum of 18 years from the truck engine certification

Box 2-2. Uneven Outcome from Statewide Truck and Bus Regulation Implementation

CARB’s Truck and Bus Regulation required virtually all trucks to transition to model year (MY) 2010 and newer engine technology by 2023, including for drayage trucks. The MY 2010 or newer trucks use the selective catalytic reduction (SCR) technology which significantly lower NOx emissions when compared to earlier model years. The turnover of the state’s truck fleet did not necessarily happen evenly across the state. Data retrieved through CARB’s EMFAC2021 model shows a higher proportion of vehicle miles travelled by older drayage trucks in South Coast AQMD relative to various other air districts and the rest of the state in the leadup to the complete pre-MY 2010 truck phase-out in 2023. South Coast AQMD experienced a slower decrease in the activity of older drayage trucks (pre-MY 2010) relative to other air districts. There was no requirement to ensure that drayage trucks were turned over to MY 2010 or newer equally across the state in CARB’s Truck and Bus Regulation, or in any other program at the time.



²² CARB. Rail Emission Reduction Agreements: <https://ww2.arb.ca.gov/resources/documents/rail-emission-reduction-agreements>

²³ CARB. Proposed Advanced Clean Fleets Regulation: <https://ww2.arb.ca.gov/rulemaking/2022/acf2022>

date, whichever is later. Also beginning January 1, 2024, any truck added to drayage service must be zero emission. Additionally, the ACF Regulation requires all drayage trucks entering seaports and intermodal rail yards to be zero emission by 2035. As of the date of this report, the U.S. EPA has not approved the waiver and authorization requests from CARB for ACF, and CARB is not enforcing it.

Similar to the flexibilities described above for the In-Use Locomotive Regulation, the drayage component of ACF includes flexibilities for drayage fleet owners. This includes compliance extensions such as for infrastructure delays, or vehicle delivery delays. Further, the state drayage registry includes more than 140,000 trucks, however less than 34,000 are being used at ports and rail yards.²⁴ This excess number of drayage trucks provides flexibility in conducting drayage operations with non-zero emissions trucks, even while drayage operators remain compliant with CARB's regulation. ACF also does not include any specific requirements for drayage operations in South Coast AQMD. Box 2-2 provides an example of how past implementation of statewide regulation has led to an uneven outcome across the state.

Transportation Refrigeration Units

CARB's 2022 revisions to the Airborne Toxic Control Measures (ATCM) for In-Use Diesel-Fueled Transport Refrigeration Units (Part 1 regulation) set forth zero emission mandates for truck TRUs, with a stipulation that by December 31, 2029, all truck TRUs in California must operate with zero level of emissions. Truck TRUs typically do not visit freight rail yards. Additionally, starting in 2023, newer model trailer, container, and railcar TRUs, along with TRU generator sets, are required to adhere to a PM emission standard of 0.02 grams per brake horsepower-hour. As of the date of this report, the U.S. EPA has not approved the authorization request from CARB for the TRU Part 1 Regulation, and CARB is not enforcing it.

The 2022 State SIP strategy included a control measure to introduce zero emission requirements for non-truck TRUs, such as trailer TRUs, domestic container TRUs, railcar TRUs, and TRU generator sets. To implement this strategy, CARB has recently initiated rulemaking for the Part 2 amendments to the TRU ATCM.²⁵

Cargo Handling Equipment

CARB's current CHE Regulation was adopted in 2005 and was fully implemented in 2017. The 2022 State SIP Strategy for CHE will establish requirements for transitioning CHE to zero emission. Under this strategy, all yard trucks and forklifts are expected to be zero emission by 2030; rubber-tired gantry cranes will be zero emission by 2032; and 90% of other CHE would be zero emission by 2036. As of the date of this report, rulemaking has not been initiated for this strategy.

ZERO EMISSIONS INFRASTRUCTURE NEEDS

As described in the previous section, many recently adopted and upcoming regulations from CARB make significant strides towards deploying zero emissions mobile sources across many

²⁴ CARB. Advanced Clean Fleets Regulation – Drayage Truck Requirements:

<https://ww2.arb.ca.gov/resources/fact-sheets/advanced-clean-fleets-regulation-drayage-truck-requirements>

[https://ww2.arb.ca.gov/resources/fact-sheets/advanced-clean-fleets-regulation-drayage-truck-](https://ww2.arb.ca.gov/resources/fact-sheets/advanced-clean-fleets-regulation-drayage-truck-requirements#:~:text=As%20of%20December%202022%2C%20there,out%20of%20state%20drayage%20trucks)

[requirements#:~:text=As%20of%20December%202022%2C%20there,out%20of%20state%20drayage%20trucks](https://ww2.arb.ca.gov/resources/fact-sheets/advanced-clean-fleets-regulation-drayage-truck-requirements#:~:text=As%20of%20December%202022%2C%20there,out%20of%20state%20drayage%20trucks)

²⁵ See: <https://ww2.arb.ca.gov/our-work/programs/transport-refrigeration-unit/tru-meetings-workshops>.

sectors. One of the key challenges that is emerging with deploying zero emissions equipment and vehicles is the need to develop charging and fueling infrastructure. The scale of this challenge is illustrated when looking at what is occurring for on-road vehicles. Based on analysis by the state Energy Commission, by 2030 the state will need about 115,000 chargers by 2030 and more than 260,000 chargers by 2035 just to support medium and heavy duty on-road vehicles.²⁶ When including light-duty vehicles, the need jumps to more than 2.1 million chargers. In comparison, today there are only about 94,000 chargers across the state.²⁷

This type of comprehensive analysis has not been completed yet for off-road vehicles; however, the scale of the challenge is expected to be similar. As an example, if in the future a freight rail yard were to charge 150 pieces of electric CHE at the same time using 100 kW chargers, they would need 15 MW of power at that site. If they were to add in charging for 5 switch locomotives at 1 MW each, the need could jump to 20 MW. Existing freight rail yards typically do not have this much power available on their local circuit and may only currently use about 1 MW. The state Energy Commission has developed web-based mapping tool (EDGE) to evaluate the local electrical grid capacity at the neighborhood level.²⁸ This EDGE tool reveals that the local grid capacity varies widely between freight rail yards. In one case for two freight rail yards near each other that are operated by two different railroads, the area around one rail yard only has less than 0.1 MW of available circuit capacity, while the area around the nearby rail yard has about 6 MW of available circuit capacity. In both cases, significant upgrades would be needed to the surrounding grid to supply the 20 MW of power in the example described above. More comprehensively, the Energy Commission determined that 89% of areas throughout the state do not have enough capacity for a single 10 MW upgrade using existing infrastructure.²⁹

Electric utilities have stated that early planning is critical to develop this infrastructure for a site, and large projects can take more than five years to build out, although the specifics of any one particular site will vary. Hydrogen fueling infrastructure for mobile source fueling is not expected to be built through utility infrastructure, so the timelines may be somewhat less than for electrical upgrades. Regardless of fuel type, the scale of infrastructure development necessitates comprehensive planning to ensure the infrastructure is available when zero emission vehicles are first delivered for use.

Both owners and operators of freight rail yards are expected to have a role in planning for zero emissions infrastructure buildout given their shared interest in the physical layout and improvement of a facility. A general template for zero emissions planning for all freight rail yards is not expected to be a reasonable solution as specific site details are critical to developing a zero-emissions infrastructure plan. Details include evaluating how many locomotives, as well as pieces of CHE, OSE, and TRUs would need to be fueled or charged, at what rate, at which locations onsite, whether energy storage will also be included to provide redundancy and/or price moderation, what types of chargers or fueling dispensers will be used, etc.

²⁶ California Energy Commission. AB 2127 Report: <https://efiling.energy.ca.gov/GetDocument.aspx?tn=254869>

²⁷ California Energy Commission . Integrated Energy Policy Report: <https://efiling.energy.ca.gov/GetDocument.aspx?tn=254463>

²⁸ California Energy Commission EDGE tool: <https://experience.arcgis.com/experience/6aaadc11586447aaaeab2a473947ad07>

²⁹ California Energy Commission. AB 2127 report: <https://efiling.energy.ca.gov/GetDocument.aspx?tn=254869>

There are no existing requirements for freight rail yard owners or operators to develop comprehensive zero emissions infrastructure plans under any existing regulation or legislation, nor are they required to submit applications on any specific timelines to local utilities to begin the needed grid upgrades. This grid planning is also critical not just for their location, but for the surrounding land uses too, especially given the local circuit constraints described above. Freight rail yards are commonly located in industrial areas, and many of these other businesses will also need to upgrade their electrical service in response to state mandates for zero emissions equipment, vehicles, and potentially building space and water heating. The zero emissions infrastructure needs of a freight rail yard may be substantial relative to its neighbors; absent this analysis or visibility into such analysis, local utilities will not have a comprehensive picture of what an area needs and may not be able to efficiently provide upgrades to everyone.

By including requirements to report on the utilization of any installed and operative zero emission infrastructure, as well as zero emission infrastructure projects under design and development, the reported information will further help inform the planning of future zero-emission energy needs and the infrastructure to supply the energy.

PUBLIC HEALTH AND AIR QUALITY NEEDS

Criteria pollutants, such as ozone and PM_{2.5} (inclusive of directly emitted diesel particulate matter which is an air toxic), are not only harmful to the environment but also to human health. Regulating NO_x emissions, a precursor to ozone and secondarily-formed PM_{2.5}, will lessen the health impacts imposed on affected communities. Certain groups of people, like outdoor workers, children, older adults, and those suffering from lung diseases or certain nutritional deficiencies are most vulnerable to ozone health effects.³⁰ Short term exposure to ozone can cause breathing problems, reduced lung capacity, increased infection risk, lung inflammation, and immune system changes. Elevated ozone levels are linked to worsened asthma and chronic obstructive pulmonary disease (COPD), respiratory infections, increased school absences, hospital visits, and higher mortality rates. Recent evidence suggests ozone may also affect metabolism, and there is some indication of effects on the cardiovascular and nervous systems, reproduction and development, and mortality, although these findings are less certain.

Studies have found connections between high levels of particulate matter and higher mortality rates, respiratory infections, asthma attacks, COPD exacerbations, and hospital admissions.³¹ PM_{2.5} levels are also associated with cardiovascular and respiratory disease mortality, hospital visits for respiratory issues, school absences, decreased lung function in children, and increased asthma medication use. Long-term exposure to particulate matter is linked to stunted lung function growth in children, increase cardiovascular disease risk, and higher lung cancer mortality rates. The U.S. EPA's recent review confirms that both short-term and long-term exposure to PM_{2.5} increases cardiovascular risk and mortality.³² There is also emerging evidence of metabolic, nervous system, and reproductive effects from exposure to PM_{2.5}.

The International Agency for Research on Cancer classified diesel particulate matter as likely carcinogenic to humans in 1989, and in 2012, they confirmed it as causing lung cancer. Similarly,

³⁰ South Coast AQMD. 2022 Air Quality Management Plan: <https://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2022-air-quality-management-plan/final-2022-aqmp/final-2022-aqmp.pdf>

³¹ *Ibid.*

³² U.S. EPA. Integrated Science Assessment (ISA) for Particulate Matter: <https://www.epa.gov/isa/integrated-science-assessment-isa-particulate-matter>

in 1998 CARB identified diesel particulate matter as a toxic air contaminant that causes cancer and other health effects. South Coast AQMD studies on air toxics, including the Multiple Air Toxics Exposure Study (MATES) V, also identified diesel particulate matter as the largest contributor to overall air toxics cancer risk.³³

The Basin has some of the worst air quality in the nation with highest levels of ozone and among the highest levels of PM_{2.5} in the country that exceed federal air quality standards.³⁴ Attaining air quality standards yields monetized health benefits that are estimated to be about \$134.3 billion in present value cumulatively up to the year 2037.³⁵ Mobile sources associated with goods movement make up about 52 percent of all NO_x emissions in the Basin.³⁶ Trucks are currently the largest source of NO_x emissions in the Basin and also one of the largest sources for emissions associated with freight rail yards. The existing state and local regulations may not be sufficient to achieve air quality attainment by either 2031 or 2037 attainment dates in the Basin. Even newly proposed regulations from CARB and U.S. EPA are not guaranteed to meet these air quality standards without the support of additional actions at local scale.

PR 2306 also supports statewide efforts to increase the number of zero emission vehicles and equipment. There are many actions occurring across the State of California to increase the use of zero emission technologies to satisfy many goals, including meeting federal and state air quality standards, reducing toxics and greenhouse gas emissions, encouraging manufacturing of zero emission vehicles and equipment in the state, and reducing dependence on fossil fuels.³⁷ Air districts are authorized to contribute to such efforts through development of local regulations, such as South Coast AQMD's PR 2306. PR 2306 provides a mechanism to require owners and operators of freight rail yards to report on the planning, development, and utilization of supporting zero emission infrastructure for the anticipated deployment of zero emission vehicles and equipment to comply with or support the implementation of state regulations, and to also meet the broader federal and state decarbonization and zero emission goals. PR2306 is further necessary to ensure that state actions to require cleaner vehicles and equipment will be implemented in the South Coast AQMD region.

³³ South Coast AQMD. MATES V Study: <https://www.aqmd.gov/docs/default-source/planning/mates-v/mates-v-final-report-9-24-21.pdf>

³⁴ American Lung Association. Report Card: California: <https://www.lung.org/research/sota/city-rankings/states/california>

³⁵ South Coast AQMD. 2022 Air Quality Management Plan – Socioeconomic Report: <http://www.aqmd.gov/docs/default-source/clean-air-plans/socioeconomic-analysis/final/aqmp-2022-socioeconomic-report-main-final.pdf>

³⁶ Southern California Association of Governments. Goods Movement Technical Report: https://scag.ca.gov/sites/main/files/file-attachments/0903fconnectsocial_goods-movement.pdf?1606001690

³⁷ Examples: Office of Governor Edmund G. Brown Jr. 2018 ZEV Action Plan Priorities Update: <https://static.business.ca.gov/wp-content/uploads/2019/12/2018-ZEV-Action-Plan-Priorities-Update.pdf>, State of California. Executive Order N-79-20: <https://www.gov.ca.gov/wp-content/uploads/2020/09/9.23.20-EO-N-79-20-Climate.pdf>, Office of Governor Edmund G. Brown Jr. Executive Order B-16-2012: <https://www.ca.gov/archive/gov39/2012/03/23/news17472/index.html>, Office of Governor Edmund G. Brown Jr. Governor Brown Takes Action to Increase Zero-Emission Vehicles, Fund New Climate Investments: <https://www.ca.gov/archive/gov39/2018/01/26/governor-brown-takes-action-to-increase-zero-emission-vehicles-fund-new-climate-investments/index.html>, State of California Executive Department. Executive Order B-55-18 to Achieve Carbon Neutrality: <https://www.ca.gov/archive/gov39/wp-content/uploads/2018/09/9.10.18-Executive-Order.pdf>

BASELINE EMISSIONS INVENTORY OF FREIGHT RAIL YARD

Emission sources at freight rail yards are predominately from diesel powered vehicles and equipment that contribute to NO_x emissions and impact the regional ozone and air quality of communities surrounding rail yard and communities along rail corridors. Mobile sources that are attracted to freight rail yards include locomotives, drayage trucks, CHE, TRUs, and OSE. Locomotives are known to be the largest contributors to the NO_x emissions associated with freight rail yards. South Coast AQMD staff conducted a baseline emission inventory analysis on applicable freight rail yard emission sources using available data from CARB, including the EMFAC and OFFROAD models as well as data directly obtained from CARB staff. Based on the projected baseline emissions inventory, which do not include the recently adopted state regulations including the In-Use Locomotive Regulation and the ACF Regulation, locomotives account for 84 percent of NO_x emissions associated with freight rail yard operations in the South Coast AQMD region in 2024. Drayage trucks come second, accounting for 12 percent in 2024. Other sources of emissions including CHE, TRU, and OSE account for 4 percent in 2024.

Figure 2-2 shows the share of associated mobile sources to freight rail yards based on the projected baseline NO_x emissions in 2024 and 2037. Notable changes for the 2037 projected baseline emissions of freight rail yard sources in the South Coast AQMD region include that drayage truck NO_x emissions are anticipated to lower to less than half of their projected emissions level in 2024, but locomotive NO_x emissions are anticipated to remain almost unchanged, therefore ending up making a larger share out of Basin emissions associated with freight rail yards in 2037.

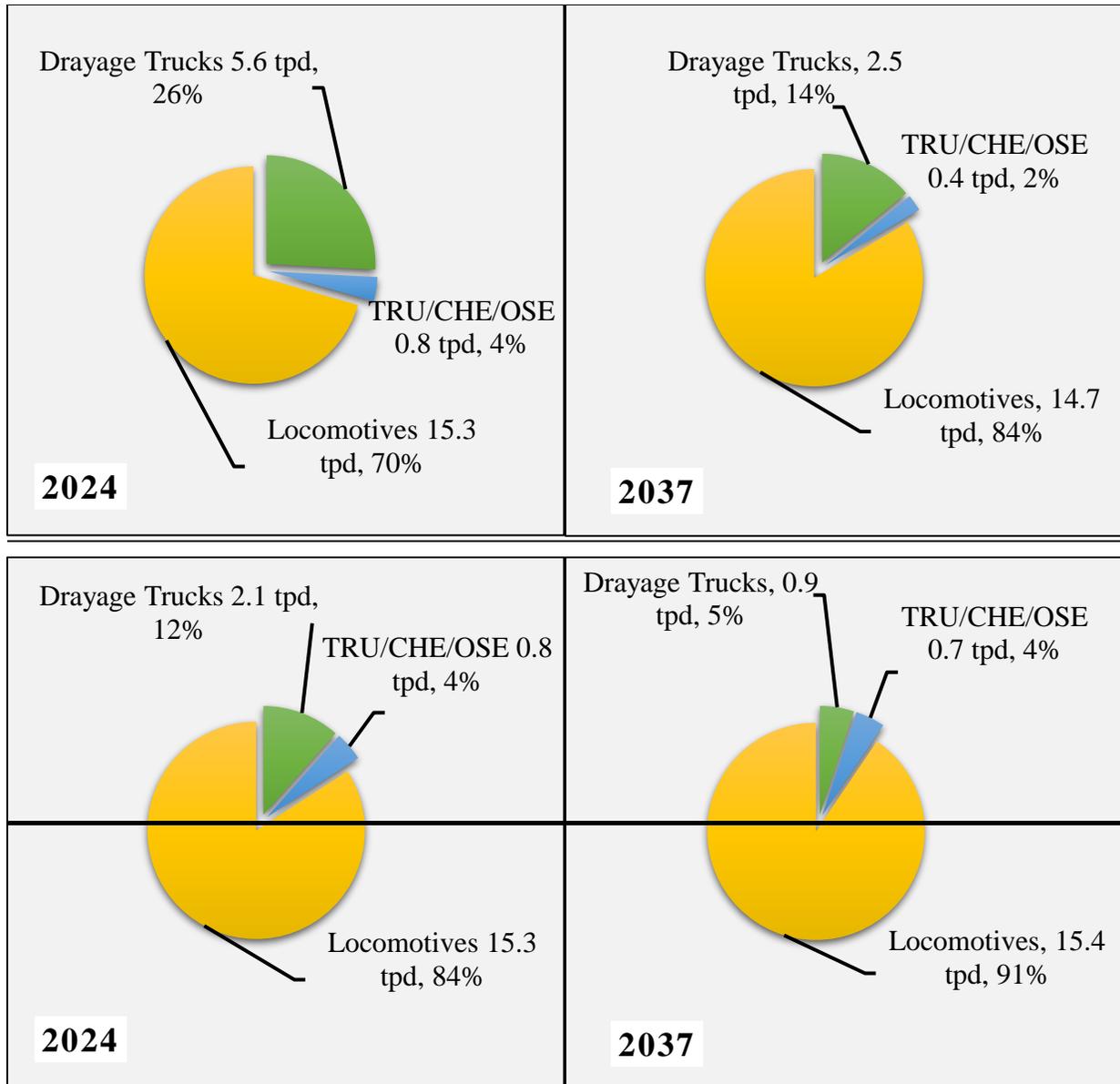


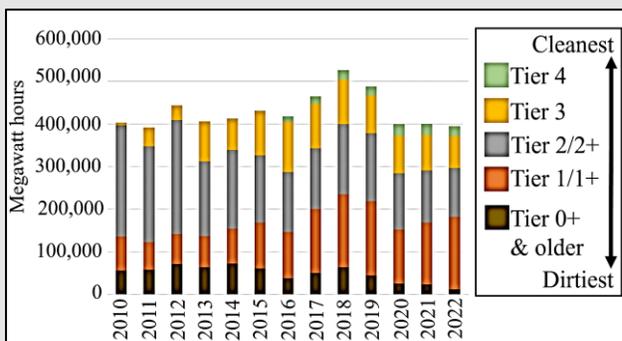
Figure 2-2. South Coast Freight Rail Yard Projected Baseline NOx Emissions in 2024 (Left) and 2037 (Right) by Source Category

The baseline inventory for locomotives is derived from CARB’s OFFROAD 2021, using data from 2025 to 2050. CHE pulled from OFFROAD 2021 are those that include “Rail” in their category name. TRU pulled include Instate genset, Out-of-State Genset, and Railcar TRU. Based on CARB’s line haul locomotive emission inventory,³⁸ switcher activity in the Basin accounts for 58 percent of statewide switcher activity and line haul locomotive activity within the Basin accounts for 17 percent of statewide line haul activity. These estimates were used to convert statewide NOx emissions baselines from CARB into a reasonable estimate for specifically the Basin. Box 2-3 provides a more detailed discussion on the locomotives deployed to the Basin for the past decade or so, based on the same historical data the baseline locomotive emission projections rely upon.

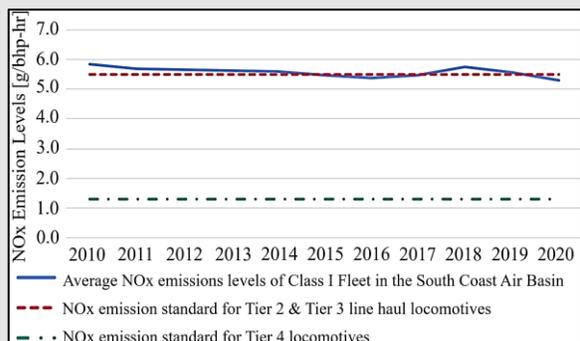
Box 2-3. More Work Done by Dirtier Freight Locomotives Today Than a Decade Ago

Class 1 locomotives deployed to the South Coast AQMD region belong to the nationwide fleets operated by the Union Pacific Railroad and the BNSF Railway, respectively. At the beginning of 2022, UP reported a total of 7,476 owned or leased locomotives in service nationwide, among which 4,554 units had been deployed to the Basin throughout the year; similarly, BNSF reported a total of 5,344 units deployed to the Basin, out of its fleet of 7,548 owned or leased locomotives nationwide.^{a,b} Most of locomotives deployed to the Basin are line haul locomotives traveling in and out of the Basin or used for regional switching operations; yet, only about 17 percent of statewide line haul locomotive activities occur in the South Coast AQMD region based on CARB’s estimate. Besides lack of investment by Class 1 railroads in newer, cleaner locomotives,^b the non-captive nature of the Class 1 locomotive fleets is one key factor leading to the South Coast AQMD region seeing significantly more work done (in megawatt-hours) in recent years by the dirtiest locomotives (Tier 1/1+ or dirtier) when compared to a decade ago. (See the left plot below, with the orange and brown bars depicting work done by Tier 1/1+ or dirtier locomotives.)

Despite increasingly more stringent federal locomotive standards, the Basin has not seen cleaner freight locomotive operations in aggregate (see the right plot below, with the solid blue line depicting the annual fleet average NOx emission levels of Class 1 locomotive fleets). Considering the non-captive nature of the locomotive fleet in combination of the design of statewide regulations, proportional implementation of CARB’s In-Use Locomotive Regulation may not necessarily occur in South Coast AQMD, as similarly observed for the implementation of CARB’s Truck and Bus Regulation (see Box 2-2).



Class 1 Locomotive Fleet Activity by Engine Tier for South Coast Air Basin (2010-2022)^a



Class 1 Locomotive Fleet Average NOx Emission Levels in the South Coast Air Basin (2010-2020)^c

^a CARB Rail Emission Reduction Agreements: <https://ww2.arb.ca.gov/resources/documents/rail-emission-reduction-agreements>.

^b Surface Transportation Board. Annual R-1 Reports Submitted by Class 1 Railroads: <https://www.stb.gov/reports-data/economic-data/annual-report-financial-data/>.

^c CARB In-Use Locomotive Regulation Initial Statement of Reasons (Figure 14): <https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2022/locomotive22/isor.pdf>

For drayage trucks baseline inventory, staff worked directly with CARB staff since the EMFAC 2021 model does not include rail drayage specific emissions category. CARB staff provided statewide emissions projection data³⁹ reflecting business as usual rail drayage emissions as well as rail drayage emissions with implementation of ACF. Rail drayage emissions are subsets of the statewide drayage emission inventory available in EMFAC 2021, including T7 POLA Class 8 (Ports of Los Angeles and Long Beach), T7 POAK Class 8 (Port of Oakland), T7 Other Ports Class 8 as well as a subset of T7 Tractor Class 8 inventory reflecting rail specific activity. These emissions projections also reflect the statewide Heavy-Duty Vehicle Inspection and Maintenance regulation for drayage trucks. Additional details on the rail drayage emission inventory will be discussed in Chapter 3 of this report.

³⁸ CARB. 2021 Line-Haul Locomotive Emission Inventory: https://ww2.arb.ca.gov/sites/default/files/2021-02/2021_line_haul_locomotive_emission_inventory_final.pdf

³⁹ Data obtained from CARB staff via email correspondence from March 1, 2024.

CHAPTER 3 : SUMMARY OF PROPOSALS

INTRODUCTION

PROPOSED RULE 2306

PROPOSED RULE 316.2

INTRODUCTION

PR 2306 works with other state and local regulations, incentive programs, and policies to enhance their effect (e.g., clean air goals and zero emission vehicle goals). PR 2306 also acts as a facilitating measure to achieve emission reductions from these other efforts. Regional reductions in NO_x and PM emissions will assist in meeting federal and state air quality standards, and concurrent reductions in diesel particulate matter will also reduce air quality impacts to communities living close to freight rail yards. PR 2306 includes requirements for the operators of regulated freight rail yard to meet an emission reductions target and a corresponding facility-wide emissions reduction based on projected locomotive and truck activity. PR 2306 also requires submittal of an initial facility information report, initial zero emission infrastructure report, milestone compliance report, zero emission infrastructure status update report, as applicable, and includes recordkeeping requirements for supporting documents and data to demonstrate compliance with the proposed rule. Figure 3-1 shows the rule structure for PR 2306 as organized by subdivision and its attachments.

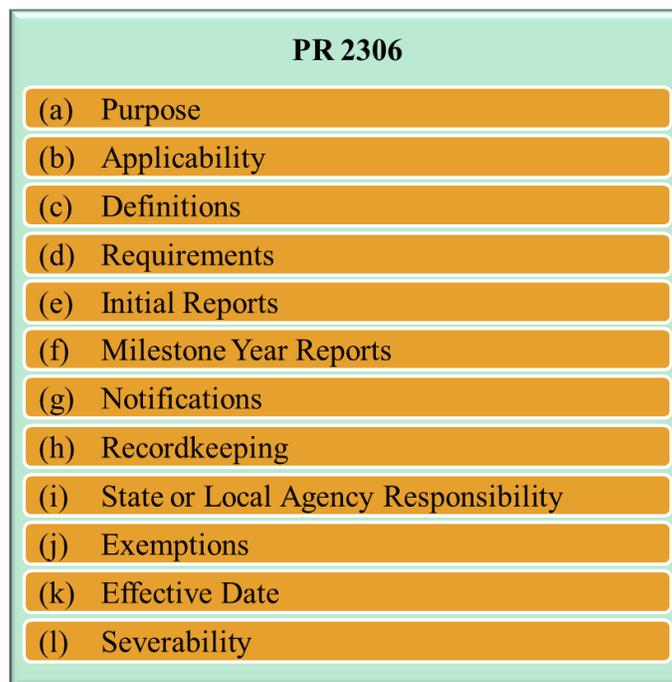


Figure 3-1. Rule Structure – PR 2306

PR 316.2 is the companion rule to PR 2306 and establishes the administrative fees that owners and operators subject to PR 2306 must pay to support South Coast AQMD compliance and implementation activities. PR 316.2 includes provisions to specify due fees for each PR 2306 report and notification, payment due dates, and charges for the returned payments made by checks. Figure 3-2 shows the rule structure for PR 316.2.

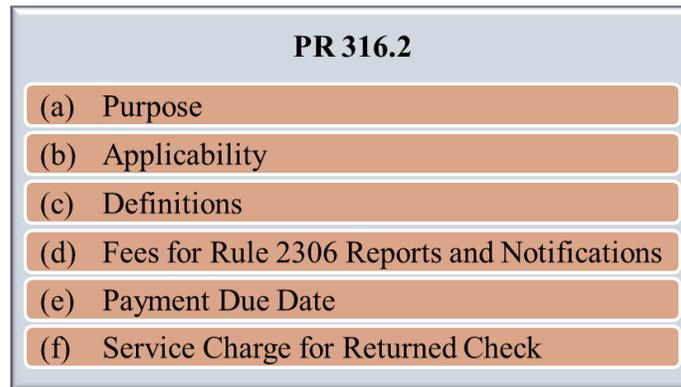


Figure 3-2. Rule Structure – PR 316.2

PROPOSED RULE 2306

Subdivision (a) – Purpose

The purpose of the proposed rule is to reduce local and regional emissions of NO_x associated with freight rail yards and the mobile sources attracted to freight rail yards to assist in meeting applicable state and federal air quality standards in the South Coast AQMD jurisdiction. Actions required by PR 2306 serve as a local implementation of CARB’s In-Use Locomotive Regulation and ACF Regulation, to ensure local emission reductions and associated benefits are realized within South Coast AQMD.

Subdivision (b) – Applicability

PR 2306 applies to the owner or operator of any new or existing freight rail yard, or a freight rail yard proposed to be established in the future within the South Coast AQMD jurisdiction. Additionally, any ~~state or local government~~ non-federal public agency who enters into a contractual agreement with these freight rail yards would be subject to PR 2306.

Subdivision (c) – Definitions

This subdivision includes definitions for specific terms related to freight rail yards and the corresponding mobile source activities. Some definitions are based on existing South Coast AQMD rules and regulations. Please refer to PR 2306 subdivision (c) for each specific definition.

Proposed Definitions

Below is the list of all proposed definitions under PR 2306:

- Aggregate Emission Factor (AEF)
- Applicable Mobile Sources
- Base Period (BP)
- Cargo Handling Equipment (CHE)
- Classification Yard
- Contractual Agreement
- Drayage Trucks
- Fine Particulate Matter (PM_{2.5})
- Freight Rail Yard
- Freight Rail Yard Operations

- Freight Rail Yard Operator
- Freight Rail Yard Owner
- Fuel Type
- Intermodal Rail Yard
- Line Haul Locomotive
- Locomotive
- Locomotive Engine Certification Data⁴⁰
- Marine Terminal
- Milestone Year (MY)
- New Freight Rail Yard
- Nitrogen Oxides (NOx)
- Other On-site Support Equipment (OSE)
- Ozone
- Rail Yard
- Railcar
- Railcar Mover
- Railroad
- Rated Power
- Reference Scenario
- Responsible Official
- Shutdown
- Switch Locomotive or Switcher
- Switching Activity
- Through Traffic
- Throughput
- Transport Refrigeration Unit (TRU)
- Truck Trip
- Work Crew
- Zero Emission (ZE) Configuration
- Zero Emission (ZE) Infrastructure

Key Definitions

This section provides an overview and explanation of the key definitions for the terms used in PR 2306.

Paragraph (c)(1) – Aggregate Emission Factor (AEF)

AEF is the average rate of NOx emissions per unit of energy consumed across mobile sources attracted to a specific freight rail yard. It is used by facilities to qualify for the alternative compliance pathway by demonstrating that on average equipment used to conduct freight rail yard activities is no dirtier than during base period. Calculation of this factor is outlined in the document

⁴⁰ U.S. EPA 40 CFR Part 1033 - Control of Emissions from Locomotives: <https://www.ecfr.gov/current/title-40/part-1033>

in PR 2306 package titled as ~~Draft~~ Proposed Rule 2306 Calculation Methodology and Data Appendix.

Paragraph (c)(2) – Applicable Mobile Sources

Mobile sources of NO_x emissions that may be operated at and travel to and from a freight rail yard, including CHE, drayage trucks, line haul locomotives, switch locomotives, TRU, and OSE. This definition does not include mobile sources such as employee vehicles, waste collection trucks, or mail delivery vehicles. Any NO_x emissions from these non-applicable mobile sources are expected to be de minimis compared to NO_x emissions from applicable mobile sources; moreover, these sources are not integral to day-to-day operations and have little interaction with freight rail yard operations in transporting or assisting in transporting cargo or goods.

Paragraph (c)(3) – Base Period (BP)

Base period for an existing freight rail yard is defined as the first two full calendar years following the end of calendar year when the rule becomes effective. Base period for a new freight rail yard includes the first two full calendar years from the start of operations at such freight rail yard. Facility operations during the base period provide a benchmark to track and compare changes in facility emissions, throughput, and fleet composition over time.

Paragraph (c)(6) – Contractual Agreement

Legally enforceable agreement between two or more parties to establish specified actions that may or may not be taken by either side of the agreement. For the purpose of PR 2306, a contractual agreement can be a written agreement, memorandum of understanding, or other binding agreement related to freight rail yards and their lease, construction, and/or operations. PR 2306 applies to any ~~state or local government~~ non-federal public agency that enters into such contractual agreement with a freight yard owner or operator.

Paragraph (c)(9) – Freight Rail Yard

Any rail yard where switching activities occur or where cargo, which may include empty containers and chassis, are loaded or unloaded from railcars for the transportation to or from a location outside of the rail yard by locomotives operated by the rail yard operator. This includes but is not limited to intermodal rail yards and classification yards. By definition, if a rail yard operator does not operate any locomotive or operates locomotive(s) only within the rail yard property, the facility is not considered a freight rail yard for the purpose of PR 2306. For example, cargo transportation to or from industrial and on-dock rail facilities are typically carried out by locomotives operated by a contracted railroad or a third-party, and not by the facility operator. Moreover, for any locomotive that is operated by such facility operator within the rail yard property, the emission reductions from complying with the In-Use Locomotive Regulation will certainly occur at such rail yard with or without PR 2306, given the captive nature of such locomotive.

A group of rail properties or facilities that are co-located within the vicinity of each other and support the freight rail yard operations and activities by the same operator may be considered as components of one freight rail yard (please refer to the definition of “Rail Yard” for specificities). For any freight rail yard that goes through an expansion of boundaries or operations, which may result in an increase in level of activities, the proposed definition will be applicable to cover such changes and the percent emission reductions targets will apply to any increased level of emissions related to these changes.

Paragraph (c)(10) – Freight Rail Yard Operations

This includes all operations associated with freight rail yards that might be conducted by the operator, its contractor, a subsidiary of the operator, or a sibling company of the operator. These operations include but are not limited to switching activities, movement of cargo, fueling and maintenance repairs, and other operations by a freight rail yard operator.

Paragraph (c)(11) – Freight Rail Yard Operator

A freight rail yard operator is a railroad that is the entity, controls the entity, or is under common control with the entity who conducts day-to-day business operations. Such entity might use their own employees and/or hire contractor(s) to conduct day-to-day freight rail yard operations.

Paragraph (c)(12) – Freight Rail Yard Owner

The legal, beneficial, and/or equitable owner or group of owners of a freight rail yard. Among the known freight rail yards that are potentially subject to the rule (see Table 4-1 for the list), the freight rail yard operator often also owns the freight rail yard.

Paragraph (c)(14) – Intermodal Rail Yard

Any freight rail yard where cargo transportation involves two or more different modes of transportation. Operations at the intermodal rail yards that are potentially subject to the rule often involve loading, unloading, moving, and transferring cargo between railcars and trucks.

Paragraph (c)(19) – Milestone Year (MY)

Milestone year refers to every three calendar years starting after the calendar year that PR 2306 becomes effective. For example, if the rule becomes effective in 2027, the first milestone year would occur in 2030, the second milestone year would be 2033, the next milestone year would occur in 2036, and so on.

Paragraph (c)(20) – New Freight Rail Yard

New freight rail yard is any freight rail yard that begins operations or resumes operations after stopping operations for a year or longer, on or after the date that the rule becomes effective.

Paragraph (c)(24) – Rail Yard

Rail yard consists of one or more physical properties, such as a facility, structure, installation, or real property where railroad operations and associated railroad activities occur. For a rail yard that includes several properties, such properties may be in physical contact with each other, or separated by a roadway or other right-of-way, but are not a part of the main lines, branch lines, or other rail tracks that are used by the passing trains. An individual rail yard is owned or operated by the same entity or by entities under common control. A rail yard has one or more Work Crews assigned to conduct all day-to-day business operations associated with freight rail yards.

Paragraph (c)(29) – Reference Scenario

Reference scenario refers to a scenario to estimate emissions of a freight rail yard in any milestone year without the implementation of ACF Regulation, In-Use Locomotive Regulation, and PR 2306.

Paragraph (c)(33) – Switching Activity

One of the key characteristics of a freight rail yard is to perform switching activities. Switching activity refers to activities performed by a switch locomotive, a line haul locomotive, or a railcar mover to perform operations at the freight rail yard. These activities include classifying railcars based on cargo or destination, assembling railcars for train movement, repositioning railcars, placing locomotives and railcars in storage or to be repaired, or moving rail equipment for work service. The frequency of which switching activities occur is a factor to determine overall activity within a freight rail yard.

Paragraph (c)(34) – Through Traffic

Through traffic under PR 2306 is defined as continuous movement of a train that passes through and does not come to a complete stop at a freight rail yard (except for safety or emergency considerations). Rail tracks used by through traffic are not considered as part of a freight rail yard, and emissions associated with through traffic are not included as freight rail yard emissions for the purpose of PR 2306.

Paragraph (c)(35) – Throughput

Freight rail yard throughput is defined as the total number of visits made per railcar to a freight rail yard over a specific period of time. A railcar entering a freight rail yard and then leaving that yard counts as one visit.

Paragraph (c)(39) – Zero Emission (ZE) Configuration

Zero emission configuration is an operational mode for locomotives, drayage trucks, TRU, CHE, and OSE with no direct release of emissions of criteria pollutants, precursor pollutants to a criteria pollutant, or toxic air contaminants during all points of operation from any onboard source of power at any power setting. The power sources of any locomotive, vehicle, or equipment may include propulsion power and grid power. Under zero emission configuration, the corresponding locomotive, vehicle, or equipment may utilize an alternative fuel source, such as hydrogen fuel cell or battery-electric, instead of an applicable traditional fossil fuel to provide power.

Paragraph (c)(40) – Zero Emission (ZE) Infrastructure

Zero emission infrastructure refers to any currently operating, planned, developing, and future on-site or off-site infrastructure that provides the appropriate fuel type or power needed at a freight rail yard for operations of CHE, drayage trucks, locomotives, TRU, or OSE in zero emission configuration in support of freight rail yard compliance with PR 2306. Applicable facilities shall periodically report on the status and progress of zero emission infrastructure development as outlined in subdivisions (e) and (f).

Subdivision (d) – Requirements

Subdivision (d) establishes key requirements for freight rail yards subject to PR 2306, including, but not limited to, compliance with established emission reductions targets, compliance reporting requirements, and reporting on any implementation and development of zero emission infrastructure to ensure sufficient capacity for zero emission technology.

Paragraph (d)(1) – Emission Reductions Targets

Paragraph (d)(1) includes the requirements for freight rail yard operators to meet or exceed the emission reductions targets for each milestone year for each of the freight rail yards they operate.

Subparagraph (d)(1)(A) – Percent NOx Emission Reductions Targets

The operator is required to comply with emission reductions targets as specified in PR 2306 Table 1 – Emission Reductions Targets (PR 2306 Table 1). These percentage emission reductions targets are calculated using statewide baseline emissions for freight locomotives and drayage trucks, excluding the impact of CARB’s In-Use Locomotive and ACF regulations, compared to the total anticipated emissions from these same emissions sources after the projected implementation of these two CARB regulations. These percent emission reductions are based on anticipated compliance scenarios presented in CARB regulatory documentation and used in PR 2306 Table 1.

Staff derived data for the emission reductions that are projected to be a direct consequence of In-Use Locomotive Regulation from the In-Use Locomotive Regulation Appendix G Table 5. Locomotive Fleet turnover projections for the In-Use Locomotive Regulation are listed in Table 3-1 for line haul locomotives and Table 3-2 for switch locomotives, which are based on percent of total work done (in MWhr).⁴¹

⁴¹ Figure 7 in Appendix G of CARB’s 2022 In-Use Locomotive Emission Inventory: Regulation Proposal and Scenarios. Available at: <https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2022/locomotive22/appg.pdf>

Table 3-1. Statewide Line Haul Locomotive Fleet Composition Projections

Calendar Year	Share of Statewide Line Haul Locomotive Fleet by Engine Tier (%)									
	PRE-TIER 0	TIER 0	TIER 0+	TIER 1	TIER 1+	TIER 2	TIER 2+	TIER 3	TIER 4	ZE*
2027	0.0	1.0	2.1	0.0	27.5	1.7	31.3	19.9	16.4	-
2028	0.0	0.7	1.7	0.0	26.0	1.5	30.2	19.4	20.4	-
2029	0.0	0.5	1.7	0.0	24.5	1.2	28.9	18.9	24.3	-
2030	-	-	-	-	-	0.2	13.6	21.4	64.8	-
2031	-	-	-	-	-	0.1	7.0	21.9	71.0	-
2032	-	-	-	-	-	0.0	4.7	22.1	73.2	-
2033	-	-	-	-	-	0.0	2.3	22.3	75.4	-
2034	-	-	-	-	-	-	-	22.8	77.2	-
2035	-	-	-	-	-	-	-	12.6	75.5	11.9
2036	-	-	-	-	-	-	-	6.6	73.9	19.5
2037	-	-	-	-	-	-	-	-	72.3	27.7
2038	-	-	-	-	-	-	-	-	70.5	29.5
2039	-	-	-	-	-	-	-	-	67.0	33.0
2040	-	-	-	-	-	-	-	-	64.8	35.2
2041	-	-	-	-	-	-	-	-	63.0	37.0
2042	-	-	-	-	-	-	-	-	61.5	38.5
2043	-	-	-	-	-	-	-	-	59.9	40.1
2044	-	-	-	-	-	-	-	-	58.4	41.6
2045	-	-	-	-	-	-	-	-	57.0	43.0
2046	-	-	-	-	-	-	-	-	55.5	44.5
2047	-	-	-	-	-	-	-	-	55.2	44.8
2048	-	-	-	-	-	-	-	-	52.0	48.0
2049	-	-	-	-	-	-	-	-	48.3	51.7
2050	-	-	-	-	-	-	-	-	44.6	55.4

(Rounded to the first decimal place)

* As defined in the CARB In-Use Locomotive Regulation, ZE locomotives includes ZE capable Locomotives which are demonstrated to operate only in ZE configuration while in California, and ZE locomotives which always operates in a ZE configuration.

<https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2022/locomotive22/fro2.pdf>

Table 3-2. Statewide Switch Locomotive Fleet Composition Projections

Calendar Year	Percent of Statewide Switch Locomotive Fleet by Engine Tier (%)										
	PRE-TIER 0	TIER 0	TIER 0+	TIER 1	TIER 1+	TIER 2	TIER 2+	TIER 3	TIER 4	TIER 5	ZE*
2027	-	20.1	49.2	-	-	13.8	-	2.9	14.0	-	-
2028	-	15.1	49.2	-	-	13.8	-	2.9	19.0	-	-
2029	-	10.4	49.2	-	-	13.8	-	2.9	23.7	-	-
2030	-	-	-	-	-	13.3	-	2.9	23.7	-	60.1
2031	-	-	-	-	-	-	-	2.5	23.7	-	73.8
2032	-	-	-	-	-	-	-	2.3	23.7	-	73.9
2033	-	-	-	-	-	-	-	2.2	23.7	-	74.1
2034	-	-	-	-	-	-	-	2.0	23.7	-	74.3
2035	-	-	-	-	-	-	-	1.8	23.7	-	74.4
2036	-	-	-	-	-	-	-	1.7	23.7	-	74.6
2037	-	-	-	-	-	-	-	1.3	23.7	-	74.9
2038	-	-	-	-	-	-	-	-	23.7	-	76.3
2039	-	-	-	-	-	-	-	-	23.7	-	76.3
2040	-	-	-	-	-	-	-	-	21.6	-	78.4
2041	-	-	-	-	-	-	-	-	21.6	-	78.4
2042	-	-	-	-	-	-	-	-	21.6	-	78.4
2043	-	-	-	-	-	-	-	-	21.6	-	78.4
2044	-	-	-	-	-	-	-	-	21.6	-	78.4
2045	-	-	-	-	-	-	-	-	21.6	-	78.4
2046	-	-	-	-	-	-	-	-	21.6	-	78.4
2047	-	-	-	-	-	-	-	-	21.6	-	78.4
2048	-	-	-	-	-	-	-	-	21.6	-	78.4
2049	-	-	-	-	-	-	-	-	20.3	-	79.7
2050	-	-	-	-	-	-	-	-	14.9	-	85.1

(Rounded to the first decimal place)

* As defined in the CARB In-Use Locomotive Regulation, ZE locomotives includes ZE capable Locomotives which are demonstrated to operate only in ZE configuration while in California, and ZE locomotives which always operates in a ZE configuration.

<https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2022/locomotive22/fro2.pdf>

For drayage trucks baseline inventory, staff worked directly with CARB staff to refine emissions inventory for rail yard drayage from the EMFAC 2021 model (note: the same truck may perform drayage operations associated with both rail yards and ports). CARB provided rail yard specific data for NOx, PM2.5, PM10, and CO emissions from T7 Other Port Class 8, T7 POAK Class 8, T7 POLA Class 8, and Rail Drayage trucks across the state. The data provided by CARB also included both emissions projections and population/fleet turnover assumptions under the ACF Regulation. See Table 3-3 for more detail.

**Table 3-3. Statewide Drayage Truck Fleet Composition Projections
Under the CARB ACF Regulation**

Calendar Year	Share of Statewide Drayage Truck Fleet by Fuel Type (%) [*]		
	Electricity	Diesel	Natural Gas
2027	28.2	71.1	0.7
2028	39.2	60.1	0.7
2029	50.0	49.4	0.6
2030	64.4	35.0	0.5
2031	76.6	22.9	0.4
2032	86.0	13.5	0.4
2033	88.9	10.8	0.4
2034	92.3	7.5	0.2
2035 and after	100.0	0.0	0.0

^{*} Rounded to the first decimal place

Staff summed the baseline NOx emissions from both locomotives and drayage trucks for each calendar year (i.e., emissions before implementation of In-Use Locomotive and ACF regulations), and separately for the projected NOx emissions for locomotives and trucks after implementation of CARB regulations. The difference between baseline and projected emissions provides an estimate of the statewide projected NOx emission reductions from both In-Use Locomotive and ACF regulations each year. The default emission reductions targets specified in PR 2306 Table 1 are the percent reductions of total statewide projected NOx emissions with state regulations, compared to the total statewide baseline NOx emissions, from both locomotives and drayage trucks for each calendar year. Table 3-4 replicates PR 2306 Table 1 and lists emission reductions targets for any milestone year up to 2050 to be achieved by any freight rail yard that is applicable to PR 2306.

Table 3-4. PR 2306 Emission Reductions Targets

Calendar Year	Percent Emission Reductions Targets (%)
2027	9.2
2028	13.6
2029	16.9
2030	56.5
2031	61.0
2032	61.7
2033	62.3
2034	62.2
2035	71.6
2036	76.3
2037	82.4
2038	81.8
2039	81.3
2040	80.7
2041	80.0
2042	79.0
2043	77.8
2044	76.4
2045	76.0
2046	75.6
2047	74.6
2048	74.9
2049	75.7
2050	76.5

Table 3-5 includes the anticipated emission reductions within South Coast AQMD from PR 2306, in conjunction with implementation of the In-Use Locomotive and ACF regulations. As discussed earlier in Chapter 2, the two CARB regulations do not necessarily ensure uniform implementation across the state, so South Coast AQMD may not necessarily see the level of emission reductions that would result from proportional implementation of these rules. By setting emission reductions targets at the proportional level to CARB regulations, PR 2306 will ensure proportional or more-than-proportional emission reductions occur at each freight rail yard within the South Coast AQMD region. The “Total Baseline Emissions” values are estimated NO_x emissions in South Coast AQMD without PR 2306, In-Use Locomotive, and ACF regulations. The “Total Controlled Emissions” are the projected NO_x emissions in South Coast AQMD following the implementation

of PR 2306, In-Use Locomotive and ACF regulations. Values listed under “Emission Reductions” are the difference between “Total Baseline Emissions” and “Total Controlled Emissions” values, which shows the anticipated NOx emission reductions from implementation of PR 2306, In-Use Locomotive and ACF regulations.

Table 3-5. Anticipated NOx Emission Reductions (tpd)*

Year	Total Baseline Emissions	Total Controlled Emissions	Emission Reductions
2027	20.920.1	19.018.3	1.8
2028	20.920.1	18.117.4	2.7
2029	21.020.3	17.616.9	3.4
2030	21.020.2	9.58.8	11.4
2031	20.920.2	8.67.9	12.3
2032	20.720.0	8.37.7	12.3
2033	20.319.8	7.97.5	12.3
2034	19.919.4	7.87.3	12.1
2035	19.519.0	5.95.4	13.6
2036	18.618.2	4.84.3	13.9
2037	17.717.2	3.53.0	14.2
2038	17.116.7	3.53.0	13.6
2039	16.416.0	3.43.0	13.0
2040	15.915.4	3.43.0	12.5
2041	15.415.0	3.53.0	12.0
2042	14.914.5	3.53.0	11.4
2043	14.413.9	3.63.1	10.8
2044	13.813.3	3.63.1	10.2
2045	13.613.1	3.73.2	10.0
2046	13.513.0	3.73.2	9.8
2047	13.312.8	3.73.3	9.6
2048	13.212.7	3.73.2	9.5
2049	13.012.5	3.53.0	9.5
2050	12.812.3	3.42.9	9.4

* Rounded to the first decimal place

To estimate NOx emission reductions from freight locomotives, staff reviewed CARB’s 2021 statewide locomotives emission inventory.⁴² CARB estimates that 58 percent of statewide switch

⁴² CARB. 2021 Line-Haul Locomotive Emission Inventory: https://ww2.arb.ca.gov/sites/default/files/2021-02/2021_line_haul_locomotive_emission_inventory_final.pdf

locomotives activity and 17 percent of statewide line haul locomotives activity take place within South Coast AQMD. Both CARB's OFFROAD 2021 and Appendix G of In-Use Locomotive Regulation separate their emissions calculations between switch and line haul locomotives.

To estimate NOx emission reductions from drayage trucks, staff reached out to CARB staff to refine rail yard specific emission inventory used in Appendix F of the ACF Regulation.⁴³ Data obtained from CARB staff reflected business-as-usual rail drayage emissions as well as rail drayage emissions with implementation of ACF Regulation. Rail drayage emissions are subsets of the statewide truck emission inventory available in EMFAC 2021, including T7 POLA Class 8, T7 POAK Class 8, T7 Other Ports Class 8 as well as a subset of T7 Tractor Class 8 inventory reflecting rail specific activity. CARB staff did not have disaggregated data for rail activity specific to South Coast AQMD jurisdiction. To apportion ACF emission reductions from South Coast AQMD, staff made the following assumptions: 1) T7 POLA Class 8 represents the majority of port drayage activity in South Coast AQMD; 2) T7 POAK Class 8 and T7 Other Ports Class 8 make up the majority of drayage activity outside of South Coast AQMD; and 3) Rail specific drayage inventory are proportionate to drayage activities of the aforementioned port inventories. Staff applied a fraction based on the proportions of the various port drayage inventories to the statewide rail drayage inventories for each calendar year to determine South Coast AQMD reductions from the ACF Regulation.

Figure 3-3 presents the Basin-wide NOx baseline emissions forecast (shown in grey bars), which reflects NOx emissions without the implementation of PR 2306, In-Use Locomotive and ACF regulations, along with the anticipated controlled emissions forecast for drayage trucks and locomotives reflecting the implementation of said regulations (shown in blue bars). It can be seen from the following figure that the NOx emissions are anticipated to decrease much faster and at a much larger magnitude compared to the baseline scenario. Steady emission reductions can be seen throughout the analyzed implementation period up to year 2050, with noticeable drops between the years 2029 to 2030 and 2034 to 2035. The drop between years 2029 and 2030 can be attributed to the CARB In-Use Locomotive Regulation requiring all switch locomotives to operate only in ZE configuration when in California, and the projected shift of in-use line haul locomotives to Tier 4 emission control technologies due to the implementation of a 23-year useful life limit. The second noticeable drop between the years 2034 to 2035 can be attributed to the implementation of ZE operation requirements for line haul locomotives from the In-Use Locomotive Regulation and full implementation of the ACF Regulation. Implementation of PR 2306 will ensure emission reductions of proportionate scale will be achieved at levels equivalent to proportional implementation of the two statewide regulations for all freight rail yards within the South Coast AQMD region.

⁴³ CARB. Advanced Clean Fleets Regulation – Emissions Inventory and Results (Appendix F): <https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2022/acf22/appf.pdf>

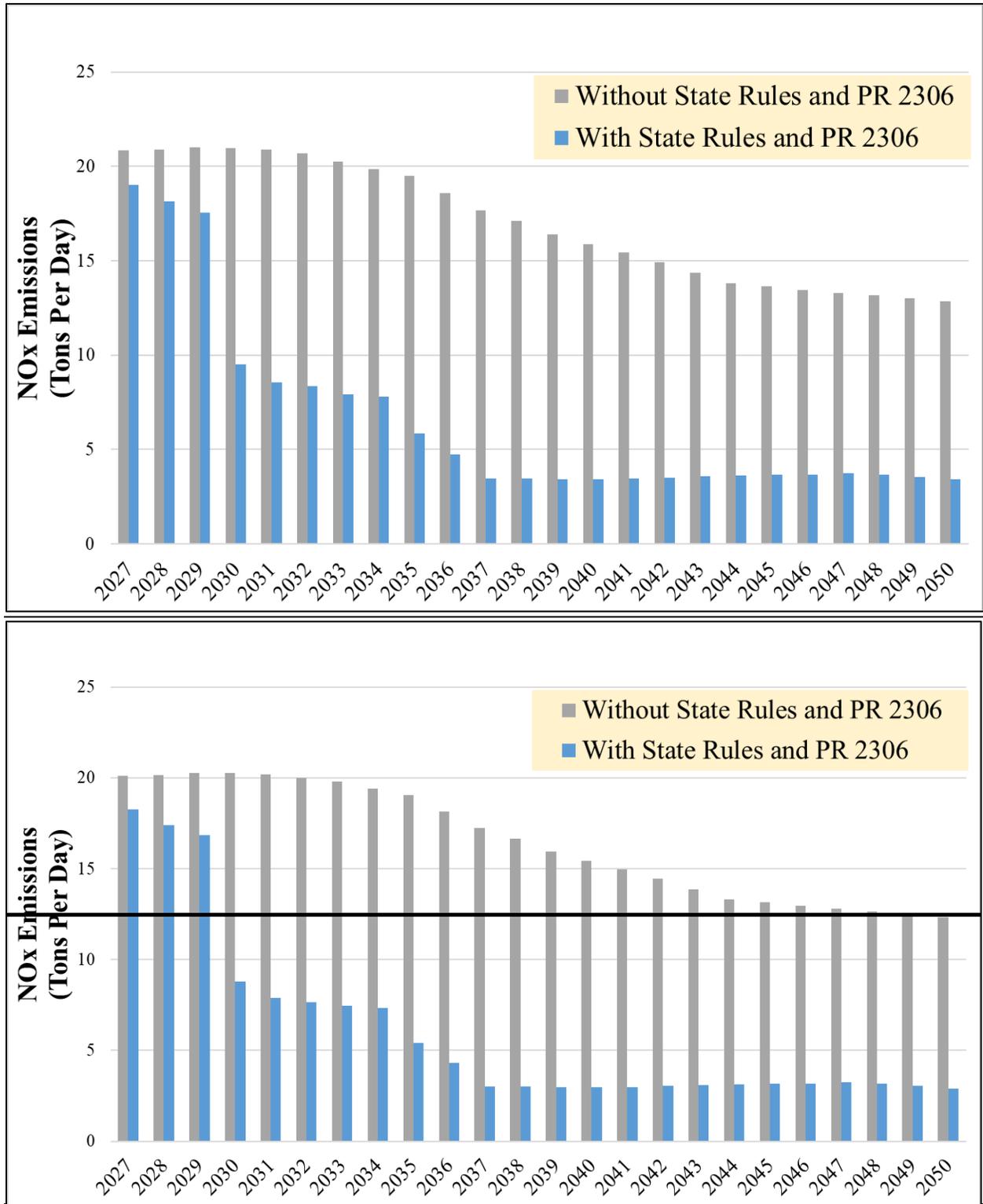


Figure 3-3. Basin-Wide NOx Emissions Forecast for Freight Rail Yard Emission Sources

Subparagraph (d)(1)(B) – Alternative Emission Reductions Targets

A freight rail yard operator may use an alternative path to determine the applicable emission reductions targets to be met in lieu of the default emission reductions targets to demonstrate compliance with PR 2306. The alternative emission reductions targets present a pathway for freight rail yard operators in South Coast AQMD to comply with PR 2306 and remain consistent with compliance activities used with the In-Use Locomotive and ACF regulations. The alternative emission reductions targets specified in subparagraph (d)(1)(B) must be calculated for a single freight rail yard operator based on the operator's actual emissions from all of their freight rail yards within the State of California in comparison to a reference scenario that captures emissions from all of their freight rail yards without including the impacts from implementation of CARB's regulations and PR 2306.

ACF and the In-Use Locomotive regulations allow flexibility for regulated entities. They may identify ways to comply with those regulations without achieving the same level of emissions reductions as is shown in Figure 3-3. The flexibility in compliance used for CARB regulations would potentially result in less emission reductions than Table 1 in PR 2306. Therefore, freight rail yards must show that the emission reductions actually achieved are proportional or more-than-proportional to what occurred on a statewide level. If emission reductions are less than default assumptions, it is critical that South Coast AQMD (as the area with worst ozone, and the most AB 617 communities) receives its fair share of emission reductions. This alternative secures, at minimum, that statewide emission reductions that are being achieved under CARB regulations also occur proportionally within South Coast AQMD.

Use of alternative emission reductions targets for compliance demonstration is only available to a freight rail yard operator who has not been issued any sort of non-compliance document related to CARB's In-Use Locomotive or ACF regulations during or prior to the reporting milestone year and also submits statewide data for all its freight rail yards in a corresponding Milestone Compliance Report. Calculation of the alternative emission reductions target for the freight rail yard using the statewide data submitted will need to be done and submitted according to the methodology in the Draft Proposed Rule 2306 Calculation Methodology and Data Appendix for a milestone year.

Paragraph (d)(2) – Compliance with Applicable Emission Reductions Targets

Paragraph (d)(2) states the requirement for the operator of a freight rail yard to demonstrate compliance with the applicable emission reductions targets for each milestone year as set in paragraph (d)(1) using Equation 2 in PR 2306 Appendix and the corresponding methodology specified in the Draft Proposed Rule 2306 Calculation Methodology and Data Appendix.

PR 2306 provides opportunity to obtain emission reductions from not only locomotives and drayage trucks, as seen through In-Use Locomotive and ACF regulations, but also from other mobile emission sources that are associated with freight rail yards. All compliance options in PR 2306 include an accounting of emission reductions from sources other than locomotives and drayage trucks, such as CHE, TRUs, and OSE, to achieve emission reductions targets. The additional opportunities to obtain emission reductions from CHE, TRUs, and OSE have the potential to achieve early and additional emission reductions before the implementation of CHE and TRU control measures included in the 2022 State SIP Strategy.

Figure 3-4 presents an overview of the alternative compliance pathway for PR 2306. This pathway requires operators to demonstrate that applicable emission reductions targets for each milestone year are achieved from one or more applicable mobile sources, including not only locomotives and drayage trucks, but also other mobile sources attracted to freight rail yards, such as CHE and TRU. As shown in Figure 3-4, any changes in emissions from sources other than locomotives and drayage trucks will be used to adjust the level of “*Actual Emissions*” associated with locomotives and drayage trucks. The adjusted “*Actual Emissions*” are then compared to the “*Reference Scenario Emissions*” from locomotives and drayage trucks to determine whether the percent emission target has been met or exceeded. Figure 3-4 is for illustration purpose only and does not represent an actual freight rail yard.

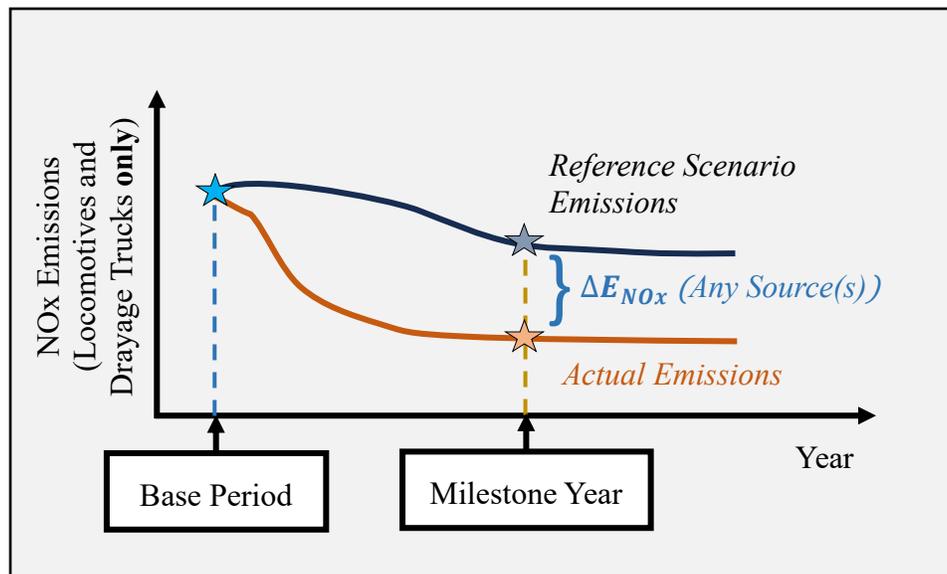


Figure 3-4. Illustrative Example of Facility Compliance with Emission Reductions Targets

Paragraph (d)(3) – Freight Rail Yards with Reduced Throughput from Base Period

In order to account for a potential situation where throughput at a freight rail yard declines through time (for example, due to a national economic recession or any persistent change in operational needs), an additional option is included in the rule, as calculated based on Equation 3 in PR 2306 Appendix and its corresponding methodologies specified in the Draft Proposed Rule 2306 Calculation Methodologies and Data Appendix. Paragraph (d)(3) is only for freight rail yards with a reduced throughput during the subject milestone year and the two preceding calendar years when compared to the annual average throughput over the base period. As an illustrative example, for a 2027 milestone year, the annual average throughput for that year as well as for years 2026 and 2025 would need to be lower than the freight rail yard’s reported annual average throughput during the base period as submitted in the Initial Facility Information Report. Also, a freight rail yard operator will only be able to use this option provided that the applicable mobile sources that are being used at or visit the freight rail yard do not become dirtier over the course of years following the date PR 2306 becomes effective. Therefore, to qualify for this compliance pathway, a freight rail yard operator must demonstrate that a freight rail yard’s aggregate emission factor for the milestone year is less than or equal to the average emission factor reported for its base

period, using the corresponding methodology specified in the ~~Draft~~ Proposed Rule 2306 Calculation Methodology and Data Appendix.

For a freight rail yard that qualifies for this compliance pathway, PR 2306 requires that total NO_x emissions from all applicable mobile sources be compared to total NO_x emissions reported by the freight rail yard operator for the base period (first two years following the date PR 2306 becomes effective), rather than comparing to a reference scenario (as established for the other two compliance pathways) to allow for incorporation of emission reductions that occurred due to the decrease in the freight rail yard's throughput. However, any emission reductions between the base period and the milestone year that are not due to reduced throughput can be obtained from any freight rail yard source(s) just as for other compliance pathways. Figure 3-5 provides an illustrative example of such a freight rail yard (this plot does not represent an actual freight rail yard). If this alternative compliance pathway is elected, a freight rail yard operator must use Equation 3 in PR 2306 Appendix and the corresponding methodology specified in the ~~Draft~~ Proposed Rule 2306 Calculation Methodology and Data Appendix to demonstrate in the Milestone Compliance Report its compliance with the applicable emission reductions target as established by PR 2306 paragraph (d)(1).

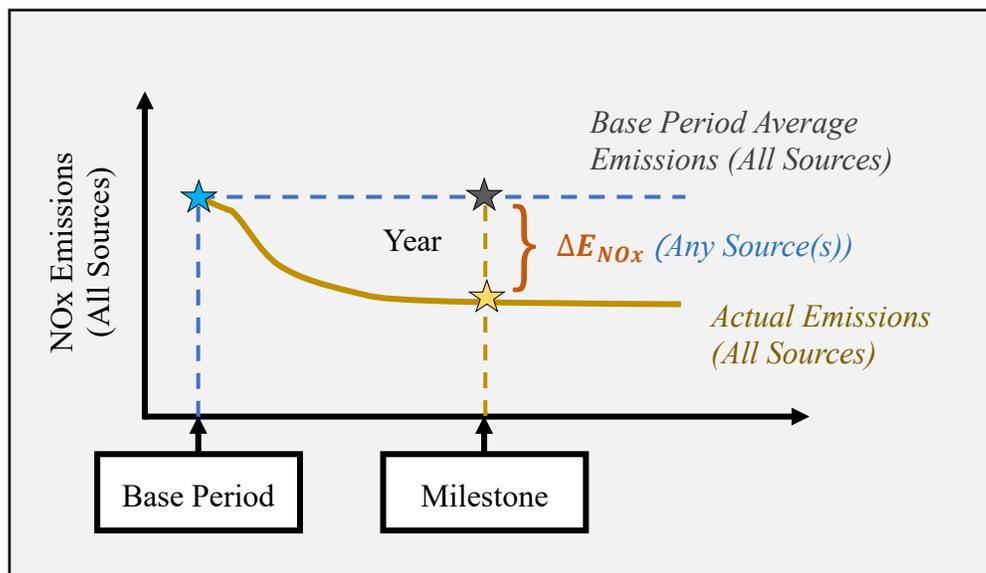


Figure 3-5. Illustrative Example of Facility Compliance Through Optional Compliance Pathway Under Reduced Throughput

Paragraph (d)(4) – Submittal Requirements for Compliance Reports

Paragraph (d)(4) outlines the submittal requirements for the four reports that any freight rail yard owner and/or operator is required to submit to the Executive Officer to comply with PR 2306. All reports are required to be signed by a responsible official of the owner or operator of the freight rail yard to confirm its accuracy and completeness.

Subparagraph (d)(4)(A) – Initial Facility Information Report

The current freight rail yard operator is required to prepare an Initial Facility Information Report and submit the report to the Executive Officer no later than 90 calendar days after the end of the

freight rail yard's base period. For a freight rail yard that is going to shut down during the base period, the former operator preceding the shutdown will have 90 calendar days after the shutdown date to submit this report to the Executive Officer.

Subparagraph (d)(4)(B) – Initial Zero Emission Infrastructure Report

The current freight rail yard owner and operator are required to prepare an Initial Zero Emission Infrastructure Report and submit the report to Executive Officer no later than 120 calendar days after the end of the freight rail yard's base period. The submission of these reports is contingent on the end of the base period so that both new and existing freight rail yards have enough time to gather meaningful data to serve as the base period to demonstrate progress and compliance in their future periodic reports. Unlike the Initial Facility Information Report and Milestone Compliance Report, this report can be submitted for each freight rail yard individually or jointly with other freight rail yards operated by the same operator. The owner and operator are not required to submit this report for any freight rail yard that is exempt pursuant to subdivision (j).

Subparagraph (d)(4)(C) – Milestone Compliance Report

The current or former freight rail yard operator, as applicable, is required to prepare periodic triennial Milestone Compliance Report that is due by no later than July 15th of the calendar year following each milestone year or 90 calendar days after the freight rail yard's shutdown date for a freight rail yard that is going to shut down during the subject milestone year.

Subparagraph (d)(4)(D) – Zero Emission Infrastructure Status Update Report

The current freight rail yard owner and operator are required to prepare periodic triennial Zero Emission Infrastructure Status Update Report that is due by October 15th of the calendar year following each milestone year. Infrastructure development is a process that is dependent on multiple variables, such as outside entities and technology availability; therefore, periodic reporting is more beneficial than annual reporting. This report can be submitted for each freight rail yard individually or jointly with other freight rail yards operated by the same operator to account for freight rail yards that may share zero emission infrastructure. The owner and operator are not required to submit this report for any freight rail yard that is exempt pursuant to subdivision (j).

Paragraph (d)(5) – Need for Electrical Service Upgrade

If the freight rail yard owner or operator states in the submitted Initial Zero Emission Infrastructure Report or Zero Emission Infrastructure Status Update Report that there is a need to upgrade the electrical service being provided to the freight rail yard, the freight rail yard owner or operator is required to submit a request to the local electrical utility to upgrade the electrical service no later than 180 calendar days after the freight rail yard owner or operator submits either of such reports.

Paragraph (d)(6) – Other Requirements Upon Change of Freight Rail Yard Operator

In case of any change to the freight rail yard operator, the new operator is required to obtain all information submitted by the former operator to Executive Officer as part of Initial Facility Information Report and Initial Zero Emission Infrastructure Report as well as most recent Compliance Milestone Report and Zero Emission Infrastructure Status Update Report (if any). The new operator is also required to obtain all information required to be submitted to Executive Officer as part of the next upcoming Compliance Milestone Report and Zero Emission Infrastructure Status Update Report as well as all recorded documents as stated in subdivision (h).

Paragraph (d)(7) – Other Requirements Upon Change of Freight Rail Yard Owner

In case of any change to the freight rail yard owner, the new owner is required to obtain all information submitted to Executive Officer as part of Initial Zero Emission Infrastructure Report as well as most recent Zero Emission Infrastructure Status Update Report (if any). The new owner is also required to obtain all information required to be submitted to Executive Officer as part of the next upcoming Zero Emission Infrastructure Status Update Report as well as all recorded documents as stated in subdivision (h).

Paragraph (d)(8) – Other Requirements Upon Freight Rail Yard Shutdown

In case of a freight rail yard shutdown, the freight rail yard owner is required to obtain all information submitted to Executive Officer as part of Initial Zero Emission Infrastructure Report as well as most recent Zero Emission Infrastructure Status Update Report (if any). The owner is also required to obtain all information required to be submitted to Executive Officer as part of the next potential upcoming Zero Emission Infrastructure Status Update Report as well as all recorded documents as stated in subdivision (h).

Subdivision (e) – Initial Reports***Paragraph (e)(1) – Initial Facility Information Report***

The Initial Facility Information Report provides an initial overview of the freight rail yard. The report includes a freight rail yard’s operational data required to determine emissions during the base period and to gather information that is used in calculating NOx percent emission reductions for a freight rail yard with reduced throughputs. The freight rail yard operator is required to submit all freight rail yard specific information, as specified in PR 2306 Table 2 – Freight Rail Yard Information (PR 2306 Table 2), in a manner that is truthful, accurate, and complete. All information as specified in PR 2306 Table 2 is “required” to be included in this report.

The freight rail yard operator will also need to submit information, that is either optional or required, for applicable mobile sources that are operating at and/or travelling to and from the freight rail yard as listed in PR 2306 Table 3 – Applicable Mobile Sources Information (PR 2306 Table 3). The required information is used in calculations in Equations 1 through 3 in PR 2306 Appendix and the corresponding methodologies in the Draft-Proposed Rule 2306 Calculation Methodology and Data Appendix. Optional information that a freight rail yard operator may submit for locomotives include information that is required in In-Use Locomotive Regulation but not for compliance with PR 2306, while optional information that may be submitted for drayage trucks and TRUs is for data that is in lieu of using default values in calculations in the Draft-Proposed Rule 2306 Calculation Methodology and Data Appendix. Also, the following information is required to be included in this report in the unit of *per year for each calendar year* of the freight rail yard’s base period, and as *an average over the two years period* of freight rail yard’s base period:

- Number of days in a calendar year when switching activities have occurred
- Freight rail yard’s annual throughput
- Aggregate emission factor as calculated using methodology in the Draft-Proposed Rule 2306 Calculation Methodology and Data Appendix, including the detailed steps of the calculation.

Paragraph (e)(2) – Initial Zero Emission Infrastructure Report

Initial Zero Emission Infrastructure Report serves as an initial overview of currently operating, planned, developing, and future on-site or off-site zero emission infrastructure in support of freight rail yard compliance with In-Use Locomotive Regulation, ACF Regulation, and/or any other ZE infrastructure requirements and initiatives, such as control measures for TRU and CHE as specified in the 2022 State Strategy for the SIP.

The freight rail yard owner and operator are required to submit zero emission infrastructure information for on-site or off-site, partially or fully complete and operative zero emission infrastructure, and include updates in designs, plans, or permitting for future projects, as listed in PR 2306 Table 4 – Information on Installed and Operative ZE Infrastructure (PR 2306 Table 4), zero emission infrastructure development as listed in PR 2306 Table 5 – Information on ZE Infrastructure in Development (PR 2306 Table 5), and information on any future zero emission infrastructure planned based on PR 2306 Table 6 – Information on Future ZE Infrastructure Being Planned (PR 2306 Table 6). The report seeks to understand the potential, capacity, and progress of zero emission infrastructure that is intended to power applicable zero emission mobile sources associated with freight rail yards within South Coast AQMD.

Subdivision (f) – Milestone Year Reports

Paragraph (f)(1) – Milestone Compliance Report

Milestone Compliance Report is due for submittal every three years with the purpose for freight rail yard operators to demonstrate compliance with PR 2306 for each and every milestone year. Freight rail yard operator is required to include any changes in facility information compared to the previously submitted Initial Facility Information Report or any updated information that was submitted upon necessity as part of the most recent Milestone Compliance Report. The freight rail yard operator is required to submit specific information for applicable mobile sources operating at and travelling to and from the freight rail yard, as outlined in PR 2306 Table 3, for each milestone year, and may include optional information as specified in this table. Such information is used in the Draft-Proposed Rule 2306 Calculation Methodology and Data Appendix for demonstration of compliance with the applicable percent emission reductions target for each milestone year. Optional information that may be submitted and is relevant to the calculations in the Draft Proposed Rule 2306 Calculation Methodology and Data Appendix is data that is used in place of default values provided for drayage trucks and TRUs. The freight rail yard operator also must submit the following information in the unit of *per year* for every milestone year and each of the two preceding calendar years, and as *an average over the three years*:

- Total number of days within a calendar year when switching activities took place at the freight rail yard
- Freight rail yard's annual throughput.

The freight rail yard operator is required to calculate the annual aggregated emission factor for any milestone year in which the freight rail yard experienced reduced throughput compared to baseline period if the operator elected to comply with paragraph (d)(3) in lieu of paragraph (d)(2).

The freight rail yard operator must declare in each Milestone Compliance Report their elected compliance pathway and include the attestation of eligibility (if applicable). The freight rail yard operator may use a different compliance pathway each milestone year. Detailed calculations pursuant to the Draft-Proposed Rule 2306 Calculation Methodology and Data Appendix must also

be submitted for calculations of percent emission reductions targets (if applicable) and calculations that demonstrate compliance with the chosen compliance pathway and percent emission reductions target.

The freight rail yard operator who elects to comply with the applicable alternative emission reductions target must submit statewide data and information, as outlined in PR 2306 Table 3, for drayage trucks and locomotives that operate at and travel to and from any of the freight rail yards operated by the same operator in California for the subject milestone year.

Paragraph (f)(2) – Zero Emission Infrastructure Status Update Report

Zero Emission Infrastructure Status Update Reports serve as updates on zero emission infrastructure that supports compliance with In-Use Locomotive Regulation, implementation of ACF Regulation, or any other zero emission infrastructure to present any changes since submission of Initial Zero Emission Infrastructure Report or the previously submitted Zero Emission Infrastructure Status Update report, whichever is later at time of report submittal. The freight rail yard owner and operator are required to include in this report: 1) information pertaining to installed and operative on-site or off-site zero emission infrastructure (as specified in PR 2306 Table 4); 2) updates on new or ongoing on-site or off-site zero emission infrastructure projects currently under development (as specified in PR 2306 Table 5); and 3) updates on planning of future on-site and off-site zero emission infrastructure that are needed in the implementation and compliance of CARB’s regulations, as well as the control measures for TRUs and CHE as specified in the 2022 State Strategy for the SIP (as specified in PR 2306 Table 6).

Subdivision (g) – Notifications

Subdivision (g) proposes five different notifications to be submitted to the Executive Officer in compliance with PR 2306. These are: Change of Freight Rail Yard Operator Notification, Change of Freight Rail Yard Owner Notification, Freight Rail Yard Shutdown Notification, Exceedance of Low Activity Exemption Threshold Notification, and Proposed Freight Rail Yard Construction, Conversion, or Expansion Notification.

Paragraph (g)(1) – Change of Freight Rail Yard Operator Notification

The owner or current operator of the freight rail yard is required to submit a Change of Freight Rail Yard Operator Notification to the Executive Officer upon the change of operator at least 30 calendar days prior to the change date and includes specified information. Such information includes, but is not limited to, all anticipated changes from initial reports or the most recent Milestone Compliance Report (if applicable). A secondary notification is required to be submitted by the new freight rail yard operator to the Executive Officer within 30 calendar days after the change occurred to confirm the validity of the information submitted by the owner or previous operator in the initial notification. This notification helps to ensure that the proper party is under legal obligation for PR 2306.

Paragraph (g)(2) – Change of Freight Rail Yard Owner Notification

The current owner or operator of the freight rail yard is required to submit a Change of Freight Rail Yard Owner Notification upon the change of owner at least 30 calendar days prior to the change date and includes specified information. Such information includes, but is not limited to, all anticipated changes from initial reports or the most recent Milestone Compliance Report (if applicable). A secondary notification is required to be submitted by the new freight rail yard owner to the Executive Officer within 30 calendar days after the change of owner occurred to confirm

the validity of the information submitted by the previous owner in the initial notification. This notification, like the Change of Freight Rail Yard Operator Notification, helps to ensure that the proper party is under legal obligation for PR 2306.

Paragraph (g)(3) – Freight Rail Yard Shutdown Notification

At least 30 calendar days before the date a freight rail yard is scheduled to shut down, the current owner or operator must submit a Freight Rail Yard Shutdown Notification to the Executive Officer with information on the freight rail yard name and address, date of the freight rail yard shutdown, reason for cessation of operation, and any anticipated date for the freight rail yard to resume operations, if applicable. This notification ensures that South Coast AQMD is aware of when a freight rail yard ceases operation and therefore, may no longer be obligated to comply with PR 2306.

Paragraph (g)(4) – Exceedance of Low Activity Exemption Threshold Notification

The operator of a freight rail yard, previously exempt from compliance with specific provisions of PR 2306 due to meeting specified “low activity exemption” criteria, that exceeds the annual switching activity threshold specified in PR 2306 paragraph (j)(1) in any calendar year must submit an Exceedance of Low Activity Exemption Threshold Notification to the Executive Officer no later than January 31st of the following calendar year. The operator is required to include specific information including, but not limited to, the number of days the freight rail yard performed switching activities during the previous calendar year. This notification was developed with the intention of ensuring that any freight rail yard that had previously been exempted from specific provisions of the rule, complies with the rule once it no longer meets applicable criteria to qualify for such an exemption.

Paragraph (g)(5) – Proposed Freight Rail Yard Construction, Conversion, or Expansion Notification

The Proposed Freight Rail Yard Construction, Conversion, or Expansion Notification must be submitted to the Executive Officer no later than 365 calendar days prior to construction, conversion of a facility to a new freight rail yard, or expansion of an existing freight rail yard. Though, the notification must be submitted as soon as possible if the proposed freight rail yard occurs within 365 calendar days from the rule’s effective date. As part of the notification, the owner must submit the proposed project type and name, location, freight rail yard owner, anticipated freight rail yard operator, and the estimated date when the freight rail yard will begin operations. This notification ensures that South Coast AQMD is aware of a new freight rail yard that will be subject to PR2306.

Subdivision (h) – Recordkeeping

Subdivision (h) requires all records and supplementary documents that may support the accuracy and validity of information required to be submitted in compliance with PR 2306 to be kept by the owner or operator of the freight rail yard for a minimum of seven years from submittal deadline. Records and documentations are to be made available to the Executive Officer upon written request if they are needed in the process of reviewing submitted reports and notifications.

Subdivision (i) – ~~State or Local~~ Agency Responsibility

Subdivision (i) provides another layer of enforceability through contractual agreements that may be made between a freight rail yard owner/operator and ~~state or local government~~ non-federal public agencies in relation to the lease, operation, or construction of the freight rail yard. This

subdivision requires the inclusion of provision(s) that have the effect of requiring the contracted freight rail yard owner or operator to comply with PR 2306. The provision(s) may incorporate the entirety of PR 2306, the specific requirements as listed in this subdivision, or contain a more generic language that require the contracted freight rail yard owner or operator to comply with all applicable regulations and rules, inclusive of South Coast AQMD rules.

Subdivision (j) – Exemptions

Paragraph (j)(1)

A freight rail yard owner or operator would be exempt from PR 2306 requirements specified under this paragraph due to low activity level at a freight rail yard that is not an intermodal rail yard and switching activities occur no more than 30 calendar days per year during any milestone year and each of the two calendar years preceding that milestone year. This exemption does not apply across the entire length of rule implementation, but only for years that this criterion is met. It is possible for a freight rail yard to be exempt from the mentioned provisions when reporting is due for a specific milestone year but be subject to them for the next milestone year. The owner or operator of a freight rail yard that meets the criteria of this exemption is not exempt from the mentioned provisions and requirements for any other freight rail yard that they own and/or operate that does not meet such criteria.

Paragraph (j)(2)

Certain freight rail yards that are owned or operated by City of Long Beach or City of Los Angeles through their respective harbor departments, as well as if operated by a third party under contractual operating agreement with these cities through their harbor departments, will not be subject to PR 2306 if the freight rail yard meets specific criteria. The exempted port-owned/operated freight rail yards include any intermodal rail yard located on dock at a marine terminal within the Los Angeles or Long Beach Harbor Districts.^{44,45} Additionally, any other port-owned/operated freight rail yard that is not an intermodal rail yard and whose operations are limited to moving railcars to and/or from marine terminals located within the Los Angeles or Long Beach Harbor Districts is also exempt from compliance with PR 2306. Emissions associated with these exempted freight rail operations will be addressed in the implementation of the Facility Based Mobile Source Measure for marine ports.

Subdivision (k) – Effective Date

PR 2306 will become effective following the latest out of the following dates:

- The date U.S. EPA approves PR 2306 to be included as part of the California SIP
- The date U.S. EPA grants an authorization to CARB In-Use Locomotive Regulation
- The date U.S. EPA grants an authorization or waiver for CARB ACF Regulation (such that at least the Drayage Truck Requirement is authorized)

⁴⁴ The Los Angeles Harbor District is defined in the City of Los Angeles Charter and Administrative Code, Section 651(a): https://codelibrary.amlegal.com/codes/los_angeles/latest/laac/0-0-0-3202. Information on the tidelands and submerged lands granted by the State of California to the City of Los Angeles can be found at: <https://www.slc.ca.gov/granted-public-trust-lands/grantees/city-and-port-of-los-angeles/>.

⁴⁵ Information on the tidelands and submerged lands granted by the State of California to the City of Long Beach can be found at: <https://www.slc.ca.gov/granted-public-trust-lands/grantees/city-of-long-beach/>.

Subdivision (I) – Severability

Paragraph (I)(1)

If a court holds portions of PR 2306 as invalid or unenforceable, the other provisions of the rule remain fully applicable and enforceable.

Paragraph (I)(2)

Inapplicability of a provision to specific party or circumstance does not preclude other party(s) and circumstance(s) from that provision.

Paragraph (I)(3)

If a federal court rules to reject or delay the inclusion of PR 2306 (whether in part or as a whole) in the California SIP, the extent of rule enforceability under state law will be consistent with rule enforceability under federal law as recognized by U.S. EPA.

Appendix – PR 2306 Equations

This appendix outlines the methodologies to calculate the percent reduction of NO_x emissions for freight rail yards to demonstrate compliance with PR 2306. Specifically, the following subsections describe the methodologies for percent emission reductions calculations for: 1) Alternative Milestone Year Reduction Target; 2) Percent NO_x Emission Reductions for Any Given Milestone Year, and 3) Percent NO_x Emission Reductions Between a Milestone Year and the base period.

Section 1 – Alternative Milestone Year Emission Reductions Target

This section provides the methodology to calculate the alternative milestone year emission reductions target for a freight rail yard, using Equation 1 in PR 2306 Appendix and its corresponding methodology in the Draft-Proposed Rule 2306 Calculation Methodology and Data Appendix, as an alternative to PR 2306 Table 1. The alternative NO_x emission reductions target for each milestone year is based on the statewide emission reductions achieved from all locomotives (line haul and switcher) and drayage trucks operating at all freight rail yards, operated by the same freight rail yard operator, within the State of California. This alternative statewide emission reductions target is calculated based on the actual NO_x emissions from locomotives and drayage trucks using the methodologies specified in Section 1-~~in~~ of the Draft-Proposed Rule 2306 Calculation Methodology and Data Appendix, and the reference scenario NO_x emissions from locomotives and drayage trucks using the methodologies specified in Section 2-~~in~~ of the Draft-Proposed Rule 2306 Calculation Methodology and Data Appendix. Calculation of the alternative emission reductions target for the freight rail yard using the statewide data submitted will need to be done and submitted using Equation 1 in PR 2306 Appendix and the corresponding methodology in the Draft-Proposed Rule 2306 Calculation Methodology and Data Appendix.

Section 2 – Percent NO_x Emission Reductions for Any Given Milestone Year

This section provides the methodology to calculate the percent emission reductions achieved for a freight rail yard within South Coast AQMD for any milestone year using Equation 2 in PR 2306 Appendix and its corresponding methodology in the Draft-Proposed Rule 2306 Calculation Methodology and Data Appendix for compliance reporting purposes. The NO_x emission reductions achieved for the freight rail yard for each milestone year is calculated based on the actual emissions and the reference scenario emissions from locomotives and drayage trucks operating at and travelling to and from the freight rail yard using the methodologies specified in

Sections 1 and 2 ~~in of the Draft~~ Proposed Rule 2306 Calculation Methodology and Data Appendix, respectively. Under this methodology, emission reductions achieved from CHE, TRU, and OSE operating at and/or traveling to and from the freight rail yard can be applied in meeting the applicable targets based on the methodologies specified in Sections 1 and 2 ~~in of the Draft~~ Proposed Rule 2306 Calculation Methodology and Data Appendix. The emission reductions from CHE, TRU, and OSE are calculated based on the difference between the actual emissions from these categories and the reference scenario emissions reflecting baseline emissions for each milestone year. The estimated emission reductions from sources other than locomotives and drayage trucks will be then used to adjust the level of “actual emissions” associated with locomotives and drayage trucks. The adjusted “actual emissions” are then compared to the “reference scenario emissions” from locomotives and drayage trucks to determine whether the percent emission target has been met or exceeded.

Section 3 – Percent NO_x Emission Reductions Between a Milestone Year and the Base Period

This section provides the methodology to calculate the percent emission reductions achieved for a freight rail yard within South Coast AQMD for which the annual throughput in the milestone year is lower than the throughput in the base period using Equation 3 in PR 2306 Appendix and its corresponding methodology in ~~the Draft~~ Proposed Rule 2306 Calculation Methodology and Data Appendix. For the existing freight rail yards, the base period refers to the first two calendar years following the calendar year when PR 2306 becomes effective. For new freight rail yards, the base period refers to the first two calendar years following the calendar year when the freight rail yard begins its operations. The freight rail yard with a lower throughput compared to the base period can opt to calculate its NO_x emission reductions achieved for the milestone year using this methodology in lieu of using the methodology for Equation 2 in PR 2306 Appendix which allows for incorporation of emission reductions that occurred due to the decrease in the freight rail yard’s throughput. To be eligible for this compliance pathway, freight rail yard operators are also required to demonstrate that the aggregate emission factor (AEF), described in Section 3 ~~in of the Draft~~ Proposed Rule 2306 Calculation Methodology and Data Appendix, for the freight rail yard in the milestone year is lower than the AEF in the base period to determine whether dirtier equipment dirtier than base period has been used. The NO_x emission reductions achieved under this methodology are calculated based on the actual NO_x emissions for the milestone year and the actual NO_x emissions over the base period (average of two years) from all applicable mobile sources operating at and travelling to and from the freight rail yard (locomotives, trucks, CHE, TRU, OSE) using the methodologies specified in Section 1 ~~in of the Draft~~ Proposed Rule 2306 Calculation Methodology and Data Appendix. Any emission reductions between the base period and the milestone year that are not due to reduced throughput can be obtained from any freight rail yard source(s) just as for other compliance pathways.

PROPOSED RULE 316.2**Subdivision (a) – Purpose**

The purpose of the PR 316.2 is to act as a companion rule PR 2306 and establishes the administrative fees to recover South Coast AQMD's reasonable costs associated with ensuring compliance with PR 2306.

The proposed purpose is as follows:

Health and Safety Code Section 40522.5 provides authority for the South Coast Air Quality Management District to adopt a fee schedule for areawide or indirect sources of emissions which are regulated, but for which permits are not issued, to recover the costs of programs related to these sources. The purpose of this rule is to recover the South Coast AQMD's cost of implementing Rule 2306.

Subdivision (b) – Applicability

Freight rail yard owners and operators subject to reporting and notification requirements of PR 2306 will also be subject to the respective fees of PR 316.2. As the fees of PR 316.2 are tied to specific reports and notifications, freight rail yard owners and operators may be required to pay multiple fees under PR 316.2 in any one year, then potentially not be subject to fees in the following year if they are not required to submit any of the applicable reports or notifications.

The proposed applicability is as follows:

This rule applies to owners and operators of proposed, new, and existing Freight Rail Yards subject to Rule 2306 that submit an Initial Facility Information Report, Initial Zero Emission Infrastructure Report, Milestone Compliance Report, Zero Emission Infrastructure Status Update Report, Change of Freight Rail Yard Operator Notification, Change of Freight Rail Yard Owner Notification, Freight Rail Yard Shutdown Notification, Exceedance of Low Activity Exemption Threshold Notification, or Proposed Freight Rail Yard Construction, Conversion, or Expansion Notification.

Subdivision (c) – Definitions

PR 316.2 includes definitions of specific terms related to the railroad industry and aspects of implementing PR 2306. Most definitions refer to definitions within PR 2306. Please refer to PR 316.2 subdivision(c) for each specific definition.

Proposed Definitions:

- Exceedance of Low Activity Exemption Threshold Notification
- Freight Rail Yard
- Freight Rail Yard Operator
- Freight Rail Yard Owner
- Freight Rail Yard Shutdown Notification
- Initial Change of Freight Rail Yard Operator Notification
- Initial Change of Freight Rail Yard Owner Notification
- Initial Facility Information Report
- Initial Zero Emission Infrastructure Report
- Milestone Compliance Report

- Proposed Freight Rail Yard Construction, Conversion, or Expansion Notification
- Secondary Change of Freight Rail Yard Operator Notification
- Secondary Change of Freight Rail Yard Owner Notification
- Zero Infrastructure Status Update Report

Key Definitions:

This section provides an overview and explanation of the key definitions for the terms used in PR 316.2.

Paragraph (c)(1) – Exceedance of Low Activity Exemption Threshold Notification

Notification submitted by the freight rail yard operator to the Executive Officer no later than January 31 of the calendar year after a freight rail yard exceeds the annual switching activity threshold. Notification requirements are specified in PR 2306.

Paragraph (c)(5) – Freight Rail Yard Shutdown Notification

Notification submitted by freight rail yard owner or operator to the Executive Officer no later than 30 calendar days before the freight rail yard shutdown date. Notification requirements are specified in PR 2306.

Paragraph (c)(6) – Initial Change of Freight Rail Yard Operator Notification

Notification submitted by the freight rail yard owner or current operator to the Executive Officer no later than 30 calendar days before a change of operator. Notification requirements are specified in PR 2306.

Paragraph (c)(7) – Initial Change of Freight Rail Yard Owner Notification

Notification submitted by the freight rail yard owner or operator to the Executive Officer no later than 30 calendar days before a change of ownership. Notification requirements are specified in PR 2306.

Paragraph (c)(8) – Initial Facility Information Report

Report prepared and submitted by the freight rail yard operator for each freight rail yard to include information about facility and applicable mobile sources during the base period. Reporting information requirements are specified in PR 2306.

Paragraph (c)(9) – Initial Zero Emission Infrastructure Report

Report prepared and submitted by the freight rail yard owner and operator for freight rail yard(s) with information regarding zero emission infrastructure during the base period. Reporting information requirements are specified in PR 2306.

Paragraph (c)(10) – Milestone Compliance Report

Report prepared and submitted by the freight rail yard operator for every milestone year to demonstrate compliance with PR 2306 and includes information about any changes in facility information compared to the Initial Facility Information Report or the last submitted Milestone Compliance Report as well as information about applicable mobile sources and activity at the freight rail yard during the subject milestone year and its two preceding years. Reporting information requirements are specified in PR 2306.

Paragraph (c)(11) – Proposed Freight Rail Yard Construction, Conversion, or Expansion Notification

Notification submitted by the owner of the proposed freight rail yard project to the Executive Officer if there is construction or conversion of a new freight rail yard or expansion of an existing freight rail yard. Notification requirements are specified in PR 2306.

Paragraph (c)(12) – Secondary Change of Freight Rail Yard Operator Notification

A secondary notification submitted by the new freight rail yard operator to the Executive Officer no later than 30 calendar days after a change of operator. Notification requirements are specified in PR 2306.

Paragraph (c)(13) – Secondary Change of Freight Rail Yard Owner Notification

A secondary notification submitted by the new freight rail yard owner to the Executive Officer no later than 30 calendar days after a change of ownership. Notification requirements are specified in PR 2306.

Paragraph (c)(14) – Zero Infrastructure Status Update Report

Report prepared and submitted by the freight rail yard owner and operator for every milestone year to report any updates and new information regarding zero emission infrastructure between the milestone year and the Initial Zero Emission Infrastructure Report or the previous Zero Emission Infrastructure Status Update report, whichever is later. Reporting information requirements are specified in PR 2306.

Subdivision (d) – Fees for Rule 2306 Reports and Notifications

Fees established in this subdivision are set at a flat rate that is equal to the level of effort required by South Coast AQMD staff to review and process submitted documents (i.e., report or notification) for which the fees are being paid. Related tasks to be conducted by South Coast AQMD staff include, but are not limited to, processing and reviewing submitted reports or notifications, auditing emission calculations, and inspecting facilities. Applicable fees must be paid at the time that the report must be submitted pursuant to PR 2306.

Subdivision (e) – Payment Due Date

Payment of all applicable fees in subdivision (d) are due at the time of applicable report or notification submittal pursuant to PR 2306.

Report and notification fee payments shall be considered timely received when the full payment is delivered, postmarked, or electronically paid on or before the payment due date. If the payment due date falls on a Saturday, Sunday, or a state holiday, the full fee payment may be delivered, postmarked, or electronically paid on the next business day following the Saturday, Sunday, or the state holiday with the same effect as if it had been delivered, postmarked, or electronically paid on the payment due date. Requirements for payments in this subdivision are consistent with other South Coast AQMD fee programs in Rule 301.

Subdivision (f) – Service Charge for Returned Check

Freight rail yard owner or operators shall incur a \$25 service charge fee for any checks submitted on insufficient funds or on instructions to stop payment on the check.

CHAPTER 4 : IMPACT ASSESSMENT

INTRODUCTION

AFFECTED FACILITIES

COST IMPACTS

HEALTH BENEFITS

SOCIOECONOMIC IMPACT ASSESSMENT

CALIFORNIA ENVIRONMENTAL QUALITY ACT

**DRAFT FINDINGS UNDER HEALTH AND SAFETY CODE SECTION
40727**

COMPARATIVE ANALYSIS

INTRODUCTION

PR 2306 will reduce regional emissions of NO_x that are associated with the operation of freight rail yards. The proposed rule requires freight rail yard operators to meet or exceed established emission reductions targets. Compliance with PR 2306 includes requirements for reporting and recordkeeping for the specified base period and milestone years by the rule, as well as occasional notifications of specified events. Freight rail yards will also be required to provide informational updates on the development of zero emission infrastructure components. This chapter provides an overview of potential impacts associated with implementation of PR 2306 and PR 316.2. Throughout this chapter, the impacts are analyzed based on the assumption that PR 2306 would become effective in 2024, with 2027 being the first milestone year for freight rail yards to report and demonstrate emission reductions.

AFFECTED FACILITIES

The owners and operators of freight rail yards within the South Coast AQMD jurisdiction are subject to PR 2306 and PR 316.2. These freight rail yards are typically owned and operated by Class I freight railroads (North American Industry Classification System (NAICS) Code: 482111), namely Union Pacific (UP) Railroad and Burlington Northern Santa Fe (BNSF) Railway. In some instances, however, the freight rail yard owner is a state or local government agency (NAICS: 92). One such example is the Intermodal Container Transfer Facility (ICTF), which is owned by the ICTF Joint Powers Authority, and leased to and operated by UP.

Some freight rail yards, specifically intermodal rail yards, receive inbound trains and trucks delivering freight (e.g., containers, bulk cargo, autos, etc.) from port terminals, warehouses, distribution centers, industrial facilities, etc. The freight from inbound trains on railcars and from trucks are unloaded from one mode of transportation, loaded to another mode of transportation, and then transported from the freight rail yard by outbound trains and trucks to their next destinations. Other freight rail yards, such as classification yards, are primarily used for switching operations where railcars are classified, separated, grouped, or moved with the purpose of transporting freight on railcars to different destinations. In addition to handling freight, other activities at freight rail yards can include locomotive fueling, locomotive engine testing, rail service, and various locomotives, container, and rail yard equipment maintenance activities.

Table 4-1 lists 25 known freight rail yards that will be potentially affected by PR 2306 and PR 316.2 and their operators, and Figure 4-1 shows the approximate locations of these freight rail yards. They include Commerce Eastern, Hobart, Kaiser, La Mirada, Malabar, Pico Rivera, San Bernardino, Sheila, and Watson which are operated by BNSF, and 4th Street, Anaheim, Arlington, City of Industry, Dolores, East Los Angeles, ICTF, Inland Empire, LATC, Los Nietos, Mira Loma, Montclair, Montebello, Santa Fe Springs, and West Colton, which are operated by UP. However, this is not an exhaustive list of all freight rail yards potentially subject to PR 2306 and PR 316.2. There are possibly additional freight rail yards that could be potentially affected by the proposed rules, even though they are likely smaller in terms of footprint and/or activity levels. For the purpose of conducting the impact assessment detailed in this chapter, the analysis will be based on the aforementioned 25 freight rail yards.

Table 4-1. Potentially Affected Freight Rail Yards

Freight Rail Yard	Components	Location	Operator
4th Street	4 th Street Yard	Los Angeles, CA 90033	Union Pacific
Anaheim	Anaheim Yard	Anaheim, CA 92802	Union Pacific
Arlington	Arlington Yard	Riverside, CA 92504	Union Pacific
City of Industry	City of Industry Intermodal Terminal	17225 Arenth Avenue, City of Industry, CA 91748	Union Pacific
Commerce Eastern	Commerce Intermodal Facility	5600 E. 26th St. Commerce, CA 90040	BNSF
Dolores	Dolores Support Yard	2442 E Carson St Long Beach CA, 90810	Union Pacific
East Los Angeles	East Los Angeles/Commerce	4341 East Washington Blvd., City of Commerce, CA 90023	Union Pacific
Hobart	Hobart (Los Angeles) Rail Yard	4000 Sheila St, Commerce, CA 90023	BNSF
ICTF	ICTF	2401 E. Sepulveda Blvd., Long Beach, CA 90810	Union Pacific
	ICTF Support Yard	Alongside Alameda Corridor	
Inland Empire	Inland Empire Intermodal Terminal	17550 Slover Avenue, Fontana, CA 92316	Union Pacific
Kaiser	Kaiser Terminal	8793 Depot Rd #8701, Fontana, CA 92335	BNSF
La Mirada	La Mirada Yard	14503 Macaw St, La Mirada, CA 90638	BNSF
LATC	Los Angeles Transportation Center	599 North Mission Road, Los Angeles, CA 90033	Union Pacific
Los Nietos	Los Nietos Yard	Los Nietos Rd, Santa Fe Springs, CA 90670	Union Pacific
Malabar	Malabar Yard	Vernon, CA 90058	BNSF
Mead	Mead Yard	801 N. Pennington Ave. Wilmington, CA 90744	Union Pacific
Mira Loma	Mira Loma	4500 Etiwanda Ave. Mira Loma, CA 91752	Union Pacific
Montclair	Montclair Yard	Ontario, CA 91762	Union Pacific
Montebello	Montebello Yard	329 Van Norman Rd, Montebello, CA 90640	Union Pacific
Pico Rivera	Pico Rivera Yard	7599 Rosemead Blvd #7425, Pico Rivera, CA 90660	BNSF

Freight Rail Yard	Components	Location	Operator
San Bernardino	San Bernardino Automotive Facility	1685 Santa Fe Way, San Bernardino, CA 92410	BNSF
	San Bernardino Intermodal Facility	1535 W 4th St, San Bernardino, CA 92410	BNSF
Santa Fe Springs	Santa Fe Springs Bulk Materials Transfer Terminal	8636 Sorensen Ave. Santa Fe Springs, CA 90670	Union Pacific / Savage
Sheila	Sheila Mechanical Yard	6300 Sheila St, Commerce, CA 90040	BNSF
Watson	Watson Yard	1302 E Lomita Blvd, Wilmington, CA 90744	BNSF
West Colton	West Colton Roundhouse	19700 Slover Ave, Bloomington, CA 92316	Union Pacific
	West Colton Intermodal	19100 Slover Avenue Bloomington, California	
	West Colton Yard	2000 Sycamore Ave, Bloomington, CA 92316	



Figure 4-1. Map of Potentially Affected Freight Rail Yards

COST IMPACTS**PR 2306 Compliance Cost Analysis**

This section provides an analysis of compliance costs associated with anticipated implementation of PR 2306. Because PR 2306 is designed to achieve emission reductions at levels that are proportional or more-than-proportional to implementation of statewide regulations within the South Coast AQMD relative to the state as a whole, and to be consistent with these state regulations, the potential adoption and subsequent implementation of PR 2306 are expected to result in similar costs already analyzed by CARB for the state regulations^{46,47} proportioned to the South Coast AQMD region. Beyond these costs, only nominal incremental costs are anticipated for freight rail yards to meet or exceed the proposed emission reductions targets, since most of the costs will be incurred anyway due to the implementation of the CARB regulations. However, for informational purposes, this section presents an analysis of costs based on the scenario of CARB regulations being proportionally implemented within South Coast AQMD. Additional costs associated with reporting and notification requirements of PR 2306 are outlined later in this section.

To estimate the South Coast AQMD region-specific portion of compliance costs from statewide regulations, the statewide cost estimates presented in CARB's In-Use Locomotive and ACF regulations cost analyses are scaled according to the South Coast AQMD region's estimated share of expected NOx

Box 4-1. Cost-Effectiveness of Reducing NOx Emissions from Freight Rail Yard Sources

South Coast AQMD routinely conducts cost-effectiveness analyses regarding proposed rules and regulations that result in the reduction of criteria pollutants. The analysis is generally used to compare and rank control measures or alternative means of emissions control in relation to the costs to achieve the projected emission reductions. A systematic cost-effectiveness analysis was conducted for the 2022 AQMP control measures in the associated Socioeconomic Report, including for several CARB measures affecting freight rail yard sources.^a

The differences in the history of regulatory actions for locomotives in comparison to drayage trucks, CHE, and TRUs contribute to the result of this analysis showing the locomotive measure being more cost-effective than measures affecting other freight rail yard sources. Since the mid-2000s, CARB has adopted and amended in-use requirements or more-stringent-than-federally-required standards for these other sources; as a result, they have incurred compliance costs along the way to become cleaner over time, resulting in higher incremental costs per ton of NOx reductions.

In comparison, CARB's In-Use Locomotive Regulation is the first state regulatory action in its kind to address locomotive emissions. Today, only 5 percent of locomotives operated in the Basin meet the cleanest federal standard of Tier 4, with over 40 percent being Tier 1/1+ or dirtier.^b As estimated in the 2022 AQMP, the cost of reducing one ton of NOx from locomotives ranges between \$30,000 and \$50,000 (varying by cost-effectiveness analysis method), which is considerably lower than values estimated for measures affecting other freight rail yard sources using the same methods.

^a See: <https://www.aqmd.gov/docs/default-source/clean-air-plans/socioeconomic-analysis/final/aqmp-2022-socioeconomic-report-main-final.pdf> (p. 2-14).

^b See the latest (2022) compliance data summaries under CARB's 1998 MOU: <https://ww2.arb.ca.gov/resources/documents/rail-emission-reduction-agreements>.

⁴⁶ CARB. Proposed In-Use Locomotive Regulation Standardized Regulatory Impact Assessment (SRIA): <https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2022/locomotive22/appb.pdf>.

⁴⁷ CARB. Public Hearing to Consider the Proposed Advanced Clean Fleets Regulation, Staff Report: Initial Statement of Reasons: <https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2022/acf22/isor2.pdf>.

reductions relative to the statewide total (see Table 4-2). These calculations are performed separately for locomotives and drayage trucks, using scaling factors specific to each of these equipment types. Although the emission reductions targets set in PR 2306 are based on relative (percent) statewide emission reductions from state regulations addressing emissions from locomotives and drayage trucks, PR 2306 provides compliance flexibility that allows emission reductions related to TRUs, CHE, and OSE to contribute to a freight rail yard's compliance with PR 2306. Given emission reductions from TRUs, CHE, and/or OSE are an added option that may be, but not necessarily needs to be, elected by freight rail yards, it can be reasonably assumed that this option would be elected only if it is less costly. Therefore, to be conservative, this analysis focuses on quantifying the South Coast AQMD portion of compliance costs estimated for CARB's In-Use Locomotive and ACF regulations. Moreover, as discussed in Box 4-1, it was estimated for the 2022 AQMP control measures that, in general, it would be on average more costly to reduce one ton of NOx from TRUs and CHE than from locomotives.

It should be emphasized that the percent emission reductions targets specified in Table 1 of PR 2306 are derived based on CARB's projected statewide NOx reductions (as shown in the "Statewide" columns in Table 4-2) relative to the projected statewide baseline emissions. The statewide costs quantified in CARB's analyses are for the same projected statewide NOx reductions used as the basis for Table 1 targets. Although PR 2306 also allows freight rail yard operators to elect to comply with alternative emission reductions targets; given the optional nature, it can be reasonably assumed that the alternative targets would not be elected if they are more costly to comply with. Therefore, this analysis focuses on analyzing the costs associated with PR 2306 Table 1 emission reductions targets.

Table 4-2 shows that the total NOx reductions within the South Coast AQMD jurisdiction that can be achieved by complying with PR 2306 Table 1 targets are generally less than one-third of total NOx reductions projected statewide from implementing the In-Use Locomotive Regulation. Therefore, even if the railroads (which are subject to PR 2306 emission reductions targets due to their role in operating the freight rail yards) choose to comply with PR 2306 solely with emission reductions from locomotives and not from other source categories, the total costs would still represent less than one-third of the statewide costs for them to comply with the In-Use Locomotive Regulation. If emission reductions are also achieved from other emission sources associated with freight rail yard operations (e.g., from drayage trucks due to ACF requirements on truck operators), the total costs directly incurred by the freight rail yard operators will be even lower.

According to CARB's Standardized Regulatory Impact Assessment for the In-Use Locomotive Regulation, the projected statewide costs, expressed in an average amortized annual total, represent "1.2 percent of [UP and BNSF railroads'] annual revenue" (p. 90). Moreover, the majority of the total projected statewide costs will come from the purchase costs of Tier 4 and cleaner locomotives which will result in direct NOx reductions, and these purchase costs were "determined through interviews with railroads and OEMs and corroborated using CARB incentive program data and industry feasibility studies" (p. 67).

Table 4-2. South Coast AQMD Region’s Estimated Share of NOx Reductions Relative to the Statewide Total

Calendar Year	Projected NOx Reductions from Freight Locomotives (tpd)*		Projected NOx Reductions from Drayage Trucks (tpd)*		South Coast Share from Freight Locomotive Reductions Statewide	South Coast Share from Drayage Truck Reductions Statewide
	Statewide	South Coast	Statewide	South Coast		
2027	6.16	0.26	1.84	1.59	4.2%	86.5%
2028	9.18	0.40	2.78	2.34	4.4%	84.1%
2029	12.24	0.97	2.89	2.46	7.9%	85.1%
2030	47.87	8.74	3.15	2.70	18.3%	85.5%
2031	51.88	9.46	3.37	2.87	18.2%	85.0%
2032	51.99	9.37	3.52	2.97	18.0%	84.3%
2033	52.09	9.46	3.45	2.87	18.2%	83.3%
2034	50.76	9.26	3.41	2.80	18.2%	82.0%
2035	57.61	10.80	3.54	2.83	18.7%	80.0%
2036	58.35	11.21	3.32	2.64	19.2%	79.4%
2037	59.33	11.71	3.14	2.48	19.7%	78.9%
2038	56.63	11.29	2.98	2.33	19.9%	78.3%
2039	53.25	10.76	2.85	2.22	20.2%	77.8%
2040	50.51	10.32	2.75	2.13	20.4%	77.4%
2041	47.85	9.90	2.68	2.06	20.7%	76.8%
2042	44.95	9.42	2.62	2.00	20.9%	76.3%
2043	41.56	8.85	2.58	1.95	21.3%	75.6%
2044	38.16	8.26	2.54	1.91	21.6%	74.9%
2045	37.08	8.12	2.51	1.87	21.9%	74.2%
2046	36.01	7.96	2.49	1.83	22.1%	73.4%
2047	34.71	7.76	2.47	1.80	22.4%	72.6%
2048	34.03	7.72	2.46	1.76	22.7%	71.9%
2049	33.52	7.72	2.45	1.75	23.0%	71.2%
2050	33.04	7.74	2.40	1.70	23.4%	70.9%

* Rounded to the second decimal place

Overall, the scaling-based approach used in this cost analysis estimates the proportional share of net costs for the South Coast AQMD regional economy, considering the costs that will be incurred by railroads, as well as drayage truck operators, from complying with the state regulations for locomotives and drayage trucks. It is applied to the relevant cost categories identified in the CARB analyses. These categories are capital, operations, maintenance, and on-site infrastructure costs/cost savings for both locomotives and drayage trucks, as well as salvage and resale revenue cost savings for locomotives and midlife cost savings for drayage trucks. California’s Low Carbon Fuel Standard (LCFS) revenue for drayage trucks is also included since these revenues partially offset the costs of compliance for regulated entities, though such revenues represent a net-zero

transfer rather than an economy-wide cost savings. Cost categories from the CARB analyses that are excluded from this analysis include estimated impacts on taxes, insurance, and opportunity costs associated with the spending account feature of the In-Use Locomotive Regulation. Taxes and insurance are both transfers, and the spending account is not an element of PR 2306.

While on-site charging and refueling infrastructure costs from CARB are included as a cost category in this proportional analysis, PR 2306 does not compel freight rail yard owners and operators to invest in on-site or off-site infrastructure; rather, PR 2306 requires informational reporting on zero emission infrastructure planning and development, and the utilization of any such infrastructure that is installed and operative. CARB assumes on-site infrastructure costs are a relevant component of the regulated equipment technology upgrades and includes such costs in its cost estimates for In-Use Locomotive and ACF regulatory analyses. Assuming the implementation of PR 2306 will represent compliance with both state regulations proportionately within the South Coast AQMD region, the costs associated with on-site charging and refueling infrastructure are also included in the estimation of proportional costs in this analysis.

The statewide compliance costs estimated by CARB for In-Use Locomotive and ACF regulations reflect the full range of locomotives and trucks affected by these rulemakings, some of which are not relevant to freight rail yards (such as passenger locomotives or trucks not used for drayage activities). The scaling-based approach applied in the present analysis assumes that the costs per ton of NO_x reduced for the locomotives and trucks regulated by the CARB statewide regulations are applicable to the equipment categories within the scope of PR 2306. Due to the similarities in equipment across different applications (e.g., the same trucks can be used for drayage and other freight transportation services), this approach is reasonable for estimating the portion of statewide costs associated with the South Coast AQMD region.

As additional context for the scaling approach applied here, unit cost inputs used by CARB for its state-level analyses for the In-Use Locomotive and ACF (drayage trucks) rulemakings are presented in Tables 4-3 through 4-5.⁴⁸ CARB uses these inputs, as well as detailed information on current fleet inventories and operations, to estimate compliance costs associated with implementation of the state regulations. CARB also makes assumptions regarding the technologies that will replace existing vehicles, based on the equipment duty cycle. For locomotives, line haul freight (and passenger) locomotives are assumed to be replaced with zero emission hydrogen fuel cell locomotives, while switch locomotives are assumed to be replaced with battery electric locomotives.⁴⁹ For drayage trucks, CARB assumes a mix of battery electric and fuel cell vehicles, adopting an assumption that all drayage trucks are Class 8 day cabs.

⁴⁸ The economic analyses for the In-Use Locomotive and ACF rulemakings do not present estimates of the annual operations cost per equipment type, though they do present their assumptions regarding the future prices of diesel, electricity, and hydrogen. Table 4-3 presents these price projections.

⁴⁹ CARB In-Use Locomotive SRIA, p. 67.

**Table 4-3. Unit Capital Costs for Locomotive and Drayage Trucks Used in CARB Analyses
(2023\$ per Unit of Equipment)**

Equipment Type	Technology/Fuel Type		
	Electric	Hydrogen	Diesel
<i>Locomotives:</i>			
Line Haul Locomotives	\$7,347,572 ²	\$6,171,960 ¹	\$3,644,396 ¹
Road Switch Locomotives	\$3,997,079 ¹	\$3,850,128 ²	\$3,174,151 ¹
Yard Switch Locomotives	\$3,644,396 ¹	\$3,850,128 ²	\$2,539,321 ¹
<i>Drayage Trucks:</i>			
Class 8 Day Cab Tractors	\$182,623 ³	\$193,322 ³	\$168,760 ³
Sources:			
¹ . California Air Resources Board. (2022). Proposed In-Use Locomotive Regulation Standardized Regulatory Impact Assessment (SRIA). Page 68. Available at: https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2022/locomotive22/appb.pdf .			
² . California Air Resources Board. (2021). Preliminary Cost Document for In-Use Locomotive Regulation. Pages 9-10. Available at: https://ww2.arb.ca.gov/sites/default/files/2021-03/3.16.21%20Locomotive%20Reg%20-%20Preliminary%20Cost%20Document_Final.pdf .			
³ . California Air Resources Board. (2022). Public Hearing to Consider the Proposed Advanced Clean Fleets Regulation, Staff Report: Initial Statement of Reasons. Page 179. Prices forecasted for the 2030 model year. Available at: https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2022/acf22/isor2.pdf .			
Note:			
These values represent capital costs for each equipment type and do not include the cost of any on-site supporting charging or refueling infrastructure. Discussion of these infrastructure costs are included on page 77 of the 2022 In-Use Locomotive SRIA and page 182 of the 2022 ACF Initial Statement of Reasons documents cited above.			

Table 4-4. Annual Maintenance Costs for Locomotive and Drayage Trucks Used in CARB Analyses (2023\$ per Unit of Equipment per year)

Equipment Type	Technology/Fuel Type		
	Electric	Hydrogen	Diesel
<i>Locomotives:</i>			
Locomotives	\$83,586 ¹	\$92,873 ¹	\$92,873 ¹
<i>Drayage Trucks:</i>			
Class 8 Day Cab Tractors	\$8,801 ²	\$8,801 ²	\$14,644 ²
Sources:			
¹ . California Air Resources Board. (2022). Proposed In-Use Locomotive Regulation Standardized Regulatory Impact Assessment (SRIA). p. 70. Available at: https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2022/locomotive22/appb.pdf .			
² . California Air Resources Board. (2022). Public Hearing to Consider the Proposed Advanced Clean Fleets Regulation, Staff Report: Initial Statement of Reasons. pp. 191-192. Available at: https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2022/acf22/isor2.pdf .			
Note:			
<p>In addition to routine annual maintenance, locomotives and drayage trucks also undergo midlife/overhaul maintenance. This includes engine rebuilds for diesel equipment, battery replacements for electric equipment, and fuel cell stack refurbishments for hydrogen equipment. The frequency of midlife/overhaul activities depends on the equipment and technology type (e.g., line haul locomotives require overhaul every 6 years while switch locomotives require overhaul every 14 years). For line haul locomotives, a single overhaul can range from approximately \$58,000 (diesel) to \$60,000 (hydrogen) in 2023\$. Overhaul costs are lower for switch locomotives, ranging from approximately \$12,000 (diesel) to \$21,000 (electric). For drayage trucks, CARB does not present specific costs for midlife activities but does provide guidance on their calculations (e.g., the cost of a fuel cell stack refurbishment is approximately one third the cost of a new fuel cell stack).</p>			

Table 4-5. Electricity, Hydrogen, and Diesel Price Projections from CARB’s In-Use Locomotive Analysis (Operating Costs, 2023\$ per Diesel Gallon Equivalent)

Year	Electricity (DGE) ¹	Hydrogen (DGE) ¹	Diesel (DGE) ¹
2025	\$8.71	\$20.68	\$4.76
2030	\$9.58	\$16.48	\$4.95
2050	\$9.14	\$6.53	\$5.57

Source:
¹ California Air Resources Board. (2022). Proposed In-Use Locomotive Regulation Standardized Regulatory Impact Assessment (SRIA). pp. 75-76. Available at: <https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2022/locomotive22/appb.pdf>

Note: For comparison across fuel types, the prices for electricity and hydrogen are converted from kilowatt-hour (kWh) and kilogram (kg) to diesel gallon equivalents (DGE) using conversion factors of 37.0 kWh per DGE and 1.11 kg per DGE derived from U.S. DOE’s Alternative Fuels Data Center (Available at: <https://afdc.energy.gov/fuels/properties?fuels=HY,ELEC>). CARB’s Advanced Clean Fleets analysis also provides fuel economy estimates for drayage trucks. Applying the same conversion factors, electric drayage trucks are estimated to get 22.2 miles/DGE, hydrogen drayage trucks are estimated to get 12.9 miles/DGE, and diesel drayage trucks are estimated to get 7 miles/DGE. Equivalent information is not provided for locomotives.

The combined implementation of PR 2306 with statewide regulations will result in new demand for alternative fuels within the Basin, namely electricity and hydrogen. The existing utility supply and distribution systems may require capacity upgrades to accommodate this new demand. Such improvements would represent off-site infrastructure improvements, such as grid upgrades that may include electricity generation resources, transmission capacity, and distribution system capacity (e.g., additional substations and/or circuits), as well as hydrogen fuel production, storage, and distribution systems. CARB does not consider off-site infrastructure improvements in its analysis of costs for the In-Use Locomotive and ACF rulemakings. While off-site infrastructure upgrades may be necessary to support vehicle technology changes, many of these investments are required under the baseline pursuant to separate California regulations, as noted by CARB.^{50, 51} Clearly assigning system-wide improvements to specific rules is difficult, due to the overlapping nature of concurrent efforts, as well as the shared nature of the energy supply grid across many user groups.^{52,53,54} Accordingly, the only infrastructure costs quantified in this proportional

⁵⁰ See discussion of SB 350 and other utility actions on page 52 of CARB’s In-Use Locomotive SRIA.

⁵¹ CARB provides cost estimates for some off-site infrastructure improvements in its SB 671 Clean Freight Corridor Efficiency Assessment: [Senate Bill 671 Clean Freight Corridor Efficiency Assessment | California Transportation Commission](#)

⁵² “2035 Report 2.0: Distribution Grid Cost Impacts Driven by Transportation Electrification,” (2021). Energy + Environmental Economics.

⁵³ “2035 Report 2.0: Transportation.” 2021. Goldman School of Public Policy, University of California Berkeley.

⁵⁴ “Electric Vehicles at Scale – Phase II: Distribution System Analysis” (2022). Pacific Northwest National Laboratory

analysis are the share of CARB’s statewide estimates for on-site infrastructure costs relevant to PR 2306.

Estimated Costs for Proportional Implementation of Statewide Regulations

As shown in Table 4-6, the South Coast AQMD region-specific portion of statewide costs across all years analyzed (2027-2050) is approximately \$2.27 billion in undiscounted 2023 dollars.⁵⁵ This is comprised of \$2.87 billion associated with locomotives and -\$596 million (i.e., a \$596 million savings) related to drayage trucks, inclusive of fuel cost-savings and LCFS credits as discussed above.⁵⁶ As a share of statewide In-Use Locomotive and ACF regulations compliance costs for the same timeframe and cost categories used in this analysis, the scaled cost estimates for the South Coast AQMD region are 18.4% for locomotives and 4.0% for drayage trucks. Note that these are not incremental costs resulting from the implementation of PR 2306, but rather the share of costs expected to accrue in the South Coast AQMD jurisdiction as a result of the combined implementation of PR 2306 with statewide regulations. The incremental costs attributable solely to PR 2306 are expected to be nominal and are discussed later in this section.

Table 4-6. Total Present Value and Annualized Compliance Costs Over the 2027-2050 Period (2023\$)

	Present Value Cost	Annualized Cost
Undiscounted	\$2,270,000,000	\$94,600,000
1% Discount Rate/Real Interest Rate	\$2,040,000,000	\$95,200,000
4% Discount Rate/Real Interest Rate	\$1,620,000,000	\$102,000,000

Tables 4-7 and 4-8 present the distribution of undiscounted statewide compliance costs apportioned to the South Coast AQMD region across the various cost categories, for locomotives and drayage trucks respectively. For locomotives, the most significant costs are for the capital (procuring new locomotives) and operating (changes in fuel costs) categories, while new maintenance and infrastructure costs represent a smaller contribution to costs. Increased salvage and resale revenues represent a small cost-savings. For drayage trucks, new investments in infrastructure represent the largest single cost, while additional capital and midlife costs present a smaller cost contribution. These new costs are nearly entirely offset by new operating (fuel) and maintenance cost-savings. When revenue under LCSF is included, total costs become negative, or cost-savings.

⁵⁵ All statewide costs from CARB’s In-Use Locomotive and ACF regulations analyses were inflated to 2023 dollars (using the Bureau of Economic Analysis Implicit Price Deflator for Gross Domestic Product) before being scaled.

⁵⁶ While this cost analysis estimates costs and cost-savings incurred up to 2050, the 2022 AQMP cost-effectiveness analysis referenced in Box 4-1 included costs and cost-savings up to 2037, therefore with a shorter time period for net operating and maintenance cost-savings as well as LCFS revenue to accrue.

**Table 4-7. Undiscounted Costs Attributable to Locomotives Over the 2027-2050 Period
(2023\$)**

Cost Category	Cost
Capital Cost	\$1,900,000,000
Infrastructure Cost	\$145,000,000
Operating Cost	\$699,000,000
Maintenance Cost	\$189,000,000
Salvage Revenue	-\$6,520,000
Resale Revenue	-\$61,300,000
Total	\$2,870,000,000
Note: Totals may not sum due to rounding.	

**Table 4-8. Undiscounted Costs Attributable to Drayage Trucks Over the 2027-2050 Period
(2023\$)**

Cost Category	Cost
Capital Cost	\$495,000,000
Infrastructure Cost	\$1,980,000,000
Operating Cost	-\$1,550,000,000
Maintenance Cost	-\$851,000,000
Midlife Costs	\$42,000,000
Total Without LCFS Revenues	\$119,000,000
LCFS Revenue	-\$715,000,000
Total With LCFS Revenues	-\$596,000,000
Note: Totals presented without and with LSFS revenues because these revenues represent a transfer. Totals may not sum due to rounding.	

As mentioned earlier, the emission reductions targets in PR 2306 are set levels equivalent to achieving emission reductions within South Coast AQMD from proportional implementation of state regulations addressing emissions from locomotives and trucks. However, emission reductions related to TRUs, CHE, and OSE may be used to contribute to a freight rail yard's compliance with PR 2306. For context, Tables 4-9 and 4-10 include information on unit costs applicable to these additional equipment categories, for both zero emission electric and conventional diesel options.

Table 4-9. Unit Capital Costs for CHE and TRU (2023\$ per Unit of Equipment)

Equipment Type	Technology/Fuel Type	
	Electric	Diesel
<i>Cargo Handling Equipment:</i>		
Yard Trucks	\$355,016 ¹	\$110,942 ¹
Forklifts	\$84,214 ²	\$50,321 ²
RTG Cranes	\$1,996,964 ¹	\$1,331,309 ¹
Top Handlers	N/A ⁶	\$703,614 ³
Straddle Carriers	\$1,248,103 ⁴	\$1,382,099 ³
<i>Transportation Refrigeration Units:</i>		
Transportation Refrigeration Units	\$88,754 ⁵	\$32,617 ⁵
Sources:		
¹ . San Pedro Bay Ports. (2021). Clean Air Action Plan 2021 Update: Feasibility Assessment for Cargo Handling Equipment. pp. 84-85. Available at: https://cleanairactionplan.org/wpfd_file/2021-cargo-handling-equipment-feasibility-assessment-report-final/ .		
² . California Air Resources Board. (2023). Proposed Zero Emission Forklift Regulation SRIA. p. 64. Available at: https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2024/zeforklifts/appb2.pdf .		
³ . California Air Resources Board. (2015). Draft Technology Assessment: Mobile Cargo Handling Equipment. Pages II-6 - II-7. Available at: https://ww2.arb.ca.gov/sites/default/files/classic/msprog/tech/techreport/che_tech_report.pdf .		
⁴ . State of New Jersey. (2020) Volkswagen Settlement Application Port Newark Container Terminal Straddle Carrier Replacement Program. p. 7. Available at: https://www.nj.gov/dep/vw/proposals/phase2/PNCT.pdf .		
⁵ . California Air Resources Board. (2022) 2022 Technology Assessment: Non-Truck Transport Refrigeration Units (TRU). pp. 36-37. Available at: https://ww2.arb.ca.gov/sites/default/files/2022-10/CARB%202022%20TRU%20Technology%20Assessment%2010-14-22.pdf .		
⁶ . Costs for electric top handlers do not appear to be publicly available, as the technology has only recently been commercialized. On June 25, 2024, the Port of Los Angeles deployed the first commercially available battery-powered electric top handlers. More information on this project is available at: https://www.portoflosangeles.org/references/2024-news-releases/news_062524_yti_ze_tophandlers .		

Table 4-10. Annual Maintenance Costs for CHE and TRU (2023\$ per Unit of Equipment per Year)

Equipment Type	Technology/Fuel Type	
	Electric	Diesel
<i>Cargo Handling Equipment:</i>		
Yard Trucks	\$31,056 ¹	\$44,380 ¹
Forklifts	\$3,629 ²	\$5,392 ²
RTG Cranes	\$70,717 ¹	\$94,289 ¹
Top Handlers	N/A ⁷	\$6,437 ³
Straddle Carriers	\$134,284 ⁴	\$148,701 ⁵
<i>Transportation Refrigeration Units:</i>		
Transportation Refrigeration Units	\$1,109 ⁶	\$2,108 ⁶
Sources:		
<ol style="list-style-type: none"> San Pedro Bay Ports. (2021). Clean Air Action Plan 2021 Update: Feasibility Assessment for Cargo Handling Equipment. pp. 84-85. Available at: https://cleanairactionplan.org/wpfd_file/2021-cargo-handling-equipment-feasibility-assessment-report-final/. California Air Resources Board. (2023). Proposed Zero Emission Forklift Regulation SRIA. Pages 62, 67. Available at: https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2024/zeforklifts/appb2.pdf. U.S. Environmental Protection Agency. (2022). Assessment of Fuel Cell Technologies at Ports. p. 5-8. Available at: https://nepis.epa.gov/Exe/ZyPDF.cgi/P1015AQX.PDF?Dockey=P1015AQX.PDF. State of New Jersey. (2020) Volkswagen Settlement Application Port Newark Container Terminal Straddle Carrier Replacement Program. p. 7. Available at: https://www.nj.gov/dep/vw/proposals/phase2/PNCT.pdf; Average ratio between capital and maintenance costs for other CHE (10.8%). California Air Resources Board. (2015). Draft Technology Assessment: Mobile Cargo Handling Equipment. Pages II-6 - II-7. Available at: https://ww2.arb.ca.gov/sites/default/files/classic/msprog/tech/techreport/che_tech_report.pdf; Average ratio between capital and maintenance costs for other CHE (10.8%). California Air Resources Board. (2022) 2022 Technology Assessment: Non-Truck Transport Refrigeration Units (TRU). pp. 17, 36-37. Available at: https://ww2.arb.ca.gov/sites/default/files/2022-10/CARB%202022%20TRU%20Technology%20Assessment%2010-14-22.pdf Costs for electric top handlers do not appear to be publicly available, as the technology has only recently been commercialized. On June 25, 2024 the Port of Los Angeles deployed the first commercially available battery-powered electric top handlers. More information on this project is available at: https://www.portoflosangeles.org/references/2024-news-releases/news_062524_yti_ze_tophandlers. 		

This analysis estimates the proportional share of statewide compliance costs based on the scenario of proportional implementation within South Coast AQMD. To provide further context on potential costs associated with systematic infrastructure development beyond on-site installation, prior reports have also addressed zero emission technology implementation and the potential associated costs, both nationally and in California. For example, the 2022 Port of Long Beach Port Master Plan provides information on the Port's goals for transitioning to cleaner operations,

including through the use of zero emission technology.⁵⁷ The 2023 Zero Emission Planning and Grid Assessment for the Port of Los Angeles assesses the feasibility of electrifying CHE and provides an economic analysis of different electrification scenarios.⁵⁸ With regard to drayage trucks, a 2024 study performed by Roland Berger entitled “Forecasting a Realistic Electricity Infrastructure Buildout for Medium- & Heavy-Duty Battery Electric Vehicles” estimates that electrifying all medium- and heavy-duty vehicles across the United States would require \$622 billion of investment in chargers, site infrastructure, and utility service costs.⁵⁹ The study also estimates that California would need to invest over \$25 billion for distribution grid upgrades alone.⁶⁰ However, as mentioned earlier, it is challenging to quantify and assign systemic infrastructure costs to regulatory actions, requirements, and other initiatives introduced concurrently by multiple entities.

HEALTH BENEFITS

The Basin is home to roughly two-thirds of California’s EJ communities.⁶¹ The combined implementation of statewide regulations and PR 2306 would ensure that the public health benefits sought from statewide regulations accrue within South Coast AQMD and to the EJ communities which are disproportionately impacted by pollution. This health benefits analysis relies upon a streamlined approach to estimate human health benefits of the combined implementation of PR 2306, CARB’s In-Use Locomotive Regulation, and CARB’s ACF Regulation using estimates of incidence-per-ton (IPT) and benefits-per-ton (BPT) of emissions reduced derived from the health benefits assessment in the 2022 AQMP Final Socioeconomic Report.⁶² The IPT and BPT method provides robust, reasonable estimates of the magnitude of health benefits and is consistent with previously employed approaches by South Coast AQMD, as well as by U.S. EPA and CARB.^{63,64,65} The 2022 AQMP Socioeconomic Impact Report estimates health benefits in 2032 and 2037 based on: 1) modeled concentrations of ambient ozone and PM2.5 reductions at a 4-km grid scale across the Basin; and 2) the U.S. EPA’s Environmental Benefits Mapping and Analysis

⁵⁷ Port of Long Beach. Revised Draft Port Master Plan: <https://polb.com/port-info/mission-vision/#master-plan-update>

⁵⁸ Electric Power Research Institute (EPRI). Zero Emission Planning and Grid Assessment for the Port of Los Angeles.

⁵⁹ Roland Berger. Forecasting a Realistic Electricity Infrastructure Buildout for Medium- & Heavy-Duty Battery Electric Vehicles: <https://www.nada.org/media/9801/download?inline>

⁶⁰ *Ibid.*

⁶¹ California Office Of Environmental Health Hazard Assessment. SB 525 Disadvantaged Communities: <https://oehha.ca.gov/calenviroscreen/sb535>

⁶² South Coast AQMD. Socioeconomic Analysis: <http://www.aqmd.gov/home/air-quality/air-quality-management-plans/air-quality-mgt-plan/socioeconomic-analysis>

⁶³ IPT and BPT estimates were used in the 2021 Socioeconomic Impact Assessment for PR 1109.1 et al.: <https://www.aqmd.gov/docs/default-source/rule-book/Proposed-Rules/1109.1/1109-1-draft-socioeconomic-impact-assessment-090721-merged.pdf>

⁶⁴ U.S. EPA. Technical Support Document: Estimating the Benefit per Ton of Reducing PM2.5 Precursors from 17 Sectors: https://www.epa.gov/sites/default/files/2018-02/documents/sourceapportionmentbpttsd_2018.pdf

⁶⁵ CARB. Estimated the Community Level Health Benefits from Air Pollution Control Programs: <https://ww2.arb.ca.gov/resources/documents/estimating-community-level-health-benefits-air-pollution-control-programs#:~:text=CARB%20uses%20a%20California%20specific,available%20on%20the%20CARB%20website>

Program – Community Edition (BenMAP-CE) model. The 2022 AQMP benefits result mostly from projected reductions of NO_x under the ozone control measures as NO_x is the key pollutant for the region’s ozone attainment challenges. This analysis utilizes the projected 2022 AQMP emissions reductions and associated health benefits to generate average IPT and BPT estimates. These estimated IPT and BPT factors were then used to generate estimates of the quantity and monetized value of health benefits resulting from anticipated emission reductions from PR 2306, in conjunction with state regulations.

Box 4-2. Consequences of NAAQS Nonattainment

The federal Clean Air Act (CAA) requires submission of a SIP for nonattainment areas that do not meet the federal NAAQS. South Coast AQMD is in extreme nonattainment for ozone and serious nonattainment for PM_{2.5}. The ozone control measures in the 2016 AQMP were approved by the U.S. EPA for inclusion in the California SIP and included a suite of facility-based mobile source measures mainly to reduce mobile source emissions from freight transportation. PR 2306 will implement the federally approved SIP measure to address freight emissions associated with rail yards.

Severe consequences can result from nonattainment of NAAQS, particularly the continued harm to public health and EJ communities. Failures in CAA planning requirements can also trigger federal sanctions and introduce economic uncertainties for the region. The first sanction will increase the air permitting offset ratio from the current ratio of 1.2-to-1 to a ratio of 2-to-1, which is expected to make air permitting substantially more difficult in our region. The second sanction is loss of federal highway funding, potentially to the magnitude of \$35.7 billion by 2045.^a

Additionally, CAA Section 185 requires major stationary sources of NO_x and/or volatile organic compounds (both ozone precursors) that are located in extreme or severe ozone nonattainment areas to either reduce their emissions by 20 percent from a baseline amount or pay a nonattainment fee. The annual average cost of complying with nonattainment fee requirements is estimated at an undiscounted total of more than \$250 million between 2025 and 2035, affecting over 300 facilities across many industries in our region.^b Given that 80 percent of the region’s NO_x emissions come from mobile sources, the costs of nonattainment fees will most likely continue to accrue if significant emission reductions from mobile sources do not occur to help bring the region into attainment.

^a See Connect SoCal 2020 (https://scag.ca.gov/sites/main/files/file-attachments/0903fconnectsocial-plan_0.pdf?1606001176, p. 105) and South Coast AQMD v. Michael S. Regan (https://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2016-air-quality-management-plan/2-23cv02646_docketentry_04-07-2023_1.pdf).

^b Final Socioeconomic Impact Assessment for Proposed Rule 317.1 – Clean Air Act Nonattainment Fees for 8-Hour Ozone Standards: <http://www.aqmd.gov/docs/default-source/Agendas/Governing-Board/2024/2024-jun7-024.pdf>.

IPT and BPT estimates for both PM_{2.5}-specific and ozone-specific benefits are developed by dividing the 2022 AQMP health benefits results by the total AQMP emissions reductions of NO_x, a key PM_{2.5} and ozone precursor. The PM_{2.5}-related health benefits associated with the 2022 AQMP reflect reductions in NO_x and, to a lesser degree, directly emitted fine particles (see Table 3-1 in the 2022 AQMP Socioeconomic Report). For this analysis, all PM_{2.5}-related benefits from the 2022 AQMP are attributed to reductions in NO_x as NO_x reductions are the primary driver of PM_{2.5} reductions in the 2022 AQMP.

The IPT and BPT factors generated from the 2022 AQMP are applicable to the emissions reductions anticipated from PR 2306 in conjunction with the state regulations, which affect mobile sources at rail yard operations, since a majority (85%) of the 2022 AQMP NO_x emissions reductions are attributed to on-road and off-road mobile sources. As such, the 2022 AQMP IPT

and BPT factors are representative of the anticipated health benefits associated with NOx reductions from PR 2306 and statewide regulations.

This reduced-form approach relies upon an estimate of the average health impact for each ton of pollutant emissions (and/or its precursors) reduced. This average estimate is based on the benefits derived from the 2022 AQMP air quality modeling, which accounts for potential nonlinearities between NOx emissions and ozone concentrations in the Basin. Thus, although a variable marginal impact of emissions on benefits is not employed, the average IPT and BPT of the 2022 AQMP implementation implicitly reflects the impacts of nonlinear air quality chemistry on the overall expected health benefits. Additional methodological assumptions include:

- Changes in incidence are proportional to ambient PM2.5 or ozone concentrations.
- Changes in primary pollutant concentrations are proportional to changes in directly emitted NOx.
- The IPT and BPT values are specific to the year (2032 and 2037) being evaluated.
- For years prior to 2032, IPT and BPT values are not calculated. Instead, health benefits grow linearly from zero benefits in 2026 to the estimated 2032 total benefits (based upon 2032 IPT and BPT values).
- For intermediate years between 2032 and 2037, IPT and BPT values grow linearly.
- For years beyond 2037, 2037 IPT and BPT values are projected through 2050 based on either future population growth (IPT and cost-of-illness based BPT estimates), or both future population growth and income growth (willingness-to-pay based BPT estimates).

This analysis assesses public health benefits for which epidemiological studies have demonstrated an association between increases in ambient air pollution exposure and increases in illness and other health effects (morbidity endpoints) or increases in death rates from various causes (mortality endpoints) (U.S. EPA, 2019; U.S. EPA, 2020). The health endpoints quantified in this report are the same health endpoints quantified in the 2022 AQMP Socioeconomic Report. Additional details concerning the selection of quantified health effects and the generation of health benefits results are available in Chapter 3 and Appendices 3-A and 3-B of the 2022 AQMP Final Socioeconomic Report.⁶⁶

Average NOx reductions in South Coast AQMD projected from the combined implementation of PR 2306 and statewide regulations are summarized in Table 4-11. PR 2306 is projected to reduce NOx emissions by an average of 10.5 tpd over the 2027 – 2050 period.

⁶⁶ South Coast AQMD. 2022 Final Socioeconomic Report – Appendices: <http://www.aqmd.gov/docs/default-source/clean-air-plans/socioeconomic-analysis/final/aqmp-2022-socioeconomic-report-appendices-final.pdf>

Table 4-11. Projected NOx Emission Reductions (tpd)

	Annual Average (2027 – 2050)
Baseline Emissions	16.5
Controlled Emissions under PR 2306 and State Rules	6.0
Emission Reductions	10.5

The estimated IPT factors were used in conjunction with projected annual emission reductions to estimate the health benefits presented in Table 4-12 for each health endpoint by pollutant. In total, it is estimated that 7,000 premature deaths will be avoided from 2027 through 2050 due to improved air quality, and that the number of hospital admissions from all endpoints considered (asthma, cardiovascular, respiratory, Alzheimer’s disease, Parkinson’s disease, and ischemic stroke) would decrease by about 1,766 per year. Many EJ communities are located near the sources of pollution addressed by PR 2306 and statewide regulations and will realize a substantial portion of these estimated health benefits as a result.

Table 4-12. Health Effect Estimates*

Health Effect	Annual Average 2027-2050	Total 2027-2050
Premature Deaths Avoided, All Cause		
Long-Term Ozone Exposure ¹	69	1,600
Long-Term PM2.5 Exposure	230	5,400
Reduced Morbidity Incidence		
<i>Long-Term Ozone Exposure</i>		
Asthma, New Onset	890	21,000
<i>Short-Term Ozone Exposure¹</i>		
Asthma Symptoms (Chest Tightness, Cough, Shortness of Breath, and Wheeze)	160,000	3,900,000
Emergency Room Visits (ED), Asthma	59	1,400
ED Visits, All Respiratory Minus Asthma	140	3,300
Hospital Admissions (HA), Asthma	1,700	40,000
Minor Restricted Activity Days	65,000	1,600,000
School Loss Days, All Cause	19,000	460,000
<i>Long-Term PM2.5 Exposure</i>		
Asthma, New Onset	330	7,900
HA, Alzheimer's Disease	23	560
HA, Parkinson's Disease	9.7	230
Incidence, Hay Fever/Rhinitis	1,600	38,000
Incidence, Lung Cancer (non-fatal)	19	450
<i>Short-Term PM2.5 Exposure</i>		
Acute Myocardial Infarction, Nonfatal	3.4	81
Asthma Symptoms, Albuterol use	55,000	1,300,000
ED Visits, Asthma	12	280
ED Visits, All Cardiac Outcomes	25	600
ED Visits, All Respiratory Minus Asthma	57	1,400
Emergency Hospitalizations (EHA), Asthma	0.6	14
HA, All Cardiac Outcomes	8.5	200
HA, All Respiratory	24	570
Incidence, Ischemic Stroke	13	320
Incidence, Out-of-Hospital Cardiac Arrest	2.2	54
Minor Restricted Activity Days ²	75,000	1,800,000
Work Loss Days ²	13,000	310,000

* Each health effect represents the point estimate of a statistical distribution of potential outcomes (rounded to two significant figures).

¹ Health effects of ozone exposure are quantified for the summer planning period only (i.e., May 1 to September 30). There are potentially more premature mortalities and morbidity conditions avoided outside the ozone peak season.

² Expressed in person-days. Minor Restricted Activity Days (MRAD) refer to days when some normal activities are avoided due to illness.

Table 4-13 presents the quantifiable and monetized value of public health benefits, which are estimated to be \$5 billion annually on average. About 97 percent of these benefits are attributable to avoided premature mortalities. In contrast, the proportional implementation of state regulations required by PAR 2306 is estimated to cost \$102 million annually as reported in Table 4-6, or roughly two percent of the annual monetized health benefits. The estimates are based on a value of statistical life (VSL) of \$12.4 million⁶⁷ and the assumption that the willingness-to-pay (WTP) for mortality risk reductions will increase as per-capita income grows; specifically, a one percent increase in income was assumed to raise VSL by 1.1 percent (i.e., an income elasticity of 1.1).⁶⁸ These values correspond to a present value of quantified benefits of \$65 billion at a four percent discount rate, or \$100 billion at a one percent discount rate, cumulatively from 2027-2050. The values in Table 4-13 are presented in 2023 U.S. dollars and reflect projected income levels.

Table 4-13. Monetized Public Health Benefits (Billions of 2023 Dollars)^{1,2}

	Total (2027-2050)	Annual Average (2027-2050)	Present Value³ (2027-2050)
Mortality-related benefits	\$117	\$4.9	\$63
<i>Long-Term Ozone Exposure</i>	\$27	\$1.1	\$15
<i>Long-Term PM2.5 Exposure</i>	\$89	\$3.7	\$48
Morbidity-related benefits	\$3.6	\$0.15	\$2.0
Grand Total	\$120	\$5.0	\$65

Note:

- 1) Numbers may not sum due to rounding (rounded to two significant figures).
- 2) The monetized public health benefits reported in this table were estimated for the four-county region, which includes areas that are located outside the Basin. However, staff estimated that mortality-related benefits accrued to the areas within the Basin would account for 99 percent of the total. In other words, the difference is minimal between quantifying public health benefits for the Basin and for the four-county region.
- 3) Present Value is discounted to year 2024 using a 4% Discount Rate.

SOCIOECONOMIC IMPACT ASSESSMENT

On March 17, 1989, the South Coast AQMD Governing Board adopted a resolution which requires an analysis of the economic impacts associated with adopting and amending rules and regulations. In addition, Health and Safety Code Sections 40440.8 and 40728.5 require a socioeconomic impact assessment for proposed and amended rules resulting in significant impacts to air quality or emission limitations. Thus, this Socioeconomic Impact Assessment has been prepared in accordance with Health and Safety Code and the South Coast AQMD Governing Board

⁶⁷ All VSL values presented here are in 2023 dollars and 2013 income levels, health benefits results estimated from the VSL and converted into IPT and BPT values for this analysis were converted to 2032 and 2037 income levels using published CA Wages & Salaries for consistency with the 2022 AQMP Final Socioeconomic Report.

⁶⁸ Industrial Economics and Lisa Robinson. Review of Mortality Risk Reduction Valuation Estimates for 2016 Socioeconomic Assessment: https://www.aqmd.gov/docs/default-source/clean-air-plans/socioeconomic-analysis/iecmemos_november2016/scmortalityvaluation_112816.pdf

requirements. The industries and businesses affected, potential costs of proportional implementation of state regulations in South Coast AQMD, and anticipated public health benefits are discussed in the previous sections of this chapter, while the impacts on small businesses, range of probable costs attributable specifically to PR 2306, and macroeconomic impacts are discussed in the following.

Small Business Analysis

The South Coast AQMD defines a “small business” in Rule 102 – Definition of Terms for purposes of fees as one which employs 10 or fewer persons and which earns less than \$500,000 in gross annual receipts. The South Coast AQMD also defines “small business” for the purpose of qualifying for access to services from the South Coast AQMD’s Small Business Assistance Office (SBAO) as a business with an annual receipt of \$5 million or less, or with 100 or fewer employees. In addition to the South Coast AQMD’s definitions of a small business, the federal Small Business Administration (SBA) and the federal 1990 Clean Air Act Amendments (1990 CAAA) also provide definitions of a small business.

The 1990 CAAA classifies a business as a “small business stationary source” if it: 1) employs 100 or fewer employees; 2) does not emit more than 10 tons per year of either VOC or NO_x; and 3) is a small business as defined by SBA. The SBA definitions of small businesses have revenue or employee count thresholds that may vary according to designated six-digit NAICS codes. For example, for the industry of Line-haul Railroads (NAICS 482111), the threshold for a small business is 1,500 employees.

None of the affected facilities listed in Table 4-1 would qualify as small businesses under the various definitions used by South Coast AQMD. Both UP and BNSF earned over \$20 billion in revenue and employed more than 30,000 people in 2023, according to publicly available securities filings, and government entities would not be considered small businesses.

PR 2306 Compliance Costs

PR 2306 includes reporting and notification requirements which will impose nominal incremental costs relative to CARB’s statewide regulations. Table 4-14 outlines the expected labor hours and costs to produce the reports required by PR 2306 assuming that regulated entities will contract for the development of the reports at a rate of \$150 per hour.

Table 4-14. Reporting Costs Associated with PR 2306 (2023\$)

Reporting Item	Frequency	Labor Hours Per Item	Total Cost Per Item	Total Cost Per Facility, 2027-2050
Initial Facility Information Report	One-time	30	\$4,500	\$4,500
Initial Zero Emission Infrastructure Report	One-time	20	\$3,000	\$3,000
Milestone Compliance Report	Every three years	200	\$30,000	\$240,000
Zero Emission Infrastructure Status Update Report	Every three years	15	\$2,250	\$18,000
Various Notifications	Triggered by specific events	1	\$150	N/A
Note: The number of notifications triggered by specific events is unforecastable, so the total costs from 2027-2050 are not estimated.				

As shown in Table 4-15, the total reporting costs associated with PR 2306 across all years analyzed (2027-2050) are approximately \$6,637,500 in undiscounted 2023 dollars. On an annual basis, these reporting costs are approximately \$255,290 in undiscounted 2023 dollars. Discounted reporting costs are presented in Table 4-15 as well.

Table 4-15. Reporting Costs Associated with PR 2306: Total Present Value and Annualized Reporting Costs Over the 2027-2050 Period For All Facilities (2023\$)

	Present Value Cost	Average Annual Cost
Undiscounted	\$6,637,500	\$255,290
1% Discount Rate/Real Interest Rate	\$5,778,470	\$259,640
4% Discount Rate/Real Interest Rate	\$3,953,230	\$272,880

PR 316.2 Compliance Costs

PR 316.2 establishes the administrative fees to be paid by freight rail yard owners or operators subject to PR 2306 to recover reasonable costs incurred by South Coast AQMD for implementation of PR 2306. Estimates indicate that there are 25 freight rail yards expected to initially submit Initial Facility Information Reports and Initial Zero Emission Infrastructure Reports pursuant to the schedule specified in PR 2306. Additionally, the aforementioned freight rail yards are also required to submit Milestone Compliance Reports and Zero Emission Infrastructure Update Reports consistent with PR 2306 milestone years.

Staff expect to receive 25 Initial Facility Information Reports and 25 Initial Zero Emission Infrastructure Reports for review and approval following the initial base period. Additionally, staff expect to receive 25 Milestone Compliance Reports and 25 Zero Emission Infrastructure Status Update Reports for each milestone year subsequent to the base period. Additional notification requirements in PR 2306 include Change of Freight Rail Yard Owner/Operator, Freight Rail Yard Shutdown, Exceedance of Low Activity Exemption Threshold, and Proposed Freight Rail Yard Construction, Conversion, or Expansion. It is speculative to predict the total number of new

facilities which could potentially be subject to PR 2306 in the future; however, that does not preclude additional facilities from becoming subject to PR 2306 after the rule’s potential adoption.

The total cost for South Coast AQMD to administer and enforce the reporting and notifications associated with PR 2306 was determined as a function of the burdened hourly rates for staff multiplied by the total staff time required to process each type of reports and notifications required by PR 2306. The burdened hourly rate includes salary and benefits for that position, plus a proportionate share (based on an allocation per FTE) of South Coast AQMD operational expenses such as costs for the building, utilities, insurance, etc. Staff time associated with reviewing submitted notifications and reports are based on past experiences with similar reporting audits conducted for existing rules and regulations with similar scale for stationary sources, such as those included in Rule 1109.1 (Petroleum Refineries and Related Operations), as well as indirect sources, such as those included in Rule 2305 (WAIRE Program).⁶⁹

Table 4-16 shows the estimated average time required by staff to review each report as well as associated burdened rates for each position and total costs for each report. Evaluation of review times for reports are based on estimated hours South Coast AQMD staff will need to audit the reports filed and perform investigations and inspections as needed to verify the accuracy and completeness of these reports. Staff will need to verify an affected freight rail yard continuous compliance with the applicable requirements in PR 2306 and initiate enforcement action(s) upon freight rail yard’s failure to demonstrate or maintain compliance with the provisions of PR 2306.

Table 4-16. Fees and Review Time Estimates for PR 316.2 Reports

Staff	Burdened Hourly Rate	Initial Facility Information Report	Initial Zero Emission Infrastructure Report	Milestone Compliance Report	Zero Emission Infrastructure Status Update Report
Planning & Rules Manager	\$149.71	1.0 hrs	0.5 hrs	6.0 hrs	0.5 hrs
Program Supervisor	\$135.56	6.0 hrs	1.0 hrs	20.0 hrs	1.0 hrs
Air Quality Specialist	\$118.42	12.0 hrs	2.5 hrs	60.0 hrs	2.5 hrs
Air Quality Inspector II	\$101.36	10.0 hrs	10.0 hrs	10.0 hrs	10.0 hrs
Total Cost per Report*		\$3,397.71	\$1,520.07	\$11,728.26	\$1,520.07

* Similar to other South Coast AQMD fees in Regulation III, costs are expected to increase over time, adjusted for increased staff costs and overhead costs due to inflation. All fees in PR 316 will therefore be adjusted periodically consistent with all other Regulation III fees pursuant to Rule 320.

⁶⁹ Supplemental Information for PR 316.2 Fee Rates can be found on <https://www.aqmd.gov/home/rules-compliance/rules/scaqmd-rule-book/proposed-rules/rule-2306>

Table 4-17 shows the estimated average time required by staff to review each notification as well as associated burdened rates for each position and total costs for each notification. Notifications associated with PR 2306 are expected to require less information and staff time compared to the required reports. Review times for notifications are based on estimated hours for staff to process notifications, update internal records of notified changes, and conduct any necessary inspections.

Table 4-17. Fees and Review Time Estimates for PR 316.2 Notifications

Staff	Burdened Hourly Rate	Change of Freight Rail Yard Operator		Change of Freight Rail Yard Owner		Freight Rail Yard Shutdown	Exceedance of Low Activity Exemption Threshold	Proposed Freight Rail Yard Construction, Conversion, or Expansion Notification
		Initial	Secondary	Initial	Secondary			
Planning & Rules Manager	\$149.71	0.15 hrs	0.10 hrs	0.15 hrs	0.10 hrs	0.25 hrs	0.25 hrs	0.25 hrs
Program Supervisor	\$135.56	0.15 hrs	0.10 hrs	0.15 hrs	0.10 hrs	0.25 hrs	0.25 hrs	0.25 hrs
Air Quality Specialist	\$118.42	0.30 hrs	0.20 hrs	0.30 hrs	0.20 hrs	0.50 hrs	0.50 hrs	0.50 hrs
Total Staff Costs per Notification⁷⁰		\$78.32	\$52.21	\$78.32	\$52.21	\$130.53	\$130.53	\$130.53

The average annual cost of reporting fees for all facilities affected by PR 316.2 is estimated to be \$106,640 over the forecast period. This Socioeconomic Impact Assessment does not estimate the total cost of fees for notifications, as they are likely to be infrequent and the timing of these events is unforecastable.

Macroeconomic Impacts

South Coast AQMD typically uses the Regional Economic Models, Inc Policy Insight Plus (REMI PI+) model to estimate the impacts of proposed rules on the regional economy. However, when the estimated average annual cost of a proposed rule is less than one million current U.S. dollars, South Coast AQMD will not use the REMI model because the resulting impacts are expected to be minimal and the REMI job impact forecast becomes less precise as compliance costs decline. Implementation of PR 2306 is expected to result in annual average costs of \$255,290 for reporting and \$106,640 for fees associated with PR 316.2. As a result, this Socioeconomic Impact Assessment does not utilize the REMI model to estimate macroeconomic impacts.

For informational purposes, this section instead presents an assessment of the macroeconomic impacts in the South Coast AQMD jurisdiction based on CARB's In-Use Locomotive Regulation. This Socioeconomic Impact Assessment relies on the assumption that the local share of statewide

⁷⁰ CARB. Proposed In-Use Locomotive Regulation Standardized Regulatory Impact Assessment (SRIA): <https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2022/locomotive22/appb.pdf>

job impacts presented in the Standardized Regulatory Impact Assessment (SRIA) of the In-Use Locomotive Regulation is proportional to the share of locomotive emissions reductions in the South Coast AQMD jurisdiction presented in Table 4-2.⁷¹ Note that the estimated job impacts represent the share of statewide job impacts resulting from the In-Use Locomotive Regulation that are likely to accrue in South Coast AQMD region, rather than incremental job impacts resulting from the implementation of PR 2306. Table 4-18 displays the statewide job impacts estimated by CARB in selected years resulting from the In-Use Locomotive Regulation and the estimated share of job impacts expected to accrue in the South Coast AQMD jurisdiction. A similar analysis based on CARB’s ACF regulation is not included, as the ACF regulation also impacts drayage operations at seaports, state and local government fleet vehicles, and other vehicles which are outside the scope of PR 2306.

**Table 4-18. South Coast AQMD-specific Share of
Statewide In-Use Locomotive Job Impacts**

In-Use Locomotive Regulation	2030	2035	2040	2045	2050
Statewide Change in Jobs	-6,991	-13,101	-14,543	-7,509	-3,760
Share in South Coast AQMD	18.3%	18.7%	20.4%	21.9%	23.4%
Local Change in Jobs Relative to Baseline	-1,279	-2,450	-2,967	-1,644	-880

CALIFORNIA ENVIRONMENTAL QUALITY ACT

Pursuant to the California Environmental Quality Act (CEQA) and South Coast AQMD’s certified regulatory program (Public Resources Code Section 21080.5, CEQA Guidelines Section 15251 (1) and South Coast AQMD Rule 110), South Coast AQMD as lead agency, reviewed PR 2306 and determined that: 1) PR 2306 implements three control measures that were previously adopted in the 2022 AQMP and the 2016 AQMP; 2) the Final Program Environmental Impact Report (EIR) for the 2022 AQMP and the Final Program EIR for the 2016 AQMP evaluated the control measures which are being relied upon for PR 2306, and analyzed their potential environmental impacts; 3) no subsequent EIR would be required per CEQA Guidelines Section 15168 (c)(2) because there are no new or modified physical changes that would result from implementing PR 2306 which were not previously analyzed in the Final Program EIR for the 2022 AQMP and the Final Program EIR for the 2016 AQMP; and 4) the Final Program EIR for the 2022 AQMP and the Final Program EIR for the 2016 AQMP can be relied on for CEQA compliance. Thus, PR 2306 qualifies as a later activity within the scope of the programs approved earlier in the 2022 AQMP and the 2016 AQMP per CEQA Guidelines 15168 (c), and the Final Program EIR for the 2022 AQMP and the Final Program EIR for the 2016 AQMP adequately describe and analyze the activities associated with implementing PR 2306 for the purposes of CEQA such that no new environmental document is required. The analysis supporting this conclusion can be found in Appendix A of the Final Staff Report. is a later activity within the scope of the programs approved earlier in the 2022 Air Quality

⁷¹ CARB. Proposed In-Use Locomotive Regulation Standardized Regulatory Impact Assessment (SRIA): <https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2022/locomotive22/appb.pdf>

~~Management Plan (AQMP) and 2016 AQMP per CEQA Guidelines Section 15168(c)(2), and the Final Program Environmental Impact Report (EIR) for the 2022 AQMP and the Final Program EIR for the 2016 AQMP adequately describe the activities associated with implementing PR 2306 such that no new environmental document will be required. The analysis supporting this conclusion is provided in Appendix A of this Staff Report, which was released for public review and comment at least 30 days prior to the South Coast AQMD Governing Board Hearing for PR 2306 and PR 316.2, which is anticipated to be heard on August 2, 2024 (subject to change).~~

In addition, pursuant to CEQA Guidelines Sections 15002(k) and 15061, PR 316.2 involves charges by public agencies for the purpose of meeting operating expenses which are statutorily exempt from CEQA pursuant to CEQA Guidelines Section 15273. A Notice of Exemption ~~will~~has been prepared for PR 316.2 pursuant to CEQA Guidelines Section 15062, and if PR 316.2 is approved, the Notice of Exemption will be filed for posting with the State Clearinghouse of the Governor's Office of Planning and Research, and with the county clerks of Los Angeles, Orange, Riverside and San Bernardino counties.

DRAFT FINDINGS UNDER HEALTH AND SAFETY CODE SECTION 40727

Health and Safety Code Section 40727 requires that prior to adopting, amending, or repealing a rule or regulation, the South Coast AQMD 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

PR 2306 is needed to protect public health by reducing local and regional emissions of NOx associated with freight rail yards and the mobile sources attracted to freight rail yards. By reducing these emissions, PR 2306 will also assist in meeting state and federal air quality standards for ozone and PM2.5. NOx is a precursor to the formation of ozone and PM2.5. PR 316.2 is needed to recover South Coast AQMD costs of implementing PR 2306.

Authority

Authority for the South Coast AQMD Governing Board to adopt PR 2306 and PR 316.2 may be found in Health and Safety Code Sections 39002, 39650 through 39669, 40000, 40001, 40440, 40441, 40522.5, 40701, 40702, 40716, 40717, 40725 through 40728, 40910, 40920.5, 41508, 41511, and 41700 of the Health and Safety Code.

Clarity

PR 2306 and PR 316.2 are written or displayed so that their meaning can be easily understood by the persons directly affected by them.

Consistency

PR 2306 and PR 316.2 are in harmony with and not in conflict with or contradictory to, existing statutes, court decisions, or state or federal regulations.

Non-Duplication

PR 2306 and PR 316.2 will not impose the same requirements as any existing state or federal regulations. Proportional or more-than-proportional emission reductions in the South Coast AQMD relative to statewide average emission reductions are not guaranteed from implementation of state regulations alone. PR 2306 is designed to ensure these necessary emission reductions occur

within the South Coast AQMD. The proposed rules are necessary and proper to execute the powers and duties granted to, and imposed upon, the South Coast AQMD.

Reference

In adopting these rules, the following statutes which the South Coast AQMD hereby implements, interprets, or makes specific are referenced: Clean Air Act Sections 110(a)(5)(C); 116; Health & Safety Code Sections 40440, 40716, 40717, and 40522.5.

COMPARATIVE ANALYSIS

Health and Safety Code Section 40727.2 requires South Coast AQMD to perform a comparative written analysis when adopting or amending a rule or regulation that imposes a new or more stringent emission limit or monitoring, reporting, or recordkeeping requirement. The comparative analysis is relative to existing federal requirements, existing or proposed South Coast AQMD rules and air pollution control requirements and guidelines which are applicable to the same sources as identified in the proposed rule or regulation. PR 2306 regulates NOx emissions from freight rail yards as indirect sources that attract mobile sources of emissions, and PR 316.2 is the companion fee rule for PR 2306. Under Health and Safety Code Section 40727.2(g), PR 316.2 does not in itself require a comparative analysis but is included for completeness. PR 2306 and PR 316.2 are summarized in Table 4-19.

Table 4-19. PR 2306 and PR 316.2

Rules	Rule Elements		
	Applicability	Requirements	Reporting, Notification, and Recordkeeping
PR 2306	<ul style="list-style-type: none"> - Owners or operators of proposed, new, and existing freight rail yards located within the South Coast AQMD jurisdiction - Any state or local government <u>non-federal public</u> agency who enters into a contractual agreement with the owner or operator of such freight rail yards in relation to the freight rail yard lease, construction, or operation 	<ul style="list-style-type: none"> - Freight rail yards must meet or exceed facility emission reductions targets for milestone years, with emission reductions from one or more freight rail yard sources of emissions using one of multiple compliance pathways - Requirement for submission of a request to the local electrical utility if there is a need to upgrade the electrical service - Requirement for the new owner or operator of a freight rail yard to obtain previously 	<ul style="list-style-type: none"> - Initial and milestone compliance reports to include necessary information and data to demonstrate compliance with PR 2306 - Initial and milestone zero emission infrastructure reports on planning, development, and utilization of zero emission infrastructure - Submit a notification on changes in freight rail yard owner or operator - Submit a notification on freight rail yard shutdown including the potential date

Rules	Rule Elements		
	Applicability	Requirements	Reporting, Notification, and Recordkeeping
		reported information and data	<ul style="list-style-type: none"> - Submit a notification upon exceeding the switching activity threshold as established by PR 2306 for operator of a freight rail yard that is previously qualified for low activity exemption - Submit a notification prior to construction of or conversion into a New Freight Rail Yard or the expansion of an existing Freight Rail Yard - Recordkeeping to support compliance information submitted per initial and milestone reports
PR 316.2	Owners and operators of proposed, new, and existing freight rail yards subject to PR 2306 reporting and notification requirements	Freight rail yard owners and operators that submit reports or notifications required by rule 2306 must submit applicable fees, due by the report/notification submittal due date	N/A

PR 2306 is part of a suite of AQMP Facility Based Mobile Source Measures aimed at collectively addressing freight emissions. South Coast AQMD adopted Rule 2305 in 2021 to address emission associated with warehouses and is in active rulemaking on marine ports (PR 2304); however, no draft rule language for PR 2304 has been released as of the date of this report, and the proposed rule concept is still in development. At the same time, there are several air quality regulations at the state and federal level that focus on emissions from the mobile sources associated with freight rail yards. These can broadly be placed into three categories. First are regulations that aim to reduce emissions through the engine standards for new vehicles (Table 4-20). Second are regulations that aim to replace older vehicles with newer vehicles with cleaner technologies through fleet rules (Table 4-21). Third are regulations that focus on air quality impacts from facilities that attract mobile sources (Table 4-22). A comparative analysis of other regulations that focus on emissions from the mobile sources associated with freight rail yards is presented in Tables 4-20 to 4-22.

Table 4-20. Engine Standards

Rules	Rule Elements		
	Applicability	Requirements	Reporting, Notification, and Recordkeeping
U.S. EPA Phase 3 Heavy-Duty Fuel Efficiency and Greenhouse Gas (GHG) Standards ⁷²	Manufacturers, sellers, or importers of heavy-duty vocational vehicles and tractors	<ul style="list-style-type: none"> - CO₂ emission standards for applicable vehicles, with revised standards for model year 2027 and new standards for model year 2028 to 2032 - Require warranty for components of ZEVs including batteries - Require battery health monitors 	<ul style="list-style-type: none"> - Report emissions test data and results, technical vehicle data, and end-of-year sales information - Manufacturers must keep records of reported information
U.S. EPA Control of Emissions from Locomotives ⁷³	Manufacturers of new locomotives and locomotives with a new engine	Sets emission standards for new locomotives and locomotive engines, including certification requirements	<ul style="list-style-type: none"> - Manufacturers must report total number of locomotives and exempted locomotives produced during the model year - Manufacturers must keep records of compliance, emission data, and maintenance instructions or explanations

⁷² U.S. EPA. Greenhouse Gas Emissions Standards for Heavy-Duty Vehicles – Phase 3: <https://www.govinfo.gov/content/pkg/FR-2024-04-22/pdf/2024-06809.pdf>

⁷³ Code of Federal Regulations. Part 1033 – Control of Emissions from Locomotives: <https://www.ecfr.gov/current/title-40/chapter-I/subchapter-U/part-1033>

Rules	Rule Elements		
	Applicability	Requirements	Reporting, Notification, and Recordkeeping
CARB Tractor-Trailer GHG Regulation ⁷⁴	Owners of long box-type trailers and heavy-duty tractors that pull them	Applicable tractors and trailers must either use U.S. EPA “SmartWay” certified tractors and trailers, or be retrofitted with SmartWay verified technologies	<ul style="list-style-type: none"> - Report applicable owners - Maintain records of compliance
U.S. EPA Non-Road Diesel Engines and Fuel Standards ⁷⁵	Entities that produce or import non-road diesel engines, or produce, import, distribute, or sell fuel for non-road diesel engines	<ul style="list-style-type: none"> - Set emission standards for non-road diesel engines. Phase-in less polluting engine standards - Requirement for new test procedures and engine certifications and labeling 	<ul style="list-style-type: none"> - Registration of fuel providers and distributors - Reporting by engine and equipment manufacturers - Reporting by engine and equipment manufacturers - Notification by equipment manufacturers prior to use of the Tier 4 transition provisions - Recordkeeping by engine and equipment manufacturers
U.S. EPA Non-Road Large Spark Ignition Engines Standards ⁷⁶	Manufacturers of non-road large-spark ignition engines	- Emission standards for large non-road spark ignition engines	<ul style="list-style-type: none"> - Defect Reporting for non-compliant units - Periodic Reporting

⁷⁴ CARB. Final Regulation Order for Phase 2 Greenhouse Gas Regulations and Tractor-Trailer GHG Regulations: https://ww3.arb.ca.gov/regact/2018/phase2/finalatta.pdf?_ga=2.205908496.2040751625.1614668703-251503538.1597351373

⁷⁵ U.S. EPA. Control of Emissions of Air Pollution from Nonroad Diesel Engines and Fuel: <https://www.govinfo.gov/content/pkg/FR-2004-06-29/pdf/04-11293.pdf>

⁷⁶ U.S. EPA. Control of Emissions from Nonroad Large Spark-Ignition Engines, and Recreational Engines (Marine and Land-Based): <https://www.govinfo.gov/content/pkg/FR-2002-11-08/pdf/02-23801.pdf>

Rules	Rule Elements		
	Applicability	Requirements	Reporting, Notification, and Recordkeeping
CARB Optional Reduced NOx Emission Standards for On-Road Heavy-duty Engines ⁷⁷	Manufacturers of on-road heavy-duty engines	- Sets optional low NOx emission standards	- Manufacturer reporting on certification data
CARB Heavy Duty Low NOx Omnibus Rule ⁷⁸	Manufacturers of heavy-duty vehicle engines	- Lowered NOx emission standards to 0.05 g/bhp-hr for 2024-2026, 0.02 g/bhp-hr starting in 2027 - Revised testing, certification, and warranty requirements	- Manufacturer reporting on certification data

⁷⁷ CARB. Optional Low NOx Certified Heavy-Duty Engines:
https://ww2.arb.ca.gov/sites/default/files/classic/msprog/onroad/optionnox/optional_low_nox_certified_hd_engines.pdf

⁷⁸ CARB. Heavy-Duty Engine and Vehicle Omnibus Regulation:
<https://ww2.arb.ca.gov/rulemaking/2023/hdomnibus2023>,
<https://ww2.arb.ca.gov/rulemaking/2020/hdomnibuslownox>

Table 4-21. Fleet Rules

Rules	Rule Elements		
	Applicability	Requirements	Reporting, Notification, and Recordkeeping
CARB Advanced Clean Trucks Regulation ⁷⁹	Truck manufacturers of medium- and heavy-duty trucks. Large fleets with a gross vehicle weight rating (GVWR) greater than 8500 lbs	Truck manufacturer sales mandate for medium- and heavy-duty trucks	<ul style="list-style-type: none"> - Large entities and truck fleets report how fleets are operated, and the number of contractors used to run the fleets - Manufacturers maintain records and report on ZE vehicles sales and crediting in the regulation
CARB Advanced Clean Fleets Regulation – Drayage Requirements ⁸⁰	Owners and operators of on-road heavy-duty drayage trucks that operate at California seaports and intermodal rail yards	<ul style="list-style-type: none"> - Transition to zero emission trucks starting in 2024 with full implementation by 2035 - All drayage trucks operating at a California seaport or intermodal rail yard must be registered with CARB, with all registered drayage trucks being required to be zero emission beginning in 2035 	<ul style="list-style-type: none"> - Reporting of drayage truck activity and vehicle information - Drayage truck registration through CARB’s online registration system - Rail yards and seaports must collect and report information about drayage trucks coming to their facilities

⁷⁹ CARB. Advanced Clean Trucks: <https://ww2.arb.ca.gov/rulemaking/2019/advancedcleantrucks>

⁸⁰ CARB. Advanced Clean Fleets: <https://ww2.arb.ca.gov/rulemaking/2022/acf2022>

Rules	Rule Elements		
	Applicability	Requirements	Reporting, Notification, and Recordkeeping
CARB In Use Locomotive Regulation ⁸¹	Freight line, switch, industrial, historic, and passenger locomotives	Requirements for operators to: <ul style="list-style-type: none"> - Pay into a spending account based on their emission outputs - Prohibits use of non-zero emissions locomotives beyond 23 years of age based on engine build dates starting in 2030 - Limit locomotive idling to 30-minutes - Operate line haul locomotives in a zero emission configuration beginning in 2035 for locomotives with an original engine build date of 2035 or newer - Operate switch locomotives in a zero emission configuration beginning in 2030 for locomotives with 	<ul style="list-style-type: none"> - Reporting of activity, emissions levels, and idling data annually - Locomotive data required to be submitted to CARB

⁸¹ CARB. In-Use Locomotive Regulation: <https://ww2.arb.ca.gov/rulemaking/2022/locomotive>

Rules	Rule Elements		
	Applicability	Requirements	Reporting, Notification, and Recordkeeping
		an original engine build date of 2030 or newer	
CARB Heavy-Duty Inspection and Maintenance Program ⁸²	Owners and freight contractors of non-gasoline heavy-duty vehicles, vehicle testing businesses, and freight facilities (including intermodal rail yards)	Inspection and maintenance programs for vehicle lifetime	<ul style="list-style-type: none"> - Record retention for a minimum of five years - Opacity, on-board testing reporting required
CARB Truck and Bus Regulation ⁸³	Fleets with diesel-fueled vehicles with a gross vehicle weight rating (GVWR) greater than 14,000 lbs	<ul style="list-style-type: none"> - Requires the installation of verified PM diesel emission control strategy (DECS) on heavy-duty vehicles - Replace engine to meet 2010 emission standards by 2023 	Fleet compliance recordkeeping and reporting required, with some fleets exempted
CARB Transport Refrigeration Unit (TRU) Air Toxics Control Measure (ATCM) ⁸⁴	- Owners and operators of diesel-fueled engines used to refrigerate perishable goods.	All truck TRUs in California zero emission by 2030. Starting in 2023, newer model trailer, container,	- Report Electronic Telematics System Data quarterly. First only 2024+ models but all Trailer and

⁸² CARB. Clean Truck Check (HD I/M): <https://ww2.arb.ca.gov/our-work/programs/heavy-duty-inspection-and-maintenance-program>

⁸³ CARB. Truck and Bus Regulation: <https://ww2.arb.ca.gov/sites/default/files/classic/msprog/onrdiesel/documents/tbfinalreg.pdf>

⁸⁴ CARB. TRU ATCM: <https://ww2.arb.ca.gov/rulemaking/2021/tru2021>

Rules	Rule Elements		
	Applicability	Requirements	Reporting, Notification, and Recordkeeping
	<p>TRU generator sets that provide onboard electric power refrigeration systems</p> <ul style="list-style-type: none"> - Applicable facility (e.g. intermodal rail yard) owners and operators 	<p>and railcar TRUs, along with TRU gensets, 0.02 grams per brake horsepower-hour PM standard requirement.</p> <p>For intermodal rail yards:</p> <ul style="list-style-type: none"> - Owners or operators must register their facility with CARB - Ensure compliance of TRUs operating onsite beginning December 31, 2023 	<p>Gen set TRUs by 2028</p> <ul style="list-style-type: none"> - Maintain records for 3 years - Report all TRU activity at facility that operates inside the facility fence line or property boundary - Report average total number of hours per week for outbound and inbound TRU or TRU gen set engines operating while at the facility - Report facility information, such as address and contact information for facility - Report number of refrigerated trailers that are used at the facility for cold storage, total annual number of hours of TRU engine operation, and total annual numbers of hours of operation using electric standby associated with these refrigerated trailers

Rules	Rule Elements		
	Applicability	Requirements	Reporting, Notification, and Recordkeeping
CARB In-Use Off-Road Diesel Regulation ⁸⁵	Existing (in-use) off-road diesel-fueled vehicles not subject to CARB’s CHE Regulation	<ul style="list-style-type: none"> - Engine performance requirements to reduce NOx, diesel PM, and other criteria pollutant. Limit idling time - Restricts purchase of new vehicles based on engine emission standards 	<ul style="list-style-type: none"> - Owners of off-road diesel fleets report fleet information, annually update fleet information - Recordkeeping required for reports submitted
CARB Large Spark Ignition (LSI) Rule ⁸⁶	Fleet operators of LSI engines vehicles	Hydrocarbon and NOx emission standards, using fleet average	<ul style="list-style-type: none"> - Recordkeeping requirements and labeling of LSI equipment
Regulation for Mobile Cargo Handling Equipment at Ports and Intermodal Rail Yards (CHE Regulation) ⁸⁷	Owners, operators, and vendors for CHE being operated at ports and intermodal rail yards in the State of California	Opacity monitoring, cleanest available technology requirements for In-Use equipment. Engine standard requirements for new equipment.	<ul style="list-style-type: none"> - Annual Compliance Reporting - Reporting for out-of-use equipment - Records on owner and operator contact information - Opacity testing - Equipment information

⁸⁵ CARB. In-Use Off-Road Diesel-Fueled Fleets Regulation: <https://ww2.arb.ca.gov/our-work/programs/use-road-diesel-fueled-fleets-regulation/rulemaking-documents>

⁸⁶ CARB. Large Spark-Ignition (LSI) Engine Fleet Requirements Regulation: <https://ww2.arb.ca.gov/sites/default/files/classic/msprog/offroad/orspark/largesparkappa-clean.pdf>

⁸⁷ CARB. CHE Regulation: <https://ww2.arb.ca.gov/our-work/programs/cargo-handling-equipment/che-regulatory-documents>

Table 4-22. Facility-Based Rules and Other Types of Rules

Rules	Rule Elements		
	Applicability	Requirements	Reporting, Notification, and Recordkeeping
South Coast AQMD Rule 2202 - On-Road Motor Vehicle Mitigation Options (Employee Commute Reduction) ⁸⁸	Employers with 250 or more employees	<ul style="list-style-type: none"> - Implement an emission reduction program related to employee commutes to meet a worksite specific emission reduction target - Multiple compliance options include: implementing an Employee Commute Reduction Program (ECRP), implementing emission reduction strategies (ERS), and participating in the Air Quality Investment Plan (AQIP) 	<ul style="list-style-type: none"> - ECRP plan submission - Notify on rule applicability to worksite - Recordkeeping requirements for all information submitted for rule compliance

⁸⁸ South Coast AQMD. Rule 2022 – On-Road Motor Vehicle Mitigation Options: <https://www.aqmd.gov/docs/default-source/rule-book/reg-xxii/rule-2202.pdf>

Rules	Rule Elements		
	Applicability	Requirements	Reporting, Notification, and Recordkeeping
South Coast AQMD Rule 2305 - Warehouse Actions and Investments to Reduce Emissions (WAIRE) Program ⁸⁹	Owners and operators of warehouses located in the South Coast AQMD jurisdiction with greater than or equal to 100,000 square feet of indoor floor space in a single building	Warehouse operators are required to earn WAIRE Points annually, either by completing actions off the WAIRE Menu, a Custom WAIRE plan, or paying a mitigation fee based on truck trips	<ul style="list-style-type: none"> - Periodic reports on warehouse statistics and its operations - Notify when a warehouse facility owner has the ability to use at least 50,000 sq. ft. of a warehouse no greater than or equal to 100,000 sq. ft used for warehouse activities or when a warehouse has been renovated where the total warehouse space used for warehouse activities has changed - Recordkeeping requirements for all information submitted for rule compliance

⁸⁹ South Coast AQMD. Rule 2305 – Warehouse Actions and Investments to Reduce Emissions (WAIRE) Program: https://www.aqmd.gov/docs/default-source/planning/fbmsm-docs/pr-2305_4-7-21_clean.pdf

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**APPENDIX A : DETAILED CALIFORNIA
ENVIRONMENTAL QUALITY ACT
ANALYSIS**

INTRODUCTION

**SUMMARY OF ENVIRONMENTAL IMPACTS ASSOCIATED WITH
PR 2306**

**ENVIRONMENTAL TOPIC AREAS WITH POTENTIALLY
SIGNIFICANT IMPACTS**

**ENVIRONMENTAL TOPIC AREAS WITH LESS THAN SIGNIFICANT
OR NO IMPACTS**

CONCLUSION

REFERENCES

INTRODUCTION

The California Environmental Quality Act (CEQA) is comprised of Public Resources Code Section 21000 et seq. and the CEQA Guidelines which are codified at Title 14 California Code of Regulations, Section 15000 et seq. CEQA requires the evaluation of all potential adverse environmental impacts of proposed projects, and the identification and implementation of methods to reduce or avoid significant adverse environmental impacts of these projects, if feasible. [Public Resources Code Section 21061.1 and CEQA Guidelines Section 15364 define feasible]. The purpose of the CEQA process is to inform decision makers, public agencies, and interested parties of potential adverse environmental impacts that could result from implementing a proposed project and to identify feasible mitigation measures or alternatives, when an impact is significant.

The concept of regulating emissions from freight rail yards emerged from development of the 2016 AQMP,⁹⁰ describing a year-long process during which time potential emission reduction strategies for a suite of facility-based mobile source measures were evaluated and after which a report of the most promising approach was provided to the South Coast AQMD Governing Board. South Coast AQMD staff convened a working group which explored potential voluntary and regulatory approaches for both new and existing freight rail yards consistent with what was outlined in the 2016 AQMP for Control Measure MOB-02 – Emission Reductions at Rail Yards and Intermodal Facilities. This control measure specified the following criteria: “identified actions can be voluntary or can be regulations or other enforceable mechanisms promulgated by a local, state, or federal agency. Voluntary actions include, but are not limited to, greater deployment of zero and near-zero emission technologies, greater use of renewable fuels that may have the potential to reduce criteria pollutant emissions, and strategies that result in improved operational efficiencies with criteria pollutant and greenhouse gas emission reduction benefits.” In May 2018, the Governing Board directed staff to initiate rulemaking for new and existing freight rail yards. Staff met with stakeholders and held working group meetings, and in the midst of this process, the 2022 AQMP⁹¹ was adopted.

The development of the 2022 AQMP contained facility-based mobile source measures similar to Control Measure MOB-02 from the 2016 AQMP and continued to explore potential ways to regulate emissions from freight rail yards through: 1) proposing the development of “Further Deployment of Cleaner Technologies” control measures (Further Deployment Measures) to assist the California Air Resources Board (CARB) and U.S. Environmental Protection Agency (U.S. EPA); 2) bifurcating Control Measure MOB-02 – Emission Reductions at Rail Yards and Intermodal Facilities of the 2016 AQMP, into two control measures: MOB-02A – Emission Reductions at New Rail Yards and Intermodal Facilities and MOB-02B – Emission Reductions at Existing Rail Yards and Intermodal Facilities; and 3) relying on the CARB 2022 State Strategy for the State Implementation Plan (2022 SIP Strategy). Control Measures MOB-02A and MOB-02B of the 2022 AQMP expanded upon the Control Measure MOB-02 of the 2016 AQMP by seeking to reduce NOx and PM emissions related to on-road heavy-duty vehicles, off-road equipment, and locomotives at freight rail yards and intermodal facilities. Specifically, Control Measure MOB-2A focused on achieving emission reductions at new freight rail yards and intermodal facilities,

⁹⁰ South Coast AQMD, 2016 Air Quality Management Plan, March 2017. <https://www.aqmd.gov/home/air-quality/air-quality-management-plans/final-2016-aqmp>

⁹¹ South Coast AQMD, 2022 Air Quality Management Plan, December 2022. <https://www.aqmd.gov/home/air-quality/air-quality-management-plans/air-quality-mgt-plan>

whereas Control Measure MOB-2B focused on achieving emission reductions at existing freight rail yards and intermodal facilities.

After exploring both regulatory and voluntary approaches, rule development of PR 2306 and PR 316.2 are designed to address emissions from both new and existing freight rail yards. Specifically, PR 2306 is designed to implement Control Measure MOB-02 of 2016 AQMP, and Control Measures MOB-02A and MOB-02B of the 2022 AQMP and will ensure that emission reductions will be achieved within the South Coast AQMD jurisdiction at levels that are proportional or more-than-proportional to reductions throughout California from implementation of recently adopted statewide regulations affecting freight rail yard emission sources. Emission reductions targets in PR 2306 are expected to be achieved through reductions from one or more freight rail yard emission sources, including locomotives and drayage trucks subject to these two CARB regulations, as well as from all other mobile sources associated with freight rail yards to transport or assist in transporting cargo or goods. Additional emission reductions may be achieved in South Coast AQMD if implementation of statewide regulations alone does not result in compliance with PR 2306.

PR 2306 affects 25 freight rail yards, and the on-road and off-road mobile emission sources covered under PR 2306 include: 1) locomotives powering inbound and outbound trains; 2) heavy-duty trucks delivering or picking up cargo (full or empty containers) to and from freight rail yards; 3) cargo handling equipment (CHE) used for moving and handling cargo within freight rail yards; 4) transport refrigeration units (TRU) on containers, trailers, railcars, and trucks; and 5) other supporting equipment (OSE). These mobile sources account for the majority of emissions from freight rail yards.

PR 2306 includes requirements for owners and operators of freight rail yards to submit four types of reports: 1) an Initial Facility Information Report which includes a freight rail yard's operational data that is required to determine emissions during the base period and to gather information that is used in calculating NOx percent emission reductions for a freight rail yard with reduced throughputs; 2) an Initial Zero Emission Infrastructure Report to provide an overview of currently operating, planned, developing, and future on-site or off-site zero emission infrastructure in support of freight rail yard compliance with In-Use Locomotive Regulation, Advanced Clean Fleets (ACF) regulation, and/or any other zero emission infrastructure requirements and initiatives; 3) Milestone Compliance Reports every three years for freight rail yard operators to demonstrate compliance with PR 2306 for each and every milestone year; and 4) Zero Emission Infrastructure Status Update Reports which include information pertaining to installed and operating on-site or off-site zero emission infrastructure (as specified in PR 2306 Table 4), updates on new or ongoing on-site or off-site zero emission infrastructure projects currently under development (as specified in PR 2306 Table 5), and updates on planning of future on-site and off-site zero emission infrastructure that are needed to implement and comply with CARB's regulations, as well as the control measures for TRUs and CHE as specified in the 2022 State Strategy for the SIP (as specified in PR 2306 Table 6). Regarding zero emissions planning for all freight rail yards, specific site details are critical for developing a zero emissions infrastructure plan. For example, details need to include evaluating how many locomotives, as well as pieces of CHE, OSE, and TRUs, would need to be fueled or charged, at what rate, at which locations onsite, whether energy storage will also be included to provide redundancy and/or price moderation, what types of chargers or fueling dispensers will be used, etc.

At the time the 2022 AQMP and 2016 AQMP were developed, each plan was considered a “project” as defined by CEQA Guidelines Section 15378 and South Coast AQMD was the lead agency under CEQA because it was the “public agency that has the principal responsibility for carrying out or approving a project that may have a significant effect upon the environment.” [Public Resources Code Section 21067]. Further, since the South Coast AQMD Governing Board had the primary responsibility for approving the entirety of both projects, South Coast AQMD was the most appropriate public agency to act as lead agency for the projects. [CEQA Guidelines Section 15051(b)].

The 2022 AQMP and 2016 AQMP each: 1) had environmental impacts which were evaluated in a Final Program Environmental Impact Report (Program EIR); and 2) were discretionary actions which were individually considered and approved by the South Coast AQMD Governing Board.

Therefore, PR 2306, is integrally related to the 2022 AQMP and the 2016 AQMP for which two previous environmental analyses have been prepared: 1) the Final Program EIR for 2022 AQMP which was certified by the South Coast AQMD Governing Board on December 2, 2022⁹²; and 2) the Final Program EIR for 2016 AQMP which was certified by the South Coast AQMD Governing Board on March 3, 2017.⁹³

The Final Program EIRs for the 2022 AQMP and 2016 AQMP identified potentially significant impacts, and mitigation measures were adopted for each plan. Further, since mitigation measures were adopted for the 2022 AQMP and 2016 AQMP; Mitigation, Monitoring, and Reporting Plans, pursuant to Public Resources Code Section 21081.6 and CEQA Guidelines 15097 were also required and adopted.

Further, because the Final Program EIRs for both AQMPs concluded that implementation of these two projects would have potentially significant and unavoidable adverse impacts on the environment, Findings were made pursuant to CEQA Guidelines Section 15091, and Statements of Overriding Considerations pursuant to CEQA Guidelines Section 15093 were adopted.

The 2022 AQMP, along with the December 2022 Final Program EIR for the 2022 AQMP (State Clearinghouse No. 2022050287) and its corresponding Findings, Statement of Overriding Considerations, and Mitigation, Monitoring, and Reporting Plan, and the 2016 AQMP along with the March 2017 Final Program EIR for the 2016 AQMP (State Clearinghouse No. 2016071006) and its corresponding with Findings, Statement of Overriding Considerations, and Mitigation, Monitoring, and Reporting Plan, upon which this analysis of PR 2306 relies, are incorporated by reference pursuant to CEQA Guidelines Section 15150 and are available from the South Coast AQMD’s website at:

⁹² South Coast AQMD, Final Program Environmental Impact Report for the 2022 Air Quality Management Plan, December 2022. <https://www.aqmd.gov/docs/default-source/ceqa/documents/aqmd-projects/2022/2022-aqmp-final-peir.pdf>

⁹³ South Coast AQMD, Final Program Environmental Impact Report for the 2016 Air Quality Management Plan, March 2017. <https://www.aqmd.gov/docs/default-source/ceqa/documents/aqmd-projects/2016/2016aqmpfpeir.pdf>

December 2022 Final Program EIR for the 2022 AQMP**Master webpage**

<https://www.aqmd.gov/home/research/documents-reports/lead-agency-scaqmd-projects/south-coast-aqmd-projects---year-2022>

December 2022 Final Program EIR for the 2022 AQMP (including Appendices)

<https://www.aqmd.gov/docs/default-source/ceqa/documents/aqmd-projects/2022/2022-aqmp-final-peir.pdf>

Findings, Statement of Overriding Considerations, and Mitigation Monitoring and Reporting Plan

<https://www.aqmd.gov/docs/default-source/ceqa/documents/aqmd-projects/2022/2022-aqmp-attachment1toresolution.pdf>

2022 AQMP

<https://www.aqmd.gov/home/air-quality/air-quality-management-plans/air-quality-mgt-plan>

March 2017 Final Program EIR for the 2016 AQMP**Master webpage**

<http://www.aqmd.gov/home/research/documents-reports/lead-agency-scaqmdprojects/scaqmd-projects---year-2017>

March 2017 Final Program EIR for the 2016 AQMP (without Appendices)

<https://www.aqmd.gov/docs/default-source/ceqa/documents/aqmd-projects/2016/2016aqmpfeir.pdf>

Appendices A through C

https://www.aqmd.gov/docs/default-source/ceqa/documents/aqmd-projects/2016/2016aqmpfeir_appendicesac.pdf

Appendices D through E

https://www.aqmd.gov/docs/default-source/ceqa/documents/aqmd-projects/2016/2016aqmpfeir_appendicesde.pdf

Findings, Statement of Overriding Considerations, and Mitigation Monitoring and Reporting Plan

<https://www.aqmd.gov/docs/default-source/ceqa/documents/aqmd-projects/2017/att2toresolutionfor-2016aqmp.pdf>

2016 AQMP

<https://www.aqmd.gov/home/air-quality/air-quality-management-plans/final-2016-aqmp>

Copies of these documents may also be obtained from:

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For both of these projects, a Program EIR was considered to be the appropriate document for each AQMP pursuant to CEQA Guidelines Section 15168(a)(3) because each AQMP constituted a series of actions that can be characterized as one large project in connection with the issuance of rules, regulations, plans, or other general criteria required to govern the conduct of a continuing program. In addition, the use of a Program EIR had the following advantages by:

- Providing an occasion for a more exhaustive consideration of effects and alternatives than would be practical in an EIR on an individual action;
- Ensuring a consideration of cumulative impacts that might be slighted in a case-by-case analysis;
- Avoiding duplicative reconsideration of basic policy considerations;
- Allowing consideration of broad policy alternatives and program-wide mitigation measures at an early time when the Lead Agency has greater flexibility to deal with basic problems of cumulative impacts; and
- Allowing its use with a later activity if the later activity is within the scope of the project analyzed in the Program EIR without requiring further environmental documents.

While PR 2306 is a new rule, it memorializes and implements previously adopted control measures from the 2022 AQMP and the 2016 AQMP without introducing new requirements with new environmental impacts beyond what was previously analyzed in the Final Program EIRs for the 2022 AQMP and 2016 AQMP. In addition, PR 2306 is intended to supplement the local implementation of CARB's In-Use Locomotive and ACF regulations, within South Coast AQMD by requiring all freight rail yards to meet set emission reductions targets for milestone years.

CARB's In-Use Locomotive Regulation is designed to reduce toxic air contaminants, criteria pollutants, and GHG emissions from in-use locomotives (e.g., all switch, passenger, industrial, and freight line haul locomotives) operated in California. Specifically, CARB's In-Use Locomotive Regulation requires locomotive operators to: 1) set aside money for cleaner locomotives and technology development; 2) incentivize early zero emission operation in disadvantaged communities; 3) starting in 2030, require locomotives operating in California to be less than 23 years old to phase out the oldest and dirtiest locomotives (locomotives aged 23 years or older may operate in California if they meet the cleanest U.S. EPA standards (in earlier years) and operate only in zero-emission configuration (in later years); 4) establish zero emission operational requirements for locomotives operating in 2030 and later; 5) require a 30-minute idling limit; and 6) require air district-specific reporting of California locomotive activity. On April 27, 2023, CARB certified a Final Environmental Analysis for the In-Use Locomotive Regulation (State Clearinghouse No. 2022090408)⁹⁴ which analyzed the environmental impacts associated with implementing this regulation.

⁹⁴ CARB, 2023. Final Environmental Analysis for the Proposed In-Use Locomotive Regulation, April 14, 2023.

CARB's ACF Regulation requires certain fleets, including drayage trucks, to deploy medium- and heavy-duty zero emission vehicles starting in 2024 and establishes a clear end date to new medium and heavy-duty vehicle internal combustion engine vehicle sales in 2036. On August 28, 2023, CARB certified a Final Environmental Analysis for the ACF Regulation (State Clearinghouse No. 2021030340).⁹⁵

So as to not repeat or duplicate the environmental analyses previously conducted in CARB's CEQA documents for these two adopted regulations, to which PR 2306 is supplement, this Appendix incorporates by reference in accordance with CEQA Guidelines Section 15150 the following documents which are a matter of public record and are available to the public from CARB's website:

CARB's In-Use Locomotive Regulation

Master webpage

<https://ww2.arb.ca.gov/rulemaking/2022/locomotive>

Final Regulation Order

<https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2022/locomotive22/fro.pdf>

Final Environmental Analysis for the Proposed In-Use Locomotive Regulation, certified April 27, 2023, State Clearinghouse No. 2021030340

https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2022/locomotive22/locomotive_final_ea.docx

Attachment A: Environmental and Regulatory Setting

<https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2022/locomotive22/appda.pdf>

Attachment B: Summary of Environmental Impacts and Mitigation Measures

<https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2022/locomotive22/appdb.pdf>

Findings and Statement of Overriding Considerations

https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2022/locomotive22/locomotive_findings.pdf

CARB's Advanced Clean Fleets Regulation

Master webpage:

<https://ww2.arb.ca.gov/rulemaking/2022/acf2022>

Final Regulation Order: State and Local Government Agency Fleet Requirements

<https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2022/acf22/ac/acffro11.pdf>

Final Regulation Order: High Priority and Federal Fleet Requirements

<https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2022/acf22/ac/acffro21.pdf>

Final Regulation Order: Drayage Truck Requirements

<https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2022/acf22/ac/acffrod31.pdf>

⁹⁵ CARB, 2023. Final Environmental Analysis for the Proposed Advanced Clean Fleets Regulation, April 23, 2023.

Final Regulation Order: 2036 100 Percent Medium- and Heavy-Duty Zero-Emission Vehicle Sales Requirements

<https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2022/acf22/ac/acffro41.pdf>

Final Environmental Analysis for the Proposed Advanced Clean Fleets Regulation, certified August 28, 2023, State Clearinghouse No. 2021030340

<https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2022/acf22/acffinalea.docx>

Attachment A: Environmental and Regulatory Setting

<https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2022/acf22/appda.pdf>

Attachment B: Summary of Impacts Table

<https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2022/acf22/appdb.pdf>

Findings and Statement of Overriding Considerations

<https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2022/acf22/acffindings.pdf>

CEQA Guidelines Section 15187 requires South Coast AQMD to perform an environmental analysis when proposing to adopt a new rule or regulation requiring the installation of air pollution control equipment, or establishing a performance standard, which is the case with PR 2306. CEQA Guidelines 15187(c) requires the environmental analysis to include at least the following information:

- An analysis of reasonably foreseeable environmental impacts of the methods of compliance;
- An analysis of reasonably foreseeable mitigation measures relating to those environmental impacts; and
- An analysis of reasonably foreseeable alternative means of compliance with the rule or regulation, which would avoid or eliminate the identified environmental impacts.

In analyzing the potential environmental impacts of PR 2306 as required by CEQA Guidelines Section 15187, South Coast AQMD finds that, pursuant to CEQA Guidelines Section 15162 that PR 2306 does not contain new information of substantial importance which was not known and could not have been known at the time of certification of: 1) Final Program EIR for the 2022 AQMP; and 2) the Final Program EIR for the 2016 AQMP. [CEQA Guidelines Section 15162(a)(3)]. Therefore, a Subsequent EIR is not required.

As such, this Appendix satisfies the environmental analysis requirement in CEQA Guidelines Section 15187 by examining whether PR 2306 qualifies as a later activity within the scope of the previous analyses conducted in the certified Final Program EIRs for the 2022 AQMP and the 2016 AQMP pursuant to CEQA Guidelines 15168(c) – Use with Later Activities. Specifically, this Appendix: 1) compares the proposed later activity of PR 2306 with the previously approved programs, Control Measures MOB-02A and MOB-02B which were adopted in the 2022 AQMP and Control Measure MOB-02 which was adopted in the 2016 AQMP; 2) summarizes the environmental impacts analyzed in the Final Program EIRs for the 2022 AQMP and 2016 AQMP for Control Measures MOB-02A, MOB-02B, and MOB-02; 3) identifies the differences, if any, between the analyses of environmental impacts in the Final Program EIRs for 2022 AQMP and 2016 AQMP for the applicable control measures and PR 2306 and, as needed, identifies any other

impact areas which may require further analysis; and 4) considers the evidence and determines whether: a) PR 2306 is a later activity within the scope of the programs approved earlier for the 2022 AQMP and 2016 AQMP; and b) the Final Program EIRs for the 2022 AQMP and the 2016 AQMP adequately describe the later activity of PR 2306 for the purposes of CEQA such that no new environmental document ~~is~~ will be required.

As a companion rule to PR 2306, PR 316.2 establishes fees to be paid by freight rail yard owners or operators subject to PR 2306 to recover South Coast AQMD's reasonable regulatory costs associated with PR 2306 implementation and compliance, such as costs associated with review of reports and notifications and the associated auditing, inspection, and enforcement activities. Thus, PR 316.2, which involves charges established by a public agency (South Coast AQMD) for the purpose of meeting operating expenses, is statutorily exempt from CEQA pursuant to CEQA Guidelines Section 15273 and is not discussed further in this Appendix. A Notice of Exemption will be prepared pursuant to CEQA Guidelines Section 15062, and if the PR 316.2 is approved, the Notice of Exemption will be filed with the county clerks of Los Angeles, Orange, Riverside, and San Bernardino counties, and with the State Clearinghouse of the Governor's Office of Planning and Research.

SUMMARY OF ENVIRONMENTAL IMPACTS ASSOCIATED WITH PR 2306

The CEQA Guidelines require environmental documents to identify significant environmental effects that may result from a proposed project. [CEQA Guidelines Section 15126.2(a)]. Direct and indirect significant effects of a project on the environment should be identified and described, with consideration given to both short- and long-term impacts. The discussion of environmental impacts may include, but is not limited to, the resources involved; physical changes; alterations of ecological systems; health and safety impacts caused by physical changes; and other aspects of the resources involved including water, scenic quality, and public services. If significant adverse environmental impacts are identified, the CEQA Guidelines require a discussion of measures that could either avoid or substantially reduce any adverse environmental impacts to the greatest extent feasible. [CEQA Guidelines Section 15126.4].

The categories of environmental impacts to be studied in a CEQA document are established by CEQA (Public Resources Code Section 21000 et seq.) and the CEQA Guidelines (codified in Title 14 California Code of Regulations Section 15000 et seq.). Under the CEQA Guidelines Appendix G: Environmental Checklist Form, there are 20 environmental topic areas categories in which potential adverse impacts from a project are evaluated. The South Coast AQMD, as lead agency, has taken into consideration the environmental checklist questions in Appendix G, but has reorganized the contents to consolidate the environmental topic areas to avoid repetition. For example, South Coast AQMD's customized the environmental checklist by: 1) combining the topics of "air quality" and "greenhouse gas emissions" into one section; 2) combining the topics of "cultural resources" and "tribal cultural resources" into one section; 3) separating the "hazards and hazardous materials" topic into two sections: "hazards and hazardous materials" and "solid and hazardous waste;" and 4) distributing the questions from the topic of "utilities/service systems" into other more specific environmental areas such as "energy," "hydrology and water quality," and "solid and hazardous waste." For each environmental topic area, per CEQA Guidelines Section 15064.7(a), "[a] threshold of significance is an identifiable quantitative, qualitative, or performance level of a particular environmental effect, noncompliance with which means the

effect will normally be determined to be significant by the agency and compliance with which means the effect normally will be determined to be less than significant.” The South Coast AQMD has developed unique thresholds of significance for the determination of significance in accordance with CEQA Guidelines Section 15064.7(b).

The CEQA Guidelines also include provisions for the preparation of Program EIRs in connection with the issuance of plans, such as the 2022 AQMP and 2016 AQMP, to govern the conduct of a continuing program, including adoptions of broad policy programs as distinguished from those prepared for specific types of projects such as land use projects, for example. [CEQA Guidelines Section 15168]. A Program EIR also allows for the consideration of broad policy alternatives and program-wide mitigation measures at an early time when an agency has greater flexibility to deal with basic problems or cumulative impacts. [CEQA Guidelines Section 15168 (b)(4)]. Lastly, a Program EIR also plays an important role in establishing a structure within which a CEQA review of future related actions can be effectively conducted. A Program EIR, by design, provides the basis for future environmental analyses and will allow future project specific CEQA documents, if necessary, to focus solely on the new effects or detailed environmental issues not previously considered. If an agency finds that no new effects could occur, or no new mitigation measures would be required, the agency can approve the activity as being within the scope of the project covered by the Program EIR and no new environmental document would be required. [CEQA Guidelines Section 15168(c)(2)].

The Final Program EIR for the 2016 AQMP analyzed the impacts of the 2016 AQMP project on 18 environmental topic areas: aesthetics, agriculture and forestry resources, air quality and greenhouse gas emissions, biological resources, cultural resources, energy, geology and soils, hazards and hazardous materials, hydrology and water quality, land use and planning, mineral resources, noise, population and housing, public services, recreation, solid and hazardous waste, transportation and traffic, and mandatory findings of significance. In 2019, the CEQA Guidelines were amended to add the environmental topic areas of tribal cultural resources and wildfires, and the transportation analysis was changed from Level of Service (LOS) to Vehicle Miles Traveled (VMT) with a corresponding update to the name of the environmental topic area from “transportation and traffic” to “transportation.” Thus, the Final Program EIR for the 2022 AQMP analyzed the impacts of implementing the various control measures in the 2022 AQMP on 19 environmental topic areas: aesthetics, agriculture and forestry resources, air quality and greenhouse gas emissions, biological resources, cultural and tribal cultural resources, energy, geology and soils, hazards and hazardous materials, hydrology and water quality, land use and planning, mineral resources, noise, population and housing, public services, recreation, solid and hazardous waste, transportation, wildfire, and mandatory findings of significance.

The Final Program EIR for the 2022 AQMP concluded that the implementation of all of the control measures in the 2022 AQMP would result in potentially significant impacts for the following environmental topic areas: air quality and greenhouse gas (GHG) emissions, energy, hazards and hazardous materials, hydrology and water quality, noise, and solid and hazardous waste. All other environmental topic areas were either concluded to have less than significant impacts or no impact. Mitigation measures to minimize significant impacts from implementation of the 2022 AQMP

were adopted in the Mitigation, Monitoring, and Reporting Plan which can be found in Attachment 1 to the Governing Board Resolution for the Final Program EIR for the 2022 AQMP.⁹⁶

The Final Program EIR for the 2016 AQMP concluded that the implementation of all of the control measures in the 2016 AQMP would result in potentially significant impacts for the following environmental topic areas: aesthetics, air quality and greenhouse gas emissions, energy, hazards and hazardous materials, hydrology and water quality, noise, solid and hazardous waste, and transportation and traffic. All other environmental topic areas were either concluded to have less than significant impacts or no impact. Mitigation measures to minimize significant impacts from implementation of the 2016 AQMP were adopted in the Mitigation, Monitoring, and Reporting Plan which can be found in Attachment 2 to the Governing Board Resolution for the Final Program EIR for the 2016 AQMP.⁹⁷

Table A-1 summarizes Control Measures MOB-02A and MOB-02B of the 2022 AQMP and Control Measure MOB-02 of the 2016 AQMP upon which PR 2306 relies, their effect of implementation and nature of potential impact(s), and which of the environmental topic areas are potentially adversely impacted by their implementation. It should be noted that Control Measures MOB-02A and MOB-02B were concluded in the Final Program EIR for the 2022 AQMP to have potential adverse impacts related to the environmental topic areas of air quality and GHG, energy, hazards and hazardous materials, noise, and solid and hazardous waste, but no potential adverse impacts to the environmental topic area of hydrology and water quality. However, for other control measures in the 2022 AQMP, the Final Program EIR for the 2022 AQMP concluded that there would be potential adverse impacts to hydrology and water quality. Control Measure MOB-02 of the 2016 AQMP considered potential adverse impacts to surface and ground water quality from accidental spills of alternative fuels or additives, and potential illegal disposal of batteries from electric vehicles and hybrids while Control Measures MOB-2A and MOB-2B of the 2022 AQMP did not. Control Measure MOB-02 was concluded in the Final Program EIR for the 2016 AQMP to have potential adverse impacts related to the environmental topic areas of air quality and GHG, energy, hazards and hazardous materials, hydrology and water quality, noise, and solid and hazardous waste, but no potential adverse impacts to the environmental topic areas of aesthetics and transportation and traffic. Implementing other control measures in the 2016 AQMP was concluded in the Final Program EIR for the 2016 AQMP to have potential adverse impacts to aesthetics and transportation and traffic as a result of implementing other control measures.

Tables A-2 and A-3 summarize the analyses in the Final Program EIRs for the 2022 AQMP and 2016 AQMP associated with Control Measures MOB-02A, MOB-02B, and MOB-02: physical changes expected, environmental topic areas affected according to level of significance impact, and the applicable mitigation measures.

Table A-4 summarizes the physical changes expected, environmental topic areas affected, and the applicable mitigation measures associated with implementation of PR 2306 and compares the

⁹⁶ South Coast AQMD, Attachment 1 to the Governing Board Resolution for the Final Program Environmental Impact Report for the 2022 Air Quality Management Plan, December 2022. <https://www.aqmd.gov/docs/default-source/ceqa/documents/aqmd-projects/2022/2022-aqmp-attachment1toresolution.pdf>

⁹⁷ South Coast AQMD, Attachment 2 to the Governing Board Resolution for the Final Program Environmental Impact Report for the 2016 Air Quality Management Plan, March 2017. <https://www.aqmd.gov/docs/default-source/ceqa/documents/aqmd-projects/2017/att2toresolutionfor-2016aqmp.pdf>

similarities to those analyzed for Control Measures MOB-02A, MOB-02B, and MOB-02 in the Final Program EIRs for the 2022 AQMP and 2016 AQMP.

Table A- 1. Environmental Topic Areas with Potential Adverse Impacts from Rail Yard Control Measures

Control Measure Number	Title	Effect of Implementation and Nature of Potential Impact(s)	Potential Adverse Impact(s)					
			Air Quality/ GHG	Energy	Hazards/ Hazardous Materials	Hydrology/ Water Quality	Noise	Solid/ Hazardous Waste
MOB-02A in 2022 AQMP	Emission Reductions at New Rail Yards and Intermodal Facilities	Infrastructure development required to achieve emission reductions at new rail yards and intermodal facilities from on-road heavy-duty vehicles, off-road equipment, and locomotives may cause impacts to: 1) air quality and GHGs from construction activities and the combustion of alternative fuels; 2) energy due to increased demand for electricity (for vehicles, rail, and equipment) and natural gas; 3) hazards and hazardous materials associated with engine replacements; 4) noise during construction; and 5) solid and hazardous waste associated with engine replacements.	X	X	X		X	X
MOB-02B in 2022 AQMP	Emission Reductions at Existing Rail Yards and Intermodal Facilities	Infrastructure development required to achieve emission reductions at existing rail yards and intermodal facilities from on-road heavy-duty vehicles, off-road equipment, and locomotives may cause impacts to: 1) air quality and GHGs from construction activities and the combustion of alternative fuels; 2) energy due to increased demand for electricity (for vehicles, rail, and equipment) and natural gas; 3) hazards and hazardous materials associated with engine replacements; 4) noise during construction; and 5) solid and hazardous waste associated with engine replacements.	X	X	X		X	X
MOB-02 in 2016 AQMP	Emission Reductions at Rail Yards and Intermodal Facilities	Constructing infrastructure to provide support for new cleaner equipment or vehicles, and accelerating the penetration of zero and near-zero emission locomotives can result in air and energy (electrical/natural gas demand) impacts. Hazard impacts can result from the use of alternative fuels and fuel additive. Water (surface and ground) impacts can result from accidental spills. Waste impacts can result from battery disposal and turnover of older equipment.	X	X	X	X	X	X

Table A-2. Analysis of Control Measures MOB-02A and MOB-02B in the Final Program EIR for the 2022 AQMP

	Physical Changes Expected From MOB-02A and MOB-02B	Environmental Topic Areas with Potentially Significant Impacts	Adopted Mitigation Measures	Environmental Topic Areas with Less than Significant Impacts	Environmental Topic Areas with No Impacts
<i>Construction</i>	Construction and installation of charging and alternative fueling infrastructure for electricity and the storage and dispensing of alternative fuels for use in on-road heavy-duty vehicles, off-road equipment, and locomotives.	<ul style="list-style-type: none"> - Air Quality - Noise - Solid and Hazardous Waste 	<ul style="list-style-type: none"> - Air Quality and GHG: AQ-1 to AQ-26 - Noise: NS-1 to NS-14 - Solid and Hazardous Waste: SHW-1 to SHW-3 	- GHG	Aesthetics, Agriculture and Forestry Resources, Biological Resources, Cultural and Tribal Cultural Resources, Energy, Geology and Soils, Hydrology and Water Quality, Land Use and Planning, Mineral Resources, Population and Housing, Public Services, Recreation, Transportation, Wildfire
	Increased demand for electricity and natural gas, and increased production and use of alternative fuels.	<ul style="list-style-type: none"> - Energy - Hazards and Hazardous Materials 	<ul style="list-style-type: none"> - Energy: E-1 to E-12 		
<i>Operation</i>	Potential acceleration in the purchase of zero emission or low NOx emitting equipment and vehicles that would replace older equipment and vehicles, thereby increasing the scrapping of equipment and vehicles faster than would normally occur could result in physical changes.	<ul style="list-style-type: none"> - Solid and Hazardous Waste 	<ul style="list-style-type: none"> - Solid and Hazardous Waste: SHW-1 to SHW-3 	- Air Quality and GHG	

Table A-3. Analysis of Control Measure MOB-02 in the Final Program EIR for the 2016 AQMP

	Physical Changes Expected From MOB-02	Environmental Topic Areas with Potentially Significant Impacts	Adopted Mitigation Measures	Environmental Topic Areas with Less than Significant Impacts	Environmental Topic Areas with No Impacts
Construction	Construction of infrastructure to provide support for new cleaner equipment or vehicles.	<ul style="list-style-type: none"> - Air Quality - Noise - Solid and Hazardous Waste 	<ul style="list-style-type: none"> - Air Quality: AQ-1 to AQ-23 - Noise: NS-1 to NS-17 	<ul style="list-style-type: none"> - GHG 	Aesthetics, Agriculture and Forestry Resources, Biological Resources, Cultural and Tribal Cultural Resources, Energy, Geology and Soils, Land Use and Planning, Mineral Resources, Population and Housing, Public Services, Recreation, Transportation, Wildfire
	Increased demand for electricity and natural gas, and increased production and use of alternative fuels and fuel additives.	<ul style="list-style-type: none"> - Energy 	<ul style="list-style-type: none"> - Energy: E-1 to E-7 	<ul style="list-style-type: none"> - Air Quality and GHG - Hazards and Hazardous Materials - Hydrology and Water Quality 	
Operation	Potential acceleration in the purchase of zero emission or low NOx emitting equipment and vehicles that would replace older equipment and vehicles, thereby increasing the scrapping of equipment and vehicles faster than would normally occur could result in physical changes.	<ul style="list-style-type: none"> - Solid and Hazardous Waste 	<ul style="list-style-type: none"> - None 	<ul style="list-style-type: none"> - Hydrology and Water Quality 	

Table A-4. Comparison of Environmental Impacts between MOB-02A, MOB-02B, MOB-02, and PR 2306

Physical Change Expected from PR 2306	Similarity to Environmental Topic Areas with Potentially Significant Impacts	Applicability of Adopted Mitigation Measures	Similarity to Environmental Topic Areas with Less than Significant Impacts	Similarity to Environmental Topic Areas with No Impacts
<p style="text-align: center;"><i>Construction</i></p> <p>Construction and installation of charging and alternative fueling infrastructure for electricity and the storage and dispensing of alternative fuels (e.g., hydrogen) for use in on-road heavy-duty vehicles, off-road equipment, and locomotives.</p>	<ul style="list-style-type: none"> - Air Quality - Noise - Solid and Hazardous Waste <hr/> <p><i>Implementation of PR 2306 is expected to result in the same potentially significant impacts as anticipated for construction and installation of charging and alternative fueling infrastructure from Control Measures MOB-02A and MOB-02B of the 2022 AQMP and Control Measure MOB-02 of the 2016 AQMP.</i></p>	<p>Air Quality and GHG: AQ-1 to AQ-26 of the Final Program EIR for the 2022 AQMP; and AQ-1 to AQ-23 of the Final Program EIR for the 2016 AQMP</p> <p>Noise: NS-1 to NS-14 of the Final Program EIR for the 2022 AQMP; and NS-1 to NS-17 of the Final Program EIR for the 2016 AQMP</p> <p>Solid and Hazardous Waste: SHW-1 to SHW-3 of the Final Program EIR for the 2022 AQMP</p> <hr/> <p><i>The mitigation measures minimizing impacts on construction and installation of charging and alternative fueling infrastructure from Control Measures MOB-02A and MOB-02B of the 2022 AQMP and Control Measure MOB-02 of the 2016 AQMP are expected to apply to PR 2306.</i></p>	<ul style="list-style-type: none"> - GHG <hr/> <p><i>Implementation of PR 2306 is expected to result in the same less than significant impacts as anticipated for construction and installation of charging and alternative fueling infrastructure from Control Measures MOB-02A and MOB-02B of the 2022 AQMP and Control Measure MOB-02 of the 2016 AQMP.</i></p>	<ul style="list-style-type: none"> - Aesthetics - Agriculture and Forestry Resources - Biological Resources - Cultural and Tribal Cultural Resources - Energy - Geology and Soils - Hazards and Hazardous Materials - Hydrology and Water Quality - Land Use and Planning - Mineral Resources - Population and Housing - Public Services - Recreation - Transportation - Wildfire <hr/> <p><i>Same as for construction and installation of charging and alternative fueling infrastructure from Control Measures MOB-02A and MOB-02B of the 2022 AQMP and Control Measure MOB-02 of the 2016 AQMP.</i></p>

Table A-4. Comparison of Environmental Impacts between MOB-02A, MOB-02B, MOB-02, and PR 2306 (continued)

Physical Change Expected from PR 2306	Similarity to Environmental Topic Areas with Potentially Significant Impacts	Applicability of Adopted Mitigation Measures	Similarity to Environmental Topic Areas with Less than Significant Impacts	Similarity to Environmental Topic Areas with No Impacts
<p><i>Operation</i></p> <p>Increased demand for electricity and natural gas, and increased production and use of alternative fuels (e.g., hydrogen).</p>	<ul style="list-style-type: none"> - Energy - Hazards and Hazardous Materials <p><i>Implementation of PR 2306 is expected to result in the same potentially significant impacts anticipated for increased demand for electricity, natural gas, and alternative fuels from Control Measures MOB-02A and MOB-02B of the 2022 AQMP and Control Measure MOB-02 of the 2016 AQMP.</i></p>	<p>Energy: E-1 to E-12 of the Final Program EIR for the 2022 AQMP; and E-1 to E-7 of the Final Program EIR for the 2016 AQMP</p> <p><i>The mitigation measures minimizing impacts on increased demand for electricity, natural gas, and alternative fuels from Control Measures MOB-02A and MOB-02B of the 2022 AQMP and Control Measure MOB-02 of the 2016 AQMP are expected to apply to PR 2306.</i></p>	<ul style="list-style-type: none"> - Air Quality and GHG - Hydrology and Water Quality <p><i>Implementation of PR 2306 is expected to result in the same less than significant impacts anticipated for increased demand for electricity, natural gas, and alternative fuels from Control Measures MOB-02A and MOB-02B of the 2022 AQMP and Control Measure MOB-02 of the 2016 AQMP.</i></p>	<ul style="list-style-type: none"> - Aesthetics - Agriculture and Forestry Resources - Biological Resources - Cultural and Tribal Cultural Resources - Geology and Soils - Land Use and Planning - Mineral Resources - Noise - Population and Housing - Public Services - Recreation - Solid and Hazardous Waste - Transportation - Wildfire <p><i>Same as for increased demand for electricity, natural gas, and alternative fuels from Control Measures MOB-02A and MOB-02B of the 2022 AQMP and Control Measure MOB-02 of the 2016 AQMP.</i></p>

Table A-4. Comparison of Environmental Impacts between MOB-02A, MOB-02B, MOB-02, and PR 2306 (concluded)

Physical Change Expected from PR 2306	Similarity to Environmental Topic Areas with Potentially Significant Impacts	Applicability of Adopted Mitigation Measures	Similarity to Environmental Topic Areas with Less than Significant Impacts	Similarity to Environmental Topic Areas with No Impacts
<p><i>Operation</i></p> <p>Potential acceleration in the purchase of zero emission or low NOx emitting equipment and vehicles that would replace older equipment and vehicles, thereby increasing the scrapping of equipment and vehicles faster than would normally occur could result in physical changes.</p>	<ul style="list-style-type: none"> - Solid and Hazardous Waste <p><i>Implementation of PR 2306 is expected to result in the same potentially significant impacts anticipated for the potential acceleration in scrapping of equipment and vehicles from Control Measures MOB-02A and MOB-02B of the 2022 AQMP and Control Measure MOB-02 of the 2016 AQMP.</i></p>	<p>Solid and Hazardous Waste: SHW-1 to SHW-3 of the Final Program EIR for the 2022 AQMP</p> <p><i>The mitigation measures minimizing impacts on the potential acceleration in scrapping of equipment and vehicles from Control Measures MOB-02A and MOB-02B of the 2022 AQMP and Control Measure MOB-02 of the 2016 AQMP are expected to apply to PR 2306.</i></p>	<ul style="list-style-type: none"> - Hydrology and Water Quality <p><i>Implementation of PR 2306 is expected to result in the same less than significant impacts anticipated for the potential acceleration in scrapping of equipment and vehicles from Control Measures MOB-02A and MOB-02B of the 2022 AQMP and Control Measure MOB-02 of the 2016 AQMP.</i></p>	<ul style="list-style-type: none"> - Aesthetics - Agriculture and Forestry Resources - Air Quality and GHG - Biological Resources - Cultural and Tribal Cultural Resources - Energy - Geology and Soils - Hazards and Hazardous Materials - Land Use and Planning - Mineral Resources - Noise - Population and Housing - Public Services - Recreation - Transportation - Wildfire <p><i>Same as for the potential acceleration in scrapping of equipment and vehicles from Control Measures MOB-02A and MOB-02B of the 2022 AQMP and Control Measure MOB-02 of the 2016 AQMP.</i></p>

PR 2306 implements Control Measures MOB-02A and MOB-02B of the 2022 AQMP, and Control Measure MOB-02 of 2016 AQMP, and will require operators of freight rail yards in South Coast AQMD to reduce their facility emissions at levels that are proportional or more-than-proportional to statewide implementation of CARB's In-Use Locomotive and ACF regulations, part of CARB's 2022 SIP Strategy. While PR 2306 does not explicitly mandate zero emission infrastructure, its implementation will generate increased demand for electricity and alternative fuels to support freight rail yard operations in the South Coast Air Basin (Basin). Consequently, existing utility supply and distribution systems may require capacity upgrades to meet this demand. These enhancements would constitute off-site infrastructure improvements, encompassing electricity generation resources, transmission capacity, and distribution system capacity (such as additional substations and circuits), along with hydrogen fuel production, storage, and distribution systems.

PR 2306 does not require a specific pathway to be followed to reach the facility emission reduction milestones, but its implementation, in conjunction with CARB regulations affecting freight rail yard sources of emissions, will likely accelerate the purchase of zero emission capable or low NOx emitting equipment and vehicles that would replace older equipment and vehicles and thus, increase the scrapping of equipment and vehicles faster than would normally occur. All of these impacts associated with these infrastructure improvements and acceleration of cleaner technologies were previously analyzed in the Final EIRs for the 2022 AQMP and the 2016 AQMP. The precise level of zero emissions infrastructure through time that would be associated with PR 2306 is unknown. Under PR 2306 subparagraph (d)(1)(B), freight rail yard operators can demonstrate they meet facility-wide emission reduction targets that align with how they complied with CARB's In-Use Locomotive and Advanced Clean Fleets regulations. Both of those regulations allow substantial flexibility, and compliance at a facility level under PR 2306 may be possible with little to no implementation of zero emissions technology for many years (e.g., through reliance on widespread deployment of Tier 4 diesel engines rather than converting to zero emissions). Further, the type of zero emissions infrastructure may vary (e.g., fast or slow charging electrification, fast or slow fueling of hydrogen, etc.). It is speculative to determine how these impacts will occur with any more precision than what has been already analyzed in the Final Program EIRs for the 2022 AQMP and 2016 AQMP.

In addition, the owners/operators of the freight rail yards that will be subject to PR 2306 have not provided any site-specific details regarding any additional potential modifications and associated environmental impacts that could potentially occur at individual freight rail yard locations to comply with PR 2306 beyond what has been previously forecasted and analyzed in accordance with CEQA Guidelines Section 15144 in the Final Program EIRs for the 2022 AQMP and 2016 AQMP. Predicting what facilities would do without firm evidence based on facts to support the analysis would require speculation or conjecture that is inappropriate and prohibited by CEQA. [CEQA Guidelines Section 15145]. When project-level details and corresponding environmental information is not available and a particular impact is too speculative for evaluation, as is the case with individual freight rail yards that will be subject to PR 2306, no additional analysis is required for potential modifications that may occur at individual sites which are speculative. [CEQA Guidelines Section 15145]. Thus, the previous analyses of the environmental impacts for Control Measures MOB-02A and MOB-02B of the 2022 AQMP in its Final Program EIR, and Control Measure MOB-02 of 2016 AQMP in its Final Program EIR cover the breadth of impacts that are expected to result from PR 2306 such that no additional environmental impacts need to be evaluated.

The analyses in the Final Program EIRs for the 2022 AQMP and 2016 AQMP determined that implementation of Control Measures MOB-02A, MOB-02B, and MOB-02 has the potential to generate significant adverse impacts to air quality from construction, energy, hazards and hazardous materials, noise, and solid and hazardous waste; less than significant impacts to operational air quality and GHG, and hydrology and water quality; and no impacts to all other environmental topic areas.

ENVIRONMENTAL TOPIC AREAS WITH POTENTIALLY SIGNIFICANT IMPACTS

The Final Program EIR for the 2022 AQMP concluded that the implementation of all of the control measures in the 2022 AQMP would result in potentially significant impacts for the following environmental topic areas: air quality and greenhouse gas (GHG) emissions, energy, hazards and hazardous materials, hydrology and water quality, noise, and solid and hazardous waste. Specific to the implementation of Control Measures MOB-02A and MOB-02B, the Final Program EIR for the 2022 AQMP analyzed and concluded potentially significant impacts to the environmental topic areas of air quality from construction, energy, hazards and hazardous materials, noise, and solid and hazardous waste.

The Final Program EIR for the 2016 AQMP concluded that the implementation of all of the control measures in the 2016 AQMP would result in potentially significant impacts for the following environmental topic areas: aesthetics, air quality and greenhouse gas emissions, energy, hazards and hazardous materials, hydrology and water quality, noise, solid and hazardous waste, and transportation and traffic. Specific to the implementation of Control Measures MOB-02, the Final Program EIR for the 2016 AQMP analyzed and concluded potentially significant impacts to the environmental topic area of air quality from construction, energy, noise, and solid and hazardous waste.

Since PR 2306 implements control measures MOB-02A and MOB-02B of 2022 AQMP and Control Measure MOB-02 of 2016 AQMP without adding new or modifying the previously analyzed impacts for each environmental topic area, the overall conclusion of potentially significant impacts in the Final Program EIR for the 2022 AQMP and the Final Program EIR for the 2016 AQMP will remain unchanged if PR 2306 is implemented.

The following section summarizes the analyses of potentially significant impacts from the implementing Control Measures MOB-02A and MOB-02B of the 2022 AQMP and Control Measure MOB-02 of the 2016 AQMP, upon which PR 2306 relies, for the topics of air quality from construction, energy, hazards and hazardous materials, noise, and solid and hazardous waste. The significance criteria, potential impacts, applicable mitigation measures, and cumulative impacts will be discussed for each environmental topic area.

Air Quality from Construction

Implementing control measures from both the 2022 AQMP and 2016 AQMP is expected to decrease operational emissions of criteria pollutants over the long-term, resulting in a benefit to air quality. However, in order to realize this benefit, various types of construction activities will be necessary to implement most control measures including Control Measures MOB-02A and MOB-02B of the 2022 AQMP and Control Measure MOB-02 of the 2016 AQMP. However, construction is generally characterized as a temporary, short-term activity which will contribute to adverse air quality impacts. Potentially significant impacts to air quality from construction will be discussed in this section, while less than significant impacts to air quality from operation and

greenhouse gas (GHG) emissions will be discussed in a later section entitled “Environmental Topic Areas with Less than Significant or No Impacts.” The Final Program EIR for the 2022 AQMP considered and evaluated the construction and installation of infrastructure to support use of additional electricity and alternative fuels from Control Measures MOB-02A and MOB-02B. Similarly, the Final Program EIR for the 2016 AQMP evaluated construction impacts from Control Measure MOB-02 along with a suite of other control measures associated with installing infrastructure to provide support for new cleaner equipment or vehicles. The Final Program EIR for 2016 AQMP analyzed the potential air quality impacts from constructing infrastructure to provide support for new cleaner equipment or vehicles by focusing on the following key components: 1) development of baseline and future regional emission inventories for all quantifiable emissions sources in the Basin, as detailed in 2016 AQMP Appendix IV-A⁹⁸, which form the basis for understanding the magnitude of emissions associated with various construction phases; 2) assumption that all off-road equipment used in construction activities, including grading, paving, and the installation of air pollution control devices, contribute to construction emissions; 3) quantification of estimated emission from construction activities for each phase, including emissions from on-road vehicles transporting workers, vendors, and materials to and from construction sites; 4) comparison of estimated emissions from construction activities to established thresholds set by the South Coast AQMD to determine whether emissions are considered significant and could potentially lead to adverse localized air quality impacts; and 5) recognition that while emissions from individual construction projects at specific facilities may not exceed significance thresholds, concurrent, overlapping construction activities across multiple sites could exceed the significance thresholds. Based on the analysis, the Final Program EIR for the 2016 AQMP concluded significant construction air quality impacts and as such, identified and adopted mitigation measures to reduce construction emissions. These mitigation measures were designed to minimize the adverse environmental impacts while supporting the AQMP’s goal of achieving and maintaining compliance with the national and state ambient air quality standards across the region.

Significance Criteria

A threshold of significance is an identifiable quantitative, qualitative, or performance level of a particular environmental effect. Proposed projects that do not exceed the significance threshold for the effect under evaluation normally will be determined to be less than significant. Exceeding any significance threshold means the effect will normally be determined to be significant by the lead agency. [CEQA Guidelines Sections 15064(a) and (b)(2); Section 15064.7(a)].

To determine whether air quality and GHG emissions impacts from the 2022 AQMP and the 2016 AQMP were significant, the Final Program EIRs for the 2022 AQMP and 2016 AQMP estimated the potential emissions of criteria pollutants, toxic air contaminants, and GHGs and compared those estimates to the significance criteria in Table A-5.

⁹⁸ South Coast AQMD, Appendix IV-A for the 2016 Air Quality Management Plan; <https://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2016-air-quality-management-plan/final-2016-aqmp/appendix-iv-a.pdf>

Table A-5. South Coast AQMD Air Quality Significance Thresholds

Mass Daily Thresholds^(a)		
Pollutant	Construction	Operation
NOx	100 lb/day	55 lb/day
VOC	75 lb/day	55 lb/day
PM10	150 lb/day	150 lb/day
PM2.5	55 lb/day	55 lb/day
SOx	150 lb/day	150 lb/day
CO	550 lb/day	550 lb/day
Lead	3 lb/day	3 lb/day
Toxic Air Contaminants, 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 and Acute Hazard Index ≥ 1.0 (project increment)	
Odor	Project creates an odor nuisance pursuant to South Coast AQMD Rule 402	
GHG	10,000 MT/yr CO ₂ eq for industrial facilities	
Ambient Air Quality for Criteria Pollutants^(b)		
NO₂ 1-hour average annual arithmetic mean	South Coast AQMD is in attainment; project is significant if it causes or contributes to an exceedance of the following attainment standards: 0.18 ppm (state) 0.03 ppm (state) and 0.0534 ppm (federal)	
PM₁₀ 24-hour average annual average	10.4 $\mu\text{g}/\text{m}^3$ (construction) ^(c) and 2.5 $\mu\text{g}/\text{m}^3$ (operation) 1.0 $\mu\text{g}/\text{m}^3$	
PM_{2.5} 24-hour average	10.4 $\mu\text{g}/\text{m}^3$ (construction) ^(c) and 2.5 $\mu\text{g}/\text{m}^3$ (operation)	
SO₂ 1-hour average 24-hour average	0.25 ppm (state) and 0.075 ppm (federal – 99th percentile) 0.04 ppm (state)	
Sulfate 24-hour average	25 $\mu\text{g}/\text{m}^3$ (state)	
CO 1-hour average 8-hour average	South Coast AQMD 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 $\mu\text{g}/\text{m}^3$ (state) 0.15 $\mu\text{g}/\text{m}^3$ (federal)	

a) Source: South Coast AQMD CEQA Handbook (South Coast AQMD, 1993)

b) Ambient air quality thresholds for criteria pollutants based on South Coast AQMD Rule 1303, Table A-2 unless otherwise stated.

c) Ambient air quality threshold based on South Coast AQMD Rule 403.

KEY: lb/day = pounds per day ppm = parts per million $\mu\text{g}/\text{m}^3$ = microgram per cubic meter \geq = greater than or equal to
 MT/yr CO₂eq = metric tons per year of CO₂ equivalent $>$ = greater than

Revision: March 2023

*Air Quality Impacts from Construction*⁹⁹

The Final Program EIR for the 2022 AQMP considered that implementation of Control Measures MOB-02A and MOB-02B requires construction of infrastructure for fuel/energy producing facilities to be able to supply electricity, hydrogen, and natural gas for alternative-fueled off- and on-road vehicles and equipment (see Final Program EIR for the 2022 AQMP, Table 4.2-3). While the scope of what it would take to build the additional electricity generating equipment and alternative fuels production equipment at either existing or new facilities is unknown, emissions from major construction activities associated with capital improvement projects are typically greater and for a longer period of time than construction emissions resulting from the installation of air pollution control equipment. To illustrate potential overlapping construction activities on a peak day, the Final Program EIR for the 2022 AQMP presented a compilation of the estimated construction emissions typical of equipment replacement in residential and commercial settings, air pollution control equipment installations, with construction emission estimates for producing renewable or alternative fuels. While individually, most components of the construction activities would not have emissions exceeding the South Coast AQMD's air quality significance thresholds, it is foreseeable and likely that on any given day, construction activities associated with one or more new or existing air pollution control devices overlapping with other types of construction activities associated with producing alternative fuels in order to comply with the 2022 AQMP could occur at more than one facility. Based on the size of any single project, or if more than one facility were concurrently constructed on any given day, the emissions would exceed the South Coast AQMD's air quality significance thresholds. Therefore, construction emissions were considered potentially significant.

Because the construction air quality impacts from implementing the 2022 AQMP were concluded to be significant, feasible mitigation measures AQ-1 to AQ-26 for reducing impacts related to construction were adopted in the Final Program EIR for the 2022 AQMP, and these mitigation measures apply to Control Measures MOB-02A and MOB-02B, upon which PR 2306 relies (see pages 4.2-22 to 4.2-24 of the Final Program EIR for the 2022 AQMP). Even after mitigation measures AQ-1 to AQ-26 were applied, the Final Program EIR for the 2022 AQMP concluded that construction air quality impacts would remain significant.

The Final Program EIR for the 2016 AQMP considered that implementation of Control Measure MOB-02 had the potential to generate construction emission impacts from constructing infrastructure to provide support for new cleaner equipment or vehicles. The Final Program EIR for the 2016 AQMP analyzed a typical construction scenario of an air pollution control device at an existing facility which consisted of the following phases and associated on-road and off-road construction equipment:

- Grading/Site Preparation: Rubber Tired Dozers, Tractors/Loaders/Backhoes, Construction Workers' Vehicles, and Medium Duty Trucks
- Paving: Pavers, Cement/Mortar Mixers, Rollers, Construction Workers' Vehicles, and Medium Duty Trucks

⁹⁹ See Section 4.2.5.1 Criteria Pollutants – Construction Activities of the Final Program EIR for the 2022 AQMP and Section 4.1.6.1 Criteria Pollutants – Construction Activities of the Final Program EIR for the 2016 AQMP

- Installing/Constructing Air Pollution Control Device(s): Cranes, Forklifts, Tractors/Loaders/Backhoes, Construction Workers' Vehicles, and Medium Duty Trucks

Construction emissions were estimated for these various construction phases associated with the installation of air pollution control devices. In addition, criteria pollutant emissions were calculated for all on-road vehicles transporting workers, vendors, and material removal and delivery. The analysis assumed that each phase must be entirely completed before the next phase can commence such that there would be no overlap of construction phases for the construction of the new control devices. Table A-6, which is Table 4.1-3 Typical Peak Daily Construction Emissions for Control Devices in the Basin (lbs/day) from the Final Program EIR for the 2016 AQMP, summarizes the construction emissions that would be expected to occur as a result of installing one air pollution control device at one facility. Although the construction emissions at each individual facility might not exceed the South Coast AQMD's air quality significance thresholds, it was foreseeable and likely that on any given day, construction of one or more control devices in order to comply with the 2016 AQMP could occur at more than one facility. Based on the results in Table A-6, if more than four facilities or more than four control devices were concurrently constructed on any given day, the emissions would exceed the South Coast AQMD air quality significance thresholds. Therefore, construction emissions were considered significant.

Table A-6. Typical Peak Daily Construction Emissions for Control Devices in the Basin (lbs/day)

Source Category	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Grading/Site Preparation	2.7	25	11	0.0	3.9	1.6
Paving	0.2	12	8	0.01	0.7	0.7
Device Installation	3.4	30	15	0.0	1.4	1.3
Maximum Emissions (1 Facility)	3.4	30	15	0.01	3.9	1.6
Maximum Emissions (4 Facilities)	13.6	120	60	0.04	15.6	6.4
South Coast AQMD Air Quality Significance Thresholds	75	100	550	150	150	55
Significant? (YES/NO)	NO	YES	NO	NO	NO	NO

Because the analysis Final Program EIR for the 2016 AQMP concluded that the construction air quality were significant, feasible mitigation measures AQ-1 to AQ-23 for reducing impacts related to construction were adopted, and these mitigation measures are applicable to Control Measure MOB-02, upon which PR 2306 relies (see pp. 4.1-54 to 4.1-56 of the Final Program EIR for the 2016 AQMP). Even after mitigation measures AQ-1 to AQ-23 were applied, the Final Program EIR for the 2016 AQMP concluded that construction air quality impacts would remain significant.

Mitigation Measures Adopted in the Final Program EIRs for the 2022 AQMP and 2016 AQMP for Construction Air Quality¹⁰⁰

Mitigation measures AQ-1 to AQ-26 of the Final Program EIR for the 2022 AQMP and mitigation measures AQ-1 to AQ-23 of the Final Program EIR for the 2016 AQMP are presented side-by-

¹⁰⁰ See Section 4.2.5.1 Criteria Pollutants – Construction Activities of the Final Program EIR for the 2022 AQMP and Section 4.7.1 Mitigation Measures of the Final Program EIR for the 2016 AQMP

side in Table A-7. Because the analysis conducted in the Final Program EIR for the 2022 AQMP reflects the most recent best practices, owners and operators of equipment required to mitigate air quality impacts from construction are recommended to utilize the mitigation measures of the Final Program EIR for the 2022 AQMP in the event of a conflict between mitigation measures that would apply in a given situation.

Table A-7. Mitigation Measures Adopted in the Final Program EIRs for the 2022 AQMP and 2016 AQMP for Construction Air Quality

2022 AQMP	2016 AQMP
<p>AQ-1 Develop a Construction Emission Management Plan to minimize emissions from vehicles including, but not limited to: consolidating truck deliveries so as to minimize the number of trucks on a peak day; scheduling deliveries to avoid peak hour traffic conditions; describing truck routing; describing deliveries including logging delivery times; describing entry/exit points; identifying locations of parking; identifying construction schedule; and prohibiting truck idling in excess of five consecutive minutes or another time-frame as allowed by the California Code of Regulations, Title 13 Section 2485 – CARB’s Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling. The Construction Emission Management Plan shall be submitted to South Coast AQMD – PRDI/CEQA for approval prior to the start of construction. At a minimum, the Construction Emission Management Plan would include the following types of mitigation measures and Best Management Practices.</p> <p>AQ-2 Tune and maintain all construction equipment to be in compliance with the manufacturer’s recommended maintenance schedule and specifications that optimize emissions without nullifying engine warranties. All maintenance records for each equipment and their construction contractor(s) shall be made available for inspection and remain onsite for a period of at least two years from completion of construction.</p>	<p>AQ-1 During construction, require the use of 2010 and newer diesel haul trucks (e.g., material delivery trucks and soil import/export). If the Lead Agency determines that 2010 model year or newer diesel trucks cannot be obtained, the Lead Agency shall instead require the use of trucks that meet EPA 2007 model year NOx emissions requirements.</p> <p>AQ-2 Require all on-site construction equipment to meet the following:</p> <ul style="list-style-type: none"> - All off-road diesel-powered construction equipment greater than 50 hp shall meet the Tier 4 emission standards, where available. In addition, all construction equipment shall be outfitted with BACT devices certified by CARB. Any emissions control device used by the contractor shall achieve emissions reductions that are no less than what could be achieved by a Level 3 diesel emissions control strategy for a similarly sized engine as defined by CARB regulations. - A copy of each unit’s certified tier specification, BACT documentation, and CARB or SCAQMD operating permit shall be provided at the time of mobilization of each applicable unit of equipment. - Encourage construction contractors to apply for SCAQMD “SOON” funding incentives. The “SOON” program provides funds to accelerate the cleanup of off-road diesel vehicles, such as heavy-duty construction equipment. More information on this program can be found at the following website:

Table A-7. Mitigation Measures Adopted in the Final Program EIRs for the 2022 AQMP and 2016 AQMP for Construction Air Quality

2022 AQMP	2016 AQMP
<p>AQ-3 Survey and document the construction areas and identify all construction areas that are served by electricity. Onsite electricity, rather than temporary power generators, shall be used in all construction areas that are demonstrated to be served by electricity. This documentation shall be provided as part of the Construction Emissions Management Plan.</p> <p>AQ-4 Require the use of electric or alternative-fueled (i.e., renewable combustion fuels and hydrogen) construction equipment, if available, including but not limited to, concrete/industrial saws, pumps, aerial lifts, material hoist, air compressors, forklifts, excavator, wheel loader, and soil compactors.</p> <p>AQ-5 Require all off-road diesel-powered construction equipment rated greater than 50 hp to meet Tier-4 off-road emission standards at a minimum. In addition, if not already supplied with a factory-equipped diesel particulate filter, all construction equipment shall be outfitted with Best Available Control Technology (BACT) devices certified by CARB. Any emissions control device used by the contractor shall achieve emissions reductions that are no less than what could be achieved by a Level 3 diesel emissions control strategy for a similarly sized engine as defined by CARB regulations. Construction equipment shall incorporate, where feasible, emissions-reducing technology such as hybrid drives and specific fuel economy standards. In the event that any equipment required under this mitigation measure is not available, the project</p>	<p>http://www.aqmd.gov/tao/Implementation/SOONProgram.htm.</p> <p>AQ-3 Prohibit vehicles and construction equipment from idling longer than five minutes at the construction site by including these restrictions in the construction company contract(s) and by posting signs on-site, unless the exceptions in the CARB regulations which pertain to idling requirements are applicable.</p> <p>AQ-4 All on-road heavy-duty diesel trucks or equipment with a gross vehicle weight rating (GVWR) of 19,500 pounds or greater shall comply with EPA 2007 on-road emission standards for PM and NOx (0.01 gram per brake horsepower – hour (g/bhp-hr) and at least 0.2 g/bhp-hr, respectively).</p> <p>AQ-5 Maintain construction equipment tuned up and with two to four-degree retard diesel engine timing or tuned to manufacturer’s recommended specifications that optimize emissions without nullifying engine warranties.</p> <p>AQ-6 The project proponent shall survey and document the proposed project’s construction areas and identify all construction areas that are served by electricity. Onsite electricity, rather than temporary power generators, shall be used in all construction areas that are demonstrated to be served by electricity.</p> <p>AQ-7 Provide temporary traffic controls such as a flag person, during all phases of significant construction activity to maintain smooth traffic flow.</p>

Table A-7. Mitigation Measures Adopted in the Final Program EIRs for the 2022 AQMP and 2016 AQMP for Construction Air Quality

2022 AQMP	2016 AQMP
<p>proponent shall provide documentation in the Construction Emissions Management Plan or associated subsequent status reports as information becomes available.</p> <p>AQ-6 Require the use of zero-emission (ZE) or near-zero emission (NZE) on-road haul trucks such as heavy-duty trucks with natural gas engines that meet CARB’S adopted optional NO_x emissions standard.</p> <p>AQ-7 Provide electric vehicle (EV) charging stations or at a minimum, provide the electrical infrastructure and electrical panels which shall be appropriately sized. Electrical hookups should be provided for trucks to plug in any onboard auxiliary equipment.</p> <p>AQ-8 Provide temporary traffic controls such as a flag person, during all phases of significant construction activity to maintain smooth traffic flow, where necessary.</p> <p>AQ-9 Provide dedicated turn lanes for the movement of construction trucks and equipment on- and off-site, where applicable.</p> <p>AQ-10 Clearly identify truck routes with trailblazer signs to guide and ensure that the route shall avoid congested streets and sensitive land uses (e.g., residences, schools, day care centers, etc.), where applicable.</p>	<p>AQ-8 Provide dedicated turn lanes for the movement of construction trucks and equipment on- and off-site.</p> <p>AQ-9 Re-route construction trucks away from congested streets or sensitive receptor areas.</p> <p>AQ-10 Improve traffic flow by signal synchronization.</p> <p>AQ-11 Reduce traffic speeds on all unpaved roads to 15 mph or less.</p> <p>AQ-12 Prohibit truck idling in excess of five minutes, on- and off-site.</p> <p>AQ-13 Schedule construction activities that affect traffic flow on the arterial system to off-peak hours to the extent practicable.</p> <p>AQ-14 Suspend all excavating and grading operations when wind speeds (as instantaneous gusts) exceed 25 mph.</p> <p>AQ-15 Suspend all construction activities that generate air pollutant emissions during first stage Smog alerts.</p> <p>AQ-16 Configure construction parking to minimize traffic interference.</p> <p>AQ-17 Use alternative clean fueled off-road equipment or give extra points in the bidding process for contractors committing to use such equipment.</p> <p>AQ-18 Require covering of all trucks hauling dirt, sand, soil, or other loose materials.</p>

Table A-7. Mitigation Measures Adopted in the Final Program EIRs for the 2022 AQMP and 2016 AQMP for Construction Air Quality

2022 AQMP	2016 AQMP
<p>AQ-11 Improve traffic flow by signal synchronization, where applicable and ensure that check-in point for trucks is inside the project site.</p> <p>AQ-12 Ensure that vehicle traffic inside the project site is as far away as feasible from sensitive receptors.</p> <p>AQ-13 Restrict overnight truck parking in sensitive land uses by providing overnight truck parking inside the project site.</p> <p>AQ-14 Design the project such that truck entrances and exits are not facing sensitive receptors and trucks will not travel past sensitive land uses to enter or leave the project site.</p> <p>AQ-15 Reduce traffic speeds on all unpaved roads to 15 miles per hour (mph) or less.</p> <p>AQ-16 Prohibit truck idling in excess of five minutes, on- and off-site.</p> <p>AQ-17 Schedule construction activities that affect traffic flow on the arterial system to off-peak hours to the extent practicable.</p> <p>AQ-18 Suspend all excavating and grading operations when wind speeds (as instantaneous gusts) exceed 25 mph.</p> <p>AQ-19 Suspend use of all construction activities that generate air pollutant emissions during first stage smog alerts.</p> <p>AQ-20 Configure construction parking to minimize traffic interference.</p>	<p>AQ-19 Install wheel washers where vehicles enter and exit the construction site onto paved roads or wash off trucks and any equipment leaving the site for each trip.</p> <p>AQ-20 Apply non-toxic soil stabilizers according to manufacturers’ specifications to all inactive construction areas (previously graded areas inactive for ten days or more).</p> <p>AQ-21 Replace ground cover in disturbed areas as quickly as possible to minimize dust.</p> <p>AQ-22 Pave road and road shoulders.</p> <p>AQ-23 Sweep streets at the end of the day with SCAQMD Rule 1186 and 1186.1 compliant sweepers if visible soil is carried</p>

Table A-7. Mitigation Measures Adopted in the Final Program EIRs for the 2022 AQMP and 2016 AQMP for Construction Air Quality

2022 AQMP	2016 AQMP
<p>AQ-21 Require covering of all trucks hauling dirt, sand, soil, or other loose materials.</p> <p>AQ-22 Install wheel washers where vehicles enter and exit the construction site onto paved roads or wash off trucks and any equipment leaving the site for each trip.</p> <p>AQ-23 Apply non-toxic soil stabilizers according to manufacturers’ specifications to all inactive construction areas (previously graded areas inactive for ten days or more).</p> <p>AQ-24 Replace ground cover in disturbed areas as quickly as possible to minimize dust.</p> <p>AQ-25 Pave road and road shoulders, where applicable.</p> <p>AQ-26 Sweep streets at the end of the day with sweepers compliant with South Coast AQMD Rules 1186 and 1186.1 if visible soil is carried onto adjacent public paved roads (recommend water sweepers that utilize reclaimed water).</p>	

*Cumulative Impacts*¹⁰¹

The Final Program EIR for the 2022 AQMP concluded that implementation of the 2022 AQMP control measures could result in significant adverse air quality impacts during construction because it is foreseeable and likely that on any given day, construction activities associated with one or more new or existing air pollution control devices overlapping with other types of construction activities associated with producing alternative fuels in order to comply with the 2022 AQMP could occur at more than one facility, and based on the size of any single project, or if more than one facility were concurrently constructed on any given day, the emissions would exceed the South Coast AQMD's air quality significance thresholds. When combined with past, present, and reasonably foreseeable activities, in particular with transportation projects projected in the Southern California Association of Governments (SCAG) Connect SoCal Plan¹⁰² and the CARB 2022 State SIP Strategy¹⁰³, the 2022 AQMP would contribute to cumulatively considerable impacts to air quality related to criteria pollutant emissions during construction, a significant, unavoidable cumulative impact. No additional mitigation measures to reduce the significant cumulative impacts to air quality from construction were identified. Cumulative impacts to air quality from construction for past, present, and reasonably foreseeable future projects would remain significant and unavoidable.

The Final Program EIR for 2016 AQMP concluded that implementation of the 2016 AQMP control measures would result in significant adverse air quality impacts during construction because it is foreseeable and likely that on any given day, construction of one or more control devices in order to comply with the 2016 AQMP could occur at more than one facility, and if more than four facilities or more than four control devices were concurrently constructed on any given day, the emissions would exceed the South Coast AQMD's air quality significance thresholds. The 2016 AQMP control measures would result in significant adverse air quality impacts during construction and, when combined with past, present, and reasonably foreseeable activities, and in particular with transportation projects projected in the 2016 Regional Transportation Plan/Sustainable Communities Strategy (2016 RTP/SCS)¹⁰⁴, would contribute to cumulatively considerable impacts to air quality impacts during construction identified in the 2016 RTP/SCS, therefore resulting in a significant cumulative impact. No additional mitigation measures to reduce the significant cumulative impacts to air quality impacts during construction were identified. Cumulative impacts to air quality impacts during construction from implementation of the 2016 AQMP would remain significant and unavoidable.

¹⁰¹ See Section 4.2.7 Cumulative Air Quality and GHG Emissions Impacts and Mitigation Measures of the Final Program EIR for the 2022 AQMP and Section 5.4.1 Cumulative Impacts of the Final Program EIR for the 2016 AQMP

¹⁰² Southern California Association of Governments, Connect SoCal (2020–2045 Regional Transportation Plan/Sustainable Communities Strategy), May 2020. <https://scag.ca.gov/read-plan-adopted-final-connect-social-2020>

¹⁰³ California Air Resources Board, 2022 State Strategy for the State Implementation Plan (2022 State SIP Strategy), 6. <https://ww2.arb.ca.gov/resources/documents/2022-state-strategy-state-implementation-plan-2022-state-sip-strategy>

¹⁰⁴ SCAG, The 2016-2040 Regional Transportation Plan/ Sustainable Communities Strategy, April 2016, <https://scag.ca.gov/sites/main/files/file-attachments/f2016rtpscs.pdf>.

Summary of Construction Air Quality Analyses

Table A-8 presents a summary of the construction air quality analyses conducted in the Final Program EIRs for the 2022 AQMP and 2016 AQMP.

Table A-8. Summary of Air Quality from Construction Analyses in the Final Program EIRs for the 2022 AQMP and 2016 AQMP

Significance Criteria	Potentially Significant Impacts	Adopted Mitigation Measures	Cumulative Impacts
<p>Air Quality impacts are significant if any of the following conditions occur:</p> <ul style="list-style-type: none"> • A project and/or projects that exceed(s) significance threshold identified by the lead agency. <hr/> <ul style="list-style-type: none"> - <i>Air Quality impacts are considered significant under specific conditions.</i> - <i>Significance is determined by exceeding identified quantitative, qualitative, or performance thresholds for environmental effects.</i> - <i>Projects that have emissions less than these thresholds are typically deemed less than significant.</i> - <i>The evaluation of air quality and GHG emissions impact compares estimated emissions to air quality significance thresholds in Table A-5.</i> 	<p>Implementation of Control Measures MOB-02A and MOB-02B of 2022 AQMP and Control Measure MOB-02 of 2016 AQMP would cause potentially significant air quality impacts from:</p> <ul style="list-style-type: none"> • Construction of infrastructure for zero-emission technologies and electricity, and support for new cleaner equipment or vehicles, • Increase in electricity demand due to increased usage of zero-emission technologies installed at the rail yards, • Installation of air pollution devices at the rail yards, and • Increase in natural gas demand to produce electricity 	<ul style="list-style-type: none"> • AQ-1 to AQ-26 of the Final Program EIR for the 2022 AQMP; and • AQ-1 to AQ-23 of the Final Program EIR for the 2016 AQMP 	<p>Cumulative impacts to air quality for past, present, and reasonably foreseeable future projects would remain significant and unavoidable for criteria pollutant emissions during construction.</p>

Energy

Both the Final Program EIR for the 2022 AQMP and the Final Program EIR for the 2016 AQMP identified the following physical changes associated with implementation of Control Measures MOB-02A and MOB-02B of 2022 AQMP and Control Measure MOB-02 of 2016 AQMP, upon which PR 2306 relies, to cause potential adverse energy impacts: 1) increase in electricity demand due to increased usage of zero-emission technologies, 2) increase in natural gas demand to produce electricity, and 3) increased production and use of alternative fuels (e.g. hydrogen).

Significance Criteria

Energy impacts are significant if any of the following conditions occur:

- 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 energy resources in a wasteful and/or inefficient manner.

Energy Impacts from Electricity Demand¹⁰⁵

The Final Program EIR for the 2022 AQMP analyzed potential increases in electricity demand according to the types of sources, and Control Measures MOB-02A and MOB-02B, which seek to identify actions that will result in additional emission reductions at rail yards and intermodal facilities, were grouped with other mobile sources. Table A-9 is a subset of Table 4.3-3 Potential Electricity Use for Mobile Sources Relying on Incentive Programs, from the Final Program EIR for the 2022 AQMP, and illustrates that the vehicles affected by Control Measures MOB-02A and MOB-02B contribute to an estimated increase of Basin-wide annual electricity use by approximately 160.5 gigawatt-hours (GWh) per year.

Table A-9. Potential Electricity Use for Mobile Sources Relying on Incentive Programs Related to Control Measures MOB-02A and MOB-02B

Mobile Source Sector	Project Type	Affected Population	Electricity Rate	Potential Electricity Use (GWh/year)
Heavy-Duty Vehicles	Replacement	8,214	1 kWh/mile at 16,600 miles/year	136.4
Off-Road Construction	Repower	656	1 kWh/mile at 16,600 miles/year	10.9
Off-Road Construction	Replacement	365	1 kWh/mile at 16,600 miles/year	6.1
Other Off-Road and CHE	Replacement	428	1 kWh/mile at 16,600 miles/year	7.1
Total				160.5

Key: kWh = kilowatt-hour; GWh = gigawatt-hour

The Final Program EIR for the 2022 AQMP considered Basin-wide electricity use as a basis for analyzing the potential energy impacts due to electricity demand. Statewide electricity consumption was more than 279,000 GWh in 2020, with approximately 118,200 GWh (42 percent) in the South Coast Air Basin. [California Energy Commission (CEC), 2021]. CEC estimated an

¹⁰⁵ See Section 4.3.3.2 Electricity of the Final Program EIR for the 2022 AQMP and Section 4.2.4.1 Electricity of the Final Program EIR for the 2016 AQMP

increase in electricity demand of about 1.6 percent annually through 2035. [CEC, 2021]. By applying that growth rate, the total electricity use in California would be approximately 354,000 GWh by 2035. Approximately 150,000 GWh (42 percent) of that would be within the South Coast Air Basin (assuming the percentage attributed to the South Coast Air Basin remains the same). The 2022 AQMP control measures would then increase the electricity demand by an additional estimated 13,429 GWh (approximately 11 percent over 2020 consumption and nine percent over the CEC projected growth) and this amount does not take into account the electricity that may be needed to operate additional air pollution control equipment or to convert combustion equipment to fully electric. Thus, the overall potential increase in electricity demand could be higher.

In order for utilities to be able to provide sufficient electricity to meet future demands, the use of additional energy storage systems (e.g., battery arrays) is also a key component for being able to store electricity at the time when resources are available (e.g., when the sun shines and the wind blows), and to use that stored electricity at a later time. Further, the analysis in the Final Program EIR for the 2022 AQMP conservatively assumed that all sources affected by a control measure with the potential to increase demand for electricity, would use electricity rather than other forms of energy. In addition, any increase in electricity demand would likely result in a concurrent reduction in demand for other types of fuels, particularly petroleum fuels. Because the control measures in the 2022 AQMP were developed with the goal of attaining the federal ozone standard, the successful implementation of some of the control measures relied on the use of electricity in order to reduce NO_x emissions, an overall air quality benefit for the region. Therefore, the 2022 AQMP was expected to result in a substantial depletion of existing energy (specifically electricity) resource supplies.

Even with energy conservation programs in effect in California, additional electricity would be needed, and power plants would be required to supply the projected increase in electricity demand and general population growth. While increased demand for electricity would occur due to general population growth, additional increases in electricity demand beyond general population growth would be expected if all of the control measures in the 2022 AQMP were implemented. The implementation of all the control measures was expected to result in an overall increase of greater than the approximately 11 percent of the existing electricity use for residential, commercial, and mobile sources. This increase, along with the increases in electricity associated with other state programs and mandates, was expected to exceed the electrical generating capacity of the system. Thus, the electricity demand impacts from implementing the 2022 AQMP were concluded in the Final Program EIR to be significant.

Because the energy impacts from implementing the 2022 AQMP were expected to be significant for electricity demand, feasible mitigation measures E-1 to E-12 for reducing impacts related to potential electricity demand were adopted in the Final Program EIR for the 2022 AQMP (see pp. 4.3-21 to 4.3-22 of the Final Program EIR for the 2022 AQMP). Even after mitigation measures E-1 to E-12 were applied, electricity demand impacts would remain significant.

The Final Program EIR for the 2016 AQMP similarly anticipated that the mobile source control measures in the 2016 AQMP would increase the electricity demand in the Basin, and the analysis relied on Basin-wide electricity use to evaluate the potential energy impacts from electricity demand. The anticipated shift of cars, trucks, off-road vehicles, and marine vessels from gasoline and diesel fuels to electricity was projected to create an additional electrical load demand.

At the time of developing the 2016 AQMP, the estimated baseline electricity use in 2014 (the baseline year relied upon for the analysis) in Los Angeles, Orange, Riverside, and San Bernardino counties was about 120,960 GWh [CEC, 2016h, see Table 3.3-1 of the Final Program EIR for the 2016 AQMP] The Final Program EIR for the 2016 AQMP concluded that the amount of electricity that would be needed to charge vehicles represented a relatively small portion of the overall electricity used (about 1 percent) in the four counties. At the time, the CEC estimated an increase in electricity demand of about 1 to 1.3 percent per year through 2026 [CEC, 2016k]. Based on that growth rate, the total projected electricity use was projected to be approximately 135,475 to 140,000 GWh by 2024 and approximately 141,532 to 147,692 GWh by 2031. As explained earlier in this section, a similar analysis and calculations which relied on more recent baseline data and growth factors were conducted in the Final Program EIR for the 2022 AQMP and those estimates supersede the estimates contained in the Final Program EIR for the 2016 AQMP.

Relative to the existing electricity use and the projected future peak electricity demand, implementation of all the control measures was expected to result in an overall increase of 7.86 percent of the existing electricity use by 2024 and 12.7 percent of the existing electricity use by 2031. While these projected increases were expected to be within the electric generating capacity of the region at the time the analysis of the 2016 AQMP was conducted, an increase in electricity of one percent or greater is considered to exceed the South Coast AQMD's energy significance threshold. Further, there was potential for electrical requirements for other control measures for which the electrical demand could not be estimated at the time of the 2016 AQMP. Thus, the energy impacts resulting from potential increases in electricity demand as part of implementing the 2016 AQMP were concluded to be significant.

The peak daily demands for increased electricity associated with further electrification of mobile sources and the energy impacts could be minimized by charging electric vehicles or other equipment at night when the electricity demand is low. Further, the analysis assumed that all sources affected by a control measure with the potential to increase the demand for electricity and would use electricity rather than substituting other types of energy. In addition, any increase in electricity demand would likely result in a concurrent reduction in demand for other types of fuels, particularly petroleum-based fuels. The 2016 AQMP was not expected to result in the use of large amounts of fuel or energy resources or result in the use of fuel or energy resources in a wasteful manner. However, the 2016 AQMP included incentives to shift from using diesel and gasoline fuels to increasing the electrification of stationary and mobile sources. Depending on the location and the amount of energy needed, the electricity portions of existing energy conservation plans that have been adopted by facilities would need to be updated. Therefore, the 2016 AQMP was determined to potentially conflict with existing adopted energy conservation plans. Because the 2016 AQMP could result in a substantial increase in electricity demand at a level greater than one percent of the existing electricity use in the Basin, the projected increases to electricity demand were concluded to be potentially significant.

Because the electricity demand impacts from implementing the 2016 AQMP were concluded to be significant, feasible mitigation measures E-1 to E-7 for reducing these impacts were adopted in the Final Program EIR for the 2016 AQMP (see page 4.2-24 of the Final Program EIR for the 2016 AQMP). Even after mitigation measures E-1 to E-7 were applied, the electricity demand impacts would remain significant.

*Energy Impacts from Natural Gas Demand*¹⁰⁶

Control measures in the 2022 AQMP were expected to result in an increase in demand for natural gas primarily associated with the production of electricity in the short term. While the electrical grid needs to generate electricity that is comprised of 100 percent renewable energy by 2045 per Senate Bill 100 (SB 100, De León)¹⁰⁷ (and short-term natural gas usage for the production of electricity will cease), additional sources of electricity would be required in order to meet the 2035 goals of the 2022 AQMP.

There are critical interdependencies between electricity and the natural gas system reliability in California. Natural gas-fired electricity generation has been an integral part of the electricity system, providing baseload power. It has also served as the backstop during drought conditions that reduce the availability of hydroelectric power generation. The role of natural gas-fired electricity generation in the electricity system is shifting with the addition of large amounts of renewable generation, primarily solar and wind. The large influx of renewable energy on the grid has reduced natural gas produced electricity from 53 percent of total electric generation in 2010 to 48 percent in 2020. Renewables have displaced a portion of daytime generation previously provided by natural gas, but the intermittency of solar and wind resources necessitates flexible resources that can quickly come on-line when the sun sets, or winds stop blowing. [CEC, 2021].

Some of the control measures in the 2022 AQMP may result in an increase in the use of natural gas in medium- and heavy-duty on road vehicles. Expanded use of alternative fuels in medium-duty and heavy-duty trucks using more efficient, advanced natural gas engine technologies would be expected to reduce the use of diesel fuel. Natural gas-fired medium- and heavy-duty vehicles are an attractive option to diesel-fueled vehicles because they emit fewer criteria pollutants and toxic components without emitting diesel PM.

Ultimately, as natural gas is and continues to be generally widely available, natural gas supplies are not expected to be limited as a result of implementing the 2022 AQMP. The combined increase in natural gas demand needed for producing electricity and hydrogen and for fueling vehicles could be somewhat offset over the long-term by a decrease in demand for natural gas appliances in commercial and residential setting. However, over the short-term, the natural gas demand is expected to increase. Based upon these considerations, significant adverse energy impacts relating to natural gas demand were expected from implementing the 2022 AQMP.

Because the natural gas demand impacts from implementing the 2022 AQMP were concluded to be significant, feasible mitigation measures E-8 to E-9 for reducing these impacts were adopted in the Final Program EIR for the 2022 AQMP (see page 4.3-26 of the Final Program EIR for the 2022 AQMP). Even after mitigation measures E-8 and E-9 were applied, natural gas demand impacts would remain significant.

The Final Program EIR for the 2016 AQMP similarly projected that the control measures in the 2016 AQMP would increase the natural gas demand in the Basin. Specifically, the mobile source control measures were seen as having the potential for encouraging the use of natural gas as a fuel to offset the use of petroleum fuels while the projected increased demand for electricity would

¹⁰⁶ See Section 4.3.3.3 Natural Gas of the Final Program EIR for the 2022 AQMP and Section 4.2.4.2 Natural Gas of the Final Program EIR for the 2016 AQMP

¹⁰⁷ Senate Bill 100, https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=201720180SB100.

also require additional natural gas since most of the power plants in California generate electricity from equipment that uses natural gas. However, the Final Program EIR for the 2016 AQMP noted that natural gas supplies were abundant as a result of technological innovations, and the natural gas outlook, which in 2007 predicted that 700 trillion cubic feet of natural gas would be economically recoverable, was increased to nearly 1,400 trillion cubic feet of natural gas, a 100 percent increase [CEC, 2013]. Therefore, the Final Program EIR for the 2016 AQMP concluded that implementation of the 2016 AQMP would have a less than significant impact to energy from natural gas demand. Because the natural gas demand impacts were concluded to be less than significant, mitigation measures were not required or adopted.

*Energy Impacts from Hydrogen Demand*¹⁰⁸

Both the Final Program EIRs for the 2022 AQMP and 2016 AQMP considered a Basin-wide shift from conventional petroleum fuels to alternative fuels: electricity, natural gas, biodiesel and renewable diesel, ethanol and ethanol blends, hydrogen, propane, methanol, and renewable energy. While PR 2306 does not specify or require particular alternative fuels to be used, electricity and hydrogen are expected to be the primary choices for zero emission options. The topic of electricity was previously discussed in this Appendix, so the following section summarizes the analysis conducted in the Final Program EIRs for the 2022 AQMP and 2016 AQMP relative to hydrogen.

There is growing interest and financial support for the use of hydrogen-powered fuel cells to power cars, trucks, homes, and businesses. As opposed to alternative fuel vehicles which burn fuel in a combustion engine to produce usable energy, a hydrogen fuel cell electric vehicle (FCEV) relies on an electrochemical reaction between hydrogen (from the fuel tank) and oxygen to produce useful electrical energy along with water and heat as waste products. Current hydrogen vehicles in California consist of demonstration fuel cell passenger cars, internal combustion engine passenger cars, fuel cell buses, and hybrid fuel cell buses. Despite continuing improvements in performance and fuel cell system durability, challenges remain for broad commercialization of FCEV technology. These include system integration and optimization, and access to and price of hydrogen fuel (a big hurdle to the use of fuel cell vehicle adoption). [CEC, 2021].

The deployment of both FCEVs and the associated hydrogen fueling infrastructure is mainly for commercial applications in California, with a growing commercial deployment. As such, hydrogen fueling for transportation vehicles is not widely offered for retail sale. Executive Order B-48-18 requires the development of 200 hydrogen stations in California by 2025.¹⁰⁹ At the time the 2022 AQMP was developed, there were 55 public and private hydrogen fueling stations operating in the United States and only 10 of these offered public fueling. There were 23 hydrogen fueling stations operating in California, with nine accessible to the public. However, there are ongoing CEC-funded projects which increased the total number of publicly available hydrogen stations in California to 54 which will help support the deployment of FCEVs in urban retail markets. CEC expects that hydrogen infrastructure will first be deployed in a few select urban markets, and then phased into a wider set of strategic urban areas before it is expanded into a nationwide network. [CEC, 2021c]. The California Fuel Cell Partnership provides an on-line hydrogen fuel station map

¹⁰⁸ See Section 4.3.3.5.4 Hydrogen of the Final Program EIR for the 2022 AQMP and Section 4.2.4.4.3 Hydrogen of the Final Program EIR for the 2016 AQMP

¹⁰⁹ Executive Order B-48-18, <https://www.library.ca.gov/wp-content/uploads/GovernmentPublications/executive-order-proclamation/39-B-48-18.pdf>

(<https://cafcfp.org/stationmap>) which shows the status of fueling locations as open, off-line, under construction, in-process for permitting, or planned. Data from the CEC’s website currently show that 30 publicly available hydrogen fueling stations are open in the South Coast Air Basin with 18 in Los Angeles County, 11 in Orange County, one in Riverside County and none in San Bernardino County.¹¹⁰ However, data pertaining to the amount of hydrogen available at each location is not available. Hydrogen suppliers are expected to include major oil companies that currently provide gasoline fuel to retail stations, many of which also operate hydrogen plants to produce hydrogen as a transportation fuel. However, existing hydrogen plants currently operate at full capacity, largely to produce petroleum fuels. Therefore, additional hydrogen would need to be produced to support the use of hydrogen as an alternative fuel.

One goal of the 2022 AQMP was to shift from conventional petroleum fuels to low NOx or zero emission technologies, including hydrogen. The 2022 AQMP does not mandate hydrogen fuel use by fleet operators, and further technology demonstration and deployment of hydrogen vehicles larger than passenger cars (i.e., medium- and heavy-duty vehicles) is still needed. The hybrid and electric vehicle technologies and deployment are much further developed than the hydrogen fuel cell vehicles for industrial and commercial uses (i.e., heavy-duty truck uses). Therefore, early advancement of light-duty FCEVs along with the further development of heavy-duty FCEVs is expected to increase hydrogen demand for mobile sources. Little excess capacity is available to meet the increase in hydrogen demand and additional production facilities will be necessary. Thus, the increased demand for hydrogen fuel was concluded to have significant impacts.

Because the hydrogen demand impacts from implementing the 2022 AQMP were concluded to be significant, the Final Program EIR for the 2022 AQMP adopted feasible mitigation measures E-10 to E-12 for reducing energy impacts related to hydrogen demand (see page 4.3-33 of the Final Program EIR for the 2022 AQMP). Even after mitigation measures E-10 to E-12 are applied, the hydrogen demand impacts would remain significant.

The Final Program EIR for the 2016 AQMP similarly analyzed the growing interest and support for the use of hydrogen-powered fuel cells. However, at the time of adoption of the 2016 AQMP, the development and market deployment of hybrid and electric vehicles was much further along than for hydrogen fuel cell vehicles such that projected hydrogen demand was not expected to require additional hydrogen capacity. Therefore, the Final Program EIR for the 2016 AQMP concluded that implementation of the 2016 AQMP would have less than significant energy impacts relative to hydrogen demand. Since the hydrogen demand impacts were concluded to be less than significant, mitigation measures were not required or adopted.

Mitigation Measures Adopted in the Final Program EIRs for the 2022 AQMP and 2016 AQMP for Energy Impacts¹¹¹

Mitigation measures E-1 to E-12 of the Final Program EIR for the 2022 AQMP and mitigation measures E-1 to E-7 of the Final Program EIR for the 2016 AQMP are presented side-by-side in Table A-10. Because the analysis conducted for the Final Program EIR for the 2022 AQMP reflects

¹¹⁰ CEC, Hydrogen Refueling Stations in California, <https://www.energy.ca.gov/data-reports/energy-almanac/zero-emission-vehicle-and-infrastructure-statistics-collection/hydrogen>, data last updated May 23, 2024, website accessed June 27, 2024.

¹¹¹ See Section 4.3.3 Potential Energy Impacts and Mitigation Measures of the Final Program EIR for the 2022 AQMP and Section 4.2.5 Mitigation Measures of the Final Program EIR for the 2016 AQMP

the most recent best practices, owners and operators of equipment required to mitigate energy impacts are recommended to utilize the mitigation measures of the Final Program EIR for the 2022 AQMP in the event of a conflict between mitigation measures that would apply in a given situation.

Table A-10. Mitigation Measures Adopted in the Final Program EIRs for the 2022 AQMP and 2016 AQMP for Energy

2022 AQMP	2016 AQMP
<p>E-1 Project sponsors should pursue incentives to encourage the use of energy efficient equipment and vehicles and promote energy conservation during electricity generation.</p> <p>E-2 Utilities should increase capacity of existing transmission lines to meet forecast demand that supports sustainable growth where feasible and appropriate in coordination with local planning agencies.</p> <p>E-3 Project sponsors should submit projected electricity calculations to the local electricity provider for any project anticipated to require substantial electricity consumption. Any infrastructure improvements necessary should be completed according to the specifications of the electricity provider.</p> <p>E-4 Project sponsors should include energy analyses in environmental documentation with the goal of conserving energy through the wise and efficient use of energy.</p> <p>E-5 Project sponsors should evaluate the potential for reducing peak energy demand by encouraging charging of electrical vehicles and other mobile sources during off-peak hours.</p>	<p>E-1 Project sponsors should pursue incentives to encourage the use of energy efficient equipment and vehicles and promote energy conservation.</p> <p>E-2 Utilities should increase the capacity of existing transmission lines to meet forecast demand that supports sustainable growth, where feasible and appropriate, in coordination with local planning agencies.</p> <p>E-3 Project sponsors should submit projected electricity calculations to the local electricity provider for any project anticipated to require substantial electricity consumption. Any infrastructure improvements necessary should be completed according to the specifications of the electricity provider.</p> <p>E-4 Project sponsors should include energy analyses in environmental documentation (e.g., CEQA document) with the goal of conserving energy through the wise and efficient use of energy.</p> <p>E-5 Project sponsors should evaluate the potential for reducing peak energy demand by encouraging the charging of electrical vehicles and other mobile sources during off-peak hours.</p>

Table A-10. Mitigation Measures Adopted in the Final Program EIRs for the 2022 AQMP and 2016 AQMP for Energy

2022 AQMP	2016 AQMP
<p>E-6 Project sponsors should evaluate the potential for reducing peak energy demand by encouraging the use of catenary or way-side electrical systems developed for transportation systems to operate during off-peak hours.</p> <p>E-7 Project sponsors should evaluate the potential for reducing peak energy demand by encouraging the use of electrified stationary sources during off-peak hours.</p> <p>E-8 Projects that require a substantial increase in natural gas demand should consider the use of renewable gas, where available and feasible, including biofuel landfill gas and gas produced from renewable fuels projects.</p> <p>E-9 Project sponsors should submit projected natural gas demand use to the local natural gas provider for any project anticipated to require substantial natural gas consumption. Any infrastructure improvements necessary should be completed according to the specifications of the natural gas provider.</p> <p>E-10 Project sponsors should pursue incentives to encourage the use of energy efficient equipment and vehicles, and promote energy conservation associated with hydrogen production.</p>	<p>E-6 Project sponsors should evaluate the potential for reducing peak energy demand by encouraging the use of catenary or way-side electrical systems developed for transportation systems to operate during off-peak hours.</p> <p>E-7 Project sponsors should evaluate the potential for reducing peak energy demand by encouraging the use of electrified stationary sources during off-peak hours (e.g., cargo handling equipment).</p>

**Table A-10. Mitigation Measures Adopted in the Final Program EIRs
for the 2022 AQMP and 2016 AQMP for Energy**

2022 AQMP	2016 AQMP
<p>E-11 Project sponsors should site new facilities in areas where infrastructure exists to reduce the amount of energy necessary to build new hydrogen production facilities.</p> <p>E-12 Project sponsors should pursue hydrogen production and delivery through the most energy efficient, least environmentally impactful methods, where feasible.</p>	

*Cumulative Impacts*¹¹²

The Final Program EIR for the 2022 AQMP concluded that implementation of the 2022 AQMP could result in significant adverse electricity consumption impacts because the potential electricity usage increase would exceed baseline electricity consumption by an estimated 11 percent. Significant impacts were also concluded for natural gas and hydrogen demand. When combined with the Connect SoCal Plan, the SIP strategies, state policies, and other past, present, and reasonably foreseeable activities, the analysis in the Final Program EIR concluded that implementation of the 2022 AQMP control measures would result in a significant increase in electricity, natural gas, and hydrogen demand which may not currently be available, and would contribute to cumulatively considerable impacts. No additional mitigation measures to reduce the significant cumulative impacts to energy were identified. Cumulative impacts to energy demand for past, present, and reasonably foreseeable future projects would remain significant and unavoidable for electricity, natural gas, and hydrogen demand.

The Final Program EIR for 2016 AQMP concluded that implementation of the 2016 AQMP control measures would result in significant adverse electricity consumption impacts because the potential electricity usage increase would exceed baseline electricity consumption by 7.8 to 12.7 percent. No significant impacts on natural gas supplies and petroleum fuels associated with the 2016 AQMP were identified because of the anticipated reduction in future demand and wide availability of natural gas. No significant impacts on hydrogen were identified because hydrogen demand was not expected to require additional hydrogen capacity. The 2016 AQMP control measures would result in significant adverse energy demand impacts and, when combined with past, present, and reasonably foreseeable activities, and in particular with transportation projects projected in the 2016 RTP/SCS, would contribute to cumulatively considerable impacts to energy identified in the 2016 RTP/SCS, therefore resulting in a significant cumulative impact. No additional mitigation measures to reduce the significant cumulative impacts to energy were identified. Cumulative impacts to energy from implementation of the 2016 AQMP would remain significant and unavoidable.

Summary of Energy Analyses

Table A-11 presents a summary of the energy analyses conducted in the 2022 AQMP and 2016 AQMP.

¹¹² See Section 4.3.5 Cumulative Energy Impacts and Mitigation Measures of the Final Program EIR for the 2022 AQMP and Section 5.7.1 Cumulative Impacts of the Final Program EIR for the 2016 AQMP

Table A-11. Summary of Energy Analyses in the Final Program EIRs for the 2022 AQMP and 2016 AQMP

Significance Criteria	Potentially Significant Impacts	Mitigation Measures	Cumulative Impacts
<p>Energy impacts are significant if any of the following conditions occur:</p> <ul style="list-style-type: none"> • 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 energy resources in a wasteful and/or inefficient manner. 	<p>Implementation of Control Measures MOB-02A and MOB-02B from the 2022 AQMP would cause potentially significant energy impacts from:</p> <ul style="list-style-type: none"> • Increase in electricity demand due to increased usage of zero-emission technologies installed at rail yards, • Increase in hydrogen demand in mobile sources, and • Increase in natural gas demand to produce electricity <p>Implementation of Control Measure MOB-02 from the 2016 AQMP would cause potentially significant energy impacts from:</p> <ul style="list-style-type: none"> • Increase in electricity demand due to increased usage of zero-emission technologies installed at rail yards, • Increase in alternative fuels and fuel additives demand, and • Increase in natural gas demand to produce electricity 	<p>E-1 to E-12 of the Final Program EIR for the 2022 AQMP and E-1 to E-7 of the Final Program EIR for the 2016 AQMP</p>	<p>Cumulative impacts to energy demand for past, present, and reasonably foreseeable future projects would remain significant and unavoidable for electricity, hydrogen, and natural gas demand.</p>

Hazards and Hazardous Materials

Both the Final Program EIR for the 2022 AQMP and the Final Program EIR for the 2016 AQMP identified the increased use of alternative fuels to be a potentially significant hazards and hazardous materials impact associated with implementation of Control Measures MOB-02A and MOB-02B from the 2022 AQMP and Control Measure MOB-02 from the 2016 AQMP, upon which PR 2306 relies. The Final Program EIR for the 2022 AQMP also identified and analyzed potentially significant hazards and hazardous materials impacts associated with production of hydrogen. While PR 2306 does not specify or require particular alternative fuels to be used, batteries (electricity) and hydrogen are expected to be the primary choices for zero emission options. The following discussion will summarize the analysis conducted for the use of batteries in electric vehicles and hydrogen in the Final Program EIRs for the 2022 AQMP and 2016 AQMP.

Significance Criteria

Hazards and hazardous materials impacts are significant if any of the following conditions 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.

*Hazards and Hazardous Materials Impacts from Use of Batteries in Electric Vehicles*¹¹³

The control measures in the 2022 AQMP focus on maximizing the implementation of zero emission and low NOx technologies which are expected to include electrification of mobile sources (light-duty vehicles, medium-duty vehicles, and heavy-duty vehicles). Electric and hybrid vehicles (hybrids) both use electricity as part of their fuel system. Electric vehicles rely purely on electric power stored in batteries. Hybrids also use batteries as part of their fuel supply; however, hybrids supplement their electric demand by using gasoline engines to generate either mechanical or electric power on demand. Since gasoline is a conventional fuel, any difference in hazards associated with hybrid and electric vehicles would be from the batteries.

Battery technologies in electric vehicles have primarily included nickel-metal hydride (NiMH) and lithium ion (Li-ion). Electric vehicles require high-energy batteries (i.e., batteries that store significant quantities of energy, retain it efficiently, and discharge it at a high rate). Li-ion batteries are the most commonly used batteries in electric vehicles because of their high energy density which allows them to store large amounts of energy, low self-discharge rate which allows them to retain a charge, and excellent electrochemical potential which allows high-power discharge). [NTSB, 2020]. Li-ion batteries are also lighter in weight than other battery types used in electric vehicles.

NiMH batteries can generate hydrogen gas if overcharged, which can lead to explosions without proper venting. In 1996, the International Center for Technology Assessment (ICTA) conducted a

¹¹³ See Section 4.4.3.2.1 Electric and Hybrid Vehicles of the Final Program EIR for the 2022 AQMP and Section 4.3.4.2.7 Electric/Hybrid of the Final Program EIR for the 2016 AQMP

comprehensive review of the safety concerns associated with the use of electric vehicles. The ICTA found that risk of hydrogen emissions during stressful conditions has been virtually eliminated by the use of seals and proper valve regulation. By following the National Electric Codes (NECs) and the Society of Automotive Engineers (SAE) recommended safety practices and guidelines for the operation and maintenance of electric vehicles and hybrids, any hydrogen gas risk during battery recharging would be eliminated. [ICTA, 1996].

Fires in electric vehicles powered by high-voltage Li-ion pose a risk of electric shock in the event of a damaged Li-ion battery. A further risk is that damaged cells in the battery can experience uncontrolled increases in temperature and pressure (thermal runaway), which can lead to hazards such as battery reignition and fire. The risks of electric shock and battery reignition/fire arise from the stranded energy that remains in a damaged battery and the fires can generate large amounts of acrid smoke. [NTSB, 2020].

In response to fires in electric vehicles, the National Transportation Safety Board (NTSB) performed an investigation on the fire hazards associated with Li-ion batteries in electric vehicles and concluded the following:

1. Manufacturers' emergency response guides provide sufficient vehicle-specific information for disconnecting an electric vehicle's high-voltage system when the high-voltage disconnects are accessible and undamaged by crash forces.
2. Crash damage and resulting fires may prevent first responders from accessing the high-voltage disconnects in electric vehicles.
3. The instructions in most manufacturers' emergency response guides for fighting high-voltage Li-ion battery fires lack vehicle-specific details on suppressing the fires.
4. Thermal runaway and multiple battery reignitions after initial fire suppression are safety risks in high-voltage Li-ion battery fires.
5. The energy remaining in a damaged high-voltage Li-ion battery (stranded energy) poses a risk of electric shock and creates the potential for thermal runaway that can result in battery reignition and fire.
6. High-voltage Li-ion batteries in electric vehicles, when damaged by crash forces or internal battery failure, present special challenges to first and second responders because of insufficient information from manufacturers on procedures for mitigating the risks of stranded energy.
7. Storing an electric vehicle with a damaged high-voltage Li-ion battery inside the recommended 50-foot radius clear area may be infeasible at tow or storage yards.
8. Electric vehicle manufacturers should use the International Organization for Standardization standard 17840 template to present emergency response information.
9. Action by the National Highway Traffic Safety Administration (NHTSA) to incorporate scoring relative to the availability of a manufacturer's emergency response guide and its adherence to the International Organization for Standardization standard 17840 and SAE International recommended practice J2990 into the U.S. New Car Assessment Program, would be an incentive for manufacturers of vehicles sold in the United States with high-voltage Li-ion battery systems to comply with those standards.

10. Although existing standards address damage sustained by high-voltage Li-ion battery systems in survivable crashes, they do not address high-speed, high-severity crashes resulting in damage to high-voltage Li-ion batteries and the associated stranded energy.

Based on their findings, the NTSB made the following recommendations:

1. The NHTSA when determining a vehicle's U.S. New Car Assessment Program score, should factor in the availability of a manufacturer's emergency response guide and its adherence to the International Organization for Standardization standard 17840 and SAE International recommended practice J2990.
2. The NHTSA should convene a coalition of stakeholders to continue research on ways to mitigate or deenergize the stranded energy in high-voltage Li-ion batteries and to reduce the hazards associated with thermal runaway resulting from high-speed, high severity crashes.
3. Electric vehicle manufacturers should model the emergency response guides on International Organization for Standardization standard 17840 (as included in SAE International recommended practice J2990) and incorporate vehicle-specific information on: 1) fighting high-voltage Li-ion battery fires; 2) mitigating thermal runaway and the risk of high-voltage Li-ion battery reignition; 3) mitigating the risks associated with stranded energy in high-voltage Li-ion batteries, both during the initial emergency response and before moving a damaged electric vehicle from the scene; and 4) safely storing an electric vehicle that has a damaged high-voltage Li-ion battery.
4. The National Fire Protection Association (NFPA), the International Association of Fire Chiefs, the International Association of Fire Fighters, the National Alternative Fuels Training Consortium, the National Volunteer Fire Council, and the Towing and Recovery Association of America should inform members about the circumstances of the fire risks described in this report and provide guidance to emergency personnel who respond to high-voltage Li-ion battery fires in electric vehicles.

While electric cars may have fire risks, a recent study shows that they are less likely to cause a vehicle fire than either gas-powered or hybrid vehicles. Data from the NTSB was used to track the number of car fires, and it was compared to sales data from the Bureau of Transportation Statistics. The data showed that for every 100,000 vehicles sold, hybrid-powered vehicles (which use gasoline) were involved in about 3,475 fires and conventional gasoline-powered vehicles were involved in approximately 1,530 fires while electric vehicles were involved in approximately 25 fires. Gasoline-powered vehicles and hybrid vehicles rely on combustion, in whole or in part, respectively, to function, while the electric cars rely on 100 percent electricity. [AutoinsuranceEZ, 2022]. Based on the results from the study, electric vehicles were concluded to not be inherently more dangerous than conventional gasoline-fueled or hybrid vehicles, but electric vehicle fires tend to be more difficult than gasoline fires to extinguish. [AutoinsuranceEZ, 2022].

The likelihood to overheat or ignite is increased if the batteries are poorly packaged, damaged, or exposed to a fire or a heat source. However, when packaged and handled properly, Li-ion batteries

pose a minimal threat to the environment.¹¹⁴ [DOT, 2014]. As noted in the aforementioned study, internal combustion engines also can result in fires and other hazards; therefore, switching to battery power would not likely result in an increased fire risk. Therefore, the Final Program EIR for the 2022 AQMP concluded that implementation of the 2022 AQMP would have a less than significant impact to hazards and hazardous materials from use of electric vehicles and batteries. Because impacts were concluded to be less than significant, mitigation measures were not required or adopted.

The Final Program EIR for the 2016 AQMP similarly analyzed NiMH and Li-ion as the most common battery technologies used in modern EVs and hybrids. The Final Program EIR noted that there had been in a shift away from nickel metal hydride batteries in EV's to lithium-ion batteries [UN, 2010]. NHTSA performed an investigation on the fire hazards associated with Li-ion batteries in EVs, and concluded that EVs do not pose a greater risk of fire than gasoline-powered vehicles. When Li-ion batteries are being charged, they can generate hydrogen gas that is explosive in certain concentrations, but this hazard exists with lead-acid batteries as well as other types of batteries so the hazards associated with charging Li-ion batteries are expected to be similar to the hazards associated with lead-acid batteries. Overall, the fire hazards associated with an electric vehicle were expected to be less than a conventional vehicle because there would be no leak or spills of petroleum fuel (gas or diesel) that is flammable in the event of an accident. All electrical propulsion vehicles must comply with Federal Motor Vehicle Safety Standard (FMVSS) 305, which specifies performance requirements for limiting electrolyte spillage, retaining propulsion batteries, and electrically isolating the chassis from the high-voltage system during a crash event. FMVSS assures that accidents involving an EV or hybrid would cause no more electrical hazard than a gasoline- or diesel-powered vehicle. Therefore, the Final Program EIR for the 2016 AQMP concluded that implementation of the 2016 AQMP would have a less than significant impact to hazards and hazardous materials from use of electric vehicles and batteries. Because impacts were concluded to be less than significant, mitigation measures were not required or adopted.

*Hazards and Hazardous Materials Impacts from Use of Hydrogen*¹¹⁵

The physical hazards associated with bulk liquid transport and storage are similar to liquified natural gas (LNG), as they are both cryogenic liquids. The physical hazards associated with distributing hydrogen via pipeline and steam reformer hydrogen stations are similar to CNG as they are both compressed gases. In general, the fire hazards associated with hydrogen spills or leaks are higher than conventional fuels due to the wide flammability range and low ignition energy of hydrogen. However, hydrogen tanks are fabricated according to more rigorous standards than conventional fuel tanks, which helps reduce the likelihood of spills or leaks. The main additional hazard associated with the use of hydrogen versus conventional fuels is the difficulty in being able to recognize a hydrogen fire when it is happening. Hydrogen burns with a pale blue flame that is almost invisible during daylight hours making hydrogen fires are almost impossible to see with the naked eye. Hydrogen fires have low radiant heat, so it may be difficult to sense the presence of a flame until you are very close to it. Thus, the potential of a large fire stemming from

¹¹⁴ Department of Transportation, Pipeline and Hazardous Materials Safety Administration, 2014. 49 CFR Parts 171, 172, 173, et al., Hazardous Materials: Transportation of Lithium Batteries, Federal Register Volume 79, Issue 151 (79 FR pp. 46011-46032).

¹¹⁵ See Section 4.4.3.2.2 Hydrogen of the Final Program EIR for the 2022 AQMP and Section 4.3.4.2.6 Hydrogen of the Final Program EIR for the 2016 AQMP

a release of hydrogen in the case of an accident (e.g., a tanker truck accident) could pose challenges for fire-fighting personnel. Although hydrogen fires do not produce smoke themselves, burning of nearby combustible materials can result in smoke which help visual clues to a fire. Normally hydrogen fires are not extinguished until the supply of hydrogen has been shut off or exhausted since there is a danger of re-ignition and explosion. Firefighting personnel are trained in the characteristics of hydrogen fires and proper procedures for dealing with them. For the same fire hazard reasons, another potentially significant hazard is the release of hydrogen in an enclosed space (e.g., garage or vehicle maintenance facility).

Compared with diesel fuel and gasoline, the following can be stated about hydrogen:

- Diesel fuel and gasoline are toxic to the skin and lungs while hydrogen is non-toxic and non-reactive, so if released, it does not present a health hazard to humans.
- Diesel fuel and gasoline vapors are heavier than air (for specific gravity of air = 1, diesel fuel is >4.0, gasoline is 3.4) while hydrogen is 14 times lighter than air. If released, hydrogen will quickly rise and dissipate into the atmosphere greatly reducing the risk of ignition at ground level.
- Hydrogen has an extremely low ignition energy requirement; about 20 microjoules can ignite hydrogen/air, which is about 10 times less than what is required to ignite a gasoline/air mixture. Gasoline can be explosive at oxygen concentrations between one and three percent while hydrogen can be explosive with oxygen concentrations between 18 and 59 percent. This means that gasoline has greater risk for explosion than hydrogen for any given environment with oxygen. [PNL, 2004].
- Hydrogen has a lower radiant heat when compared to gasoline, meaning the air around the hydrogen flame is not as hot as around a gasoline flame. Therefore, the risk of hydrogen secondary fires is lower.
- Hydrogen is clear, odorless, and tasteless. It burns with an extremely hot, but nonluminous flame which is difficult to see during the day. The flame of burning hydrogen has few warning properties.
- Hydrogen has an unusually large flammability range and can form ignitable mixtures between four and 75 percent by volume in air. Given confinement and good mixing, hydrogen can be detonated over the range of 18 to 59 percent by volume in air.

Based upon the preceding information, hazards associated with hydrogen are approximately equivalent or less when compared to conventional fuels. In addition, fire hazards associated with hydrogen when compared to fires involving conventional fuels are equivalent but will require different firefighting protocols due to the nature of hydrogen. Therefore, both the Final Program EIR for the 2022 AQMP and the Final Program EIR for the 2016 AQMP concluded that no significant increase in hazards would be expected from using hydrogen in mobile sources when compared to conventional fuels. Because impacts were concluded to be less than significant, mitigation measures were not required or adopted.

Use of alternative fuels requires additional knowledge and training of owners/operators of fueling stations regarding maintaining and operating alternative fuel refueling stations and emergency responders. Further, as use of alternative fuels increases within the South Coast AQMD's jurisdiction, use of conventional fuels such as gasoline and diesel will decline. As a result,

explosion and flammability hazards associated with conventional fuels will also decline. In addition, hazards and hazardous clean-up associated with accidental releases of conventional fuels, especially diesel, will be reduced as the use of alternative fuels increases. For the storage and dispensing of alternative fuels, compliance with existing regulations and recommended safety procedures will ensure that any potential hazards impacts associated with alternative clean-fuels are expected to be the same or less than those of conventional fuels. Accordingly, the Final Program EIRs for the 2022 AQMP and 2016 AQMP concluded that the hazards impacts from the increased use of alternative fuels would be similar to or less than hazards associated with conventional fuels, and that no significant increase in hazards would be expected from using alternative fuels in mobile sources when compared to conventional fuels. Because impacts were concluded to be less than significant, mitigation measures were not required or adopted.

*Hazards and Hazardous Materials Impacts from Production of Hydrogen*¹¹⁶

The Final Program EIR for the 2022 AQMP analyzed risk associated with hydrogen production. More than 95 percent of U.S.-produced hydrogen is made in central plants via a steam methane reforming process using natural gas, refinery fuel gas, coal, and water electrolysis. In the early stages, expanded hydrogen production will likely rely on natural gas feedstock, as this approach offers a low-cost pathway to producing hydrogen. Over time, hydrogen fuel production could evolve from this natural gas dominance to a more diversified production mix, such as a lower-carbon production mix that includes natural gas reformation with carbon capture and storage, coal with carbon capture and storage (for hydrogen production outside of California), biofuels, waste resources, nuclear (for hydrogen production outside of California), and water electrolysis using renewable electric power. This shift is anticipated because it is expected that there will be a significant push to de-carbonize transportation fuels. Hydrogen may also be produced from renewable energy resources and waste streams using low-carbon-emitting processes (e.g., biomass gasification, water electrolysis using renewable electricity, and reformation of renewable natural gas)¹¹⁷. [CEC, 2021].

A recent hazard analysis was conducted for a proposed new hydrogen plant at a renewable fuels facility in Southern California. The results of the analysis indicated that the worst-case hazard zones associated with an upset of the hydrogen plant and related pipelines were related to a torch fire and would create hazards to surrounding areas within approximately 90 feet of the fire. The rupture of a related natural gas pipeline that would feed the hydrogen plant was also identified as a potential torch fire risk which could create hazards to surrounding areas within approximately 183 feet of a release. Since the construction of any new hydrogen plants would be expected to be constructed within existing industrial facilities that would likely have at least 90 feet to the closest off-site receptor, less than significant impacts would be expected relative to risk associated with hydrogen production. Existing natural gas pipelines provide service to most existing facilities, but the construction of new natural gas pipelines could be significant if located offsite of a facility where a new hydrogen production facility may be located, as the precise location of new natural

¹¹⁶ See Section 4.4.3.2.2 Hydrogen of the Final Program EIR for the 2022 AQMP and Section 4.3.4.2.6 Hydrogen of the Final Program EIR for the 2016 AQMP

¹¹⁷ CEC, 2021. Final 2021 Integrated Energy Policy Report, Volume II, Ensuring Reliability in a Changing Climate. CEC-101-2021-001-V2 February, 2022. <https://www.energy.ca.gov/data-reports/reports/integrated-energy-policy-report/2021-integrated-energy-policy-report>

gas pipelines cannot be forecasted. Natural gas pipelines are located throughout urban areas, including within residential areas and adjacent to sensitive receptors.

New natural gas pipelines are subject to a number of regulatory requirements, including the following:

- Hydrostatic testing to 125 percent of the operating pressure is required by the state Fire Marshal prior to operation of a pipeline. Additional periodic testing is required for pipelines, with the frequency of testing based on pipeline age, use of cathodic protection, and release history;
- New pipelines are required to accommodate instrumented internal inspection devices (commonly referred to as “smart pigs”). “Smart pigs” detect where corrosion or other damage has affected the wall thickness or shape. Additionally, to ensure the pipeline is operating properly and the total volume of material shipped is received, monitoring of operations during transfer of material is required and may include pressure indicators along the pipeline route, as well as flow meters at both the shipping and receiving ends of the pipeline;
- Cathodic protection is required for new pipelines. Cathodic protection is a technique used to control the corrosion of a metal surface by making it the cathode of an electrochemical cell. Avoiding corrosion protects the integrity of the pipeline and minimizes that potential for releases; therefore, installation of cathodic protection helps to prevent pipeline releases;
- Federal regulations require the installation and maintenance of line marker posts so that the pipeline is easily identifiable. In addition, annual inspections are required to look for corrosion and other issues;
- Pipelines are registered with the USA North 811 underground service alert system. Contractors contact this organization prior to beginning excavation activities. The organization notifies the owners of underground facilities in the area of the proposed construction activities. The owners and contractors can then discuss the proposed construction activities. Owners typically mark the exact location of the pipelines and communicate the locations to the contractors. Participation in the USA system minimizes the potential for damage and meets the requirements of the operator’s damage prevention program pursuant to 49 CFR Part 192 requirements;
- 49 CFR Part 192, Subpart N, requires minimum training requirements for operators of pipeline facilities. These requirements assure that individuals working on the pipeline would have appropriate training and experience;
- The operation of pipelines is required to have an Emergency Response Plan that identifies specific measures that would be implemented in the event of upset conditions. The Emergency Response Plan identifies responsible parties for the incident command and supporting agencies and organizations; and
- New natural gas pipeline may require the installation of safety blowdown equipment at one location along the designated route. The blowdown equipment will allow for the controlled release and dispersion of gas in the pipeline in the event of an upset condition. Blowdown equipment is part of the PHMSA requirements.

These extensive state and federal requirements on new (and existing) natural gas pipelines, are expected to be implemented and enforced. Implementation of these extensive requirements is expected to minimize the severity of potential hazard impacts of natural gas pipeline releases should they occur. As such, no mitigation measures were identified or adopted in the Final Program EIR for the 2022 AQMP that would be capable of reducing impacts beyond the existing state and federal requirements in place for this environmental topic area. The operational impacts associated with the new natural gas pipeline would remain significant as a release could potentially impact receptors, including residences, and would be a new or intensified hazard. Therefore, the Final Program EIR for the 2022 AQMP concluded that hazards associated with the potential increase in transmission of natural gas via pipeline to service hydrogen plants would be potentially significant.

At the time of writing the Final Program EIR for the 2016 AQMP, additional hydrogen production was not expected to be required to meet the projected hydrogen demand. Therefore, hazards and hazardous materials impacts from hydrogen production as a result of implementing control measures such as MOB-02 were not identified.

Regarding Mitigation Measures for Hazards and Hazardous Materials Impacts in the Final Program EIR for the 2022 AQMP¹¹⁸

The Final Program EIR for the 2022 AQMP concluded that production of hydrogen would result in potentially significant hazards and hazardous materials impacts. More specifically, based on the results of a recent hazards analysis, construction of new natural gas pipelines to service hydrogen production facilities may be a potential torch fire risk which could create hazards to surrounding areas within approximately 183 feet of a release. Because there are extensive state and federal requirements on new and existing natural gas pipelines, and implementation of these requirements are expected to minimize the severity of potential hazard impacts of natural gas pipeline releases should they occur, no mitigation measures were identified or adopted in the Final Program EIR for the 2022 AQMP that would be capable of reducing impacts beyond the existing state and federal requirements in place for this environmental topic area.

Cumulative Impacts¹¹⁹

The Final Program EIR for the 2022 AQMP concluded that implementation of Control Measures MOB-02A and MOB-02B could result in significant adverse hazards and hazardous materials impacts from the construction of new natural gas pipelines to service hydrogen plants. No mitigation measures were identified for construction of a new natural gas pipeline. When combined with the Connect SoCal Plan, the SIP strategies, state policies, and other past, present, and reasonably foreseeable activities, the 2022 AQMP would result in significant hazards and hazardous materials impacts, and would contribute to cumulatively considerable impacts. No additional mitigation measures to reduce the significant cumulative impacts to hazards and hazardous materials were identified. Therefore, the Final Program EIR concluded that cumulative impacts to hazards and hazardous materials for past, present, and reasonably foreseeable future projects would remain significant and unavoidable.

¹¹⁸ See Section 4.4.5 Cumulative Hazards and Hazardous Materials Impacts and Mitigation Measures of the Final Program EIR for the 2022 AQMP

¹¹⁹ See Section 4.4.5.3 Summary of Cumulative Hazards and Hazardous Materials Impacts of the Final Program EIR for the 2022 AQMP and Section 5.9.1 Cumulative Impacts of the Final Program EIR for the 2016 AQMP

The Final Program EIR for 2016 AQMP concluded that implementation of Control Measure MOB-02 would not result in significant adverse hazards and hazardous materials impacts. Other 2016 AQMP control measures, however, would result in significant adverse hazards and hazardous materials impacts and, when combined with past, present, and reasonably foreseeable activities, and in particular with transportation projects projected in the 2016 RTP/SCS, would contribute to cumulatively considerable impacts to hazards and hazardous materials identified in the 2016 RTP/SCS, therefore resulting in a significant cumulative impact. No additional mitigation measures to reduce the significant cumulative impacts to hazards and hazardous materials were identified. Cumulative impacts to hazards and hazardous materials from implementation of the 2016 AQMP would remain significant and unavoidable.

Summary of Hazards and Hazardous Materials Analyses

Table A-12 presents a summary of the hazards and hazardous materials analyses conducted in the 2022 AQMP and 2016 AQMP.

Table A-12. Summary of Hazards and Hazardous Materials Analyses in the Final Program EIRs for the 2022 AQMP and 2016 AQMP

Significance Criteria	Potentially Significant Impacts	Mitigation Measures	Cumulative Impacts
<p>Hazards and hazardous materials impacts are significant if any of the following conditions occur:</p> <ul style="list-style-type: none"> • 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. 	<p>Implementation of Control Measures MOB-02A and MOB-02B in the 2022 AQMP would cause potentially significant hazards and hazardous materials impacts from:</p> <ul style="list-style-type: none"> • Increased production and use of alternative fuels (e.g., hydrogen). <p>No potentially significant hazards and hazardous impacts were identified for Control Measure MOB-02 from the 2016 AQMP.</p>	<p>No hazards and hazardous materials mitigation measures were adopted for Control Measures MOB-02A and MOB-02B in the Final Program EIR for the 2022 AQMP.</p> <p>No hazards and hazardous materials mitigation measures were adopted for Control Measures MOB-02 in the Final Program EIR for the 2016 AQMP.</p>	<p>Cumulative impacts to hazards and hazardous demand for past, present, and reasonably foreseeable future projects would remain significant and unavoidable for construction of new natural gas pipelines to service hydrogen plants.</p>

Noise

Various types of construction activities will be necessary to implement most control measures including Control Measures MOB-02A and MOB-02B of the 2022 AQMP and Control Measure MOB-02 of the 2016 AQMP. The Final Program EIR for the 2022 AQMP evaluated the construction and installation of infrastructure to support the use of additional electricity and alternative fuels from Control Measures MOB-02A and MOB-02B. The Final Program EIR for the 2016 AQMP evaluated construction of infrastructure to provide support for new cleaner equipment or vehicles.

Significance Criteria

Noise impacts are significant if any of the following conditions occur:

- 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.

*Noise Impacts from Construction*¹²⁰

The Final Program EIR for the 2022 AQMP considered that implementation of Control Measures MOB-02A and MOB-02B would require installing charging and alternative fueling infrastructure for the storage and dispensing of alternative fuels for use in on-road heavy-duty vehicles, off-road equipment, and locomotives operating at new rail yards and intermodal facilities; and deploying the cleanest locomotives, switchers, on-road heavy-duty trucks, cargo-handling equipment, transportation refrigeration units available (see Final Program EIR for the 2022 AQMP, Table 4.6-1). Control Measures MOB-02A and MOB-02B could also require the installation roadway infrastructure within or adjacent to existing roadways, streets, freeways, and/or transportation corridors. For the purpose of evaluating potential noise impacts for these control measures, the analysis in the Final Program EIR for the 2022 AQMP assumed that no new rail or truck traffic routes would be constructed, but that some of the existing routes/corridors could be modified to include roadway infrastructure.

Similarly, the Final Program EIR for the 2016 AQMP considered potential noise impacts associated with Control Measure MOB-02 could include installation of roadway infrastructure (wayside power and catenary lines or other similar technologies), and installation of battery charging or fueling infrastructure. For purposes of evaluating potential noise impacts, it was assumed that no new industrial facilities or corridors would be constructed, but rather some of the existing facilities and corridors would be modified to include installation of new equipment and roadway infrastructure; and no new rail or truck traffic routes would be constructed, but rather

¹²⁰ See Section 4.6.3.1 Noise Associated with Construction Activities of the Final Program EIR for the 2022 AQMP and Section 4.5.4.1 Construction Activities of the Final Program EIR for the 2016 AQMP

some of these existing routes/corridors would be modified to include catenary overhead electrical lines or magnetic lines.

The existing rail and truck routes/corridors likely to be modified are located primarily in commercial and industrial zones within the Southern California area. Examples of these areas include, but are not limited to, industrial areas in and around container transfer facilities (rail and truck) near the Terminal Island Freeway, along the Alameda Corridor, as well inland rail yards near downtown Los Angeles.

The potential noise impact of construction activities would vary depending on the existing noise levels in the environment and the location of sensitive receptors (e.g., residences, hotels, hospitals, etc.) with respect to construction activities. Because no specific projects were proposed, the noise impacts were determined to be speculative. Potential modifications were assumed to occur at facilities typically located in appropriately zoned industrial or commercial areas, so construction noise impacts at stationary sources on sensitive receptors were concluded to be less than significant. The construction of roadway infrastructure would result in additional construction noise sources near transportation corridors, and it is not uncommon for residences and other sensitive receptors to be located within several hundred feet of the existing roadways, so noise levels associated with construction activities could increase three dBA or greater and generate potentially significant noise impacts, although temporary. Vibration from construction activities could exceed the 72 vibration decibels (VdB) threshold for structures and sensitive receptors within 200 feet of construction activities if certain types of construction equipment are used and so was considered potentially significant in both the Final Program EIR for the 2022 AQMP and the Final Program EIR for the 2016 AQMP. (See Table A-13 which is Table 4.6-5 Representative Construction Equipment Vibration Impacts, from the Final Program EIR for the 2022 AQMP. Table 4.6-5 from the Final Program EIR for the 2022 AQMP presents updated vibration data for the same equipment compared to Table 4.5-4 from the Final Program EIR for the 2016 AQMP.)

Table A-13. Representative Construction Equipment Vibration Impacts

Equipment	Peak Particle Velocity (PPV) at 25 ft (inches/sec) ⁽¹⁾	Velocity Level (Lv) at 25 ft (VdB) ⁽¹⁾	PPV at 200 ft (inches/sec) ⁽²⁾	Lv at 200 ft (VdB) ⁽³⁾
Impact Pile Driver (typical)	0.644	104	0.0285	77
Vibratory Roller	0.210	94	0.0093	67
Large Bulldozers	0.089	87	0.0039	60
Loaded Trucks	0.076	86	0.0034	59
Jackhammer	0.035	79	0.0015	52
Small Bulldozer	0.003	58	0.0001	31

(1) Source: FTA, 2018. Data reflects typical vibration levels

(2) Source: FTA, 2018. Eq. 7-2.

(3)Source: FTA, 2018. Eq. 7-3.

Because the noise impacts from implementing the 2022 AQMP were concluded to be significant for noise and vibration impacts during construction activities, feasible mitigation measures NS-1 to NS-14 for reducing impacts related to noise and vibration were adopted in the Final Program EIR for the 2022 AQMP (see pages 4.6-12 to 4.6-14 of the Final Program EIR for the 2022 AQMP). Even after mitigation measures NS-1 to NS-14 were applied, the Final Program EIR for the 2022 AQMP concluded that the overall noise and vibration impacts during construction activities would remain significant.

Similarly, because the noise impacts from implementing the 2016 AQMP were concluded to be significant for noise and vibration impacts during construction activities, feasible mitigation measures NS-1 to NS-17 for reducing impacts related to noise and vibration were adopted in the Final Program EIR for the 2016 AQMP (see pages 4.5-11 to 4.5-12 of the Final Program EIR for the 2016 AQMP). Even after mitigation measures NS-1 to NS-17 were applied, the Final Program EIR for the 2016 AQMP concluded that the overall noise and vibration impacts during construction activities would remain significant.

*Mitigation Measures Adopted in the Final Program EIRs for the 2022 AQMP and 2016 AQMP for Noise and Vibration Impacts During Construction*¹²¹

Mitigation measures NS-1 to NS-14 of the Final Program EIR for the 2022 AQMP and mitigation measures NS-1 to NS-17 of the Final Program EIR for the 2016 AQMP are presented side-by-side in Table A-14. Because the analysis conducted in the Final Program EIR for the 2022 AQMP reflects the most recent best practices, owners and operators of equipment required to mitigate noise and vibration impacts from construction are recommended to utilize the mitigation measures of the Final Program EIR for the 2022 AQMP in the event of a conflict between mitigation measures that would apply in a given situation.

¹²¹ See Section 4.6.3.1 Noise Associated with Construction Activities of the Final Program EIR for the 2022 AQMP and Section 4.5.5 Mitigation Measures of the Final Program EIR for the 2016 AQMP

Table A-14. Mitigation Measures Adopted in the Final Program EIRs for the 2022 AQMP and 2016 AQMP for Noise

2022 AQMP	2016 AQMP
<p>NS-1 Install temporary noise barriers to protect sensitive receptors from excessive noise levels during construction.</p> <p>NS-2 Schedule construction activities consistent within the allowable hours pursuant to the applicable general plan noise element or noise ordinance. For construction activities located near sensitive receptors, ensure noise-generating construction activities (including truck deliveries, pile driving, and blasting) are limited to the least noise-sensitive times of day (e.g., weekdays during the daytime hours). Where construction activities are authorized to occur outside of the limits established by the noise element of the general plan or noise ordinance, notify affected sensitive receptors and all parties who will experience noise levels in excess of the allowable limits for the specified land use, of the anticipated level of exceedance and duration of exceedance; and provide a list of protective measures that can be undertaken by the individual, including temporary relocation or use of hearing protective devices.</p> <p>NS-3 Prohibit idling of construction equipment for extended periods of time in the vicinity of sensitive receptors.</p> <p>NS-4 Post procedures and phone numbers at the construction site for notifying the Lead Agency staff, local Police Department, and construction contractor (during regular construction hours and off-</p>	<p>NS-1 Install temporary noise barriers during construction.</p> <p>NS-2 Use noise barriers to protect sensitive receptors from excessive noise levels during construction.</p> <p>NS-3 Schedule construction activities consistent with the allowable hours pursuant to applicable general plan noise element or noise ordinance. Ensure noise-generating construction activities (including truck deliveries, pile driving, and blasting) are limited to the least noise-sensitive times of day (e.g., weekdays during the daytime hours) for projects near sensitive receptors. Where construction activities are authorized outside the limits established by the noise element of the general plan or noise ordinance, notify affected sensitive noise receptors and all parties who will experience noise levels in excess of the allowable limits for the specified land use, of the level of exceedance and duration of exceedance; and provide a list of protective measures that can be undertaken by the individual, including temporary relocation or use of hearing protective devices.</p> <p>NS-4 Limit speed and/or hours of operation of rail and transit systems during the selected periods of time to reduce duration and frequency of conflict with adopted limits on noise levels.</p> <p>NS-5 Post procedures and phone numbers at the construction site for notifying the Lead Agency staff, local Police Department, and construction contractor (during regular construction hours and off-</p>

Table A-14. Mitigation Measures Adopted in the Final Program EIRs for the 2022 AQMP and 2016 AQMP for Noise

2022 AQMP	2016 AQMP
<p>hours), along with permitted construction days and hours, complaint procedures, and who to notify in the event of a problem.</p> <p>NS-5 Notify neighbors and occupants within 300 feet of the project construction area at least 30 days in advance of anticipated times when noise levels are expected to exceed limits established in the noise element of the general plan or noise ordinance.</p> <p>NS-6 Hold a preconstruction meeting with job inspectors and the general contractor/onsite project manager to confirm that noise measures and practices (including construction hours, neighborhood notification, posted signs, etc.) are completed.</p> <p>NS-7 Designate an on-site construction complaint and enforcement manager for the project.</p> <p>NS-8 Ensure that construction equipment is properly maintained per manufacturers’ specifications and fitted with the best available noise suppression devices (e.g., improved mufflers, equipment redesign, use of intake silencers, ducts, engine enclosures, and acoustically attenuating shields or shrouds silencers, wraps). All intake and exhaust ports on power equipment shall be muffled or shielded.</p> <p>NS-9 Use hydraulically or electrically powered tools (e.g., jack hammers, pavement breakers, and rock drills) for project construction to avoid noise associated with compressed air exhaust</p>	<p>hours), along with permitted construction days and hours, complaint procedures, and who to notify in the event of a problem.</p> <p>NS-6 Notify neighbors and occupants within 300 feet of the project construction area at least 30 days in advance of anticipated times when noise levels are expected to exceed limits established in the noise element of the general plan or noise ordinance.</p> <p>NS-7 Hold a preconstruction meeting with the job inspectors and the general contractor/onsite project manager to confirm that noise measures and practices (including construction hours, neighborhood notification, posted signs, etc.) are completed.</p> <p>NS-8 Designate an on-site construction complaint and enforcement manager for the project.</p> <p>NS-9 Ensure that construction equipment are properly maintained per manufacturers’ specifications and fitted with the best available noise suppression devices (e.g., mufflers, silencers, wraps). All intake and exhaust ports on power equipment shall be muffled or shielded.</p> <p>NS-10 Ensure that impact tools (e.g., jack hammers, pavement breakers, and rock drills) used for project construction are hydraulically or electrically powered to avoid noise associated with compressed air exhaust from pneumatically powered tools. However, where use of pneumatic tools is unavoidable, an exhaust muffler on the compressed air exhaust can and should be used. External jackets on the tools themselves can and should be used, if</p>

Table A-14. Mitigation Measures Adopted in the Final Program EIRs for the 2022 AQMP and 2016 AQMP for Noise

2022 AQMP	2016 AQMP
<p>from pneumatically powered tools. However, where use of pneumatic tools is unavoidable, an exhaust muffler on the compressed air exhaust should be used; this muffler can lower noise levels from the exhaust by up to about 10 dBA. External jackets on the tools themselves should be used, if such jackets are commercially available, and this could achieve a further reduction of 5 dBA. Quieter procedures should be used, such as drills rather than impact equipment, whenever such procedures are available and consistent with construction procedures.</p> <p>NS-10 Locate fixed/stationary equipment (such as generators, compressors, rock crushers, and cement mixers) as far as possible from noise-sensitive receptors.</p> <p>NS-11 Consider using flashing lights instead of audible back-up alarms on mobile equipment.</p> <p>NS-12 For construction activities that require pile driving or other techniques that result in excessive noise or vibration, such as blasting, develop site-specific noise/vibration attenuation measures under the supervision of a qualified acoustical consultant.</p> <p>NS-13 For construction activities at locations that require pile driving due to geological conditions, utilize quiet pile driving techniques such as predrilling the piles to the maximum feasible depth, where feasible. Predrilling pile holes will reduce the number</p>	<p>such jackets are commercially available and this could achieve a reduction of 5 dBA. Quieter procedures can and should be used, such as drills rather than impact equipment, whenever such procedures are available and consistent with construction procedures.</p> <p>NS-11 Ensure that construction equipment is not idling for an extended time in the vicinity of noise-sensitive receptors.</p> <p>NS-12 Locate fixed/stationary equipment (such as generators, compressors, rock crushers, and cement mixers) as far as possible from noise-sensitive receptors.</p> <p>NS-13 Consider using flashing lights instead of audible back-up alarms on mobile equipment.</p> <p>NS-14 For projects that require pile driving or other construction techniques that result in excessive vibration, such as blasting, determine the potential vibration impacts to the structural integrity of the adjacent buildings within 50 feet of pile driving locations.</p> <p>NS-15 For projects that require pile driving or other construction techniques that result in excessive vibration, such as blasting, determine the threshold levels of vibration and cracking that could damage adjacent historic or other structure, and design means and construction methods to not exceed the thresholds.</p> <p>NS-16 For projects where pile driving would be necessary for construction due to geological conditions, utilize quiet pile driving techniques such as predrilling the piles to the maximum feasible</p>

Table A-14. Mitigation Measures Adopted in the Final Program EIRs for the 2022 AQMP and 2016 AQMP for Noise

2022 AQMP	2016 AQMP
<p>of blows required to completely seat the pile and will concentrate the pile driving activity closer to the ground where pile driving noise can be shielded more effectively by a noise barrier/curtain.</p> <p>NS-14 Monitor the effectiveness of noise reduction measures by taking noise measurements and installing adaptive mitigation measures to achieve the standards for ambient noise levels established by the noise element of the general plan or noise ordinance.</p>	<p>depth, where feasible. Predrilling pile holes will reduce the number of blows required to completely seat the pile and will concentrate the pile driving activity closer to the ground where pile driving noise can be shielded more effectively by a noise barrier/curtain.</p> <p>NS-17 For projects where pile driving would be necessary for construction due to geological conditions, utilize quiet pile driving techniques such as the use of more than one pile driver to shorten the total pile driving duration.</p>

*Cumulative Impacts*¹²²

Both the Final Program EIR for the 2022 AQMP and the Final Program EIR for the 2016 AQMP concluded that implementation of their respective AQMP control measures could result in significant adverse noise and vibration impacts during construction because vibration from construction activities could exceed the 72 vibration decibels (VdB) threshold for structures and sensitive receptors within 200 feet of construction activities if certain types of construction equipment were used.

When combined with the Connect SoCal Plan, the SIP strategies, state policies, and other past, present, and reasonably foreseeable activities, the 2022 AQMP would result in a significant increase to noise and vibration impacts during construction, and would contribute to cumulatively considerable impacts. No additional mitigation measures to reduce the significant cumulative impacts to noise and vibration during construction have been identified. Cumulative impacts to noise and vibration during construction for past, present, and reasonably foreseeable future projects would remain significant and unavoidable for noise and vibration.

The 2016 AQMP control measures would result in significant adverse noise and vibration impacts during construction and, when combined with past, present, and reasonably foreseeable activities, and in particular with transportation projects projected in the 2016 RTP/SCS, would contribute to cumulatively considerable impacts to noise impacts identified in the 2016 RTP/SCS, therefore resulting in a significant cumulative impact. No additional mitigation measures to reduce the significant cumulative impacts to noise were identified. Cumulative impacts to noise and vibration from implementation of the 2016 AQMP would remain significant and unavoidable.

Summary of Noise Analyses

Table A-15 presents a summary of the noise analyses conducted in the 2022 AQMP and 2016 AQMP.

¹²² See Section 4.6.5 Cumulative Noise Impacts and Mitigation Measures of the Final Program EIR for the 2022 AQMP and Section 5.13.1 Cumulative Impacts of the Final Program EIR for the 2016 AQMP

Table A-15. Summary of Noise Analyses in the Final Program EIRs for the 2022 AQMP and 2016 AQMP

Significance Criteria	Potentially Significant Impacts	Mitigation Measures	Cumulative Impacts
<p>Noise impacts are significant if any of the following conditions occur:</p> <ul style="list-style-type: none"> 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. 	<p>Implementation of Control Measures MOB-02A and MOB-02B from the 2022 AQMP and Control Measure MOB-02 from the 2016 AQMP would cause potentially significant noise impacts from:</p> <ul style="list-style-type: none"> Construction of roadway infrastructure 	<p>NS-1 to NS-14 of the Final Program EIR for the 2022 AQMP and NS-1 to NS-17 of the Final Program EIR for the 2016 AQMP</p>	<p>Cumulative impacts to noise and vibration impacts for past, present, and reasonably foreseeable future projects would remain significant and unavoidable during construction activities.</p>

Solid and Hazardous Waste

The Final Program EIR for the 2022 AQMP identified and analyzed potentially significant solid and hazardous waste impacts associated with disposal of spent diesel particulate filters. Both the Final Program EIR for the 2022 AQMP and the Final Program EIR for the 2016 AQMP identified construction activities for infrastructure development, and replacement and early retirement of vehicles and equipment to be potentially significant solid and hazardous waste impacts associated with implementation of PR 2306.

Significance Criteria

Solid and hazardous waste impacts are significant if the generation and disposal of hazardous and non-hazardous waste exceeds the capacity of designated landfills.

Table A-16 summarizes the landfill capacity in South Coast AQMD jurisdiction, and is Table 3.7-2 Number of Class III Landfills Located within the South Coast AQMD’s Jurisdiction and Related Landfill Capacity, from the Final Program EIR for the 2022 AQMP.

Table A-16. Number of Class III Landfills Located within the South Coast AQMD’s Jurisdiction and Related Landfill Capacity

County	Number of Landfills	Permitted Capacity (tons per day)
Los Angeles	10	38,249
Orange	3	23,500
Riverside ⁽¹⁾	6	22,314
San Bernardino ⁽¹⁾	9	16,269
Total	28	100,332

Source: CalRecycle Solid Waste Information System *SWIS) Search. Available at: <https://www2.calrecycle.ca.gov/SolidWaste/>

(1) Data presented is for the entire county and not limited to the portion of the county within the South Coast AQMD jurisdiction.

Solid and Hazardous Waste Impacts from Disposal of Spent Diesel Particulate Filters¹²³

Implementation of Control Measures MOB-02A and MOB-02B could result in the use of diesel particulate filters (DPFs) to reduce diesel particulate matter, a toxic, from on-road heavy-duty vehicles, off-road construction equipment, and low-emitting engines on cargo handling equipment and locomotives. A DPF is an exhaust aftertreatment device that traps diesel particulate matter as ash which is a by-product of combustion engines that use diesel fuel. In order to reduce emissions from diesel engines, a DPF captures and stores exhaust soot, which must be periodically burned off to regenerate the filter media. The lifespan of a DPF varies based on the application and type of engine but can last from five to ten years or 10,000 or more hours of operation. During the regenerative process, no solid waste is generated. However, during the periodic cleaning of the DPF, the process involves manually removing the filter element from the housing and placing it

¹²³ See Section 4.7.3.2.2 Diesel Particulate Filters of the Final Program EIR for the 2022 AQMP and Section 4.6.4.2.2 Particulate Traps, Filters, and Precipitators of the Final Program EIR for the 2016 AQMP

in a cleaning station designed for this purpose. The ash is collected in the cleaning station and sent for disposal as solid waste. DPF ash is not specifically listed in the Federal Code of Regulations as a hazardous material, but there may be metallic oxides in the ash which are hazardous to the environment and public health. Waste generators that operate DPF cleaning stations can either dispose of the DPF ash as hazardous waste or can have the waste tested using the Toxicity Characteristic Leaching Procedure (TCLP) which is a process that replicates the leaching process that would naturally occur when waste is buried in a municipal landfill. If the leachate contains any of the regulated contaminants at concentrations that are equal to or greater than the regulatory levels, then the DPF ash is considered hazardous waste.

Diesel repair shops currently operate cleaning stations so any additional soot and ash removed from additional DPFs deployed as a result of implementing the control measures will be collected and disposed of in accordance with existing practices and applicable regulations for hazardous waste disposal. At the end of its useful life, a DPF has monetary value and is typically sent for recycling to recover the catalyst and the metal housing is sent to a scrap metal recycler, so solid waste is not expected from the disposal of DPFs. While the quantity of equipment that would utilize DPFs as result of implementing the control measures is unknown, the quantity of collected particulate matter typically recovered from one DPF during its cleaning is expected to be small such that the amount of additional DPF ash that would need to be disposed of in either local landfills or hazardous waste landfills, depending on the chemical characteristics of the DPF ash, would also be relatively small. Nonetheless, an increase in the use of DPFs may result in an incremental increase in solid waste requiring disposal in landfills over what would be produced if the 2022 AQMP were not adopted.

If based on the outcome of the TCLP process that the DPF ash collected during the filter cleaning process is not hazardous, then it could be disposed of as solid waste at a number of landfills located within South Coast AQMD's jurisdiction. The current permitted capacity of the landfills in Los Angeles, Orange, Riverside, and San Bernardino counties is about 100,332 tons per day (see Table A-16) and has sufficient capacity to handle the small increase in soot and ash collected during the DPF cleaning process. There are no hazardous waste landfills within the South Coast AQMD's jurisdiction. If the DPF ash is determined to be hazardous, the waste can be transported to permitted facilities located within and outside of California. There are two hazardous waste landfills in California: Clean Harbors landfill located in Buttonwillow and CWMI Kettleman Hills landfill in Kings County. The permitted capacity of Clean Harbors is in excess of 13 million cubic yards of waste material and the permitted capacity of CWMI Kettleman Hills is over 33 million cubic yards. Therefore, these two hazardous materials landfills would have sufficient capacity to handle the small amounts of waste that could be generated by ash collected from DPFs employed on equipment as part of implementing the control measures. Therefore, the Final Program EIR for the 2022 AQMP concluded that use of DPFs would generate less than significant levels of solid and hazardous waste in the form DPF ash which would need to be disposed of in either a municipal or hazardous waste landfill.

*Solid and Hazardous Waste Impacts from Construction for Infrastructure Development*¹²⁴

Control Measures MOB-02A and MOB-02B were expected to involve construction associated with the electrification of existing sources and the replacement of existing equipment. This construction could generate solid waste due to demolition and site preparation, grading, and excavating. Specifically, demolition activities could generate demolition waste while site preparation, grading, and excavating could uncover contaminated soils since the facilities affected by the control measures are located in existing industrial or commercial areas. Excavated soil, if found to be contaminated, would need to be characterized, treated, and disposed of offsite in accordance with applicable regulations. Where appropriate, the soil can be recycled for reuse if it is considered or classified as non-hazardous waste, or it can be disposed of at a landfill that accepts non-hazardous waste. Otherwise, the material will need to be disposed of at a hazardous waste facility.

Due to the uncertainty of the future capacity of the landfills within South Coast AQMD's jurisdiction and the broad scope of equipment that could undergo modifications or replacement, the Final Program EIR for the 2022 AQMP concluded the solid and hazardous waste impacts from construction to be potentially significant and mitigation measures were required. Since the project-specific mitigation for solid and hazardous waste impacts are the same for waste generated during construction and operation, the mitigation measures follow the discussion of operational impacts.

Similarly, implementation of 2016 AQMP control measures such as MOB-02 would result in construction which would generate waste attributable to the removal of soil, construction debris from demolition, etc., and some of this waste could be characterized as hazardous waste. The Final Program EIR for the 2016 AQMP determined that it would be speculative to estimate the amount of construction waste that would be generated if the 2016 AQMP was implemented, since the extent and timing of individual projects was not known. Therefore, the solid and hazardous waste impacts from construction were concluded to be significant.

*Solid and Hazardous Waste Impacts from Replacement and Early Retirement of Vehicles and Equipment*¹²⁵

Implementation of Control Measures MOB-02A, MOB-02B, and MOB-02 that encourage the early retirement of older vehicles and other mobile sources, and the replacement with newer equipment or newer vehicles (including electric or alternative fuel vehicles) could result in an increase in waste generated from spent batteries and non-salvageable material. AQMP mobile source pollution control measures would incentivize penetration of fuel cell and electric vehicles into the market. The potential quantities of retired vehicles are summarized by category in Tables A-17 and A-18 which compile information from Table 4.7-2 Potential Vehicle Retirements By Mobile Source Sector, from the Final Program EIR for the 2022 AQMP, and Table 4.6-2 Control Measures and Potential Vehicle Retirement Quantities, from the Final Program EIR for the 2016 AQMP, respectively.

¹²⁴ See Section 4.7.3.1 Solid and Hazardous Waste Associated with Construction Activities of the Final Program EIR for the 2022 AQMP and Section 4.6.4.4 Construction Waste of the Final Program EIR for the 2016 AQMP

¹²⁵ See Section 4.7.3.1.2 Solid Waste Impacts During Construction Due to Early Retirement of Equipment of the Final Program EIR for the 2022 AQMP and Section 4.6.4.3 Retirement of Equipment of the Final Program EIR for the 2016 AQMP

Table A-17. Potential Vehicle Retirements By Mobile Source Sector

Mobile Source Sector	Number of Potential Vehicle Retirements
Heavy-Duty Vehicles	8,214
Off-Road Construction	1,021
Other Off-Road and CHE	428
TRU	224
Locomotives	125
Total:	10,012

Source: 2022 AQMP Table 4-23. Based on active projects with emission reductions in 2037 using the maximum project life allowed per 2017 Carl Moyer Guidelines.

Table A-18. Control Measures and Potential Vehicle Retirement Quantities

CONTROL MEASURE NO.	CONTROL MEASURE DESCRIPTION	ESTIMATED NUMBER OF VEHICLES	
		2023	2031
MOB-01, MOB-02, MOB-03, MOB-04, OFFS-01, OFFS-04, OFFS-06	Accelerate the Penetration of Zero Emission TRUs, Forklifts, and Ground Support Equipment	50,000	100,00

The most common battery currently used in gasoline- and diesel-powered vehicles is the lead-acid battery found in conventional automobiles and trucks. These batteries are disposed of through the established lead recycling industry. However, zero emission vehicles operate with battery types that are different than the lead-acid battery; the most common type of battery used in electric vehicles is comprised of lithium ion technology (Li-ion). The increased operation of electric vehicles associated with the implementation of the AQMP mobile source measures may actually result in a reduction of the amount of solid and hazardous waste generated in the South Coast AQMD's jurisdiction, as Li-ion batteries have a much longer life span than conventional lead-acid batteries. The recycling of batteries is also required under law. Further, some manufacturers pay for used electric vehicle batteries. The value, size, and length of life of Li-ion batteries are such that recycling is expected to be more predominant than with lead acid batteries. Therefore, the use of electric vehicles is not expected to result in an increase in the illegal or improper disposal of electric batteries. Further, batteries associated with electric cars are required to be diverted from landfills. Therefore, no significant increase in the disposal of solid or hazardous waste is expected due to increased use of electric vehicles.

The primary solid waste impact from retiring more vehicles as part of implementing the control measures is the accelerated replacement and disposal of equipment and parts earlier than the end of their useful life. It is important to note that control measures do not mandate that older vehicle, engines, or other equipment be scrapped. The control measures allow for a number of different control methods to achieve the desired emission reductions, and the most cost-effective methods would be expected to be implemented. Control measures such as MOB-02A and MOB-02B that would foster a transition to putting new equipment into service will also generally result in the concurrent retirement of the older equipment. Alternatively, some measures may encourage the

advanced deployment of cleaner technologies without waiting for an equipment's end of useful life which will result in an air quality benefit. Scrap metal from vehicle replacements is expected to be recycled; however, some amount of waste-scraped vehicles and parts may be sent to landfills for disposal. Although recycling and diversion activities will reduce the amount of waste entering landfills, it is difficult to quantify the waste that will be generated from the early retirement of equipment or the salvageable amount that would be recycled.

The Final Program EIR for the 2022 AQMP concluded early retirement of equipment to have significant solid and hazardous waste impacts since available landfill space is limited to approximately 100,000 tons per day and only four of the solid waste landfills within the South Coast AQMD's jurisdiction have capacity past 2039.

The Final Program EIR for the 2016 AQMP similarly concluded early retirement of equipment to have significant solid and hazardous waste impacts because, although equipment that may be retired before the end of its useful life may be reused in areas outside the Basin and equipment with no remaining useful life is expected to be recycled for metal content, there would be a high volume of vehicle and equipment to retire in a short timeframe and uncertainty of their outcome.

Construction waste from infrastructure development and operational waste from the early retirement of equipment were identified as generating potentially significant solid and hazardous waste impacts. Feasible mitigation measures SHW-1 to SHW-3 for reducing impacts related to solid and hazardous waste were adopted in the Final Program EIR for the 2022 AQMP. Even after mitigation measures SHW-1 to SHW-3 were applied, the Final Program EIR for the 2022 AQMP concluded that the solid and hazardous waste impacts would remain significant (see pages 4.7-24 to 4.7-25 of the Final Program EIR for the 2022 AQMP). The Final Program EIR for the 2016 AQMP, however, did not identify mitigation measures feasible of reducing solid and hazardous waste impacts.

*Mitigation Measures Adopted in the Final Program EIR for the 2022 AQMP for Solid and Hazardous Waste*¹²⁶

- SHW-1 During the planning, design, and project-level CEQA review process for individual development projects, lead agencies shall coordinate with waste management agencies and the appropriate local and regional jurisdictions to facilitate the development of measures and to encourage diversion of solid waste such as recycling and composting programs, as needed. This includes discouraging siting of new landfills unless all other waste reduction and prevention actions have been fully explored to minimize impacts to neighborhoods.
- SHW-2 The lead agency should coordinate with waste management agencies, and the appropriate local and regional jurisdictions, to develop measures to facilitate and encourage diversion of solid waste such as recycling and composting programs.
- SHW-3 In accordance with CEQA Guidelines Sections 15091(a)(2) and 15126.4(a)(1)(B), a Lead Agency for a project should consider mitigation measures to reduce the generation of solid waste, as applicable and feasible. These may include the integration of green building measures consistent with CALGreen (California

¹²⁶ See Section 4.7.3.2.5 Wood and Greenwaste of the Final Program EIR for the 2022 AQMP

Building Code Title 24) into project design including, but not limited to the following:

- 1) Reuse and minimization of construction and demolition (C&D) debris and diversion of C&D waste from landfills to recycling facilities.
- 2) Include a waste management plan that promotes maximum C&D diversion.
- 3) Pursue source reduction through: a) the use of materials that are more durable and easier to repair and maintain; b) design to generate less scrap material through dimensional planning; c) increased recycled content; d) the use of reclaimed materials; and e) the use of structural materials in a dual role as finish material (e.g., stained concrete flooring, unfinished ceilings, etc.).
- 4) Reuse existing structure and shell in renovation projects.
- 5) Develop indoor recycling program and space.
- 6) Discourage the siting of new landfills unless all other waste reduction and prevention actions have been fully explored. If landfill siting or expansion is necessary, site landfills with an adequate landfill-owned, undeveloped land buffer to minimize the potential adverse impacts of the landfill in neighboring communities.
- 7) Discourage exporting locally generated waste outside of the southern California region during the construction and implementation of a project. Encourage disposal within the county where the waste originates as much as possible. Promote green technologies for long-distance transport of waste (e.g., clean engines and clean locomotives or electric rail for waste-by-rail disposal systems) and consistency with South Coast AQMD and Connect SoCal policies can and should be required.
- 8) Encourage waste reduction goals and practices and look for opportunities for voluntary actions to exceed the 80 percent waste diversion target.
- 9) Encourage the development of local markets for waste prevention, reduction, and recycling practices by supporting recycled content and green procurement policies, as well as other waste prevention, reduction and recycling practices.
- 10) Develop ordinances that promote waste prevention and recycling activities such as requiring waste prevention and recycling efforts at all large events and venues, implementing recycled content procurement programs, and developing opportunities to divert food waste away from landfills and toward food banks and composting facilities.
- 11) Develop and site composting, recycling, and conversion technology facilities that have minimum environmental and health impacts.
- 12) Integrate reuse and recycling into residential industrial, institutional and commercial projects.
- 13) Provide education and publicity about reducing waste and available recycling services.

- 14) Implement or expand city or county-wide recycling and composting programs for residents and businesses. This could include extending the types of recycling services offered (e.g., to include food and green waste recycling) and providing public education and publicity about recycling services.

*Cumulative Impacts*¹²⁷

The Final Program EIR for the 2022 AQMP concluded that implementation of the 2022 AQMP could result in significant adverse solid and hazardous waste impacts due to the uncertainty of the future capacity of the landfills within South Coast AQMD's jurisdiction to address waste from construction of infrastructure and early retirement of vehicles and equipment. When combined with the Connect SoCal Plan, the SIP strategies, state policies, and other past, present, and reasonably foreseeable activities, the 2022 AQMP would result in a significant increase in solid and hazardous waste, and would contribute to cumulatively considerable impacts. No additional mitigation measures to reduce the significant cumulative impacts to solid and hazardous waste have been identified. Cumulative impacts to solid and hazardous waste for past, present, and reasonably foreseeable future projects would remain significant and unavoidable for solid and hazardous waste.

The Final Program EIR for 2016 AQMP concluded that implementation of Control Measure MOB-02 would result in significant adverse solid and hazardous waste impacts due to a high volume of vehicle and equipment being retired in a short timeframe and uncertainty of their outcome. Other 2016 AQMP control measures would also result in significant adverse solid and hazardous waste impacts due to construction. The 2016 AQMP control measures would result in significant adverse solid and hazardous waste impacts and, when combined with past, present, and reasonably foreseeable activities, and in particular with transportation projects projected in the 2016 RTP/SCS, would contribute to cumulatively considerable impacts to solid and hazardous waste identified in the 2016 RTP/SCS, therefore resulting in a significant cumulative impact. No additional mitigation measures to reduce the significant cumulative impacts to solid and hazardous waste were identified. Cumulative impacts to solid and hazardous waste from implementation of the 2016 AQMP would remain significant and unavoidable.

Summary of Solid and Hazardous Waste Analyses

Table A-19 presents a summary of the solid and hazardous waste analyses conducted in the 2022 AQMP and 2016 AQMP.

¹²⁷ See Section 4.7.5 Cumulative Solid and Hazardous Waste Impacts and Mitigation Measures of the Final Program EIR for the 2022 AQMP and Section 5.17.1 Cumulative Impacts of the Final Program EIR for the 2016 AQMP

Table A-19. Summary of Solid and Hazardous Waste Analysis in the Final Program EIRs for the 2022 AQMP and 2016 AQMP

Significance Criteria	Potentially Significant Impacts	Mitigation Measures	Cumulative Impacts
<p>Solid and hazardous waste impacts are significant if any of the following conditions occur:</p> <ul style="list-style-type: none"> • If the generation and disposal of hazardous and non-hazardous waste exceeds the capacity of designated landfills. 	<p>Implementation of Control Measures MOB-02A and MOB-02B from the 2022 AQMP and Control Measure MOB-02 from the 2016 AQMP would cause potentially significant solid and hazardous waste impacts from:</p> <ul style="list-style-type: none"> • Construction waste for infrastructure development, and • Operational waste from the early retirement of equipment 	<p>SHW-1 to SHW-3 of the Final Program EIR for the 2022 AQMP</p> <p>No mitigation measures related to solid and hazardous waste impacts were identified and adopted in the Final Program EIR for the 2016 AQMP.</p>	<p>Cumulative impacts to solid and hazardous waste impacts for past, present, and reasonably foreseeable future projects would remain significant and unavoidable because of potential increases in waste produced during construction and operation activities.</p>

ENVIRONMENTAL TOPIC AREAS WITH LESS THAN SIGNIFICANT OR NO IMPACTS

Since PR 2306 implements Control Measures MOB-02A, MOB-02B, and MOB-02 of the 2022 AQMP and 2016 AQMP without adding new impacts or modifying the previously analyzed impacts for each environmental topic area, the overall conclusions of less than significant or no impacts in the Final Program EIR for the 2022 AQMP and Final Program EIR for the 2016 AQMP will remain unchanged if PR 2306 is adopted.

Because the environmental topic areas of air quality and greenhouse gas emissions from operation and hydrology and water quality were identified as having potential adverse impacts, the following discussion first summarizes the analysis of less than significant impacts for the environmental topic areas of air quality and greenhouse gas emissions from operation, and hydrology and water quality before summarizing the analysis of other environmental topic areas having no significant adverse impacts.

Air Quality and Greenhouse Gas Emissions

The Final Program EIR for the 2022 AQMP and Final Program EIR for the 2016 AQMP concluded that implementation of control measures, such as MOB-02A, MOB-02B, and MOB-02, would generate potentially significant air quality impacts during construction, less than significant operational air quality impacts, and potentially significant short-term increases in GHG emissions that would be offset and eventually result in a long-term net reduction in GHG emissions.

Air Quality Impacts from Operation¹²⁸

The Final Program EIR for the 2022 AQMP contemplated that implementation of Control Measures MOB-02A and MOB-02B of 2022 AQMP has the potential to promote the transition to zero emission technologies, and this transition is expected to require additional electricity; increase the demand for alternative fuels production (e.g., hydrogen or renewable fuels), and the potential air quality impacts from production facilities; and accelerate the purchase of zero emission or low NOx emitting equipment and vehicles that would replace older equipment and vehicles, thereby increasing the scrapping of equipment and vehicles faster than would normally occur.

Implementing Control Measures MOB-02A and MOB-02B was expected to result in electricity demand increase by developing infrastructure to provide electricity at rail yards, and intermodal facilities for electrified vehicles and equipment; deploying cleaner technologies including the electrification of equipment currently powered by diesel fuel; and incentivizing the retirement and replacement of older vehicles and equipment with electric vehicles and equipment. While the Final Program EIR for 2022 AQMP identified the potential electricity usage associated with approximately half the mobile source control measures, specific data pertaining to the number of units that may be deployed was not available. Thus, a net increase in electricity usage as well as the air quality impacts associated with the potential increase in electrified mobile sources was not quantified. Nonetheless, gasoline and diesel fuel use and their corresponding combustion emissions were expected to decrease as the demand for electricity increases, displaced by combustion emissions from natural gas, which is the primary fuel used for generating electricity within South Coast AQMD's jurisdiction. SB 100 requires that the electrical infrastructure needed to support the increased deployment of electric vehicles and other electrified equipment would

¹²⁸ See Section 4.2.5.2 Criteria Pollutants – Operational Activities of the Final Program EIR for the 2022 AQMP and Section 4.1.6.2 Criteria Pollutants – Operational Activities of the Final Program EIR for the 2016 AQMP

need to have 100 percent renewable electricity generation by 2045. As mobile sources transition from combustion to electrified technology, the amount of emissions from combusting diesel and gasoline is expected to decline over time. However, the combustion emissions from natural gas utilized in electricity-producing equipment will increase over the short-term until the SB 100 goals of producing electricity from 100 percent renewables are achieved.

Implementing Control Measures MOB-02A and MOB-02B was expected to increase the demand for alternative fuels including renewable transportation fuels (e.g., renewable diesel) and hydrogen. The Final Program EIR for the 2022 AQMP referenced several renewable fuels projects that were recently approved in California, and implementation of the control measures were anticipated to cause an increase in the demand for renewable fuels such that additional renewable fuels projects (e.g., hydrogen production facilities) may be needed. Due to the difficulty and length of time involved with siting and permitting new industrial facilities in general, the development of new facilities dedicated to producing alternative fuels is less likely to occur. Instead, existing industrial facilities are more likely to propose modifications in order to produce renewable fuels. Renewable fuels production requires energy input to reconfigure the molecules of the renewable feedstocks into transportation fuels, and the energy input is currently provided by large combustion sources (i.e., heaters or furnaces). In addition, renewable fuels production requires hydrogen as part of the reaction. Based on the CEQA analyses conducted for such projects, conversion of petroleum refinery equipment to be able to produce renewable fuels has the potential to decrease emissions facility-wide provided that hydrogen production facilities are already in place. However, when existing hydrogen production facilities are not available or cannot produce sufficient supplies of hydrogen needed to produce renewable fuel, a new hydrogen plant may be required which may cause significant adverse air quality impacts.

Implementing Control Measures MOB-02A and MOB-02B was expected to accelerate the purchase of zero emission or low NO_x emitting equipment and vehicles that would replace older equipment and vehicles, thereby increasing the scrapping of equipment and vehicles faster than would normally occur. The actual quantity of equipment and vehicles that may be scrapped as a result of implementing these control measures rather than being moved for use elsewhere outside of South Coast AQMD's jurisdiction was not known. In addition, the available capacity of scrapping facilities to be able to handle and process the increased amount of equipment and vehicles to be scrapped was unknown. During the development of Rule 1610 – Old-Vehicle Scrapping, emissions associated with vehicle scrapping were estimated to be 0.088 pound of PM₁₀ emissions per vehicle scrapped. [South Coast AQMD, 1992]. According to an internet search conducted on August 15, 2022, there were eight auto recycling facilities operating within South Coast AQMD's jurisdiction.¹²⁹ Assuming that six vehicles can be crushed per hour (Martin, 2013) and each facility operates 10 hours per day, a total 480 vehicles can be crushed per day (8 facilities x 6 cars/hour x 10 hours/day = 480 cars/day). Therefore, vehicle scrapping has the potential to generate 42 pounds of PM₁₀ per day, which is less than the South Coast AQMD's operational significance threshold of 150 pounds per day. Applying the CARB's CEIDARS profile 900 ratio

¹²⁹ State of California Auto Dismantlers Association, 2022, Members Direct Search, <https://scada1.org/find-member>, August 12, 2022.

for unspecified sources of 0.6 pound of PM_{2.5} per pound of PM₁₀^{130,131}, a corresponding 25 pounds per day of PM_{2.5} emissions can be expected, and this is less than the PM_{2.5} significance threshold of 55 pounds per day.

Thus, operational activities resulting from implementation of control measures such as MOB-02A and MOB-02B in the 2022 AQMP were expected to generate less than significant criteria pollutant air quality impacts. Since no significant air quality impacts relating to operational activities were identified, no mitigation measures were necessary or required.

The Final Program EIR for the 2016 AQMP contemplated that implementation of Control Measure MOB-02 has the potential to accelerate the replacement of locomotive engines in freight service or employ add-on devices to meet the lower emission standard; increase the use of alternative fuels such as biodiesel, LNG, CNG, ethanol, and hydrogen; and reduce mobile source emissions, in particular, emissions of diesel particulate matter (DPM) from engine exhaust.

Implementing Control Measure MOB-02 would potentially accelerate the replacement of locomotive engines in freight service or employ add-on devices to meet the lower emission standard. As such, control measure MOB-02 may generate air quality impacts from add-on devices. Locomotives are typically refurbished, and a new engine installed so no scrapping of the locomotives are expected. Add-on devices, such as particulate filters have an increase in fuel use associated with the decrease in fuel economy associated with the type of add-on device, which the Final Program EIR for 2016 AQMP estimated to be less than one percent. Therefore, there was a potential for an increase in emissions from the increase in fuel use. However, the number of locomotives to be equipped with add-on devices versus replaced was not known. Therefore, quantification of the air quality impacts would be speculative.

Implementing Control Measure MOB-02 has the potential to increase the use of alternative fuels such as biodiesel, LNG, CNG, ethanol, and hydrogen. The availability of the producers of alternative fuels to meet the increase in demand has the potential for an increase in emissions associated with the increased production. Production of the alternative fuels such as LNG and CNG require little processing with less emissions than the production of refined petroleum products such as gasoline, diesel, and jet fuel. While biodiesel and ethanol production do require more processing than LNG and CNG, the production processes are less complicated than petroleum refining. Biodiesel is made from a catalytic chemical process similar to one or two processes in a typical refinery, which will have many units available to produce refined products from crude oil. Ethanol is produced by fermentation. Biodiesel and ethanol can be made from renewable sources such as vegetable oils, sugar cane, corn, and animal fats. Therefore, the production of alternative fuels, especially biofuels, typically generates less air emissions than a petroleum refinery would when producing similar gasoline or gasoline equivalent amounts. Any increase in emissions attributable to an increased production of alternative fuels would be offset

¹³⁰ CARB's California Emissions Inventory Data Analysis and Reporting System (CEIDARS) is a database management system developed to track statewide criteria pollutant and air toxic emissions; <https://ww2.arb.ca.gov/criteria-pollutant-emissioninventory-data>.

¹³¹ South Coast AQMD, 2006. Final Methodology to Calculate Particulate Matter (PM) 2.5 and PM 2.5 Significance Thresholds, Table A. [http://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/particulate-matter-\(pm\)-2.5-significance-thresholds-and-calculation-methodology/final_pm2_5methodology.pdf](http://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/particulate-matter-(pm)-2.5-significance-thresholds-and-calculation-methodology/final_pm2_5methodology.pdf).

by reduced levels of petroleum fuel production and transportation of crude oil primarily from overseas and possibly by rail, as diesel and gasoline demand decreases.

Implementing Control Measure MOB-02 would reduce mobile source emissions, in particular, emissions of diesel particulate matter (DPM) from engine exhaust, which is a known carcinogen, as well as toxic components of gasoline such as benzene and 1,3-butadiene. This mobile source control measure would result in replacing existing vehicles or equipment with more efficient vehicles or equipment, zero emission electric vehicles or equipment, or alternative fueled vehicles or equipment. Combustion emissions of alternative fuels have trace amounts of methanol and aldehyde, but, generally, are considered to be cleaner and less toxic than diesel or gasoline fueled vehicles. Emissions from power generating equipment may include trace amounts of benzene, aldehydes, metals, and polynuclear aromatic hydrocarbons. However, if the process being electrified was previously powered by direct combustion of fossil fuels, then electrification was expected to result in an overall decrease in toxic emissions.

Thus, operational activities resulting from implementation of control measures such as MOB-02 in the 2016 AQMP were expected to generate less than significant criteria pollutant air quality impacts. Since no significant air quality impacts relating to operational activities were identified, no mitigation measures were necessary or required.

Greenhouse Gas Emissions Impacts¹³²

The Final Program EIR for the 2022 AQMP contemplated that implementation of Control Measures MOB-02A and MOB-02B would cause an increase in GHGs due to construction activities. Both the Final Program EIR for the 2022 AQMP and Final Program EIR for the 2016 AQMP contemplated that the rail yard control measures would cause an increase in GHGs due to increased electricity usage, but also a decrease in GHGs due to the conversion from conventional fuels to alternative fuels.

Implementing Control Measures MOB-02A and MOB-02B may involve construction activities which may emit GHGs. South Coast AQMD policy regarding GHG emissions from construction is to amortize construction emissions over a 30-year timeframe and add the result to operational emissions. The magnitude of construction GHG emissions will vary greatly depending on the project. Installation of electrical infrastructure projects (e.g., charging stations) typically does not require large amounts of construction equipment as they are installed in parking lots of existing facilities. Minimal trenching and foundation work is necessary, and these actions typically require the most construction equipment. On the other hand, alternative fuels production facilities would be much larger projects involving more, and larger capacity construction equipment which may rely on diesel or gasoline to operate. The combined GHG construction emissions from all projects requiring construction as a result of implementing the control measures in the 2022 AQMP, would represent a relatively small portion of the total GHG emission impacts, especially considering that the operational GHG emissions will be substantially reduced relative to the existing setting and will likely offset any increases in construction GHGs.

Of the total fuel consumed in Los Angeles, Orange, Riverside and San Bernardino counties, transportation sources account for over 50 percent of fuel use and these sources are also the main

¹³² See Section 4.2.5.5 Greenhouse Gas Emissions of the Final Program EIR for the 2022 AQMP and Section 4.1.6.4 Greenhouse Gas Emissions of the Final Program EIR for the 2016 AQMP

contributors to NO_x emissions. Within the transportation sector, diesel-powered sources emit the majority of NO_x. With regards to mobile source control measures, accelerating the replacement of conventional vehicles with electric vehicles or alternative fueled vehicles into fleets regulated by the South Coast AQMD may produce emissions from increased electricity generation meanwhile the zero emission vehicles will not emit anything and the alternative fueled vehicles will emit fewer criteria pollutants, fewer toxics, and fewer GHGs. As such, the net effect of replacing gasoline and diesel mobile sources is expected to have greater overall GHG emission reduction benefits because the GHG emissions produced from generating the electricity needed to power one electric vehicle are fewer than the GHG emissions from one gasoline or diesel vehicle.

As mentioned in the Energy section, the Final Program EIR for the 2022 AQMP estimated that, compared to the 2018 baseline for electricity demand, implementation of the 2022 AQMP control measures is expected to increase electricity use by 13,429 GWh, approximately an 11 percent increase, by 2037 which will produce approximately 2.76 million metric tons (MMT) of GHG emissions.¹³³ The Final Program EIR for the 2016 AQMP estimated that, compared to the 2014 baseline, energy demand from 2016 AQMP control measures was expected to increase by 10,227 GWh, a 7.8 percent increase, by the year 2023 and produce 3.4907 million metric tons (MMT) of GHG emissions. Similarly, compared to the 2014 baseline, energy demand from 2016 AQMP control measures is expected to increase by 18,029 GWh, a 12.7 percent increase, by the year 2031 and produce 6.1496 MMT of GHG emissions.

The Final Program EIR for the 2022 AQMP estimated that implementing 2022 AQMP mobile source control measures has the potential to reduce total annual petroleum-based fuel use by approximately 1.5 billion gallons in milestone year 2030 and by approximately 1.8 billion gallons in milestone year 2037. Using a CO₂ emission factor of 8.10 kilograms per gallon (kg/gal) for gasoline and a CO₂ emission factor of 10.19 kg/gal for diesel, GHG emission reductions can be calculated for both gasoline and diesel in each milestone year. Similarly, at the time of developing the 2016 AQMP, the Final Program EIR for the 2016 AQMP estimated that implementing 2016 AQMP mobile source control measures has the potential to reduce total annual petroleum fuel use by approximately 530 million gallons in milestone year 2023. By milestone year 2031, total annual petroleum fuel use was expected to reduce by approximately 870 million gallons. Tables A-20 and A-21, which are Table 4.2-16 Estimated GHG Emissions Impacts from 2022 AQMP Control Measures, from the Final Program EIR for the 2022 AQMP and Table 4.1-6 Estimated GHG Emission Impacts from 2016 AQMP Control Measures, from the Final Program EIR for the 2016 AQMP, show that the net effect of implementing the AQMP control measures while concurrently reducing petroleum-based fuel use in mobile sources is expected to result in an overall reduction of GHG emissions.

Table A-20. Estimated GHG Emissions Impacts from 2022 AQMP Control Measures

Description	2037 CO₂eq Emissions (MMT)
Increased Electricity Use	2.18
Change in Gasoline Use	-2.23
Change in Diesel Use	-15.57
Net Change in Emissions	-15.62

¹³³ 2020 eGRID data of 453 lb/MWh for SCE, U.S. EPA, 2022, <https://epa.gov/egrid/download-data>.

Table A-21. Estimated GHG Emission Impacts from 2016 AQMP Control Measures

Description	2023 CO _{2eq} Emissions ^(a) (million metric tons)	2031 CO _{2eq} Emissions ^(a) (million metric tons)
Increased Electricity ^(b)	3.4907	6.1496
Change in Gasoline Use	-2.9766	-3.1238
Change in Diesel Use	-4.2970	-3.4305
Net Change in Emissions	-3.7829	-0.4047

(a) Source: Emission factors are from CARB, et al., 2010.

(b) Electricity generation is weighted by population in the LADWP and SCE service areas. Negative numbers represent emission reductions.

Converting gasoline- and diesel-fired sources to electrified equipment reliant on electricity that is primarily generated by natural gas and renewable sources is expected to result in an overall decrease of GHG emissions. The electricity needed to power zero-emission equipment is expected to be provided by public utility companies. Most existing power generating facilities are subject to Assembly Bill 32 and will be required to reduce their GHG emissions. Moreover, any future power generating stations that may be built in response to meeting the future electricity demand would be subject to stringent emission control requirements, including those for GHG emissions. Therefore, after taking into consideration the short-term increases in GHG emissions which will be offset by substantial reductions of GHG emissions from the decreased use of gasoline and diesel fuels combined with the overarching goal of transitioning to electricity sourced with 100 percent renewables by 2045 as required by Senate Bill 100 (SB 100, De León) the additional electricity that may be needed to implement the 2022 AQMP control measures has been determined to generate less than significant GHG emission impacts.

Implementing 2022 AQMP control measures also have the potential to increase the use of alternative fuels. Alternative fuels generally generate fewer or equivalent GHG emissions compared to gasoline and diesel when combusted. When comparing the overall benefit between various types of alternative fuels, the production methods used to generate the fuels must be considered (sometimes referred to as well-to-wheel energy and emission impacts). A comparison of various production methods showed that using hydrogen as a fuel reduces more GHG emissions when compared to reformulated gasoline, except when the hydrogen is produced by electrolysis using grid-supplied electricity, in which case the comparison is dependent on the renewable to non-renewable mix of the electricity generation.^{22F¹³⁴} While alternative fuel and hydrogen production facilities may increase GHG emissions, the overall GHG reductions associated with the use of the transportation fuels produced were expected to be greater than the GHG emissions from producing the fuels.

Implementing Control Measures such as MOB-02A and MOB-02B is expected to have GHG emissions associated with construction over the short-term; however, construction GHG emissions are amortized over 30 years and are much less than the overall potential operational emissions reductions of GHGs over the long-term. GHG emissions from the generation and use of additional electricity and alternative fuels, were not expected to be significant because there would be

¹³⁴ Alternative Fuels Data Center, 2022. Fuel Cell Electric Vehicle Emissions, https://afdc.energy.gov/vehicles/emissions_hydrogen.html, accessed August 17, 2022.

concurrent decreases in the use of diesel- and gasoline-fueled equipment over time as more electric and alternative fuel vehicles are deployed. Finally, electricity generation is required to transition to 100 percent renewables by 2045 as required by SB 100. Thus, implementation of Control Measure MOB-02A, MOB-02B, and MOB-02 was expected to result in potentially significant GHG operational emissions over the short-term and less than significant GHG emission impacts over the long-term. Since less than significant greenhouse gas impacts overall were identified, no mitigation measures were necessary or required.

Relative to cumulative impacts, the Final Program EIR for the 2022 AQMP and Final Program EIR for the 2016 AQMP concluded that implementation of the 2022 AQMP, when combined with past, present, and reasonably foreseeable activities, would contribute to impacts to air quality during construction, but would not contribute to cumulatively considerable impacts to air quality during operation or GHG emissions. There are no new impacts which would change the previous conclusions of the Final Program EIR for the 2022 AQMP and Final Program EIR for the 2016 AQMP regarding cumulatively considerable impacts to air quality. Further, no new mitigation measures would be required. Therefore, the cumulative impacts to air quality would remain significant and unavoidable.

Hydrology and Water Quality

The Notice of Preparation/Initial Study for the 2022 AQMP concluded that implementation of Control Measures MOB-02A and MOB-02B would have no potential adverse impacts related to hydrology and water quality; therefore, it was not further analyzed in the Final Program EIR for the 2022 AQMP. However, the Final Program EIR for the 2016 AQMP concluded that implementation of Control Measure MOB-02 would cause less than significant impacts to surface and ground water quality from accidental spills of alternative fuels or additives, and potential illegal disposal of batteries from electric vehicles and hybrids. Thus, the following summary will focus only on the hydrology and water quality impacts identified in the Final Program EIR for the 2016 AQMP for Control Measure MOB-02.

Significance Criteria

Hydrology and water quality impacts are significant if any of the following conditions occur:

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.

Hydrology and Water Quality Impacts from Accidental Spills of Alternative Fuels or Additives¹³⁵

The Final Program EIR for the 2016 AQMP identified that implementation of Control Measure MOB-02 could result in the increased penetration of electric vehicle vehicles but may also result in the increased use of alternative fuels (e.g., biodiesel fuels, compressed natural gas, liquefied natural gas, and hydrogen). In general, alternative fuels are expected to be less toxic than conventional fuels and follow a similar path as the low sulfur diesel. Biodiesel is a fuel derived from biological sources such as vegetable oils or animal fats. Biodiesel can be used pure or blended with conventional diesel. Because the biodiesel typically comes from vegetable oils or animal fats, it is generally less toxic and more biodegradable than conventional diesel, so the water quality impacts from a spill of biodiesel would be less than a spill of conventional diesel. The most common blended biodiesel is B20, which is 20 percent biodiesel and 80 percent conventional diesel. Therefore, the potential water quality impacts from the transport and storage of biodiesel and biodiesel blends were not expected to be substantially different than the transport and storage of conventional diesel.

The other types of alternative fuels that may be used as part of implementing Control Measure MOB-02 in the 2016 AQMP include compressed natural gas, liquefied natural gas, and hydrogen. Because all of these fuels exist as a gas at standard temperatures and pressures, a leak of any of these fuels would result in an airborne release, and not a release that could adversely affect water quality. There are a number of rules and regulations currently in place that are designed to minimize the potential impacts from underground leaking storage tanks and spills from fueling activities, including requirements for the construction of the storage tanks, requirements for double containment, and installation of leak detection systems. These regulations would also apply to any leaks of alternative fuels from storage tanks. Thus, the use of alternative fuels was not expected to result in any greater adverse water quality impacts than the current use of conventional fuels like diesel or gasoline.

Moreover, the Final Program EIR for 2016 AQMP identified the possibility of accidental spills from implementation of Control Measure MOB-02. A spill at any of the affected facilities could occur under upset conditions such as an earthquake. Spills could also occur from corrosion of containers, piping and process equipment, and leaks from seals or gaskets at pumps and flanges. A major earthquake would be a potential cause of a large spill. Other causes could include human or mechanical error. Construction of the vessels, and foundations in accordance with the California Building Code requirements helps structures to resist major earthquakes without collapse but may result in some structural and non-structural damage following a major earthquake. As required by U.S. EPA's spill prevention control and countermeasure regulations, all of the affected facilities are required to have emergency spill containment equipment and would implement spill control measures in the event of an earthquake. Storage tanks typically have secondary containment such

¹³⁵ See Section 4.5.3.2 Water Quality Impacts of the Final Program EIR for the 2022 AQMP and Section 4.4.4.2.2 Accidental Spills of the Final Program EIR for the 2016 AQMP

as a berm, which would be capable of containing 110 percent of the contents of the storage tanks onsite. Therefore, should a rupture occur, the contents of the tank would be collected within the containment system and pumped to an appropriate storage tank. Spills at affected industrial or commercial facilities would be collected within containment structures. Large spills outside of containment areas at affected facilities that could occur when transferring the material from a transport truck to a storage tank are expected to be captured by the process water system where they could be collected and controlled. Spilled material would be collected and pumped to an appropriate tank or sent off-site if the materials cannot be used on-site. The existing rules and requirements that limit the extent or prevent spills are expected to minimize impacts on water quality to less than significant levels. For this reason, accidental spills were not expected to create significant water quality impacts.

Hydrology and Water Quality Impacts from Illegal Disposal of Batteries¹³⁶

Implementation of Control Measure MOB-02 of the 2016 AQMP could contribute to an increased use of electric vehicles and other mobile sources. Since some batteries contain toxic materials, water quality impacts are possible if the batteries are disposed of in an unsafe manner, such as by illegal dumping or by disposal in a landfill. As interest in the use of electric vehicles has increased over the years, battery technologies have been developing and improving. Most battery technologies employ materials that are recyclable, since regulatory requirements and market forces encourage recycling. California laws create incentives and requirements for disposal of recycling of batteries as follows.

- Under CARB regulations, to certify either a new ZEV or retrofit an existing ZEV, automakers must complete CARB's certification application, which must include a battery disposal plan. Thus, current regulations require ZEV manufacturers to take account for the full life-cycle of car batteries and to plan for safe disposal or recycling of battery materials. For example, Toyota has offered \$200 per battery to minimize illegal disposal of batteries.
- California and federal law require the recycling of lead-acid batteries (California Health & Safety Code Section 25215). Spent lead-acid batteries being reclaimed are regulated under 22 CCR Section 66266.80 and 66266.81, and 40 CFR part 266, Subpart G.
- California law requires state agencies to purchase car batteries made from recycled material (Public Resources Code Section 42440).
- California passed the Household Universal Waste Rule in February 2006, which prohibits the landfill disposal household wastes such as batteries, electronic devices, and fluorescent light bulbs by anyone.

Existing battery recovery and recycling programs have limited the disposal of batteries in landfills. For example, the recycling of lead-acid and nickel-cadmium batteries is already a well-established activity. One secondary lead smelter (facilities that recycle lead-bearing materials) is currently located within the Basin. The secondary lead smelter receives spent lead-acid batteries and other lead bearing material and processes them to recover lead and polypropylene (from the battery casings). Acid is collected and recycled as a neutralizing agent in the wastewater treatment system. Other facilities available for battery recycling are located outside of the Basin. Further penetration

¹³⁶ See Section 4.4.4.2.4 Electric Vehicles of the Final Program EIR for the 2016 AQMP

of partial-zero and zero emission mobile sources in the Basin is expected to result in a reduction in the use of lead-acid batteries and a subsequent reduction in the lead-acid batteries that need to be recycled, after the vehicle/equipment is scrapped or has left the Basin.

Li-ion batteries are more common in electric vehicles and becoming more popular in hybrids. Because Li-ion batteries have a potential for after-automotive use, destructive recycling can be postponed for years even after an EV or hybrid battery can no longer hold and discharge sufficient electricity to power a car's motor. The battery pack can still carry a tremendous amount of energy. Battery manufacturers project that the battery packs will still be able to operate at about 80 percent of capacity the time they must be retired from automotive use [Edmunds, 2014]. Auto companies are partnering with battery, recycling, and electronics firms to figure out and develop post-automotive markets and applications for Li-ion battery packs [Green Car Reports, 2014]. With the opportunity for other uses, Li-ion battery recycling may not be as necessary as recycling of lead-acid batteries.

The illegal disposal of batteries from EVs and hybrids has the potential to result in significant water quality impacts by allowing toxic or hazardous metals or acids to leach into surface or ground waters. However, because battery recycling is required by law and because they have value, the illegal or improper disposal of batteries is expected to be uncommon. For example, because some manufacturers pay for used EV/hybrid batteries, the value, size, and length of life of NiMH and Li-ion batteries are such that recycling is expected to be more predominate than with lead acid batteries. Therefore, the use of EVs and hybrids are not expected to result in an increase in the illegal or improper disposal of batteries because these types of batteries are required to be recycled and thus, reducing the potential water quality impacts cause by illegal disposal. Based on the foregoing analysis, less than significant adverse water quality impacts are expected from the increased use of EV and hybrid vehicles and no new mitigation measures would be required.

Relative to cumulative impacts, the Final Program EIR for the 2016 AQMP concluded that implementation of the 2016 AQMP would not contribute to cumulatively considerable impacts to water quality but would contribute to cumulatively considerable impacts to water demand. However, since implementation of Control Measure MOB-02 and therefore PR 2306 is not expected to have impact to water demand, there are no new impacts which would change the previous conclusions of the Final Program EIR for the 2016 AQMP regarding cumulatively considerable impacts to hydrology and water quality. Further, no new mitigation measures would be required. Therefore, the cumulative impacts to hydrology and water quality would remain significant and unavoidable.

Other Environmental Topic Areas

The 2022 AQMP and 2016 AQMP were designed to reduce emissions from existing emission sources and promote the use of the cleanest technology available. The 2022 AQMP and 2016 AQMP would accelerate the replacement of high-emitting mobile sources with low NOx and zero-emission mobile sources; encourage the use of lower-emitting alternative fuels; affect stationary sources at existing commercial/industrial facilities and residential developments; develop incentives to remove/replace higher emitting equipment; establish greater control of industrial stationary sources; control indirect sources of emissions; improve energy efficiency; improve emission leak detection and maintenance procedures; and establish educational and outreach programs. The analysis provided in the Final Program EIR for 2022 AQMP concluded that the following environmental topic areas would have no potential adverse impacts due to

implementation of Control Measures MOB-02A and MOB-02B: aesthetics, agriculture and forestry resources, biological resources, cultural and tribal cultural resources, geology and soils, hydrology and water quality, land use and planning, mineral resources, population and housing, public services, recreation, transportation, and wildfire. Since no impacts were identified, no mitigation measures were necessary or required for these environmental topic areas.

Similarly, the analysis provided in the Final Program EIR for 2016 AQMP concluded that the following environmental topic areas would have no potential impacts due to implementation of Control Measure MOB-02: aesthetics, agriculture and forestry resources, biological resources, cultural and tribal cultural resources, geology and soils, land use and planning, mineral resources, noise, population and housing, public services, recreation, transportation, and wildfire. Since no impacts were identified, no mitigation measures were necessary or required for these environmental topic areas. Since PR 2306 implements Control Measures MOB-02A, MOB-02B, and MOB-02 without adding new or modifying the previously analyzed impacts for each environmental topic area, the overall conclusions of no impacts for these environmental topic areas in the Final Program EIRs for the 2022 AQMP and 2016 AQMP will remain unchanged if PR 2306 is implemented.

The following summaries provide the background regarding the no potential adverse impacts conclusions of each aforementioned environmental topic area.

*Aesthetics*¹³⁷: For both the 2022 AQMP and 2016 AQMP, the majority of control measures implemented within South Coast AQMD's jurisdiction would typically affect industrial, institutional, or commercial facilities located in appropriately zoned areas (e.g., industrial and commercial areas) that are not usually associated with scenic resources. Further, modifications would typically occur within the confines of the affected facilities, or because of the nature of the business (e.g., commercial or industrial), can easily blend in with the facilities with little or no noticeable effect on adjacent areas. Also improved air quality would provide benefits to scenic vistas and resources throughout South Coast AQMD's jurisdiction. Mobile source control measures were designed to accelerate the replacement of high emitting on-road and off-road mobile sources with lower-emitting mobile sources. Accelerating the penetration of lower-emitting mobile sources into market would not be expected to adversely affect scenic resources because these strategies do not require construction or disturbance to such resources.

The Final Program EIR for the 2022 AQMP indicated that Control Measures MOB-02A and MOB-02B could potentially encourage the use of overhead power lines (catenary lines) to provide electricity. The areas affected by the zero emission and low NOx control measures that could result in the installation of catenary lines are expected to be located in commercial, industrial areas, and along existing truck and rail transportation corridors. The truck and rail corridors likely to be involved are primarily associated with rail yards and intermodal facilities in industrial zones within Southern California, and container transfer facilities near the Terminal Island Freeway, along the Alameda Corridor, as well as inland rail yards near downtown Los Angeles. The roadway eligible for state scenic highway designation, nearest to either of the ports, the cargo transfer facilities serving the ports, along the Alameda Corridor, or the downtown rail yards, would be Route 1 (Pacific Coast Highway at State Route 19 – Lakewood Boulevard, in Long Beach) in the

¹³⁷ See Section 4.8.1 Aesthetics of the Final Program EIR for the 2022 AQMP and Section 4.8 Aesthetics of the Final Program EIR for the 2016 AQMP

southernmost portion of Los Angeles County. There are approximately five miles between the cargo transfer facilities serving the ports, to the intersection of State Route 19 and Route 1 (the point at which the roadway becomes eligible for designation as a state scenic highway). The potential locations for catenary overhead power lines (near the ports' facilities, transportation corridors and rail yards) would not be visible to Route 1 at State Route 19 due to the numerous existing structures and topography between the two locations or any other scenic highways. There are no officially designated scenic highways or highways eligible for state scenic highway designation in areas affected by construction of zero emission or low NOx equipment associated with Control Measures MOB-02A and MOB-02B; therefore, construction impacts on aesthetics were considered to be less than significant.

The Final Program EIRs for the 2022 AQMP and 2016 AQMP concluded that implementation of Control Measures MOB-02A, MOB-02B and MOB-02, was not expected to create additional demand for new lighting or exposed combustion sources (e.g., flares) that could create glare, adversely affecting day or nighttime views in any areas. Facilities affected by the control measures typically make modifications to light sources within property borders, so any new light sources would typically be inside a building or not noticeable because of the presence of existing outdoor light sources. Based on these considerations, less than significant aesthetic impacts were expected due to the implementation of the 2022 AQMP and 2016 AQMP.

*Agriculture and Forestry Resources*¹³⁸: The Final Program EIRs for the 2022 AQMP and 2016 AQMP concluded that implementation of Control Measures MOB-02A, MOB-02B, and MOB-02, was not expected to generate any new construction of buildings or other structures that would require conversion of farmland to non-agricultural use, conflict with zoning for agricultural uses, or a Williamson Act contract. Further, the analysis concluded that implementing the 2022 AQMP and 2016 AQMP would typically affect existing facilities that are located in appropriately zoned areas. Should any new facilities be constructed and operated, their planning would occur for reasons other than implementation of the 2022 AQMP and the 2016 AQMP. New facilities and improvements to existing facilities would continue to be subject to project-level review, including review of agricultural impacts under CEQA by the applicable local land use authority. Therefore, implementation of the 2022 AQMP and 2016 AQMP would not affect Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, or conflict with a Williamson Act contract, if implemented. Physical changes associated with the 2022 AQMP and 2016 AQMP were expected to occur at previously developed sites and would not require construction to occur in undeveloped areas where agricultural and forest resources are more likely to exist. The 2022 AQMP and 2016 AQMP, including control measures related to mobile sources, would have no direct or indirect effects on agricultural or forest land resources because their focus is on achieving emission reductions by increasing the penetration of zero and low NOx technologies into market. The 2022 AQMP and 2016 AQMP could provide benefits to agricultural and forest land resources by improving air quality in the region, thus reducing the adverse oxidation impacts of ozone on plants and animals. Based on these considerations, no agriculture and forestry resources impacts were expected due to the implementation of the of the 2022 AQMP and 2016 AQMP.

¹³⁸ See Section 4.8.2 Agriculture and Forestry Resources of the Final Program EIR for the 2022 AQMP and Section 4.9.1 Agriculture and Forestry Resources of the Final Program EIR for the 2016 AQMP

Biological Resources: Implementation of the 2022 AQMP and 2016 AQMP control measures, including MOB-02A, MOB-02B, and MOB-02, was not expected to result in habitat modification, adversely affect any riparian habitat, or interfere with the movement of any native resident or migratory fish or wildlife species. Facilities affected by the 2022 AQMP and 2016 AQMP control measures have already been disturbed and typically do not contain open space, water features, or natural vegetation. Sites might contain landscaping that consists of ornamental trees, vegetation, and turf. The sites of the affected facilities that would be subject to the control measures were not expected to support riparian habitat, federally protected wetlands, or migratory corridors because they are existing, developed, and established industrial and commercial facilities. Additionally, special status plants, animals, or natural communities identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service were not expected to be found on or in close proximity to the affected facilities. Construction projects that impact affected species were not reasonably foreseeable as part of implementation of the 2022 AQMP and 2016 AQMP. Any new development potentially affecting biological resources would not be as a result of the 2022 AQMP and 2016 AQMP control measures and approval of those projects, including evaluation of their environmental impacts, would occur regardless of the 2022 AQMP and 2016 AQMP and would be subject to project-level CEQA review. Based upon these considerations, no biological resources impacts are expected from implementing the 2022 AQMP and 2016 AQMP.

Cultural and Tribal Cultural Resources¹³⁹: Commercial and industrial areas are generally not located in historic districts. For this reason, the Final Program EIRs for the 2022 AQMP and 2016 AQMP concluded that the implementation of Control Measures MOB-02A, MOB-02B, and MOB-02 would not be expected to cause a substantial adverse change in the significance of a historical resource. The South Coast AQMD also provided a formal notice of the Notice of Preparation/Initial Study (NOP/IS) prepared for the 2022 AQMP and 2016 AQMP 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 a proposed project. No Tribes requested consultation during the 30-day comment period of each NOP/IS. The provisions of CEQA, Public Resources Code Section 21080.3.1 et seq. (also known as AB 52), require meaningful consultation with California Native American Tribes on potential impacts to tribal cultural resources, as defined in Public Resources Code Section 21074. Tribal cultural resources are sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either eligible or listed in the California Register of Historical Resources or local register of historical resources. As part of the AB 52 process, Native American tribes must submit a written request to the relevant lead agency if it wishes to be notified of projects that require CEQA public noticing and are within its traditionally and culturally affiliated geographical area. Construction resulting from implementation of the control measures would need to obtain city or county planning department approvals prior to commencement of any construction activities, and would be subject to project-level review, including separate tribal consultation pursuant to AB 52, as applicable, to address site-specific requests identified by the tribes. Therefore, impacts to tribal

¹³⁹ See Section 4.8.4 Cultural and Tribal Cultural Resources of the Final Program EIR for the 2022 AQMP and Section 4.9.3 Cultural Resources of the Final Program EIR for the 2016 AQMP

cultural resources were considered to be less than significant, and the 2022 AQMP and 2016 AQMP were not expected to cause any impacts to significant historic cultural resources.

*Geology and Soils*¹⁴⁰: The 2022 AQMP and 2016 AQMP, including Control Measures MOB-02A, MOB-02B, and MOB-02, would not directly or indirectly expose people or structures to earthquake faults, seismic shaking, seismic-related ground failure including liquefaction, lateral spreading, landslides, mudslides, or substantial soil erosion. Affected facilities or modifications to affected facilities, including the construction of new electricity or hydrogen infrastructure, would be required to comply with relevant California Building Code requirements in effect at the time of initial construction or modification of a structure. Projects that occur as a result of the 2022 AQMP and 2016 AQMP are largely expected to occur at commercial and industrial areas, and have a small construction footprint. Construction activities would be subject to local, regional, and state codes and requirements for erosion control and grading during construction. Projects would be subject to the National Pollution Discharge Elimination System (NPDES) permitting regulations, including the development and implementation of a Stormwater Pollution Prevention Plan (SWPPP) as applicable. Construction contractors would be required to prepare and implement a SWPPP and associated Best Management Practices (BMPs) in compliance with the Construction General Permit (CGP) during grading and construction of any site that disturbs more than one acre of land. Adherence to the BMPs in the SWPPP and adherence with local, regional, and state codes and requirements for erosion control and grading during construction would reduce, prevent, or minimize soil erosion from grading and construction activities. Therefore, soil erosion impacts were concluded to be less than significant.

Paleontological resources, commonly known as fossils, are the recognizable physical remains or evidence of past life forms found on earth in past geological periods — and can include bones, shells, leaves, tracks, burrows, and impressions. Ground-disturbing activities such as grading or excavation have the potential to unearth paleontological resources. Most facilities affected by 2022 AQMP and 2016 AQMP control measures would be located on previously disturbed industrial and commercial sites where there is little likelihood of identifiable artifacts. It is possible, however, that cultural or archaeological resources or human remains may nevertheless be discovered. New installations of air pollution control equipment or infrastructure for zero-emission and low-NOx equipment are unlikely to require substantial soil excavation and would be located on already disturbed and developed industrial land uses. Further, projects implemented as a result of the 2022 AQMP and 2016 AQMP would be subject to project-level review, including review of both geological and paleontological impacts under CEQA, as applicable. Therefore, the Final Program EIRs for the 2022 AQMP and 2016 AQMP concluded that implementation of all of the control measures, including Control Measures MOB-02A, MOB-02B, and MOB-02, would not be expected to destroy a unique paleontological resource or site or unique geological feature, or result directly or indirectly in other significant adverse geology or soils impacts. Therefore, geology and soils impacts were concluded to be less than significant.

¹⁴⁰ See Section 4.8.5 Geology and Soils of the Final Program EIR for the 2022 AQMP and Section 4.9.4 Geology and Soils of the Final Program EIR for the 2016 AQMP

Land Use and Planning¹⁴¹: Since the 2022 AQMP and 2016 AQMP do not require construction of major new land use developments in any areas within South Coast AQMD’s jurisdiction, none of the control measures, including Control Measures MOB-02A, MOB-02B, and MOB-02, were expected to physically divide any established communities within South Coast AQMD’s jurisdiction. Potential land use impacts associated with the 2022 AQMP and 2016 AQMP could come from the construction of support systems (e.g., catenary overhead electrical lines or magnetic infrastructure related to operation of zero- and low-NOx transport systems). For purposes of evaluating potential land use impacts, the analysis assumed that no new rail or truck traffic routes would be constructed, but rather that existing truck and rail routes and corridors would be modified. The truck and rail corridors likely to be involved are primarily associated with rail yards and intermodal facilities in industrial zones within the Southern California area. Since only existing transportation routes would likely be modified (e.g., electric lines installed) and no new transportation routes were anticipated, no land use conflicts, or inconsistencies with any general plan, specific plan, local coastal program, or zoning ordinance were expected. Activities that result from implementing the various 2022 AQMP and 2016 AQMP control measures would be subject to project-level review that would assess consistency with adopted land use regulations, including review of impacts to land use and planning under CEQA, as applicable. Any proposed modification to an existing rail or truck traffic route/corridor would require a separate CEQA evaluation. No land use impacts were identified because any activities undertaken to implement the 2022 AQMP and 2016 AQMP control measures would be expected to comply with, and not interfere with, applicable land use plans, policies, or regulations of an agency with jurisdiction over the project, including, but not limited to the general plans, specific plans, local coastal programs or zoning ordinances.

Mineral Resources¹⁴²: There were no provisions in the 2022 AQMP and 2016 AQMP 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 in a local general plan, specific plan, or other land use plan. The 2022 AQMP and 2016 AQMP provide incentives for the penetration of low-NOx and zero-emission technologies into market which are not expected to result in an increase in the use of mineral resources. The Final Program EIRs for the 2022 AQMP and 2016 AQMP concluded that there would be no impacts on the use of important minerals. Therefore, no new demand for mineral resources was expected to occur and no mineral resources impacts from implementing the 2022 AQMP and 2016 AQMP were anticipated.

Population and Housing¹⁴³: The Final Program EIRs for the 2022 AQMP and 2016 AQMP concluded that implementing the control measures would not generate any significant effects, either direct or indirect, on the population or population distribution of people living in the South Coast AQMD’s jurisdiction as no additional workers were anticipated to be required in order to implement the 2022 AQMP and 2016 AQMP. Consistent with past experience, it was expected that the existing labor pool within the southern California area would accommodate the labor

¹⁴¹ See Section 4.8.6 Land Use Planning of the Final Program EIR for the 2022 AQMP and Section 4.9.5 Land Use Planning of the Final Program EIR for the 2016 AQMP

¹⁴² See Section 4.8.7 Mineral Resources of the Final Program EIR for the 2022 AQMP and Section 4.9.6 Mineral Resources of the Final Program EIR for the 2016 AQMP

¹⁴³ See Section 4.8.8 Population and Housing of the Final Program EIR for the 2022 AQMP and Section 4.9.7 Population and Housing of the Final Program EIR for the 2016 AQMP

requirements for any modifications requiring construction at affected facilities. Additionally, the 2022 AQMP and 2016 AQMP, including Control Measures MOB-02A, MOB-02B, and MOB-02, contain no provisions that would cause displacement of substantial numbers of people or housing necessitating construction of replacement housing elsewhere. Accordingly, no population and housing impacts were expected from implementing Control Measures MOB-02A, MOB-02B, and MOB-02.

Public Services¹⁴⁴: Fire protection and emergency medical services would be provided to affected facilities and residential developments by local county and city fire departments. Although the implementation of the Control Measures MOB-02A and MOB-02B from the 2022 AQMP, and Control Measure MOB-02 from the 2016 AQMP would require the use of alternative fuels (e.g., hydrogen), the alternative fuels would displace gasoline and diesel fuels and if a fire occurs, the same fire protection and emergency medical services would be needed. As first responders to emergency situations, fire departments are trained to respond to a variety of situations related to hazardous materials. Large industrial facilities (e.g., electric generating plants and refineries) have on-site fire response personnel and the local fire departments provide assistance to the on-site personnel. Therefore, no increase in calls for fire protection, and emergency medical service would be expected from implementation of the control measures. All activities undertaken as a result of implementing the 2022 AQMP and 2016 AQMP, including Control Measures MOB-02A, MOB-02B, and MOB-02, would be required to comply with fire-related safety features in accordance with the applicable provisions of the adopted California Fire Code, any county or city ordinances, and standards regarding fire prevention and suppression measures related to water improvement plans, fire hydrants, fire access, and water availability. Based on the preceding discussion, implementation of the 2022 AQMP and 2016 AQMP would not adversely affect the ability of local fire protection to provide adequate service. As such, these impacts were concluded to be less than significant. Implementation of the 2022 AQMP and 2016 AQMP would also not result in an increase in calls for police protection. Implementation of the 2022 AQMP and 2016 AQMP are expected to occur at existing facilities or promote transition to cleaner emitting equipment at new developments but would not facilitate the construction of new development. At existing industrial facilities, on-site security is typical and would be expected to continue with the same demand for police department support as is currently needed. Furthermore, implementation of the 2022 AQMP and 2016 AQMP would not induce population growth either directly or indirectly. Therefore, with no increase in local population, there would be no additional demand for new or expanded schools, parks, and libraries and no other adverse population or housing impacts were expected. Implementation of the 2022 AQMP and 2016 AQMP would generate less than significant impacts to public services.

Recreation¹⁴⁵: Demand for parks and recreational facilities in an area is usually determined by the area's population. As explained earlier in the Population and Housing section of this Appendix, implementation of the 2022 AQMP and 2016 AQMP does not require or include the development of new homes, which would lead to an increase in population and thereby, the need for additional park and recreation facilities. Therefore, the implementation of the 2022 AQMP and 2016 AQMP,

¹⁴⁴ See Section 4.8.9 Public Services of the Final Program EIR for the 2022 AQMP and Section 4.9.8 Public Services of the Final Program EIR for the 2016 AQMP

¹⁴⁵ See Section 4.8.10 Recreation of the Final Program EIR for the 2022 AQMP and Section 4.9.9 Recreation of the Final Program EIR for the 2016 AQMP

including Control Measures MOB-02A, MOB-02B, and MOB-02, would not increase the use of existing neighborhood and regional parks or other recreational facilities, nor would it require construction of new or expanded parks or recreational facilities. No impacts to park and recreational facilities would occur.

*Transportation*¹⁴⁶: Implementation of the 2022 AQMP and 2016 AQMP, including Control Measures MOB-02A, MOB-02B, and MOB-02, were not expected to substantially alter vehicle mileage or transportation routes. The 2022 AQMP relied upon transportation and related Transportation Control Measure (TCMs) developed by Southern California Association of Governments (SCAG) and included in the SCAG Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS)¹⁴⁷. Therefore, the 2022 AQMP would not conflict with a program plan, ordinance, or policy addressing the transportation circulation system, including transit, roadway, bicycle, and pedestrian facilities. Implementation of the 2022 AQMP has the potential to result in an increase in transportation related to construction of new or modified air pollution control equipment. Construction trips and vehicle miles traveled (VMT) are associated with contractors and vendors delivering and installing equipment at affected facilities. Construction activity impacts are temporary in nature and will vary depending on the number and location of facilities, and the size of the construction workforce needed. The Technical Advisory on Evaluating Transportation Impacts in CEQA to comply with CEQA Guidelines Section 15064.3 focuses on permanent, new employee VMT. [State of California, Governor’s Office of Planning and Research, 2018]. Because of the temporary nature of construction activities, any increase in VMT related to construction activities would occur on a short-term basis at each location. In general, temporary construction-related increases in VMT are not considered to be a transportation impact or inconsistent with the requirements in CEQA Guidelines Section 15064.3, as they do not have a permanent impact on regional VMT. Additionally, discretionary projects at affected facilities could be subject to project-level review under CEQA. Therefore, temporary effects of construction-related vehicles would not conflict with the state’s GHG reduction and associated VMT goals for the transportation sector. CEQA Guidelines Section 15064.3(a) clarifies that the primary consideration in evaluating a project’s transportation impacts for CEQA purposes is the amount and distance that a project might cause people to drive. This captures two measures of transportation impacts: number of automobile trips generated and VMT. Additional permanent employees were not expected to be required to operate equipment that may require additional air pollution control equipment, due to implementation of the 2022 AQMP. As discussed previously in the Population and Housing section of this Appendix, implementation of the 2022 AQMP and 2016 AQMP were not expected to generate additional employee or population increases. Therefore, no increase in vehicle trips or VMT was expected. Therefore, the Final Program EIR for the 2022 AQMP concluded that less than significant impacts were expected from implementing the 2022 AQMP, including Control Measures MOB-02A and MOB-02B.

Similarly, the Notice of Preparation/Initial Study for the 2016 AQMP concluded that implementation of Control Measure MOB-02 would not result in potential adverse transportation

¹⁴⁶ See Section 4.8.11 Transportation of the Final Program EIR for the 2022 AQMP and Section 4.7 Transportation and Traffic of the Final Program EIR for the 2016 AQMP

¹⁴⁷ Southern California Association of Governments, Connect SoCal (2020–2045 Regional Transportation Plan/Sustainable Communities Strategy), May 2020. <https://scag.ca.gov/read-plan-adopted-final-connect-social-2020>

and traffic impacts, but other control measures would generate direct or indirect adverse impacts based on the anticipated methods of control. Therefore, the Final Program EIR for the 2016 AQMP did not further evaluate transportation and traffic impacts from implementing Control Measure MOB-02 (see Table 4.7-1 Control Measures with Potential Transportation and Traffic Impacts, in the Final Program EIR for the 2016 AQMP). Less than significant impacts from the implementation of Control Measure MOB-02 could be expected to occur.

Wildfire¹⁴⁸: The analysis in the Final Program EIR for the 2022 AQMP determined that activities that result from implementing the 2022 AQMP, including Control Measures MOB-02A and MOB-02B, would not block or otherwise interfere with the use of evacuation routes; nor would they interfere with operations of emergency response agencies or with coordination and cooperation between such agencies. Therefore, the analysis concluded that there would be no impacts on emergency activities. Implementation of these control measures were found to: affect existing commercial/industrial facilities; accelerate the replacement of high-emitting mobile sources with low NOx and zero emission mobile sources; control indirect sources of emissions; and develop incentives to remove/replace higher emitting equipment. However, since commercial and industrial areas are not typically located near wildland or forested areas, the analysis concluded that implementation of these control measures would not be expected to increase the risk of wildland fires. For this reason, the analysis in the Final Program EIR for the 2022 AQMP concluded that implementation of Control Measures MOB-02A and MOB-02B would have no impact to wildfires.

Relative to the analysis of the topic of wildfire in the Final Program EIR for the 2016 AQMP, it is important to note that the environmental topic area of wildfire was added to the Environmental Checklist in the CEQA Guidelines in 2019. Previous to this change in the CEQA Guidelines, the topic of the topic of fire hazards, including fires on wildlands, was analyzed in the biological resources and hazards and hazardous materials sections, as was the case for the Final Program EIR for the 2016 AQMP. Specifically, the Notice of Preparation/Initial Study for the 2016 AQMP, which is an appendix within the Final Program EIR for the 2016 AQMP, concluded that there would be no impact to the wildfire-related environmental checklist questions under the topics of biological resources and the hazards and hazardous materials.

Conclusion for Other Environmental Topic Areas: In summary, relative to cumulative impacts, the Final Program EIRs for the 2022 AQMP and 2016 AQMP concluded that implementation of Control Measures MOB-02A, MOB-02B, and MOB-02, when combined with past, present, and reasonably foreseeable activities, would not contribute to cumulative considerable impacts to the following environmental topic areas: aesthetics, agriculture and forestry resources, biological resources, cultural and tribal cultural resources, geology and soils, land use and planning, mineral resources, population and housing, public services, recreation, transportation, and wildfire.

Since implementation of Control Measures MOB-02A and MOB-02B of the 2022 AQMP and Control Measure MOB-02 of 2016 AQMP, upon which PR 2306 relies, is not expected to have potential adverse impacts on any of the aforementioned environmental topic areas, there are no new impacts which would change the previous conclusions of the Final Program EIRs for the 2022 AQMP and 2016 AQMP regarding cumulatively considerable impacts. Further, no new mitigation

¹⁴⁸ See Section 4.8.12 Wildfire of the Final Program EIR for the 2022 AQMP

measures would be required. Therefore, there are no cumulative impacts to the environmental topic areas of aesthetics, agriculture and forestry resources, biological resources, cultural and tribal cultural resources, geology and soils, land use and planning, mineral resources, population and housing, public services, recreation, transportation, and wildfire.

CONCLUSION

PR 2306 implements Control Measures MOB-02A and MOB-02B that were previously adopted in the 2022 AQMP and Control Measure MOB-02 that was previously adopted in the 2016 AQMP. Control Measures MOB-02A and MOB-02B of the 2022 AQMP and Control Measure MOB-02 of the 2016 AQMP were previously analyzed in the Final Program EIRs for the 2022 AQMP and 2016 AQMP, respectively, and implementation of PR 2306 is not expected to result in new or modified physical changes or impacts that were not previously analyzed in the Final Program EIRs for the 2022 AQMP and 2016 AQMP specific to Control Measures MOB-02A, MOB-02B, and MOB-02.

The Final Program EIR for the 2022 AQMP concluded that implementation of the 2022 AQMP would result in potentially significant impacts to the environmental topic areas of air quality and greenhouse gas emissions, energy, hazards and hazardous materials, hydrology and water quality, noise, and solid and hazardous waste. Implementation of Control Measures MOB-02A and MOB-02B would have potentially significant impacts to: 1) air quality from construction because emissions on a peak day could exceed South Coast AQMD's significance thresholds; 2) energy because Basin-wide electricity usage would exceed baseline electricity consumption by more than one percent, natural gas demand is expected to increase in the short-term, and little excess hydrogen capacity is available to meet the increased demand such that additional hydrogen production facilities will be required; 3) hazards and hazardous materials because construction of new natural gas pipelines to service hydrogen production facilities may be a potential torch fire risk to receptors; 4) noise because vibration from construction activities could exceed the 72 vibration decibels (VdB) threshold for structures and sensitive receptors within 200 feet of construction activities if certain types of construction equipment were used; and 5) solid and hazardous waste due to the uncertainty of the future capacity of the landfills within South Coast AQMD's jurisdiction to address waste from construction of infrastructure and early retirement of vehicles and equipment. Implementation of Control Measures MOB-02A and MOB-02B would have less than significant impacts to air quality from operation and greenhouse gas emissions, and no impact to hydrology and water quality.

For environmental topic areas which were concluded in the Final EIR for the 2022 AQMP to have potentially significant impacts, mitigation measures were adopted. Nonetheless, no environmental topic area identified as having a potentially significant impact in the Final Program EIR for the 2022 AQMP was concluded to be capable of being mitigated to less than significant levels. When combined with the Connect SoCal Plan, the SIP strategies, state policies, and other past, present, and reasonably foreseeable activities, implementation of the 2022 AQMP would result in significant environmental impacts. No additional feasible mitigation measures to reduce the significant cumulative impacts were identified, and cumulative impacts to the environmental topic areas of air quality and greenhouse gas emissions, energy, hazards and hazardous materials, hydrology and water quality, noise, and solid and hazardous waste remained significant and unavoidable.

The Final Program EIR for 2016 AQMP concluded that implementation of the 2016 AQMP would result in potentially significant impacts to the environmental topic areas of aesthetics, air quality and greenhouse gas emissions, energy, hazards and hazardous materials, hydrology and water quality, noise, solid and hazardous waste, and transportation and traffic. Implementation of Control Measure MOB-02 would have potentially significant impacts to: 1) energy because Basin-wide electricity usage would exceed baseline electricity consumption by more than one percent; and 2) solid and hazardous waste due to a high volume of vehicle and equipment being retired in a short timeframe and uncertainty of their outcome. Implementation of Control Measure MOB-02 would have less than significant impacts to the environmental topic areas of air quality and greenhouse gas emissions, hazards and hazardous materials, and hydrology and water quality; and no impact to aesthetics, noise, and transportation and traffic.

As explained in the “Summary of Environmental Impact Analysis from the Final Program EIRs for the 2022 AQMP and the 2016 AQMP,” mitigation measures were adopted for certain environmental topic areas which had conclusions of potentially significant impacts. Nonetheless, no environmental topic area identified as having a potentially significant impact was capable of being mitigated to less than significant levels. When combined with the other past, present, and reasonably foreseeable activities, in particular the transportation projects projected in the 2016 RTP/SCS, implementation of the 2016 AQMP would result in significant environmental impacts. No additional mitigation measures to reduce the significant cumulative impacts were identified, and cumulative impacts to the environmental topic areas of aesthetics, air quality and GHG emissions, energy, hazards and hazardous materials, hydrology and water quality, noise, solid and hazardous waste, and transportation and traffic remained significant and unavoidable.

The aforementioned impacts analyzed in the Final Program EIR for the 2022 AQMP and the Final Program EIR for the 2016 AQMP are the same as what would occur if PR 2306 is implemented.

Therefore, the environmental impacts associated with implementing PR 2306 are within the scope of what was previously analyzed in the Final Program EIR for the 2022 AQMP for Control Measures MOB-02A and MOB-02B, and Final Program EIR for the 2016 AQMP for Control Measure MOB-02. Thus, no new Initial Study would need to be prepared leading to either an EIR or a Negative Declaration pursuant to CEQA Guidelines Section 15168(c)(2). PR 2306 does not introduce new information which will cause new significant effects or substantially worsen or make more severe significant effects that were previously analyzed in the Final Program EIRs for the 2022 AQMP and 2016 AQMP. There is no change to the mitigation measures or alternatives previously considered in the Final Program EIRs for the 2022 AQMP and 2016 AQMP. Thus, in accordance with CEQA Guidelines Section 15168(c)(2), a subsequent EIR would not be required pursuant to Public Resources Code Section 21166 and CEQA Guidelines Section 15162.

Based on the preceding analysis, pursuant to CEQA Guidelines Section 15168(c)(2), PR 2306 is considered a later activity within the scope of the 2022 AQMP and 2016 AQMP which were analyzed in the Final Program EIRs for the 2022 AQMP and 2016 AQMP. The mitigation measures developed in the Final Program EIRs for the 2022 AQMP and 2016 AQMP for the previously adopted Control Measures MOB-02A, MOB-02B and MOB-02 in the 2022 AQMP and 2016 AQMP upon which PR 2306 relies are also applicable to the implementation of PR 2306 and will remain in effect. [CEQA Guidelines Section 15168(c)(3)].

Therefore, PR 2306 is considered a later activity within the scope of the Final Program EIRs for the 2022 AQMP and 2016 AQMP and the Final Program EIRs for the 2022 AQMP and 2016

AQMP adequately describe the later activity for the purposes of CEQA such that no new environmental document ~~is~~ will be required.

REFERENCES

The 2022 AQMP, along with the December 2022 Final Program EIR for the 2022 AQMP (State Clearinghouse No. 2022050287) and its corresponding Findings, Statement of Overriding Considerations, and Mitigation, Monitoring, and Reporting Plan, and the 2016 AQMP along with the March 2017 Final Program EIR for the 2016 AQMP (State Clearinghouse No. 2016071006) and its corresponding with Findings, Statement of Overriding Considerations, and Mitigation, Monitoring, and Reporting Plan, upon which this analysis of PR 2306 relies, are incorporated by reference pursuant to CEQA Guidelines Section 15150 and are available from the South Coast AQMD's website at:

December 2022 Final Program EIR for the 2022 AQMP**Master webpage**

<https://www.aqmd.gov/home/research/documents-reports/lead-agency-scaqmd-projects/south-coast-aqmd-projects---year-2022>

December 2022 Final Program EIR for the 2022 AQMP (including Appendices)

<https://www.aqmd.gov/docs/default-source/ceqa/documents/aqmd-projects/2022/2022-aqmp-final-peir.pdf>

Findings, Statement of Overriding Considerations, and Mitigation Monitoring and Reporting Plan

<https://www.aqmd.gov/docs/default-source/ceqa/documents/aqmd-projects/2022/2022-aqmp-attachment1toresolution.pdf>

2022 AQMP

<https://www.aqmd.gov/home/air-quality/air-quality-management-plans/air-quality-mgt-plan>

March 2017 Final Program EIR for the 2016 AQMP**Master webpage**

<http://www.aqmd.gov/home/research/documents-reports/lead-agency-scaqmdprojects/scaqmd-projects---year-2017>

March 2017 Final Program EIR for the 2016 AQMP (without Appendices)

<https://www.aqmd.gov/docs/default-source/ceqa/documents/aqmd-projects/2016/2016aqmpfeir.pdf>

Appendices A through C

https://www.aqmd.gov/docs/default-source/ceqa/documents/aqmd-projects/2016/2016aqmpfeir_appendicesac.pdf

Appendices D through E

https://www.aqmd.gov/docs/default-source/ceqa/documents/aqmd-projects/2016/2016aqmpfeir_appendicesde.pdf

Findings, Statement of Overriding Considerations, and Mitigation Monitoring and Reporting Plan

<https://www.aqmd.gov/docs/default-source/ceqa/documents/aqmd-projects/2017/att2toresolutionfor-2016aqmp.pdf>

2016 AQMP

<https://www.aqmd.gov/home/air-quality/air-quality-management-plans/final-2016-aqmp>

This Appendix incorporates by reference in accordance with CEQA Guidelines Section 15150 the following documents which are a matter of public record and are available to the public from CARB's website:

CARB's In-Use Locomotive Regulation

Master webpage

<https://ww2.arb.ca.gov/rulemaking/2022/locomotive>

Final Regulation Order

<https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2022/locomotive22/fro.pdf>

Final Environmental Analysis for the Proposed In-Use Locomotive Regulation, certified April 27, 2023, State Clearinghouse No. 2021030340

https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2022/locomotive22/locomotive_final_ea.docx

Attachment A: Environmental and Regulatory Setting

<https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2022/locomotive22/appda.pdf>

Attachment B: Summary of Environmental Impacts and Mitigation Measures

<https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2022/locomotive22/appdb.pdf>

Findings and Statement of Overriding Considerations

https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2022/locomotive22/locomotive_findings.pdf

CARB's Advanced Clean Fleets Regulation

Master webpage:

<https://ww2.arb.ca.gov/rulemaking/2022/acf2022>

Final Regulation Order: State and Local Government Agency Fleet Requirements

<https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2022/acf22/ac/acffro11.pdf>

Final Regulation Order: High Priority and Federal Fleet Requirements

<https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2022/acf22/ac/acffro21.pdf>

Final Regulation Order: Drayage Truck Requirements

<https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2022/acf22/ac/acffrod31.pdf>

Final Regulation Order: 2036 100 Percent Medium- and Heavy-Duty Zero-Emission Vehicle Sales Requirements

<https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2022/acf22/ac/acffro41.pdf>

Final Environmental Analysis for the Proposed Advanced Clean Fleets Regulation, certified August 28, 2023, State Clearinghouse No. 2021030340

<https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2022/acf22/acffinalea.docx>

Attachment A: Environmental and Regulatory Setting

<https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2022/acf22/appda.pdf>

Attachment B: Summary of Impacts Table

<https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2022/acf22/appdb.pdf>

Findings and Statement of Overriding Considerations

<https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2022/acf22/acffindings.pdf>

Introduction

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2. South Coast AQMD, 2016 Air Quality Management Plan, March 2017. <https://www.aqmd.gov/home/air-quality/air-quality-management-plans/final-2016-aqmp>
3. South Coast AQMD, Final Program Environmental Impact Report for the 2022 Air Quality Management Plan, December 2022. <https://www.aqmd.gov/docs/default-source/ceqa/documents/aqmd-projects/2022/2022-aqmp-final-peir.pdf>
4. South Coast AQMD, Final Program Environmental Impact Report for the 2016 Air Quality Management Plan, March 2017. <https://www.aqmd.gov/docs/default-source/ceqa/documents/aqmd-projects/2016/2016aqmpfpeir.pdf>

Summary of Environmental Impacts Associated with PR 2306

5. South Coast AQMD, Attachment 1 to the Governing Board Resolution for the Final Program Environmental Impact Report for the 2022 Air Quality Management Plan, December 2022. <https://www.aqmd.gov/docs/default-source/ceqa/documents/aqmd-projects/2022/2022-aqmp-attachment1toresolution.pdf>
6. South Coast AQMD, Attachment 2 to the Governing Board Resolution for the Final Program Environmental Impact Report for the 2016 Air Quality Management Plan, March 2017. <https://www.aqmd.gov/docs/default-source/ceqa/documents/aqmd-projects/2017/att2toresolutionfor-2016aqmp.pdf>

Environmental Impact Area with Potentially Significant Impacts

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INTRODUCTION

Implementation of the AQMP Facility Based Mobile Source Measures, and subsequently PR 2306 development, began in 2017. Over the span of this time, staff has continued to solicit public input and feedback by engaging with various stakeholders including communities impacted by freight rail yard emissions, potentially affected businesses and industries, environmental organizations, trade associations, public agencies, and others. All stakeholder feedback from this public process has informed this rule development effort and helped shape the current version of the proposed rules. This appendix includes responses to the comments received after the release of preliminary draft rule package for PR 2306 and PR 316.2 (on May 17, 2024), either through written comment letters submitted using mail services or electronic mail, or expressed verbally or in writing during the Public Workshop for PR 2306 and PR 316.2 which was held on June 4, 2024.

PUBLIC WORKSHOP COMMENTS

Staff held a Public Workshop (PW) on June 4, 2024, to provide an overview of PR 2306 and PR 316.2 using a virtual webinar platform. Verbal comments transcribed from the PW recording and written comments provided in the questions and answers (Q&A) box on the virtual platform, can be found below, along with staff responses.

Comment PW-1 from an anonymous attendee

Will the Barstow BNSF Railyard or Barstow International Gateway be directly impacted by the implementation of PR 2306?

Staff Response to Comment PW-1

PR 2306 and PR 316.2 apply to freight rail yards within the South Coast AQMD jurisdiction. Barstow BNSF Railyard and the proposed Barstow International Gateway will not be directly impacted by the proposed rules because they are located outside of the South Coast AQMD jurisdiction. Those rail yards are therefore not subject to PR 2306 and PR 316.2.

Comment PW-2 from Brianna Egan with Californians for Electric Rail

Thank you for your work on this rule and for engaging with community members and stakeholders. As a member of Californians for Electric Rail, I want to share our support for regulations that facilitate a clean energy transition for freight railyards and locomotives. Specifically, we feel that freight rail electrification with overhead catenary wires (gold standard technology for zero emissions freight rail around the world) will be a key to reducing pollution in frontline communities. <https://calelectricrail.org/>. Is the South Coast AQMD providing guidance on technology for zero emissions infrastructure for freight operators? I'd like to see rail electrification projects (and not hydrogen fueling) be a primary focus of the zero emissions plans.

Staff Response to Comment PW-2

PR 2306 is fuel- and technology-neutral with respect to the type(s) of fuel planned to be used to support zero emission infrastructure and the specific type(s) of technology used to reduce freight rail yard emissions.

Comment PW-3 from Bobby Jo Chavarria with Sierra Club

3-a) I really appreciate the work that has been put into establishing this rule and including some of the concerns that Sierra Club members have had. With the new facilities we would like to see a zero-emission requirement at the beginning of when the reporting period starts or as soon as the facility is operational.

3-b) We want to make sure that we raise robust public awareness on the reporting mechanisms for the applicable facilities since we are relying heavily on self-reporting and communities have more awareness on the operational changes of these facilities.

3-c) We appreciate the infrastructure component that requires the facilities to take a look at what it will take to transition to zero emission or cleaner equipment. Additionally, it would make sense to work with individuals who are already planning out the infrastructure and to make sure there is partnership and technical advice that can be given. A sub-committee working on that component can ensure the transition much quicker than what the rule is requiring.

3-d) What is the estimate on how often there are owner or operator changes in the rail yards that we have in the district?

3-e) Nobody wants full exemptions. There is plenty of distinction on which operations are subject to the rule and it is very clear. This parsing of words makes it clear as to why an ISR is required for ports and rail yards. Otherwise, no action would ever be taken. Clean up your act, ports!

Staff Response to Comment PW-3

3-a) PR 2306 requires both new and existing freight rail yards to reduce emissions at levels that are proportional or more-than-proportional to implementation of statewide regulations throughout California. While the statewide regulations require zero emission operation for certain freight rail yard emission sources, ~~technological feasibility~~ it has not yet been required for other sources such as railcar TRUs. PR 2306 is consistent with statewide rules, which do not establish requirements for new facilities that is different than for existing facilities. Moreover, CAA Section 209 preempts South Coast AQMD from adopting emission standards for mobile sources. It is likely that a requirement for zero emissions at new freight rail yards would be challenged as an emission standard.

3-b) As part of potential rule implementation, staff is committed to working with the communities in providing accessible information to the public based on rule compliance reporting, absent any business confidentiality limitations. Staff also conducted a survey poll during the Community Workshop held on June 5, 2024, as a preliminary effort to solicit feedback on existing information reporting tools or platforms for staff to consider as it develops a public information portal.

3-c) Staff appreciates the comment and suggestion for how to further facilitate zero emission infrastructure development outside of PR 2306. This type of coordination would be appropriate during rule implementation if PR 2306 is adopted.

3-d) Staff expects any change of freight rail yard ownership or operator to happen rarely, based on past observations.

3-e) Staff acknowledges the concern regarding emissions associated with ports-related rail activities. PR 2306 is part of the AQMP Facility Based Mobile Source Measures that will collectively address freight emissions in South Coast AQMD. A similar rulemaking effort is underway for ports under Proposed Rule 2304.

Comment PW-4 from Morgan Caswell with Port of Long Beach

I'm providing comment today on behalf of the Port of Long Beach.

Thank you staff for the presentation. Port staff read the draft proposed regulation text dated May 17, 2024. Our primary concern is that the regulatory language is very difficult to navigate including the proposed exemption language that is specific to the cities of Long Beach and Los Angeles. The language appears to be ambiguous. It uses verbiage such as “primary” to describe the predominant function of a rail yard. How will South Coast AQMD staff evaluate the primary use of a rail yard? We also want to express concern that the definition of an “intermodal rail yard” seems very broad and could unintentionally lead to inclusion of port rail yard facilities. We appreciate that South Coast AQMD is trying to ensure that the same rail activity is not covered under two different regulations, as it would lead to many logistical challenges for responsible parties. The request is for South Coast AQMD to revise the definitions and exemption language to be clearer as to which activity is covered under PR 2306 and which is not.

Staff Response to Comment PW-4

Please refer to staff responses to Comment Letters #6 and #7 that were subsequently submitted by the Port of Long Beach and the Port of Los Angeles, respectively, which provided further elaboration on this comment.

Comment PW-5 from Moses Huerta

I am a resident from the City of Paramount. I'd like clarity on the exemption portion of the rule language. My community, we are downstream from some of the heavy activities. I want to know what would be the exemption of 30 days or less of switching activities if I am seeing rail being processed a few times a week? How many trips? If you could help me understand this. As of right now, I see rail cars being switched over and we have idling. What would be the trips per week? What is the base for this exemption? Is it a certain number of trips, or the type of movement?

Staff Response to Comment PW-5

The low activity exemption in PR 2306 is meant for infrequently used sites that may be set up for temporary operational needs and do not operate year-round. The exemption does not apply to intermodal rail yards. For any other site to qualify for the exemption, the site cannot have switching activities occurring more than 30 calendar days per calendar year (please refer to Chapter 3 of this report for more details). Under PR 2306, a rail yard is also defined as a facility where one or more work crews are assigned to conduct day-to-day business operations. Staff welcomes any suggestions for this exemption, including any alternative metric for the exemption threshold.

Comment PW-6 from Thomas Jelenic with Pacific Merchant Shipping Association (PMSA)

I want to follow up on the exemption question as well. The current discussion does not seem consistent with some of the discussions I have had with staff regarding the exemption. If the exemption would only cover who is actively regulated and not the activity, so, if you had a cut of locomotive with a cut of trains leave the port, go to Hobart, under the proposed rule, the Hobart facility would be responsible for that activity, and it is also possible for the terminal operator in a future port rule would also be responsible for that same activity even though the rail yard at the

port is not a regulated facility under this rule, but the marine terminal would be under a future port rule. Is that understanding correct? Would a marine terminal operator under a port rule not be responsible for the rail activity and the locomotive that departs their facility? My concern is during the presentation and the commenting session after the presentation, it is being described as a full exemption under this rule. When I read the proposed language, it is not a full exemption, but the activity could be captured under both rules [PR 2306 and a potential future port rule]. The exemption language in PR 2306 does not exclude the activity of locomotives that travel between regulated facilities and port terminal; it does not exclude such activity from this rule or a future ports rule. So, there is a potential for that activity, for locomotives moving between ports and non-port rail yards being captured under both rules. Currently, this activity is not excluded, correct? If it is not, characterizing this as a full exemption is ambiguous and misleading. The rule language needs to be refined and the distinction between activity and facility in the rule and how it applies needs to be made much clearer.

Staff Response to Comment PW-6

Please refer to staff response to Comment Letter #5 that was subsequently submitted by PMSA and provided further elaboration on this comment.

Comment PW-7 from Theral Golden with West Long Beach Association

I would like clarification on the 2-year window baseline. What is the goal? Is it attainment? The goal is not clear to me.

Staff Response to Comment PW-7

PR 2306 is designed to assist with achieving regional attainment goals, consistent with the purpose of the 2016 and 2022 Air Quality Management Plans and all of the Facility-Based Mobile Source Measures. PR 2306 defines the base period as two full calendar years either after PR 2306 becomes effective or after a new freight rail yard begins operation (please refer to Chapter 3 of this report for more details). Inclusion of base period in PR 2306 is for the operators of subject freight rail yards to provide information that supports demonstration of compliance with emission reductions requirements, and to also help track facility emissions as well as any changes and progress on zero emission infrastructure planning, development, and utilization.

Comment PW-8 from Andrea Vidaurre with The People's Collective for Environmental Justice

8-a) What are the penalties for the railyards if they do not reduce their emissions every year? Will the penalties be monetary? Or are there other levels of accountability?

8-b) Will all data be accessible to the public about the emissions at the different railyards? How soon will that be up?

Staff Response to Comment PW-8

8-a) PR 2306 will function similarly to other South Coast AQMD rules with regards to penalties for violation of the rule or any specific rule provision. Moreover, upon approval into state implementation plan of any rule, the enforcement provisions of Federal Clean Air Act become effective as well. The term “penalties” typically refers to “civil penalties” under the Health and

Safety Code and the Federal Clean Air Act. Health and Safety Code Section 42400 sets forth the framework for monetary penalties.

8-b) Please refer to staff response to Comment PW-3-b.

Comment PW-9 from an anonymous attendee

Will zero-emission efforts at railyards include plans for systems-wide support and self-sufficiency regarding electrification in order to avoid shifting strain to broadscale energy infrastructure?

Staff Response to Comment PW-9

Please refer to staff response to Comment PW-2 in terms of fuel neutrality of PR 2306. The proposed rule requires the owner and operator of a freight rail yard to report on zero emission infrastructure planning, development, and utilization. They are also required to report on the assessment of any need to upgrade the electrical grid serving their facility. If there is a potential need for such an upgrade to the electrical system, the owner and operator will be required to submit a request to the local electrical utility to initiate the process in a timely manner. The specific design and requirements that the zero emissions infrastructure will need to meet, including whether to include what is suggested in this comment, will be determined by the rail yard owner and operator.

Comment PW-10 from Mark Abramowitz with Community Environmental Services

10-a) Why is the implementation date tied to federal approval? Aren't the emission reductions required to meet state ozone standards?

10-b) Could you indicate what enforcement mechanisms are being planned, and under what timeframes? So far, the District has not taken any enforcement actions with respect to the non-compliant airport MOUs. Enforcement provisions and protocols upfront would go a long way towards ensuring that a similar situation does not occur for this rule.

10-c) I am concerned that this rule may not yield any emission reductions if CARB's estimated reductions for South Coast under the locomotive rule do occur, there is going to be a whole class of potentially reducible emission sources that are not going to be touched. I think that will be inconsistent with the AQMP, which talks about both rules being in existence and there are emission reductions associated with both of state rules for South Coast as well as for a separate South Coast rule. If all the emission reductions that we are anticipating in the CARB rule, we will be missing all the reductions that are in the AQMP. There is a state requirement that the district reduce all emissions to the extent feasible and to do it as soon as possible. I urge the district staff to look at the overall goals of the rule and not just tie it to state requirements.

Staff Response to Comment PW-10

10-a) The Effective Date provision of PR 2306 takes into account potential federal preemption considerations, which are discussed in detail in Chapter 1 *Legal Authority* section of this report. PR 2306 will assist in attaining both state and federal standards for ozone and fine particulate matter.

10-b) Please refer to staff response to Comment PW-8-a for PR 2306 enforcement mechanisms. Enforcement of the Airport MOU is not analogous to enforcement of a rule. The specific

mechanisms for enforcing the Airport MOUs is fully contained in the MOU language itself, and that process is being followed as appropriate. For more information about South Coast AQMD's enforcement program, the commenter is referred to our enforcement webpage here: <https://www.aqmd.gov/nav/about/authority/enforcement>. In short, rule enforcement is governed by state and federal law, which differs from the Airport MOUs. If adopted, PR 2306 and PR 316.2 would be enforced similar to all other South Coast AQMD rules, including audits, inspections, with follow-up notices to comply or notices of violation as appropriate, followed by resolution of those notices, which may include monetary penalties.

10-c) PR 2306 is designed to ensure emission reductions occur at freight rail yards within the South Coast AQMD at levels that are at least commensurate with proportional implementation of recently adopted statewide regulations affecting locomotives and drayage trucks. There are no requirements in CARB's applicable regulations that would ensure the necessary emission reductions occur in South Coast AQMD, thus strengthening the State Implementation Plan. It is possible that additional emission reductions would be achieved in South Coast AQMD under PR 2306 than would occur with only existing state regulations. For example, absent PR 2306, emission reductions may occur under CARB's In-Use Locomotive and Advanced Clean Fleets regulations preferentially outside of South Coast AQMD. This same activity could potentially occur with PR 2306, however rail yard operators would need to achieve additional emission reductions equal to the shortfall from other emission sources beyond CARB regulations for those categories, such as from Transportation Refrigeration Units or Cargo Handling Equipment. For whichever option is chosen by rail yard operators, the necessary emission reductions in South Coast AQMD would be more certain with PR 2306 than without it. Further, as stated in the 2016 and 2022 AQMPs, the Facility Based Mobile Source Measures, including MOB-02 for rail yards, are meant to facilitate the state's "Further Deployment of Cleaner Technologies" strategy as part of the State Implementation Plan (SIP). No quantified emission reductions have been associated with these Facility-Based Measures in the AQMPs as it was too speculative to determine at that time. The proposed approach for PR 2306 and PR 316.2 is consistent with the feasibility and timing requirements under state law, ~~when considering all technical, legal~~

Comment PW-11 from an anonymous attendee

Does being "fuel neutral" take into account greenhouse gas emissions created by producing hydrogen from fossil fuels (as is almost all commercial hydrogen is produced in the world today)? For renewably generated hydrogen using electrolysis, is water and electricity consumption accounted for by South Coast AQMD?

Staff Response to Comment PW-11

Such impacts were analyzed in the Final Program Environmental Impact Reports for the 2016 and 2022 AQMPs. Please refer to Appendix A – Detailed California Environmental Quality Act Analysis for more details.

Comment PW-12 from an anonymous attendee

I've heard that CARB's Advanced Clean Fleets Regulation is being challenged in court. If the ACF Regulation (or the In-Use Locomotive Regulation) gets overturned, will PR2306 still go into effect?

Staff Response to Comment PW-12

If adopted, PR 2306 will go into effect only after the requested authorization/waiver are granted by U.S. EPA to the CARB In-Use Locomotive Regulation and ACF Regulation (as a whole or in part for the Drayage Truck requirements). It is currently speculative to predict any impact on PR 2306 resulting from any potential, unspecified court rulings relative to the litigation challenges to the two CARB regulations, which may or may not pertain to PR 2306.

Comment PW-13 from Al Sattler

13-a) The presentation showed projected between 2029 and 2030 that NOx would suddenly decrease by about half. Why would that be?

13-b) With respect to the grid infrastructure update, utilities presumably would be adding it to their rate base that they could be charging their rate payors. Would that be all rate payors within the entire utility base, or would it be specifically targeted to those projects?

13-c) I would urge all locomotives and railyards and other infrastructure in the rail yards be electrified or perhaps hydrogen fuel celled.

Staff Response to Comment PW-13

13-a) The projected emission reductions are based on CARB's Regulatory Impact Assessments and the assumption that statewide emission reductions would occur proportionally in South Coast AQMD. Several fleet turnover projections in CARB's analysis contribute to the significant drop in NOx emissions around 2029-2030. First, CARB's In-Use Locomotive Regulation will prohibit locomotives that are 23 years old or older from operating in California beginning in 2030, unless they meet the cleanest federal locomotive standard or operate in zero emission configuration. It is therefore projected that many locomotives operating in California will be Tier 4 by then, and switch locomotives built in 2030 or later will be additionally required to operate in zero-emission configuration.¹⁴⁹ Significant turnover of the drayage truck fleet to zero emission is also projected by 2030 given that the ACF regulation requires 100 percent zero-emission drayage trucks by 2035.¹⁵⁰ This projection is consistent with, and based on, statewide projections for CARB rules. The emission reductions in this graph are also associated with Table 1 of PR 2306. If freight rail yard operators comply with PR 2306 under the option in subparagraph (d)(1)(B) of the rule, then the emission reductions may be less than what is shown in the graph, though would still be at least proportional to statewide reductions.

¹⁴⁹Standardized Regulatory Impact Assessment for the In-Use Locomotive Regulation:
<https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2022/locomotive22/appb.pdf>

¹⁵⁰Standard Regulatory Impact Assessment Submitted to Department of Finance – Advanced Clean Fleets Regulation: <https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2022/acf22/appc.pdf>

13-b) How costs in association with electrical grid upgrades would be apportioned is not established by South Coast AQMD or PR 2306. These rates are under the purview of utilities regulators such as the California Public Utilities Commission or local publicly owned utilities such as Los Angeles Department of Water and Power.

13-c) Thank you for your comment. Please refer to staff responses to Comment PW-2 and Comment PW-9.

Comment PW-14 from a representative of East Yard Communities for Environmental Justice

Can you clarify the proposed railyard compliance through “reduced throughput” option? It poses concerns to our communities for any potential loopholes from industry.

Staff Response to Comment PW-14

Any freight rail yard, whether they have reduced throughput or not, is required to meet or exceed emission reductions targets under PR 2306. In addition to the primary pathway to demonstrate compliance as specified in paragraph (d)(2) of PR 2306, a freight rail yard with a reduced throughput may elect to demonstrate compliance differently. This alternative compliance pathway is included in recognition of the emission reductions achieved at the qualified freight rail yard due to the decrease in throughput, which may be due to economic or operational reasons. However, it does not imply that emission reductions due to reduced throughput alone are necessarily sufficient for rule compliance, as the proposed rule still requires the facility to demonstrate their facility-wide emissions from all applicable mobile sources (including locomotives, drayage trucks, and CHE, TRUs, and all other sources) meet or exceed the applicable emission reductions targets. Therefore, staff do not perceive any potential loopholes under this compliance pathway. Please refer to Chapter 3, *PR 2306 Paragraph (d)(3)*, of this report for more details.

Comment PW-15 from an anonymous attendee

How much additional emission reductions is this rule expected to bring separately from state rules?

Staff Response to Comment PW-15

Please refer to staff response to Comment PW-10-c.

Comment PW-16 from Paola Vargas with East Yard Communities for Environmental Justice

To confirm, CHE and TRU will be unregulated in this rule? For example, if a freight rail yard complies with the rule with locomotives and drayage trucks, then there wouldn't be a mechanism for CHE and TRU emissions to be addressed. If compliance of the railyard doesn't include CHE and TRUs (since it is not a guarantee), will/can there be measures or mechanisms to ensure emission reductions are still coming from these sources, since they are also sources of NOx in our communities? I express concern and encourage staff to push for a mechanism to address emissions from those equipment categories due to our ozone nonattainment levels. There is concern in our communities that this is something falling short in the rule.

Staff Response to Comment PW-16

PR 2306 regulates freight rail yards by requiring freight rail yard operators to demonstrate sufficient NOx reductions from mobile sources attracted to their facilities. The freight rail yard operator may demonstrate compliance with PR 2306 with emission reductions from one or more mobile sources of emissions associated with its facility operations, including locomotives, drayage trucks, CHE, TRU, and other applicable mobile sources. The operator may include in its compliance demonstration emission reductions from any combination of the listed sources as long as the emission reductions targets are met or exceeded for its facility. There is no single regulation that can address all of the emission reduction requirements from goods movement facilities covered under the Facility-Based Mobile Source Measures in the 2016 and 2022 AQMPs. Additional measures will be needed to address other emission sources associated with rail yards. PR 2306 is designed to ensure that South Coast AQMD receives emission reduction benefits from statewide regulations, as part of a broader framework to reduce emissions from goods movement sources.

Comment PW-17 from Trish Clary with Union Pacific

I am trying to understand in a scenario where a truck TRU would go from a warehouse to a port. Who is counting what emissions? Which rule is the emissions being counted towards? It feels like there is double, potentially triple counting of those emissions. To confirm, in a scenario like this, all three facilities, the warehouse, port, and rail yard, would have to report the emissions and South Coast AQMD staff would figure out where the duplication is occurring?

Staff Response to Comment PW-17

PR 2306 requires a freight rail yard operator to demonstrate compliance with the proposed rule requirements by including any activities that are associated with that specific freight rail yard. Freight rail yard operators are not responsible for determining any potential ‘double counting’ as mentioned in the comment. The only activity a freight rail yard operator will need to track will be what is required under PR 2306 as described in the Proposed Rule 2306 Calculation Methodology and Data Appendix, and they are not responsible for other facilities covered by other rules. The requirement from other rules applicable to other facilities (e.g., warehouses, ports) may differ substantially from PR 2306. For example, warehouses are not required to track TRU activity under Rule 2305. Also, any potential requirements for port facilities under PR 2304 have not yet been established as no draft rule language has been released or adopted by the South Coast AQMD Board. To the extent that any ‘double counting’ may occur across multiple regulations, staff from South Coast AQMD will evaluate and address this prior to submitting SIP credit planning requirements to U.S. EPA. This analysis is not the responsibility of a freight rail yard owner or operator under PR 2306.

Comment PW-18 from an anonymous attendee

Similarly, as a resident of Carson who has dealt with the smog/sulfur from nearby factories, I urge for more restrictions and real consequences on the polluting ports.

Staff Response to Comment PW-18:

Staff is concurrently pursuing rulemaking for PR 2304 – Commercial Marine Ports – Container Terminals to seek emission reductions from port operations.

COMMENT LETTERS

Comment Letter #1 from Earthjustice et al.



June 6, 2024

Chair Delgado & Members of the Board
 Governing Board
 South Coast Air Quality Management District (South Coast AQMD)
 21865 Copley Drive
 Diamond Bar, CA 91765
 Email: cob@aqmd.gov

RE: Agenda Item 2B: Set Hearing for Proposed Rule 2306 (Freight Railyard Rule)

Dear Chair Delgado and Members of the Governing Board:

On behalf of the undersigned organizations, we write regarding Proposed Rule 2306. After years of waiting, an indirect source rule proposal for railyards is finally coming to the Governing Board. As the years have ticked, waiting for action by the South Coast AQMD, many people have fallen ill and even died from the rail industry’s pollution. The South Coast AQMD must adopt a rail indirect source rule in August and strengthen it to provide better health protections to overburdened communities that need clean air.

Several organizations submitted a letter on May 8, 2024 (see attached) asking for strengthening the rule. The South Coast AQMD should heed these recommendations and strengthen the regulation. Given the air pollution crisis and the fact that the South Coast Air Basin is on the brink of facing federal sanctions under the Clean Air Act, now is not the time to retreat from passing the strongest possible rule to curb rail pollution.

Moreover, there is great urgency to act. Rail-adjacent communities live in a consistent and persistent localized air pollution crisis. The rail industry’s weak track record of caring about communities demonstrates it has no intention or plan to clean up its act. Instead, it reverts to fighting life-saving regulations. This is precisely the situation where we need our government agencies to lead in passing strong regulatory medicine to cut through the industry’s lethargy and lack of urgency.

//
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Comment
1-1

We need you to act firmly and swiftly to provide the relief communities near railyards desperately need and deserve. We look forward to continuing to engage with the Board and staff to ensure we have the strongest protections for breathers in the South Coast Air Basin.

Comment
1-1 Con't

Sincerely,

Fernando Gaytan
Yasmine Agelidis
Earthjustice

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Center for Community Action and Environmental Justice

Dori Chandler
Coalition for Clean Air

Ivette Torres
People's Collective for Environmental Justice

Kathleen Woodfield
San Pedro Peninsula Homeowners Coalition

Bobbi Jo Cavarria
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Kathy Ramirez
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Sylvia Betancourt
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May 8, 2024

VIA ELECTRONIC MAIL

Ian MacMillan
Assistant Deputy Executive Officer
Email: imacmillan@aqmd.gov

Elaine Shen
Planning and Rules Manager
Email: eshen@aqmd.gov

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

Re: Proposed Rule 2306 - Freight Railyards Indirect Source Rule Draft Language

Dear Mr. MacMillan and Dr. Shen:

The undersigned organizations write to comment on the latest draft rule for the Freight Railyard Indirect Source Review (ISR) Rule, Proposed Rule (PR) 2306. While the rule offers a framework for a strong ISR, we remain concerned that the current draft lacks the rigor needed to meet the region’s non-attainment and public health needs.

We offer these comments in the hope that staff will strengthen PR 2306 before it is finalized and brought to a vote in August.

I. Summary of Recommendations to Improve the Rule

As further explained in this letter, PR 2306 must be strengthened in the following specific ways:

1. The District must use its authority over stationary sources to develop more aggressive, *facility-wide*, emission reduction targets —not limited to just locomotives and trucks governed by state rules.
2. PR 2306 should eliminate unnecessary regulatory off-ramps for railyard facilities claiming reduced throughput.

Comment
1-2

3. PR 2306’s infrastructure component should require commitments supporting broadscale, facility-wide, transitions to zero-emissions, not just for locomotives and trucks.
4. PR 2306 should require new rail yard facilities to start at zero-emissions operations.
5. PR 2306 should empower environmental justice communities with information access and a role in making decisions on how to best address the impact of offending facilities.

Comment
1-2 Con't

The following sections provide our reasoning for these requests to improve the draft language.

II. The Railyard ISR Must Set Facility-Wide Emissions Reduction Targets that Address All Health-Harming and Polluting Mobile Sources at Railyard Facilities,

The Railyard ISR must set emissions reduction targets for railyard facilities as a whole to address the impact that entire railyard facilities have on local public health and regional nonattainment of federal and state standards. By setting emission reduction targets on the stationary source, the Railyard ISR will account for all sources of air pollution from railyards rather than arbitrarily limiting these targets to locomotives and trucks.

As currently drafted, the Rule would allow already heavily polluting railyards to merely do what they will already be mandated to do statewide and nothing else. Yet the SCAQMD has the legal authority to use the ISR to protect public health and control air pollution from stationary sources like railyards.¹ The Ninth Circuit has interpreted this authority as requiring emissions reductions that are “site-based” rather than “engine” or “vehicle-based.”² Utilizing this authority, PR 2306 should use a **site-based** approach to set emission-reduction targets looking at all emissions the facility draws to the region, not just locomotives and trucks.

Comment
1-3

Railyards are major hubs of activity and significant sources of nitrogen oxides (NOx), particulate matter (PM), and other pollutants contributing to the region’s poor air quality. Several polluting mobile sources operate at these facilities, including trains, trucks, transportation refrigeration units (TRUs), and cargo handling equipment — each contributing to overall emissions (see Table

¹ 42 U.S.C. §7410(a)(5)(D).

² Nat’l Ass’n of Home Builders v. San Joaquin Valley Unified Air Pollution Control Dist., 627 F.3d 730, 737 (9th Cir. 2010)

5-1 below showing railyard DMP emissions by source type known in 2005).

TABLE 5-1 RAILYARD DPM EMISSIONS BY SOURCE TYPE (TONS/YEAR) AND PERCENT CONTRIBUTION, 2005									
Railyard	Locomotives		Cargo-Handling Equipment		On-Road Trucks		Off-Road Trucks and Stationary Sources		Total
	Tons/Year	%	Tons/Year	%	Tons/Year	%	Tons/Year	%	
BNSF San Bernardino ²⁸	10.6	48%	3.7	17%	4.4	20%	0.75	3%	22.0
UP Colton ²⁹	16.3	99%	NA	NA	0.2	1%	0.05	0.3%	16.5
UP City of Industry ⁴⁰	5.9	54%	2.8	26%	2.0	18%	0.3	3%	10.9
UP ICTF/ Dolores ⁴¹	9.8	41%	4.4	19%	7.5	32%	2.0	8%	23.7
UP Commerce ⁴²	4.9	40%	4.8	40%	2.0	17%	0.4	3%	12.1
UP LATC ⁴³	3.2	44%	2.7	37%	1.0	14%	0.50	7%	7.3
UP Mira Loma ⁴⁴	4.4	90%	NA	NA	0.2	4%	0.2	4%	4.9
BNSF Hobart ⁴⁵	5.9	25%	4.2	18%	10.1	42%	3.7	15.5%	23.9
BNSF Watson ⁴⁶	1.9	100%	NA	NA	<0.01	<1%	0.04	<1%	1.9

Comment 1-3 Con't

The vast majority of this technology is currently powered by diesel or the combustion of other fossil fuels, which is exacerbating local poor air quality and contributing to the toxic stew that neighboring communities are forced to breathe.

PR 2306 should use the latest inventory of emissions by source type to discern the appropriate facility-wide emission-reduction targets. The Air District has clear authority to reduce emissions from stationary sources. The Railyard ISR should address facility-wide emissions, and in doing so, it will also ensure a more comprehensive approach to protecting communities from the health harms of railyards.

III. The Railyard ISR Should Not Offer Regulatory Off-Ramps for Any Facility.

The suggested compliance exception for reduced throughput facilities contradicts the ISR's original intent and should be removed. The District has no justification for providing this concession to heavily polluting industries, particularly when the South Coast must decrease emissions by an astounding 67 percent above current regulations and air plans to comply with the existing 70 part per billion federal ozone standard. Allowing regulatory carve-outs for any facility also undermines the shared objectives of SCAQMD, CARB, and AB 617 communities by enabling polluting facilities to maintain the status quo while avoiding any action that would help them transition to zero emissions.

Comment 1-4

As staff are aware, railyard facilities in our region have already wreaked havoc on local air quality and harmed the health of thousands living in overburdened neighboring communities. The pollution caused by railyards is a clear environmental justice issue that the District should prioritize resolving. Reduced throughput at a railyard should not result in disproportionately impacted communities being exposed to a steady stream of pollution. No facility should have the option to continue polluting without taking action to clean up their operations.

At the beginning of the rulemaking process, the staff identified the threefold purpose of the rule as follows: 1) to minimize public health impacts on surrounding environmental justice communities; 2) to ensure that projects do not interfere with federal air quality standards; and 3) to ensure that projects meet federal conformity requirements.³ Now that PR 2306 will cover both new and existing railyards, the rule offers the opportunity to more comprehensively address their public health impacts and impediments to NAAQS (National Ambient Air Quality Standard) attainment. Whether a railyard has seen a shift in activity to other facilities is irrelevant as achieving these goals will require comprehensive actions to reduce pollution at every railyard, not just a subset. If a facility experiences a slowdown in operations, it should still be required to participate in coordinated infrastructure planning and take steps towards a zero-emissions transition to further reduce existing pollution and prevent future spikes as throughput returns.

It is also unclear how the District will measure the average annual throughput for a facility to qualify for the reduced throughput option, as the draft language does not specify a metric. The only suggestion is that a facility can demonstrate reduced throughput in a milestone year preceded by two calendar years of lower throughput compared to the base period.⁴ This compliance exemption could potentially apply to some of the heaviest polluting railyards and could perpetuate existing harm and undermine the District's commitments to environmental justice and public health. There is no justification for this exemption, and it should be eliminated.

Comment
1-4 Con't

IV. The Railyard ISR Should Require Facilities to Build Electric Charging Infrastructure to Support Facility-wide Transition to Zero-Emissions.

We are pleased to see that the draft language includes an infrastructure component to support the deployment of zero-emissions technology at railyard facilities. However, the current draft misses an opportunity to catalyze a broad-scale transition to zero-emission infrastructure by only focusing on compliance with the CARB's In-Use Locomotive and ACF rules. We urge the staff to broaden the scope of this component to include infrastructure planning and commitments that can facilitate a transition of the stationary sources to zero emissions.

Comment
1-5

³ South Coast Air Quality Management District presentation, *Proposed Rule 2306- Indirect Source Rule for New Intermodal Facilities*, (July 30, 2021), slide 24; https://www.aqmd.gov/docs/default-source/rule-book/Proposed-Rules/pr-2306/pr2306_wgm_1_final.pdf?sfvrsn=10

⁴ PR2306 2024 Draft Language (as of April 12, 2024), p.6; <https://www.aqmd.gov/docs/default-source/planning/fbmsm-docs/pr2306-draft-rule-language-clean-final.pdf?sfvrsn=6>

To ensure a complete shift towards zero-emissions, a facility-wide approach to infrastructure planning is necessary. It is not just locomotives and trucks that need to be considered, as other components of railyard operations like cargo handling equipment and TRU's must also be electrified. Therefore, to address pollution sources from an entire railyard facility, we recommend that in addition to stronger emissions-reduction targets, infrastructure requirements should also focus on a facility-wide approach.

The Railyard ISR is a powerful tool that can help accelerate the development of electric charging infrastructure to move towards zero emissions. We have already seen how effective this approach can be with the District's Warehouse ISR rule, which has successfully led to infrastructure planning and the creation of custom plans, including the development of zero-emission vehicle charging stations. The Railyard ISR needs a similar approach, but not one that is arbitrarily limited to just two technology categories. By broadening the scope of infrastructure planning to cover entire railyards, the rule can better serve its purpose of delivering the cleanest technology at these facilities, as required by the 2022 Air Quality Management Plan⁵, by making it mandatory to have the necessary infrastructure to support it.

Comment
1-5 Con't

To ensure that the rule is robust enough to meet the various demands of the South Coast, it should mandate operators to provide precise timelines for when they request utilities to support infrastructure installation and provide evidence that these requests were submitted. This level of detailed planning will ensure that facilities are taking the necessary steps to fulfill commitments made towards ensuring compliance.

V. All New Railyards Should be Zero-Emissions From Day One.

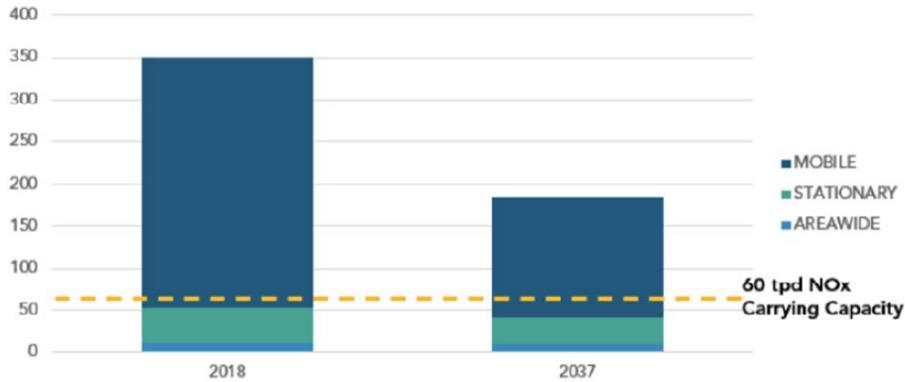
For PR 2306 to be effective, any new railyard built in the District must be zero-emissions from the start. As stated earlier, the South Coast needs to comply with federal mandates to meet the current 70 part per billion ozone standard. To achieve this, the Air District needs to reduce emissions by 67 percent more than the current regulations adopted and approved in previous air plans. The chart below shows the challenge faced by the South Coast in providing clean air to its residents. The gold dotted line represents the range of emissions reductions that must be achieved by 2037 to meet clean air standards in the South Coast Air Basin.

Comment
1-6

According to the 2022 State Implementation Plan, even after adopting several regulations, the South Coast would still have 196 tons per day of NOx emissions in its air. To meet the federally mandated air quality standards, California estimates that it needs to reduce 124 tons per day of NOx emissions, bringing it down to a carrying capacity of 60 tons per day. This reduction is necessary to ensure a healthy environment with clean air.

⁵ South Coast Air Quality Management District, 2022 Air Quality Management Plan, p.4-25.

Figure 9 – South Coast Air Basin NOx Emissions under Current Control Program (emissions out to 100 nautical miles)⁹



The South Coast Air Basin is in dire need to reduce emissions. Therefore, no new railyards should be allowed to add to this pollution. It is imperative that any new railyards operate with zero emissions from the beginning. Anything less would only make the federal compliance challenge even more massive, and burden communities with even more pollution.

Comment
1-6 Con't

It is entirely possible to require new railyards to begin operations with zero-emissions locomotives. Recent analysis by the California Air Resources Board (CARB) has shown that the use of zero-emissions trains along routes with steep inclines in the Port of Los Angeles to Barstow region is not only feasible, but in some cases, even more advantageous due to the reduced number of locomotives required to complete the journey.⁶ Studies have also demonstrated that electric rail can offer billions of dollars in cost savings due to the reduced cost of electricity compared to diesel.⁷ The Biden Administration has also recognized the advantages of zero-emissions (ZE) locomotives, leading to the release of the first-ever national goal for a zero-emissions freight sector and the National Blueprint for Transportation Decarbonization, which recommends the broad electrification of U.S. rail.⁸ New railyards in the South Coast region should be equipped with the necessary infrastructure for ZE operations to accommodate this technology.

⁶ California Air Resources Board Locomotive Authorization Request to U.S. Environmental Protection Agency (April 22, 2024), Docket ID No. EPA-HQ-OAR-2023-0574, Exhibit A- ZE Locomotive Feasibility Analysis Port of LA to Barstow Report; available at: <https://www.regulations.gov/comment/EPA-HQ-OAR-2023-0574-0153>.

⁷ Popovich, N.D., Rajagopal, D., Tasar, E. et al. Economic, environmental and grid-resilience benefits of converting diesel trains to battery-electric. *Nat Energy* 6, 1017–1025 (2021). <https://doi.org/10.1038/s41560-021-00915-5>.

⁸ Office of Energy Efficiency & Renewable Energy, *The National Blueprint for Transportation Decarbonization: A Joint Strategy to Transform Transportation*, <https://www.energy.gov/sites/default/files/2023-01/the-us-national-blueprint-for-transportation-decarbonization.pdf>.

It is therefore counterproductive to have a two-year lag time for new railyards to demonstrate zero-emissions infrastructure planning and reporting. Instead, new railyards should be required to report on infrastructure planning at the inception, as soon as the owner has notified the District of the potential new facility for the region.

Comment
1-6 Con't

VI. Reporting Should be Publicly Available, and Environmental Justice Communities Should Help Decide How Harms Are Addressed.

The District should share all reports and recordkeeping documents with the public to ensure transparency and accountability. If these documents contain private or proprietary information, the entity seeking to protect the information should provide evidence to support their claim. Entities claiming privacy can redact only the information necessary to protect their interests and make the remaining information public to ensure transparency and accountability.

Public access to monitoring and reporting data will make the Rule enforcement more effective by expanding opportunities to identify non-compliance. The current draft lacks a streamlined mechanism for the public to stay informed about changes in ownership and operation, construction of new facilities, initial reporting on facility operations and infrastructure plans, and milestone reporting on emissions reduction targets. Currently, recordkeeping data to verify reports is only available at the District's Executive Officer's request. Staff should change this in the final draft to ensure public access.

Comment
1-7

Freight-impacted communities have demanded a Railyard ISR for a decade to address the harmful emissions from railyards. Community Emission Reduction Plans (“CERPs”) for four AB 617 communities identify the Railyard ISR, the expansion of zero-emissions infrastructure, and expanded fenceline monitoring and reporting as critical mechanisms to address the acute localized dangers these facilities pose. There is no reason to prevent the public from accessing key reports and recordkeeping data.

Finally, the District should use fines for non-compliance or failure to meet targets to create community-advised funds. The Rule should incorporate a program that allows impacted communities to have a say in how the District uses these funds to support the deployment of zero-emissions solutions and to address a railyard’s impact on public health.

Comment
1-8

We look forward to continuing to work with staff to further strengthen this important life-saving rule. Thank you for considering our comments and recommendations.

Comment
1-8 Con't

Thank you,

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Staff Responses to Comment Letter #1:***Response to Comment 1-1***

Staff appreciates the organizations' participation in rulemaking and providing comments and feedback throughout the process, as well as assisting staff in engaging with environmental justice (EJ) communities near freight rail yards in the Basin.

Response to Comment 1-2

Please refer to staff responses, below, to Comment 1-3 through Comment 1-8.

Response to Comment 1-3

PR 2306 will assist in attaining both state and federal standards for ozone and fine particulate matter. The NO_x emission reduction targets included in PR 2306 will mandate any freight rail yard subject to the proposed rule to reduce mobile source emissions associated with its operation as an indirect source, in accordance with South Coast AQMD's authority pursuant to Health and Safety Code Section 40716 (see detailed discussion in Chapter 1 *Legal Authority* section of this report). Compliance with PR 2306 is not limited to emission reductions from specific mobile sources, but from any "applicable mobile source(s)" as defined in the rule and includes all mobile sources that may be operated on or through a freight rail yard to transport or assist in transporting cargo or goods such as cargo handling equipment, drayage trucks, line haul locomotives, switch locomotives, transportation refrigeration units, and/or other on-site support equipment.

On the other hand, PR 2306 emission reduction targets are set at levels to ensure that proportional or more-than-proportional emission reductions will be achieved at facility-level in the South Coast AQMD region relative to emission reductions from implementation of statewide regulations throughout California - specifically the In-Use Locomotive and Advanced Clean Fleets regulations recently adopted by CARB. Although significant emission reductions are projected statewide, CARB regulations will not necessarily result in similar outcomes of emission reductions across the state as compared to each region's "business-as-usual" emissions, i.e., emissions without the recently adopted statewide regulations. With PR 2306, freight rail yard operators must consider how statewide compliance with CARB regulations would interplay with compliance with PR 2306. If statewide compliance with CARB regulations alone would already result in proportional or more-than-proportional emission reductions for a freight rail yard in the South Coast AQMD region, no further action would need to be taken by the operator of such freight rail yard. However, if statewide compliance with CARB regulations alone would result in less-than-proportional emission reductions for a freight rail yard in the South Coast AQMD region, its operator must then obtain and demonstrate additional emission reductions from any or any combination of "applicable mobile source(s)" in order to also comply with PR 2306.

In summary, PR 2306 will, at minimum, ensure that proportional emission reductions occur at levels commensurate with implementation of CARB regulations for freight rail yards within the South Coast AQMD. Compliance with PR 2306 could potentially result in further emission reductions from any mobile sources associated with freight rail yard operations, particularly in the event that statewide compliance with CARB regulations alone does not achieve proportional or greater emission reductions at the applicable freight rail yards as mandated by PR 2306. Please

also refer to staff response to Public Workshop Comment PW-10-c on emission reduction potential.

Response to Comment 1-4

Staff appreciates the comment. There is no exemption in PR 2306 for freight rail yards with reduced throughput. In actuality, freight rail yards with reduced throughput are required to meet or exceed the emission reduction targets, as with other freight rail yards. Please refer to staff response to Public Workshop Comment PW-14 for more details. Moreover, the same reporting requirements on zero emission infrastructure planning, development, and utilization are also applicable to all freight rail yards, whether with reduced throughput or not.

With respect to the concern regarding shifting activities to a different freight rail yard to undermine the effectiveness of the proposed rule, even if the shifting of activities does occur, compliance with the emission reductions target requirements will mean that more emission reductions will be required to be achieved at the other freight rail yard(s) with increased level of throughput and activities. Also, the purpose of the rule has evolved during the rulemaking process. The purpose is stated explicitly in PR 2306 as: “The purpose of this rule is to reduce emissions of Nitrogen Oxides (NOx) associated with Freight Rail Yards and the mobile sources attracted to Freight Rail Yards in order to assist in meeting state and federal air quality standards for Ozone and Fine Particulate Matter, and to ensure that proportional or greater emission reductions occur in the South Coast AQMD jurisdiction from implementation of state regulations addressing Freight Rail Yard emission sources.”

Finally, PR 2306 defines throughput as “the total number of visits by Railcars that move through a Freight Rail Yard over a set period of time,” and “[a] Railcar entering a Freight Rail Yard and then leaving that yard counts as one visit.” In order to qualify for the reduced throughput compliance pathway, the operator must first satisfy conditions specified in PR 2306, including demonstrating that their facility’s average throughput over a period of three years (milestone year and its two preceding years) has indeed declined from the base period.

Response to Comment 1-5

Staff appreciates the feedback and have added an additional requirement in the preliminary draft rule language related to electrical service upgrade requests based on such feedback. Please also refer to staff responses to Public Workshop Comments PW-2, PW-9, and PW-11 with respect to fuel neutrality for zero emission infrastructure reporting requirements of PR 2306.

PR 2306 requires freight rail yard owners and operators to specify within their initial and milestone infrastructure reports the on- and off-site zero emission infrastructure that will be needed to comply with or support the implementation of state regulations such as In-Use Locomotive and Advanced Clean Fleets, any other zero emission infrastructure requirements and initiatives, as well as control measures for TRUs and CHE in the 2022 State Strategy for the State Implementation Plan. South Coast AQMD recognizes the challenges for zero emission infrastructure development and will continue to explore all possible avenues to help address these challenges.

Response to Comment 1-6

Staff appreciates the recognition expressed in the comment about the magnitude of attainment challenges faced by the South Coast AQMD region, and the need to significantly reduce emissions to protect public health. Additionally, prolonged nonattainment could result in potential federal sanctions, which will negatively impact our region's highway infrastructure funding and the overall economy (please refer to Chapter 4 of this report for more details). Staff also agrees that the region's air quality challenges demand all feasible actions to be taken, and that actions need to be taken by federal, state, and local agencies utilizing our respective authorities. PR 2306 is developed by carefully considering South Coast AQMD's legal authority (please refer to Chapter 1 *Legal Authority* section of this report), and it is designed as part of the suite of AQMP Facility Based Mobile Source Measures aimed at collectively addressing emissions related to freight transportation.

Please refer to staff responses to Public Workshop Comments PW-3-a and PW-16, respectively, relative to technological feasibility for all freight rail yard sources of emissions and limitations for South Coast AQMD to regulate specific mobile sources. South Coast AQMD continues to work with technology developers and other stakeholders in the demonstration and deployment of various zero-emission mobile-source technologies.

Finally, as with other freight rail yards, the owner and operator of a new freight rail yard are required to submit an initial report not only on any planning, but also on any development and utilization of zero emission infrastructure during the base period (i.e., the first two full calendar years after the new freight rail yard begins operation). Any subsequent updates are also required to be reported for each milestone year.

Response to Comment 1-7

Please refer to staff response to Public Workshop Comment PW-3-b. Development of specific approaches to release information to the public from PR 2306 will be developed during rule implementation if the rule is adopted and put into effect.

With regards to any business confidential information submitted as part of PR 2306 compliance reporting, South Coast AQMD will follow the agency's *Guidelines for Implementing the California Public Records Act* in processing information that is potentially confidential. The guidelines document is available at: <https://www.aqmd.gov/docs/default-source/default-document-library/Guidelines/pr-guidelines.pdf>.

Response to Comment 1-8

With regards to penalties for rule violation, please refer to staff response to Public Workshop Comment PW-8-a. The use of any future potential monetary penalty payments from a violation of PR 2306 or 316.2 (if the proposed rules are adopted and become effective) will be subject to Governing Board approval.

Comment Letter #2 from the California Air Resources Board

Gavin Newsom, Governor
Yana Garcia, CalEPA Secretary
Liane M. Randolph, Chair

June 17, 2024

Ian MacMillan, Assistant Deputy Executive Officer
C/O Cindy Guzman De La Rocha
Planning, Rule Development, and Implementation
South Coast AQMD
21865 Copley Drive
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Submitted via: RailyardISR@aqmd.gov

RE: Comments of the California Air Resources Board Regarding Proposed Rule 2306 by the South Coast Air Quality Management District

Dear Assistant Deputy Executive Officer MacMillan:

The California Air Resources Board (CARB) recognizes the need for the South Coast Air Quality Management District (District) to achieve oxides of nitrogen (NO_x) emission reductions from locomotives and other rail yard sources. The District is in extreme non-attainment for ozone and needs NO_x reductions for the State Implementation Plan. Five out of six of the current Community Emission Reduction Plans in the District's most impacted areas state that reducing emissions from either rail yards or locomotives is a priority for the communities.

CARB staff are currently reviewing Proposed Rule 2306 – Freight Rail Yards (Proposed Rule) and will work with the District to address questions as they arise. CARB's review will include identification of emission reductions that will be surplus to CARB regulations, potential impacts to other areas of the State, and potential changes in operator behavior created by the Proposed Rule.

CARB appreciates the opportunity to comment on the Proposed Rule to the District. We look forward to continuing to work with you in creating an enforceable Rule.

Sincerely,

A handwritten signature in blue ink, appearing to read "Heather Arias".

Heather Arias, Chief, Transportation and Toxics Division

cc: Steven S. Cliff, Ph.D., Executive Officer, California Air Resources Board
Edie Chang, Deputy Executive Officer, Planning, Freight and Toxics

Comment
2-1

Staff Response to Comment Letter #2:***Response to Comment 2-1***

Staff appreciates continued partnerships with CARB, including but not limited to CARB's feedback on PR 2306, in addressing South Coast AQMD's attainment needs and mitigation of the impacts of rail yard emissions on South Coast AQMD's EJ communities. With respect to emission reductions surplus of CARB regulations, please refer to staff's response to Public Workshop Comment PW-10-c. With respect to potential impacts of PR 2306 to other areas of the state, please refer to staff responses to Public Workshop Comments PW-1 and PW-10-c. Staff welcomes opportunities for further discussion on these responses, any further comment related to operator behavior, and any additional topics of interest.

Comment Letter #3 from the Association of American Railroads and the American Short Line and Regional Railroad Association



ASSOCIATION OF
AMERICAN RAILROADS



American Short Line and
Regional Railroad Association

June 18, 2024

Sent via Electronic Mail Only

Mr. Ian McMillan
Assistant Deputy, Executive Officer
South Coast Air Resource Board
imacmillan@aqmd.gov

Dear Mr. McMillan:

This month the South Coast Air Quality Management District (“SCAQMD”) held a public workshop on June 4, 2024, to discuss Proposed Rules 2306 and 316.2 (“Proposed Rules”), and proposed the draft regulatory package. See https://www.aqmd.gov/docs/default-source/rule-book/Proposed-Rules/pr-2306/pdsr_pr2306-public-release-final.pdf?sfvrsn=2/. SCAQMD relies on authority granted to it under AB 617, governing Community Emissions Reduction Plans (“CERPs”), in promulgating this regulation. The Proposed Rules apply to owners and operators of proposed, new, and existing freight rail yards within the air district, and also propose fees associated with the implementation of PR 2306.

Comment
3-1

Although staff have requested public comment on the Proposed Rules by June 18, 2024, the draft documentation lacks adequate detail and supporting information to enable meaningful comment. As a result, today we provide limited comments focusing on the adequacy of the California Environmental Quality Act (“CEQA”) analysis as applied to PR 2306. We look forward to reviewing and commenting on the formal and complete regulatory package when publicly available.

The 2016 and 2022 ACMPs Fail to Meet the Standards Required By CEQA.

CEQA requires the preparation of an environmental impact report (“EIR”) in order “to identify the significant effects on the environment of a project, to identify alternatives to the project, and to indicate the manner in which those significant effects can be mitigated or avoided.” Cal. Pub. Res. Code (“PRC”), § 21002.1; see also 14 Cal. Code Regs. (“CEQA Guidelines”) §§ 15000-15387. The primary purpose of CEQA is to require state agencies to consider and disclose to the public the environmental implications of their actions, to foster an informed and transparent public decision-making process. For the reasons explained below, the 2016 and 2022 Air Quality Management Plans (“the AQMPs”), on which SCAQMD relies to establish compliance with CEQA, fail to adequately evaluate the impacts of the Proposed Rule. This is hardly surprising since the AQMPs were prepared years before the Proposed Rules were finalized.

Comment
3-2

While CEQA sometimes allows an agency to rely on a Programmatic EIR (“PEIR”) to satisfy its statutorily mandated environmental review obligations, those situations are limited. Notably, it is the substance and details of PEIRs that dictate overall compliance with CEQA. See, e.g., *Citizens for a Sustainable Treasure Island v. San Francisco*, 227 Cal. App. 4th 1036 (2014).

In its draft Staff Report (“Draft Report”), SCAQMD asserts that “PR 2306 is a later activity within the scope of the programs approved earlier in the 2022 [] AQMP and 2016 AQMP[.]” See Draft Staff Report at 4-17. The Draft Report further states that the prior AQMPs “adequately describe the activities associated with implementing PR 2306 such that no new environmental document will be required.” *Id.* While the supporting analysis for this conclusion is not yet available, we write to express our position that it is inappropriate for SCAQMD to rely on the prior AQMPs in support of PR 2306.

Comment
3-2 Con't

The fundamental purpose of an EIR is “to provide public agencies and the public in general with detailed information about the effect which a proposed project is likely to have on the environment.” PRC § 21061. To that end, the EIR “shall include a *detailed statement* setting forth . . . [a]ll significant effects on the environment of the proposed project.” PRC § 21100, subd. (b)(1) (emphasis added).

The AQMPs rely heavily on the introduction and expansion of infrastructure to meet the specified air quality goals and NOx emissions reduction targets. However, there is no ACMP PIER Electrical Section (4.3) regarding how much new electricity would be needed for mobile and other sources operating within freight railyards. Also, the electricity that may be needed for the indirect sources that operate within the SCAQMD and that would be attracted or travelled to individual freight railyards (e.g., trains that are electrified via catenary that travel from the SCAQMD borders to the individual FRYs) was not considered.

Comment
3-3

In addition, the SCAQMD staff has estimated the PR 2306 NOx emissions reductions – on average annually – at about nine (9) tons per day between rule implementation (approximately 2027) through 2050. The 2022 AQMP PEIR (November 2022) was unable to estimate the potential emission reductions and indicated that was yet to be determined. But a PEIR must clearly and separately identify potential impacts and mitigation measures. Those mitigation measures must be “discussed separately and the reasons for choosing one over the others should be stated.” *Sacramento Old City Assn. v. City Council*, 229 Cal. App. 3d 1011, 1027 (1991). SCAQMD has failed to undertake that analysis here with respect to railyards.

Comment
3-4

Finally, the 2022 AQMP PEIR Electrical Section (4.3) assesses future electricity needs, broadly indicating there would be an increase in electricity demand beyond then-current estimated growth projections. The Electrical Section of the Draft Report in support of the Proposed Rules estimates the specific increases in electrical demand for the Ports of Los Angeles and Long Beach to be approximately 100 MW to 300 MW. But it failed to account for freight railyards and the indirect sources they attract within the SCAQMD. Even absent these sources, the Draft Report concludes that the potential increase in electricity usage quantified would exceed baseline electricity consumption at the Ports by up to 11 percent. Further, even

Comment
3-5

after mitigation measures are applied, electricity demand impacts would remain significant. However, no mitigation associated with this increase is discussed in detail. This analysis fails to fulfill SCAQMD’s obligations under CEQA.

Comment
3-5 Con't

For the reasons identified above, we ask that SCQAMD staff reconsider its determination that a detailed and complete CEQA is unnecessary for the Proposed Rule and allow the public and regulated entities – including railroads – to consider and comment on a complete EIR, as the statute requires.

Respectfully,

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Staff Response to Comment Letter #3:

Response to Comment 3-1

Staff appreciates the stakeholder’s input and feedback on the Preliminary Draft Staff Report for PR 2306 and PR 316.2. The commenter’s claim that PR 2306 is reliant upon authority granted to South Coast AQMD under AB 617 is incorrect. The commenter is referred to the Chapter 1 *Legal Authority* section of this report for a description of South Coast AQMD authority related to PRs 2306 and 316.2. The commenter also claims that the draft documentation lacks adequate detail and supporting information to enable meaningful comment, but does not specify what kind of information is lacking. This comment is vague and unsubstantiated. The preliminary draft staff report included a background of the rule, the rationale for regulating the affected industry or sources in the manner proposed by the rule, the potential impacts of the proposed rule on the affected industry or sources, potential emission reductions expected from the rule, a description of control technologies and alternatives, draft findings of necessity, authority, clarity, consistency, and non-duplication, as well as references relied upon for the analysis. The full preliminary draft rule language was also made available, along with a detailed Calculation Methodology, an associated data appendix for the Calculation Methodology, and supplementary information on fee rates proposed in PR 316.2

The Preliminary Draft Staff Report also described South Coast AQMD’s intent and approach to the California Environmental Quality Act (CEQA) analysis for the proposed rules. A detailed environmental analysis has been prepared and is now available for review in this Staff Report, Appendix A – Detailed CEQA Analysis.

Response to Comment 3-2

PR 2306 is a new rule which is designed to memorialize and implement Control Measures MOB-02A and MOB-02B which were previously adopted in the 2022 AQMP and Control Measure MOB-02 which was previously adopted in the 2016 AQMP. The environmental impacts of the 2022 AQMP and all of its control measures, including Control Measures MOB-02A and MOB-02B, were evaluated in a Final Program Environmental Impact Report (EIR) which was certified by the South Coast AQMD Governing Board on December 2, 2022. Similarly, the environmental impacts of the 2016 AQMP and all of its control measures, including Control Measure MOB-02, were evaluated in a Final Program EIR which was certified by the South Coast AQMD Governing Board on March 3, 2017.

CEQA Guidelines Section 15187 requires South Coast AQMD to perform an environmental analysis when proposing to adopt a new rule or regulation requiring the installation of air pollution control equipment, or establishing a performance standard, which is the case with PR 2306. CEQA Guidelines 15187(c) requires the environmental analysis to include at least the following information:

- An analysis of reasonably foreseeable environmental impacts of the methods of compliance;
- An analysis of reasonably foreseeable mitigation measures relating to those environmental impacts; and

- An analysis of reasonably foreseeable alternative means of compliance with the rule or regulation, which would avoid or eliminate the identified environmental impacts.

In analyzing the potential environmental impacts of PR 2306 as required by CEQA Guidelines Section 15187, South Coast AQMD finds that, pursuant to CEQA Guidelines Section 15162, that PR 2306 does not contain new information of substantial importance which was not known and could not have been known at the time of certification of: 1) Final Program EIR for the 2022 AQMP; and 2) the Final Program EIR for the 2016 AQMP. [CEQA Guidelines Section 15162(a)(3)]. Therefore, a Subsequent EIR is not required.

Instead, a detailed environmental analysis as required by CEQA Guidelines Section 15187 has been provided in Appendix A of this Staff Report which examines whether PR 2306 qualifies as a later activity within the scope of the previous analyses conducted in the certified Final Program EIRs for the 2022 AQMP and the 2016 AQMP pursuant to CEQA Guidelines 15168(c) – Use with Later Activities. Specifically, Appendix A: 1) compares the proposed later activity of PR 2306 with the previously approved programs, Control Measures MOB-02A and MOB-02B which were adopted in the 2022 AQMP and Control Measure MOB-02 which was adopted in the 2016 AQMP; 2) summarizes the environmental impacts analyzed in the Final Program EIRs for the 2022 AQMP and 2016 AQMP for Control Measures MOB-02A, MOB-02B, and MOB-02; 3) identifies the differences, if any, between the analyses of environmental impacts in the Final Program EIRs for 2022 AQMP and 2016 AQMP for the applicable control measures and PR 2306 and, as needed, identifies any other impact areas which may require further analysis; and 4) considers the evidence and determines whether: a) PR 2306 is a later activity within the scope of the programs approved earlier for the 2022 AQMP and 2016 AQMP; and b) the Final Program EIRs for the 2022 AQMP and the 2016 AQMP adequately describe the later activity of PR 2306 for the purposes of CEQA such that no new environmental document ~~is~~ will be required.

The analysis in Appendix A determined that the physical changes expected as a result of implementing PR 2306 are the same as those contemplated for Control Measures MOB-02A and MOB-02B of the 2022 AQMP and Control Measure MOB-02 of the 2016 AQMP which were analyzed under the Final Program EIR for the 2022 AQMP and Final Program EIR for the 2016 AQMP, respectively.

Owners or operators of the freight rail yards that will be subject to PR 2306 have not provided site-specific details regarding any additional potential modifications and associated environmental impacts that could potentially occur at individual freight rail yard locations to comply with PR 2306 beyond what has been previously forecasted and analyzed in accordance with CEQA Guidelines Section 15144 in the Final Program EIRs for the 2022 AQMP and 2016 AQMP. Please see Appendix A: Detailed CEQA Analysis which summarizes the prior environmental analyses conducted in the Final Program EIRs for the 2022 AQMP and 2016 AQMP and demonstrates that PR 2306 constitutes a later activity of these previously approved programs (i.e., 2022 AQMP and 2016 AQMP) under CEQA Guidelines Section 15168(c)(3).

Response to Comment 3-3

Both the Final Program EIR for the 2022 AQMP and the Final Program EIR for the 2016 AQMP analyzed potential infrastructure and electricity needs associated with zero emission equipment relying on electricity to operate at freight rail yards and the utilities producing additional electricity

to satisfy increased demand. Control Measures MOB-02A and MOB-02B were analyzed in Final Program EIR for the 2022 AQMP which specifically identified energy impacts (e.g., increased demand for electricity (for vehicles, rail, and equipment) and natural gas associated with infrastructure development required to achieve emission reductions at existing rail yards and intermodal facilities from on-road heavy-duty vehicles, off-road equipment, and locomotives. Table A-9 in Appendix A provides a summary of the electricity use estimates that were conducted in the Final Program EIR for the 2022 AQMP. The estimates show that vehicles affected by Control Measures MOB-02A and MOB-02B contribute to an estimated increase of Basin-wide annual electricity use by 160.5 gigawatt hours (GWh) per year. The Final Program EIR for the 2022 AQMP concluded that implementation of 2022 AQMP control measures (including but not limited to mobile sources) would increase total Basin-wide electricity demand 11 percent over 2020 consumption but the overall potential increase in electricity demand could be higher. Because the energy impacts from implementing the 2022 AQMP were expected to be significant for electricity demand, feasible mitigation measures E-1 to E-7 for reducing impacts related to potential electricity demand were adopted the Final Program EIR for the 2022 AQMP (see pp. 4.3-21 to 4.3-22 of the Final Program EIR for the 2022 AQMP). Even after mitigation measures E-1 to E-7 were applied, electricity demand impacts would remain significant.

Similarly, Control Measure MOB-02 was analyzed in the Final Program EIR for the 2016 AQMP which also identified energy (electrical/natural gas demand) associated with constructing the necessary infrastructure to provide support for new cleaner equipment or vehicles and accelerating the penetration of zero and near-zero emission locomotives. The Final Program EIR for the 2016 AQMP similarly anticipated that the mobile source control measures in the 2016 AQMP, including Control Measure MOB-02, would increase the electricity demand in the Basin, and the analysis relied on Basin-wide electricity use to evaluate the potential energy impacts from electricity demand. The anticipated shift of cars, trucks, off-road vehicles, and marine vessels from gasoline and diesel fuels to electricity was projected to create an additional electrical load demand. Because the energy impacts from implementing the 2016 AQMP were expected to be significant for electricity demand, feasible mitigation measures E-1 to E-7 for reducing impacts related to potential electricity demand were adopted the Final Program EIR for the 2016 AQMP (see pp. 4.2-24 of the Final Program EIR for the 2016 AQMP). Even after mitigation measures E-1 to E-7 were applied, electricity demand impacts would remain significant.

In addition, it is important to note that PR 2306 is intended to supplement, but not duplicate, the local implementation of CARB's In-Use Locomotive and Advanced Clean Fleets Regulations within South Coast AQMD by requiring all freight rail yards to meet set emission reductions targets for milestone years. Moreover, as part of regulatory development and adoption process, CARB examined the environmental impacts associated with implementing each regulation by preparing CEQA documents which evaluated all of the environmental topic areas in Appendix G of the CEQA Guidelines, including energy. Specifically, on April 27, 2023, CARB certified a Final Environmental Analysis (State Clearinghouse No. 2022090408)¹⁵¹ which examined the environmental impacts associated with implementing the In-Use Locomotive Regulation. Similarly, on August 28, 2023, CARB certified a Final Environmental Analysis (State

¹⁵¹ CARB, 2023. Final Environmental Analysis for the Proposed In-Use Locomotive Regulation, April 14, 2023

Clearinghouse No. 2021030340) which examined the environmental impacts associated with implementing the Advanced Clean Fleets Regulation.¹⁵²

The CEQA analysis for PR 2306 is not required to repeat or duplicate the environmental analyses previously conducted by CARB for these two adopted regulations. Instead, Appendix A incorporates these documents by reference in accordance with CEQA Guidelines Section 15150. Lastly, after CARB adopted their In-Use Locomotive and Advanced Clean Fleets Regulations, CARB published a detailed Fact Sheet “Yes, the California grid can handle electrification of all switchers in all railyards” which analyzes the energy and power requirements of locomotives (and a cruise ship at berth), and California grid capacity. The results indicated that if all switchers in California were battery electric and charged by the grid, they will account for about 0.1 to 0.2 percent of the 2022 California grid capacity.¹⁵³ CARB’s analysis concluded that, “In terms of power, energy, and land requirements, challenges of charging infrastructure for battery electric switchers are small compared to the current infrastructure capacity.” However, according to CARB’s analysis in their Technical Support Document on Zero Emission Conversions in Appendix C of CARB’s In-Use Locomotive Regulation¹⁵⁴, which provides further discussion on the potential conversion of existing diesel locomotives to zero emission locomotives, zero emission line haul locomotives are expected to rely mainly on hydrogen fuel cells as the primary energy source instead of battery electric locomotives being recharged from the grid and/or local power generation. Thus, the actual electrical demand for zero emission locomotive conversions may be less than CARB’s initial projections. CARB has indicated that Appendix C is an introduction to the topic of zero emission conversions and that a more detailed technical analysis will be conducted in technical assessment which is scheduled for 2027.

Response to Comment 3-4

Both the 2022 AQMP and the 2016 AQMP provided estimates for NOx emission reductions which reflected the best information available at the time. The Final Program EIR for the 2022 AQMP concluded that the implementation of all of the control measures in the 2022 AQMP would result in an overall reduction in NOx emissions over the long-term (an environmental benefit) but with potentially significant secondary impacts for the following environmental topic areas: air quality and greenhouse gas (GHG) emissions, energy, hazards and hazardous materials, hydrology and water quality, noise, and solid and hazardous waste. Specific to the implementation of Control Measures MOB-02A and MOB-02B, the Final Program EIR for the 2022 AQMP analyzed and concluded potentially significant impacts to the environmental topic areas of air quality from construction, energy, hazards and hazardous materials, noise, and solid and hazardous waste.

In addition, the Final Program EIR for the 2016 AQMP concluded that the implementation of all of the control measures in the 2016 AQMP would result in an overall reduction in NOx emissions

¹⁵² CARB, 2023. Final Environmental Analysis for the Proposed Advanced Clean Fleets Regulation, April 23, 2023.

¹⁵³ CARB, 2023. Fact Sheet “Yes, the California grid can handle electrification of all switchers in all railyards.” Published June 28, 2023, <https://ww2.arb.ca.gov/resources/fact-sheets/yes-california-grid-can-handle-electrification-all-switchers-all-railyards>.

¹⁵⁴ CARB, 2023. In-Use Locomotive Regulation, Appendix C: Technical Support Document: Zero Emission Locomotive Conversion, March 1, 2023, pp. 12-13, <https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2022/locomotive22/15dayappc.pdf>.

over the long-term (an environmental benefit) but with potentially significant secondary impacts for the following environmental topic areas: aesthetics, air quality and greenhouse gas emissions, energy, hazards and hazardous materials, hydrology and water quality, noise, solid and hazardous waste, and transportation and traffic. Specific to the implementation of Control Measures MOB-02, the Final Program EIR for the 2016 AQMP analyzed and concluded potentially significant impacts to the environmental topic areas of air quality from construction, energy, noise, and solid and hazardous waste.

CEQA requires that feasible mitigation measures be applied to reduce or eliminate potentially significant impacts and the Final Program EIRs for the 2022 AQMP and 2016 AQMP adopted a suite of feasible mitigation measures for the topics of construction air quality, energy, noise, and solid and hazardous waste. In addition, Mitigation, Monitoring and Reporting Plans were prepared and adopted with the Final Program EIRs for the 2022 AQMP and the 2016 AQMP pursuant to Public Resources Code Section 21081.6 and CEQA Guidelines Section 15097.

Appendix A of this report contains a section which is dedicated to summarizing these environmental topic areas concluded in the Final Program EIRs for the 2022 AQMP and 2016 AQMP to have significant impacts. For every topic area identified as having significant impacts, a summary of the mitigation measures that were adopted in Final Program EIRs for the 2022 AQMP and 2016 AQMP is also provided.

Finally, Table 3-5 of the ~~Draft-Final~~ Staff Report provides updated estimated NOx emission reductions that are projected to be achieved by South Coast AQMD implementing PR 2306 plus CARB implementing their In-Use Locomotive and Advanced Clean Fleets Regulations. While these estimates contain updated information relative to what was presented previously, the estimates of NOx emission reductions presented in Table 3-5 do not change the previously conducted analyses and conclusion of adverse environmental impacts in South Coast AQMD's Final Program EIRs for the 2022 AQMP and 2016 AQMP or CARB's Final Environmental Analyses for the In-Use Locomotive and Advanced Clean Fleets Regulations.

Response to Comment 3-5

The Final Program EIR for the 2022 AQMP estimated an increase of approximately 11 percent over 2020 consumption of electricity in the Basin, and also indicated that this estimate did not take into account the electricity that may be needed to operate additional air pollution control equipment or to convert combustion equipment to fully electric. Thus, the analysis acknowledged that the overall potential increase in electricity demand could be higher. This increase, along with the increases in electricity associated with other state programs and mandates, was expected to exceed the electrical generating capacity of the system.

In addition, the Final Program EIRs for the 2022 AQMP and 2016 AQMP acknowledged and analyzed the potential electricity impacts associated with infrastructure and operation of indirect sources such as on-road heavy-duty vehicles, off-road equipment, and locomotives associated with implementing Control Measures MOB-02A and MOB-02B from the 2022 AQMP and Control Measure MOB-02 from the 2016 AQMP.

Because the energy impacts from implementing the 2022 AQMP were expected to be significant for electricity demand, feasible mitigation measures E-1 to E-7 for reducing impacts related to potential electricity demand were adopted in the Final Program EIR for the 2022 AQMP.

Similarly, because the energy impacts from implementing the 2016 AQMP were expected to be significant for electricity demand, feasible mitigation measures E-1 to E-7 for reducing impacts related to potential electricity demand were adopted in the Final Program EIR for the 2016 AQMP. Please also see Response to Comment 3-3.

Regarding the comment suggesting that an EIR needs to be prepared, please see Response to Comment 3-2.

Comment Letter #4 from the Coalition for Clean Air



June 17th, 2021

Members of the Governing Board
 South Coast Air Quality Management District (SCAQMD)
 21865 Copley Drive
 Diamond Bar CA 91765

Re: Support for strengthening and adopting Proposed Rules 2306 and 316.2 (Freight Rail Yards Indirect Source Review Rule)

Dear Chair Delgado and members of the SCAQMD Governing Board,

The Coalition for Clean Air supports the final approval of Rules 2306 and 316.2 the Freight Rail Yards Indirect Source Review (ISR) rule. While the rulemaking for this began in earnest in 2017, the need to address rail yard pollution stretches back over a century. The South Coast Air Basin’s persistent extreme nonattainment of the National Ambient Air Quality Standards (NAAQS), a threat of federal sanctions, and the enactment of 2017’s AB 617 stress the need for emission reductions from the goods movement sector. Passing a robust ISR for rail yards will help the South Coast basin achieve a reduction in smog-forming nitrogen oxides of 9 tons per day--almost 10% of what is required to meet the 1997 standard for ozone.¹

Comment
4-1

While we support the approval of Rules 2306 and 316.2, we urge the South Coast Air Management District (“the District”) to implement the strongest rule possible. Basing the rule off of proportional California Air Resources Board (CARB) compliance is a good start, however, we would prefer to see a rule that goes above and beyond CARB’s rules. A strong rule would include emissions targets from all sources of emissions that rail yards attract--including cargo handling equipment and transportation refrigerated units (TRUs)--and go beyond compliance with CARB’s In-Use Locomotive and Advanced Clean Fleet rules.

Comment
4-2

The air district has legal authority to implement these rules and has been given such by Congress in 1977 and confirmed in the 9th Circuit Court of Appeals in 2010. South Coast’s own counsel believes that it has the authority to act in this manner (see, “Office of General Counsel Memorandum” including as addendum). South Coast AQMD has successfully adopted PR 2305, the Warehouse ISR Rule, in 2021 and the San Joaquin Air Pollution Control District adopted an ISR in 2005, both of which have given the market the strong signal it needs to adequately clean up air pollution associated with warehouses and new development.

¹ <https://www.latimes.com/environment/story/2024-02-04/epa-poised-to-reject-southern-california-smog-plan>

Now is the perfect time to implement such a rule. The Federal Transit Administration, which analyzes the physical health of transit capital around the country has determined that 43% of California’s transit capital assets—including rail—are at or past their useful life. Operating a train beyond its useful life of 25 years can lead to equipment failure. With the average age of California’s rail fleet at 24 years, now is the perfect time for railroads to invest in new zero emissions equipment—ensuring the safe and reliable movement of goods.²

Comment
4-3

To pass a robust rule, we believe PR 2306 must be strengthened in the following specific ways:

I. The District must use its authority over stationary sources to develop more aggressive, facility-wide, emission reduction targets —not limited to just locomotives and trucks as governed by state rules.

Emissions reductions targets should be set for rail yard facilities as a whole to address the entire impact that rail yard facilities have on local public health—including impacts from pollution and noise—and regional nonattainment of federal and state standards. An Indirect Source Review rule should account for all pollution attributed to the stationary source, i.e. the rail yard—rather than exclusively on emissions from locomotives and trucks, with other emission sources being an optional “sprinkle” of emissions reduction benefits. The current ISR will only require the rail yards to do what is already mandated by statewide rules and nothing else. The Ninth Circuit has interpreted this authority as requiring emissions reductions that are “site-based” rather than “engine” or “vehicle-based.” PR 2306 should use a site-based approach to set emission-reduction targets looking at all emissions the facility draws to the region. Rail yards are major hubs of activity and significant sources of nitrogen oxides (NOx), particulate matter (PM), and other pollutants contributing to the region’s poor air quality. Polluting mobile sources operating at these facilities, including trains, trucks, TRUs, and cargo handling equipment, each contribute to overall facility emissions. PR 2306 can use the latest inventory of emissions by source type to discern the appropriate facility-wide emission-reduction targets.

Comment
4-4

II. PR 2306 should eliminate unnecessary regulatory off-ramps for rail yard facilities claiming reduced throughput.

The suggested compliance exemption for reduced throughput facilities contradicts the ISR’s original intent and should be removed. Allowing regulatory carve-outs for any facility undermines the objectives of SCAQMD, CARB, and AB 617 communities by enabling rail yards to maintain the status quo, while avoiding any action that would help them transition to zero emissions. No facility should have the option to continue polluting without taking action to clean up their operations. A comprehensive, coordinated effort across all rail yards in the District is necessary to achieve pollution reduction, even if activity shifts between facilities at any given time. It is also unclear how the District would measure the average annual throughput for a facility to qualify for the reduced throughput option, as the draft language does not specify a metric. The only suggestion is that a facility can demonstrate reduced throughput in a milestone year preceded by two calendar years of lower throughput compared to the base period.³ This compliance exemption could potentially apply to some of the heaviest polluting rail yards and could

Comment
4-5

² <https://www.lao.ca.gov/Publications/Report/3860>

³ *PROPOSED RULE 2306 FREIGHT RAIL YARDS “Second Draft Preliminary Rule Language.”* aqmd.gov/docs/default-source/planning/fbmsm-docs/pr2306-draft-rule-language-clean-final.pdf?sfvrsn=6. Accessed 13 June 2024. Page 6

perpetuate existing harm and undermine the District’s commitments to environmental justice and public health. There is no justification for this exemption, and it should be eliminated.

Comment
4-5 Con't

III. PR 2306’s infrastructure component should require commitments supporting a facility-wide transition to zero-emissions.

Rail yards should each have infrastructure plans in place for how they will reach zero-emissions goals, what load is required, and how much renewable energy they can install to reduce impacts to the grid, in collaboration with their utility provider. Infrastructure requirements should be focused on a facility-wide approach, considering other energy demands from cargo-handling equipment, trucks and TRUs. The rail yard ISR is a powerful tool to accelerate the development of electric charging infrastructure. The District’s Warehouse ISR rule has successfully led to infrastructure planning and the creation of custom plans, including the development of zero-emission vehicle charging stations and localized renewable energy installations. The rule should mandate operators to provide precise timelines for when they request utilities to support infrastructure installation and provide evidence that these requests were submitted.

Comment
4-6

IV. The rail yard ISR Should Require Facilities to Build Infrastructure to Support Facility-wide Transition to Zero-Emissions.

We are glad to see that the draft language includes an infrastructure component to support the deployment of zero-emissions technology at rail yard facilities. The current draft must do more to catalyze a broad-scale transition to zero-emission infrastructure. We urge the staff to broaden the scope of this component to include infrastructure planning and commitments that can facilitate a transition of the stationary source to zero emissions, including possible on-site deployment of renewable energy.

Comment
4-7

V. PR 2306 should require new rail yard facilities to start at zero-emissions operations.

With current technology available and with the milestones as suggested by PR 2306 there should be adequate time for new rail yards to comply fully with a zero-emissions operation. State law requires the district to implement all feasible measures to meet air quality standards. Thanks to technological advancements, it is now possible to have a zero-emission rail yard. With federal sanctions for non-attainment already a possibility, new rail yards should not add to our existing pollution burden. South Coast needs to comply with federal mandates to meet the current 70 part per billion ozone standard. To achieve this, the District needs to reduce emissions by 67 percent more than the current regulations adopted and approved in previous plans. Proven technologies such as catenary, third rail, and non-locomotive electric-battery train systems should be considered. Analysis by the California Air Resources Board (CARB) and the Biden Administration, through its National Blueprint for Transportation Decarbonization, show that transition to zero emissions rail is both technologically and economically feasible and also necessary for public health and to address our carbon emissions.^{4 5} It is counterproductive to have a two-year lag time for new rail yards to demonstrate zero-emissions

Comment
4-8

⁴ California Air Resources Board Locomotive Authorization Request to U.S. Environmental Protection Agency (April 22, 2024), Docket ID No. EPA-HQ-OAR-2023-0574, Exhibit A- ZE Locomotive Feasibility Analysis Port of LA to Barstow Report; available at: <https://www.regulations.gov/comment/EPA-HQ-OAR-2023-0574-0153>.

⁵ Office of Energy Efficiency & Renewable Energy, The National Blueprint for Transportation Decarbonization: A Joint Strategy to Transform Transportation, <https://www.energy.gov/sites/default/files/2023-01/the-us-nationalblueprint-for-transportation-decarbonization.pdf>.

infrastructure planning and reporting. Instead, new rail yards should be required to report on infrastructure planning at the inception, as soon as the owner has notified the District of the potential new facility for the region.

Comment
4-8 Con't

VI. PR 2306 should empower environmental justice communities with information access, including emissions reporting, and a role in making decisions on how to best address the impact of offending facilities.

The District should share all reports and recordkeeping documents with the public to ensure transparency and accountability. Public access to monitoring and reporting data will make enforcement of the rule more effective by expanding opportunities to identify non-compliance. Using CalEnviroScreen or another trusted and accessible software for data sharing would be invaluable. If these documents contain private or proprietary information, the entity seeking to protect the information should provide evidence to support their claim. As required under the California Public Records Act, the district can redact the information necessary to protect confidential business information and make the remaining information public to ensure transparency and accountability. The public should be informed about changes in ownership and operations, construction of new facilities, infrastructure plans, and milestone reporting on emissions reduction targets, and have access to key reports and recordkeeping. Community Emission Reduction Plans (“CERPs”) for four AB 617 communities identify the rail yard ISR, the expansion of zero-emissions infrastructure, and expanded fence-line monitoring and reporting as critical mechanisms to address the acute localized dangers these facilities pose. If facilities are in non-compliance there should be clear pathways for enforcement.

Comment
4-9

The District should use fines for non-compliance or failure to meet targets to create community-advised funds. The Rule should incorporate a program that allows impacted communities to have a say in how the District uses these funds to support the deployment of zero-emissions solutions and to address a rail yard’s impact on public health.

The Freight Rail Yard ISR, along with all Facility-Based Mobile Source Measurements, are important tools for cleaning Southern California’s air. SCAQMD’s analysis projects the ISR’s health benefits alone will result in up to 275 fewer deaths and 1,940 fewer emergency department visits and hospital admissions avoided per year. These public health benefits, coupled with the need to meet state and federal air quality standards for Ozone and Fine Particulate Matter, indicates a compelling reason for the board to pass the Freight Rail Yards ISR. The District has the legal authority to adopt these rules and can do so with more stringency than other state or federal agencies because it experiences greater proportionality of impacts. Protecting the health of our local community should be enough of a reason to pass the strongest rule possible.

Comment
4-10

Sincerely,



Dori Chandler
Policy Advocate

Cc:

Wayne Nastri, Executive Officer, SCAQMD
Ian McMillan, Planning and Rules Manager, SCAQMD

**OFFICE OF GENERAL COUNSEL
MEMORANDUM**

To: Dr. William A. Burke, Chairman
SCAQMD Governing Board Members

From: Barbara Baird, Chief Deputy Counsel



Re: Authority to Adopt Indirect Source Rule for Railyards

Date: March 19, 2018

Introduction

At the March 2, 2018, Governing Board Meeting, during public comment on the Facility Based Mobile Source Measures item, (Agenda Item 32) a representative of the freight railroads commented that they believed the SCAQMD lacked authority to adopt an indirect source rule for railyards. The railroads have also commented on the AQMP that such a rule would in any event be preempted. A Governing Board member asked for staff's response to this comment. This memo provides such a response.¹

Issue 1: Authority

The SCAQMD has authority to adopt rules to reduce or mitigate emissions from indirect sources (Health & Saf. Code Sec. 40716(a)(1), especially for areas where there are high-level localized levels of pollutants or for new sources which will have a significant impact on air quality. Health & Saf. Code Sec. 40440(b)(3). An indirect source is "a facility, building, structure, installation, real property, road, or highway which attracts, or may attract, mobile sources of pollution." CAA Sec. 110(a)(5)(C); 42 U.S.C. Sec. 7410(a)(5)(C). A railyard meets this definition and thus may be the subject of an indirect source rule.

In the past, the railroads have argued that only CARB has the authority to regulate locomotives as a matter of state law. Since what is proposed is an indirect source rule, and not a regulation of locomotives, this issue is irrelevant. In any event, we disagree. State law provides that the air districts are primarily responsible for "control of air pollution from all sources, other than emissions from motor vehicles." Health & Saf. Code Sec. 40001. This includes locomotives. CARB legal counsel agrees with our interpretation. In earlier litigation over the SCAQMD's rail idling rules, the trial court held that the SCAQMD could not regulate locomotives, but since the

¹ Staff has already stated its view briefly at the February 16, 2018 Mobile Source Committee discussion of this issue, which is part of the record for Agenda Item 32. In addition, staff's view has been expressed in responses to comments on the 2016 AQMP, in legal proceedings before the Surface Transportation Board, Docket 35803, (a proceeding in which the Association of American Railroads, BNSF, and Union Pacific participated), and in letters to US EPA. Accordingly this memo is being made available to the public.

Ninth Circuit did not affirm that holding, it is not binding. *Martin v. Henley*, 452 F. 2d 295,300 (9th Cir. 1971). The Ninth Circuit said: “[W]e assume without deciding that the rules fall within the District’s regulatory authority.” *Association of American Railroads v. South Coast Air Quality Management District*, 622 F. 3d 1094, 1096 n. 2 (9th Cir. 2010)(“AAR”)

In commenting on the 2016 AQMP, the Association of American Railroads asserted that the proposed facility-based measure would violate the trial court’s injunction against enforcing the previously-adopted idling regulation. The trial court held that the idling rules were preempted by the Interstate Commerce Commission Termination Act (“ICCTA”). However, the proposed indirect source rule would be a new rule, not enforcement of an existing rule. Further, it would not specify that the railyards must limit idling. Therefore, adopting the proposed new rule would not violate the injunction.

Issue 2: Preemption

While the Clean Air Act (CAA) generally preempts state and local governments from establishing emission standards for motor vehicles and non-road engines, including locomotives, the CAA does not preempt indirect source rules. *National Association of Home Builders v. San Joaquin Valley Unified Air Pollution Control District*, 627 F. 3d 730 (9th Cir. 2010).

The Ninth Circuit Court of Appeals upheld the trial court’s decision that the SCAQMD locomotive idling rules were preempted by ICCTA. *AAR*, 622 F. 3d. 1094. ICCTA is a federal de-regulatory statute that places certain aspects of rail operations under the jurisdiction of the federal Surface Transportation Board (“STB”), and preempts some kinds of state and local regulation applicable to railroads. However, the Court of Appeals explained that if the rules had been approved by EPA into the State Implementation Plan, “ICCTA generally does not preempt those regulations because it is possible to harmonize ICCTA with those federally-recognized regulations...” *AAR*, 622 F. 3d 1094, 1098. The STB itself has stated that ICCTA is not intended to “interfere with the role of state and local agencies in implementing Federal environmental statutes such as the Clean Air Act, the Clean Water Act, and the Safe Drinking Water Act, unless the regulation is being applied in such a manner as to unduly restrict the railroad from conducting its operations on unreasonably burden interstate commerce.” *Friends of the Aquifer*, 2001 WL 928949, STB F.D. No. 33966 at 5 (Aug. 15, 2001) Staff recommends that any railyard indirect source rule specify that it is not to become operative until approved into the SIP, to ensure that the rule can be harmonized with ICCTA in any judicial challenge.

The courts have provided guidance in how to “harmonize” two overlapping federal statutes, stating that the overriding purposes or objectives of each statute must be determined, and that if a challenged provision implements a core purpose of one law while affecting only the periphery of the other, the first provision must be upheld. *Morton v. Mancari*, 417 U.S. 535,550 (1974); *Merrill Lynch Pierce Fenner & Smith v. Ware*, 414 U.S.117, 131-136. (1973). The STB itself has also provided guidance, holding that in determining whether a federal environmental statute (or state rule implementing such a statute) unreasonably interferes with rail operations, “[t]he severity of the likely environmental impacts should be weighed against the severity of the transportation impacts of compliance to determine whether, and how, the various Federal statutes

can be accommodated.” *Joint Petition for Declaratory Order-Boston & Maine Corp. and Town of Ayer*, 2001 WL 1174385, STB Finance Docket 33971 (Oct. 3, 2001). Staff believes an indirect source rule can be crafted that would provide significant environmental benefits outweighing any adverse impacts on rail transportation, and could thus be harmonized with ICCTA. In particular, the indirect source rule is not expected to specify a method of compliance, so that the railyard can select its own methods for compliance to minimize any adverse impact.

We also wish to advise you that in 2014, the U.S. EPA filed a petition for declaratory order with the STB asking for a ruling on whether the SCAQMD idling rules would be preempted if they were approved in to the SIP. The STB declined to issue such an order, but instead issued “guidance” stating that the rules would “likely” be preempted even if approved into the SIP. *United States Environmental Protection Agency-Petition for Declaratory Order*, STB Docket FD 35803 (served Dec. 30, 2014). The STB based its opinion on the potential for other states or localities to adopt and implement conflicting rules. While we disagreed with the STB “guidance,” the manner in which it was issued made it unable to be reviewed in court under the federal Administrative Procedures Act. STB stipulated with us that the “guidance” could be reviewed if EPA or any other agency were to rely on it, e.g. in disapproving the existing idling rules. EPA has not taken action on these rules as of yet. The STB “guidance” could also be challenged if EPA were to rely on it in disapproving a future indirect source rule. In any event, staff believes that an indirect source rule that provides flexibility to the railyards for compliance would not present a serious risk of inconsistent requirements in other jurisdictions and thus would not be preempted under the theory used by the STB in its “guidance.”

Conclusion

An indirect source rule for railyards is within the SCAQMD’s state law authority, and likely could be crafted in a way that would allow it to survive the harmonization process and therefore not be preempted.

cc: Wayne Nastri

Staff Responses to Comment Letter #4:***Response to Comment 4-1***

Staff appreciates the support and recognition of the need for PR 2306 as an integral piece of a broader plan needed for the South Coast AQMD to address emissions from the goods movement sector for the purpose of attaining health-protective NAAQS, avoiding potential federal sanctions triggered by nonattainment, and addressing air quality priorities for the region's AB 617 communities.

Response to Comment 4-2

Please refer to staff response to Comment 1-3.

Response to Comment 4-3

Staff acknowledges the need for locomotives to transition to cleaner technologies. PR 2306 is designed to work in conjunction with CARB's In-Use Locomotive and ACF regulations to ensure emission reductions for freight rail yards in the South Coast AQMD region will occur at levels that are at least proportional, if not more than proportional, to statewide emission reductions achieved from implementation of state regulations.

Response to Comment 4-4

Please refer to staff responses to Public Workshop Comment PW-10-c and Comment 1-3. Moreover, South Coast AQMD's regulatory authority is limited to air pollution control and is unable to promulgate rules addressing other forms of pollution and environmental nuisances.

Response to Comment 4-5

Please refer to staff response to Comment 1-4.

Response to Comment 4-6

Staff appreciates the comment and consider it as largely consistent with PR 2306 requirements related to zero emission infrastructure.

Response to Comment 4-7

Please refer to staff response to Comment 1-5.

Response to Comment 4-8

Please refer to staff response to Comment 1-6.

Response to Comment 4-9

With regard to information access, please refer to staff responses to Public Workshop Comment PW-3-b and Comment 1-7. With regards to potential monetary penalties, please refer to staff responses to Public Workshop Comment PW-8-a and Comment 1-8.

Response to Comment 4-10

Staff appreciates the concluding comment and concur with the importance of public health protection in South Coast AQMD rulemaking and implementation of AQMP control measures.

Comment Letter #5 from the Pacific Merchant Shipping Association



June 18, 2024

Ian MacMillan
 Assistant Deputy Executive Officer
 South Coast Air Quality Management District
 21865 Copley Drive
 Diamond Bar, California 91765

Submitted to: railyardisr@aqmd.gov

Subject: Comments on Proposed Rule 2306 – Railyard Indirect Source Rule

Dear Mr. MacMillan:

As you know, the Pacific Merchant Shipping Association (PMSA) has been actively engaged with South Coast Air Quality Management District (SCAQMD) staff and Board Members on development of the proposed Port Indirect Source Rule (ISR). The development of Proposed Rule 2306 (PR2306) has now raised additional concerns that are addressed below. As always, PMSA believes that in order to be successful, any regulatory scheme must effectively target the source of emissions and do so in a way that does not interfere with operations and is not duplicative of existing regulatory programs. PMSA is deeply concerned that PR2306 is duplicative, incompatible with the proposed port indirect source rule, and will not reduce emissions while substantially burdening facilities with additional reporting requirements.

Comment
5-1

No Demonstrated Need

SCAQMD staff has not demonstrated the need for the PR2306. Staff presentations make clear that there are no likely emission reductions beyond the recently adopted California Air Resources Board In-Use Locomotive Regulation. The only justification for the rule provided by staff is that there is some unquantified possibility that emissions reductions under the State rule could disproportionately happen in parts of the State outside of the South Coast Air Basin. With the concentration of rail activity in the South Coast, it strains credulity to imagine a scenario where emissions reductions could occur disproportionately outside South Coast. As the sole basis demonstrating the need for PR2306, SCAQMD staff should quantify what likely and reasonable scenarios exist that would result in disproportionate emissions reductions outside the South Coast. Without such an analysis, the benefit of PR2306 is speculative at best.

Comment
5-2

PR2306 Exemptions

Based on staff presentations, it appears that the intent of PR2306 is to contain a “full exemption” for facilities in the port complex. The language contained in the draft rule language does not accomplish this. The draft language would exempt port facilities that are not intermodal rail facilities. By design, marine terminals are intermodal facilities; their purpose is to transfer cargo between ships and trucks and trains. As written, the proposed exemption language does not accomplish SCAQMD staff’s stated

Comment
5-3

Comments on Proposed Rule 2306 – Railyard Indirect Source Rule

June 18, 2024

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goals; the language is vague and unclear. SCAQMD should consider explicit language regarding which facilities are regulated and which facilities are exempt from the proposed rule.

Equally concerning is the concept of a “full exemption” presented during the public workshop on June 4, 2024. In fact, there is no “full exemption” due to the design of PR2306. While it appears that between PR2306 and the proposed port ISR there is no overlap in identified regulated entities, SCAQMD staff made clear during the workshop that nothing in PR2306 excludes the same activity being regulated simultaneously under both proposed rules. This is deeply problematic. PR2306 makes the operator of locomotives directly responsible for emissions reductions from their operations on a facility-by-facility basis. Since multiple regulated facilities under PR2306 share responsibility for the same activity, it is in the interest of facilities regulated under PR2306 to maximize their actions on activity that involves multiple facilities, thereby minimizing their cost and maximizing the benefit of any action taken. This rule design would have two detrimental impacts on marine terminal operators under a proposed port ISR. First, facilities regulated under PR2306 would be incentivized to maximize emissions reductions outside the port complex since maximum benefit would be achieved by focusing emissions reductions on activity between multiple regulated facilities, all of which would be outside of the port complex. Second, marine terminal operators would still be responsible for emissions reductions from locomotive activity under the concept proposed by SCAQMD staff, but no opportunity would exist for emission reductions beyond what PR2306 regulated facilities would already be implementing.

Comment
5-3 Con't

PR2306 needs to include an actual full exemption for both the regulated facility and the regulated activity. It should be clear that any activity subject to PR2306 will not also be subject to the proposed port ISR. Failing to do so would create a situation where marine terminal operators would be subject to limits on activity that the facility would have no ability to influence.

Additional CEQA Review Required

SCAQMD proposes that no additional review under the California Environmental Quality Act (CEQA) is required beyond the reviews that were conducted in Program environmental Impact Report (EIR) for the 2016 and 2022 Air Quality Management Plans (AQMPs). One of the primary purposes of preparing a PEIR is that impacts of specific actions of a larger program are speculative at the time of the program adoption. A project-specific EIR would allow for the analysis of environmental impacts not previously possible. This is demonstrated by the text of the 2016 Program EIR. In one of many examples, the Program EIR states:

The 2016 AQMP would establish in-use strategies that may require or promote the use of alternative fuels including control measures MOB-01, MOB-02, MOB-03, MOB-04, MOB-05, OB-07, MOB-09, MOB-10, MOB-13, EGM-01, ORLD-01, ORLD-3, ORHD-02, ORHD-04, ORHD-05, ORHD-06, ORHD-07, ORHD-08, ORH-09, ORFIS-01, ORFIS-05, OFFS-01, OFFS-04, OFFS-05, OFFS-07, and OFFS-08.

Comment
5-4

Here, the PR2306 (MOB-02) is lumped into a series of AQMP control measures that “*may require or promote the use of alternative fuels*”. That speculation is repeated throughout the Program EIR for the

Comments on Proposed Rule 2306 – Railyard Indirect Source Rule

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various resource areas. While that speculative approach may be acceptable in a Program EIR, additional analysis is required for the adoption of PR2306. Presumably, SCAQMD staff believes regulated facilities will take action on a facility-level basis to meet the requirements of PR2306 – as that is the intended goal. By not quantifying the need for the regulation (as discussed previously) and therefore, what actions would be necessary to comply with PR2306, SCAQMD staff is avoiding analysis of actions that staff must believe are necessary to avoid disproportionate emissions reductions taking place outside the South Coast. SCAQMD staff must do a proper CEQA analysis on PR2306.

Comment
5-4 Con't

PMSA appreciates the opportunity to submit these comments.

Sincerely,



Thomas Jelenić
Vice President

Staff Responses to Comment Letter #5:***Response to Comment 5-1***

Staff appreciates the commentor's participation in multiple rulemakings and providing comments throughout the rule development process. Staff has demonstrated in this report the necessity, consistency, and non-duplication of the proposed rules pursuant to Health and Safety Code Section 40727. A similar demonstration will be performed for any potential future rule, including any rule to address emissions associated with marine ports. For emission reduction estimates, please refer to Table 3-5 and the associated discussion in this report, as well as staff response to Comment 5-2 below.

Response to Comment 5-2

PR 2306 is part of the AQMP Facility Based Mobile Source Measures aimed to reduce freight emissions from the goods movement sector that are a major contributor to the region's attainment challenges. Please refer to Chapter 2, *Public Health and Air Quality Needs* section, of this report for the significant health impacts and air quality needs in South Coast AQMD, and Box 4-2 in Chapter 4 for the potential consequences of nonattainment. Moreover, staff acknowledges that reducing freight rail yard emissions within our region cannot be accomplished by one rule alone. PR 2306 is positioned to be one component of the multi-agency regulatory framework to collectively address goods movement emissions within our region (including from rail yards), along with state and federal regulations promulgated by CARB and U.S. EPA using their respective authorities.

Regarding emission reductions potential, please refer to staff responses to Public Workshop Comment PW-10-c and Comment 1-3. Furthermore, staff respectfully disagrees with the assessment in the comment that "it strains credulity to imagine a scenario where emissions reductions could occur disproportionately outside South Coast." Take the same example of locomotive emissions referenced in the comment. Based on the annually reported data under the 1998 MOU between CARB and the two Class 1 railroads, a total of 4,554 locomotives operated by Union Pacific Railroad visited or operated within the South Coast Air Basin at any time during 2022, and the corresponding number was 5,344 for BNSF Railway. Among the approximately 10,000 locomotives, the majority of them are line haul locomotives, as well as locomotives conducting regional switching activities, that are not captive to a single freight rail yard or to the South Coast AQMD region. Based on CARB's estimate, only about 17 percent of line haul locomotive activities, thereby emissions, occur in the South Coast AQMD region.¹⁵⁵ Moreover, Class 1 line haul locomotives do not only travel in and out of the South Coast AQMD region, but they belong to the two railroads' respective nationwide fleets that can be deployed anywhere in the nation. The non-captive nature of the locomotive fleet is a key factor why our region has seen in recent years significantly more work (in megawatt-hours) done by the dirtiest locomotives (Tier 1/1+ or dirtier) when compared to a decade ago.¹⁵⁶ This is despite increasingly more stringent federal locomotive standards with the cleanest current standard being Tier 4. Based on

¹⁵⁵ See the 2021 Line-Haul Locomotive Emission Inventory https://ww2.arb.ca.gov/sites/default/files/2021-02/2021_line_haul_locomotive_emission_inventory_final.pdf

¹⁵⁶ See the 2022 Compliance Report and Data Summaries published by CARB for the 1998 MOU at: <https://ww2.arb.ca.gov/resources/documents/rail-emission-reduction-agreements>.

observations as such as well as the design of statewide regulations, it is therefore not beyond the realms of possibility that South Coast AQMD may not benefit from proportional implementation of statewide regulations. Moreover, uneven implementation of existing statewide rules and programs has been seen with CARB’s Advanced Clean Cars (ACC) regulation.¹⁵⁷ An even more pertinent example is how the phase-in implementation of CARB’s statewide Truck and Bus regulation has impacted turnover of drayage trucks differentially across California air districts, with a turnover to cleaner trucks that occurred more slowly in South Coast AQMD. Please refer to Chapter 2 of this report for more details.

Based on the above, PR 2306 emission reductions targets are set at levels to ensure that proportional or more-than-proportional emission reductions will be achieved at facility-level in the South Coast AQMD region relative to emission reductions achieved throughout California from implementation of state regulations. For more details on the public health and air quality needs, please refer to Chapter 2 of this report.

Response to Comment 5-3

Staff appreciates the concern raised by this commenter and similar comments regarding exemption language from the ports of Los Angeles and Long Beach. However, the comments here regarding how railroads would respond if both PR 2306 and PR 2304 (marine ports) were promulgated is speculative, as no draft rule language has been released for PR 2304, and the rule concept is still in development.

In the PR 2306 preliminary draft rule language released on May 17, 2024, the exemption language in paragraph (j)(2) clearly exempts freight rail yards that are used primarily for on-port switching activities and owned/operated by either cities (or their respective port authorities) and any third party contracted under operating agreement(s) with either city. Additionally, based on their current operating model, the definition of “Freight Rail Yard” in the rule will exclude on-dock rail facilities located on marine terminals as these facilities are operated by terminal operators who do not operate locomotives outside of their terminals, if at all. Still, after considering this comment from PMSA and similar comments submitted by the Port of Long Beach and the Port of Los Angeles (see Comment Letters #6 and #7, respectively), staff has revised the exemption language in paragraph (j)(2) to explicitly clarify the exemption for on-dock rail facilities located on marine terminals at the San Pedro Bay Ports. The revisions remain consistent with the original intent and will only exempt on-dock intermodal rail facilities and any non-intermodal freight rail yards whose operations are solely for the purpose of moving railcars to and/or from marine terminals at the ports of Long Beach or Los Angeles.

The phrase “full exemption” used in the staff presentation at the PR 2306 and PR 316.2 Public Workshop, held on June 4, 2024, was meant to contrast the full exemption in PR 2306 paragraph (j)(2) with the partial exemption provided in paragraph (j)(1), the latter of which will exempt low-

¹⁵⁷ Please see South Coast AQMD staff’s analysis included in PR 2305 Staff Report (May 2021): Chapter 1 - <http://www.aqmd.gov/docs/default-source/Agendas/Governing-Board/2021/2021-May7-027.pdf> for analysis of Advanced Clean Cars. Additional information about CARB’s 1998 Railroad MOU and the Truck and Bus Rule can be found in Box 2-1 and Box 2-2 of the ~~Draft~~ Final Staff Report.

activity sites from some but not all rule provisions.¹⁵⁸ The phrase “full exemption” was never meant to imply that PR 2306 intends to exempt all rail activities related to port operations, as seemingly suggested by the comment.

In fact, as mentioned in staff response to Public Workshop Comment PW-17, PR 2306 requires a freight rail yard operator to demonstrate compliance with the proposed rule requirements by including any activities that are associated with that specific freight rail yard, whether or not the activities are also associated with the operation of other indirect sources of emissions such as another freight rail yard or a marine terminal. A freight rail yard operator needs not be concerned by the eventual accounting of SIP creditable emission reductions for the South Coast AQMD region. As emphasized in this report, including this appendix, PR 2306 is part of the suite of AQMP Facility Based Mobile Source Measures (FBMSM) aimed at collectively addressing freight emissions in the South Coast AQMD region. Each of these measures is designed to promote actions to be taken by separate, non-overlapping groups of freight hubs (including freight rail yards) that will result in or facilitate reductions of emissions associated with their operations. And each such measure is implemented in a manner such that the same freight hub, as an indirect source of emissions, would not be subject to multiple facility-based rules. The interconnectivity of the goods movement sector, along with South Coast AQMD authority considerations, necessitate a control strategy like FBMSM which focuses on freight hubs and emissions-reducing and -facilitating actions taken individually, or potentially jointly, by these freight hubs. When a freight rail yard operator takes action to reduce its facility emissions from locomotives and/or any other freight rail yard sources that travel between the freight rail yard and the ports, port emissions will be also reduced as a result. Staff appreciates PMSA’s continued engagement in FBMSM implementation and participation in PR 2304 rulemaking to address freight emissions associated with marine port operations.

Response to Comment 5-4

Relative to the suggestion that a project-specific CEQA document needs to be prepared for PR 2306, please see staff response to Comment 3-2 which describes the CEQA requirements applicable to PR 2306 and the basis for how the environmental analysis was conducted. Please also see Appendix A: Detailed CEQA Analysis which summarizes the prior environmental analyses conducted in the Final Program EIRs for the 2022 AQMP and 2016 AQMP and demonstrates that PR 2306 constitutes a later activity of these previously approved programs (i.e., 2022 AQMP and 2016 AQMP) under CEQA Guidelines Section 15168(c)(3).

¹⁵⁸ See the presentation slides at: https://www.aqmd.gov/docs/default-source/rule-book/Proposed-Rules/pr-2306/pr-2306_pw_presentation_06042024.pdf.

Comment Letter #6 from the Port of Long Beach



June 18, 2024

Ian MacMillan, Assistant Deputy Executive Officer
South Coast Air Quality Management District
21685 Copley Drive
Diamond Bar, CA 91765
Email: imacmillan@aqmd.gov

Subject: Port of Long Beach Comments on the Proposed Rule 2306 – Freight Rail Yards

Dear Mr. MacMillan:

On June 4, 2024, the South Coast Air Quality Management District (South Coast AQMD) remotely held Proposed Rule 2306 (PR 2306) – Freight Rail Yards Workshop, which provided an update on the draft Indirect Source Rule for Rail Yards. Slide 42 of the workshop presentation, dated May 31, 2024, indicates that the South Coast AQMD intends to exempt on-port switching locomotive activity from PR 2306. The slide notes that this exemption is made in Paragraph (j)(2) and in Paragraph (c)(9) within the definition of a Freight Rail Yard in the May 17, 2024 Preliminary Draft Proposed Rule 2306.

The Port of Long Beach (Port) appreciates that this exemption is intended to clarify the intended locomotive activity regulated by Proposed Rule 2306 – Rail Yards and Proposed Rule 2304 – Commercial Marine Ports. It is our understanding, pursuant to verbal discussions with South Coast AQMD staff, that the South Coast AQMD intends to regulate Port-related locomotive activity under Proposed Rule 2304 and not under Proposed Rule 2306. This important distinction must be adequately reflected in the rule language. Without clear, unambiguous language, regulated entities may be responsible for mitigating the same rail activity under both Proposed Rule 2304 and Proposed Rule 2306.

However, the exemption language as presently written does not exempt all rail activity occurring on property owned by the Ports of Long Beach and Los Angeles, and therefore, would result in rail activity that would be regulated by both PR 2304 and PR 2306. For example, Paragraph (j)(2) does not exempt Freight Rail Yards that are considered Intermodal Rail Yards under the rule. Therefore, on-dock rail activity which takes place on marine terminals is not exempted from this rule, and the marine terminal would be considered a Freight Rail Yard subject to PR 2306. If this language remains in PR 2306, the on-dock rail activity would be controlled by two South Coast AQMD rules, in addition to the California Air Resources Board's In-Use Locomotive Regulation.

To minimize an already complex regulatory landscape, the Port would like to propose modified rule language for Proposed Rule 2306. In Paragraph (j)(2), the Port proposes the following revised language:

Comment
6-1



“The City of Long Beach, the City of Los Angeles, and/or any third party under contractual operating agreement(s) with the City of Long Beach and/or the City of Los Angeles are not subject to the requirements of this rule for any of its owned or operated-Freight Rail Yards where the primary Freight Rail Yard Operations are to move cargo onto Railcars to and from docks at marine terminal(s), or move Railcars between marine terminals located within the Long Beach Harbor District or the Los Angeles Harbor District (Harbor Districts).”

We believe that by limiting the exemption to the Long Beach and Los Angeles Harbor Districts, this new language achieves the South Coast AQMD’s original goal to exempt locomotive activity at marine terminals. This language would not exempt the Dolores, Watson, or Mead Rail Yards because they are not located within the Long Beach or Los Angeles Harbor Districts. ICTF would be excluded from the proposed revision, because ICTF’s “primary Freight Rail Yard Operations” are not to move cargo onto railcars to and from the docks at marine terminals located in the Harbor Districts, or to move railcars between marine terminals located within the Harbor Districts. ICTF’s primary operations are to move containers trucked from terminals located within the Harbor Districts to ICTF for loading/unloading onto/from trains that depart to/arrive from the Alameda Corridor. Please find a reference map to the Long Beach Harbor District, as requested by the South Coast AQMD staff, attached.

Comment
6-1 Con't

Additionally, not all loading, unloading, transport, or movement of containerized or non-containerized freight at the Ports include empty containers and chassis, so the Port requests that the South Coast AQMD replace “including empty containers and chassis” with “which may include empty containers and chassis” in all locations where this language presently exists, including the “Classification Yard” and “Freight Rail Yard Operations” definitions.

Comment
6-2

The Port also requests removal of Section (i) in the rule. All local, state, and federal laws established by regulatory agencies already require compliance from regulated parties. There is no legal mandate to require local or state government agencies that contract with a party for rail services to state in the contract that the party must comply with Rule 2306. Section (i) introduces an unnecessary administrative burden to the Ports of Long Beach and Los Angeles.

Comment
6-3

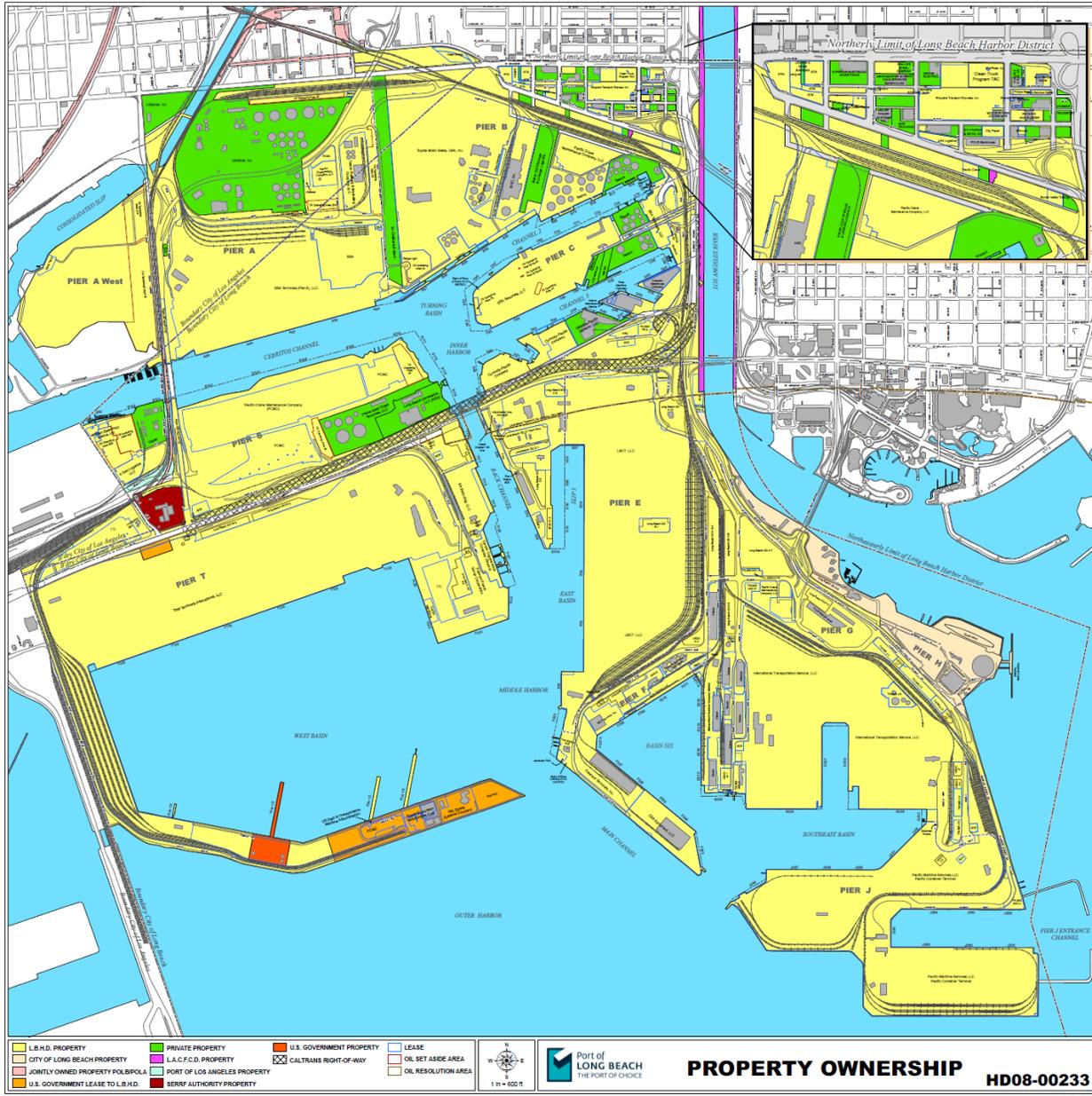
Thank you for your consideration of these comments. If you have any questions about this letter, please contact Morgan Caswell, Manager of Air Quality Practices, at Morgan.Caswell@polb.com.

Sincerely,

James Vernon
Acting Director of Environmental Planning

6/18/2024

Page 2 of 2



Staff Responses to Comment Letter #6:

Response to Comment 6-1

Staff appreciates Port of Long Beach’s suggestion for modifying PR 2306 rule language in paragraph (j)(2) and providing the reference map. Please refer to staff response to Comment 5-3 for more detailed discussion. As indicated in that response, PR 2306 intends to exempt from the proposed rule the owners and operators of marine terminals, specifically those with on-dock rail capabilities. This is because these entities are potentially subject to PR 2304, which is the facility-based rule proposed to address port emissions. Staff appreciates the suggestion for improving rule clarity and have revised PR 2306 paragraph (j)(2) to explicitly exempt such marine terminal owners and operators. Additionally, staff would like to reiterate the nature of any facility-based rule, PR 2306 included, as applying to indirect sources of emissions (as facilities) instead of any specific mobile sources attracted to those facilities.

Response to Comment 6-2

Staff appreciates the comment and have revised the rule language as suggested for the purpose of added clarity.

Response to Comment 6-3

PR 2306 subdivision (i) provides an added layer of enforceability for PR 2306 compliance, and it also serves to ensure that any actions carried out under such contracts do not potentially negate the effect of the proposed rule. Moreover, based on staff’s review of multiple operating and other contractual agreements between the Port of Long Beach (or the Port of Los Angeles) and its counterparties, it is already a common practice that the Ports include in such contractual agreements certain provisions to require compliance by a counterparty (or counterparties) with all applicable and lawfully enacted federal, state, and local laws, regulations, rules, and other requirements. The Alameda Corridor Use and Operating Agreement is one such example, and it is an agreement among both cities/ports, the Alameda Corridor Transportation Authority (which is a joint powers authority formed by both cities), and the two Class 1 railroads including the Union Pacific Railroad and the BNSF Railway.¹⁵⁹ In this agreement, there are several provision related to compliance with “all applicable law” (or phrases of similar effect), for example for maintenance of equipment (p. 20), operations on the Alameda Corridor and on tracks owned by either Ports (p. 21), maintenance and repair of tracks (p. 45), storage and holding (p. 48). Further, this agreement includes an entire section on “marketable emission reduction credits” administered by South Coast AQMD (pg. 66), however this appears to be speculative as staff is not aware of any applicable credits that have ever been granted to the parties to this agreement. Regardless, staff believes that specific provisions within state or local government agency contractual agreements regarding PR 2306 is appropriate and necessary given the importance of reducing emissions from these facilities, the role of state and local government agencies when entering into contracts to serve the public, and current practice in these agreements. Still, after considering this comment from the Port of Long Beach and a similar comment submitted by the Port of Los Angeles (see Comment Letter

¹⁵⁹ See: <https://www.acta.org/wp-content/uploads/2021/01/Executed-Alameda-Corridor-UOA.pdf>.

#7), staff has revised the language in paragraph (i) to clarify that inclusion of provision(s) in such contractual agreements that have the effect of requiring compliance with Rule 2306 (if adopted and becomes effective) by the contracted freight rail yard owner or operator would suffice to satisfy this rule requirement for the state or local public agencies.

Comment Letter #7 from the Port of Los Angeles



**THE PORT
OF LOS ANGELES**

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Karen Bass	Mayor, City of Los Angeles				
Board of Harbor Commissioners	Lucille Roybal-Allard <i>President</i>	Diane L. Middleton <i>Vice President</i>	Michael Muñoz <i>Commissioner</i>	Edward R. Renwick <i>Commissioner</i>	I. Lee Williams <i>Commissioner</i>
Eugene D. Seroka	Executive Director				

June 20, 2024

Ian MacMillan, Assistant Deputy Executive Officer
South Coast Air Quality Management District
21685 Copley Drive
Diamond Bar, CA 91765
Email: imacmillan@aqmd.gov

Subject: PORT OF LOS ANGELES COMMENTS ON THE PROPOSED RULE 2306 -
FREIGHT RAIL YARDS

Dear Mr. MacMillan:

On June 4, 2024, the South Coast Air Quality Management District (South Coast AQMD) remotely held Proposed Rule 2306 (PR 2306) – Freight Rail Yards Workshop, which provided an update on the draft Indirect Source Rule for Rail Yards. Slide 42 of the [workshop presentation](#), dated May 31, 2024, indicates that the South Coast AQMD intends to exempt on-port switching locomotive activity from PR 2306. The slide notes that this exemption is made in Paragraph (j)(2) and in Paragraph (c)(9) within the definition of a Freight Rail Yard in the May 17, 2024, Preliminary Draft Proposed Rule 2306.

The Port of Los Angeles (POLA) appreciates that this exemption is intended to clarify the intended locomotive activity regulated by Proposed Rule 2306 – Rail Yards and Proposed Rule 2304 – Commercial Marine Ports. It is our understanding that the South Coast AQMD intends to regulate Port-related locomotive activity under Proposed Rule 2304 and not under Proposed Rule 2306. This important distinction must be adequately reflected in the rule language. Without clear, unambiguous language, regulated entities may be responsible for mitigating the same rail activity under both Proposed Rule 2304 and Proposed Rule 2306.

However, the exemption language as presently written does not clearly reflect the intent of South Coast AQMD to exempt all rail activity occurring on property owned by the Ports of Long Beach and Los Angeles, and therefore, would result in rail activity that would be regulated by both PR 2304 and PR 2306. For example, Paragraph (j)(2) does not exempt Freight Rail Yards that are considered Intermodal Rail Yards under the rule. Therefore, intermodal on-dock rail activity that takes place on marine terminals is not exempted from this rule, and the marine terminal would be considered a Freight Rail Yard subject to PR 2306. If this language remains in PR 2306, the on-dock rail activity would be controlled by two South Coast AQMD rules, in addition to the California Air Resources Board In-Use Locomotive Regulation.

To minimize an already complex regulatory landscape and reflect South Coast AQMD's intent, the POLA would like to propose modified rule language for Proposed Rule 2306. In Paragraph (j)(2), the POLA proposes the following revised language:

Comment
7-1

“The City of Long Beach, the City of Los Angeles, and/or any third party under contractual operating agreement(s) with the City of Long Beach and/or the City of Los Angeles are not subject to the requirements of this rule for any of its owned or operated-Freight Rail Yards where the primary Freight Rail Yard Operations are to move cargo onto Railcars to and from docks at marine terminal(s), or move Railcars between marine terminals located within the Long Beach Harbor District or the Los Angeles Harbor District (Harbor Districts).”

We believe that by limiting the exemption to the Long Beach and Los Angeles Harbor Districts, this new language achieves the South Coast AQMD’s original goal to exempt locomotive activity at marine terminals. Our proposed language would not extend the exemption to the Dolores, Watson, or Mead Rail Yards because they are not located within the LA or LB Harbor Districts. ICTF would also still be regulated by PR 2306 because ICTF’s “primary Freight Rail Yard Operations” are not to move cargo onto railcars to and from the docks at marine terminals located in the Harbor Districts or move railcars between marine terminals located within the Harbor Districts. ICTF’s primary operations are to move containers trucked from terminals located within the Harbor Districts to ICTF for loading/unloading onto/from trains that depart to/arrive from the Alameda Corridor. Please find the reference maps to the Los Angeles Harbor Districts, as requested by the South Coast AQMD staff, attached.

Comment
7-1 Con't

Additionally, not all loading, unloading, transport, or movement of containerized or non-containerized freight at the Ports include empty containers and chassis, so the Ports request that the South Coast AQMD replace “including empty containers and chassis” with “which may include empty containers and chassis” in all locations where this language presently exists, including the “Classification Yard” and “Freight Rail Yard Operations” definitions.

Comment
7-2

POLA also requests modification of Section (i) in the rule to read as follows.

“(i) Any state or local government agency who enters, renews, or amends a Contractual Agreement, which is separately enforceable independent of this rule and the California Environmental Quality Act, shall include in such Contractual Agreement(s) that the applicable countersigned party or parties must comply with all applicable federal, state and local laws, rules and regulations that govern the countersigned party’s activities.”

Comment
7-3

This modification will reduce the unnecessary administrative burden on POLA. All local, state, and federal laws established by regulatory agencies already require compliance from regulated parties and POLA’s contracts already include standard language requiring counterparties to comply with all applicable laws, rules, and regulations that govern their operations.

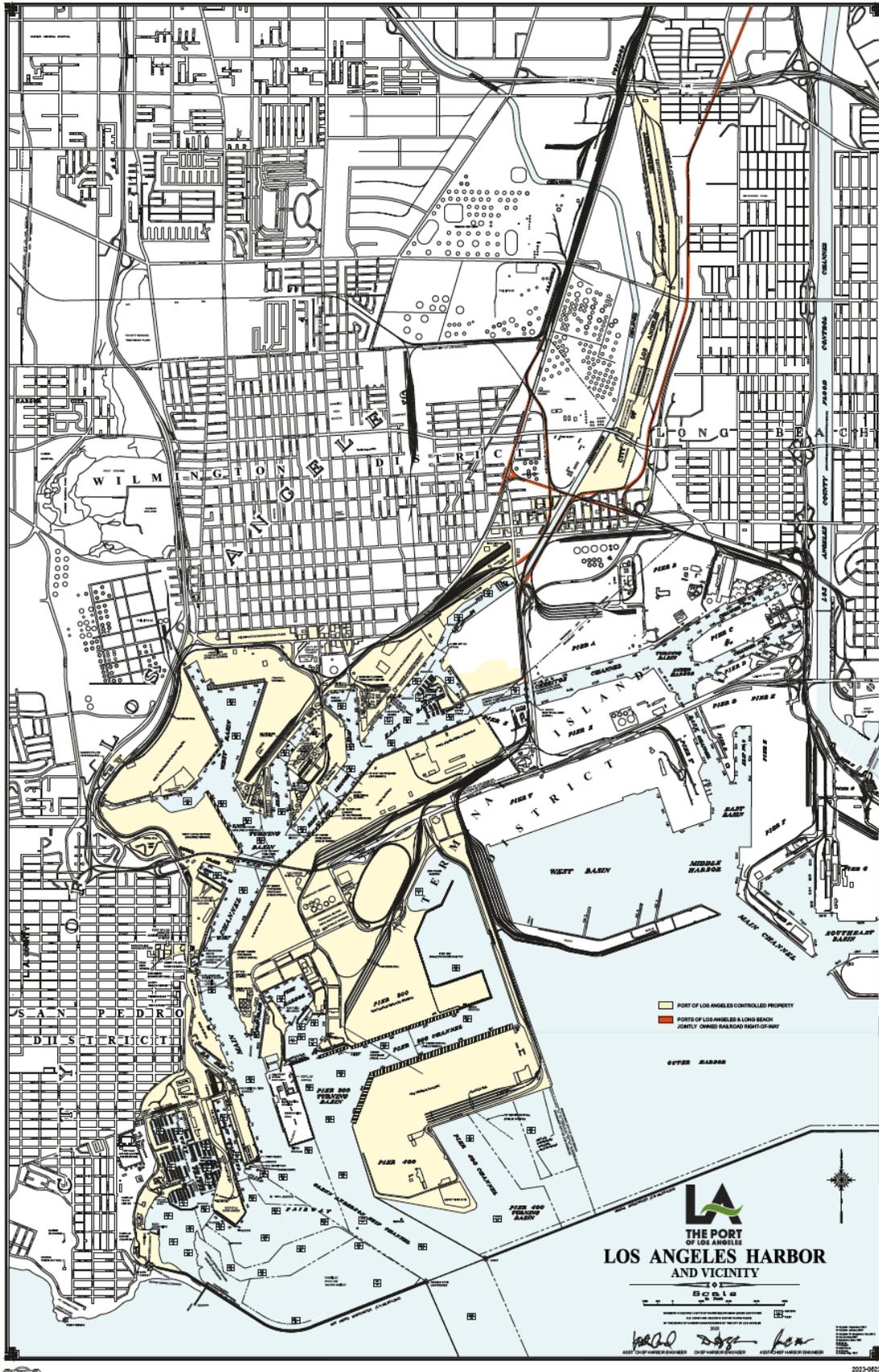
Thank you for your consideration of these comments. If you have any questions about this letter, please contact Lisa Wunder, Acting Director of Environmental Management, at LWunder@portla.org.

Sincerely,



AVIN P SHARMA
Senior Director, Labor Relations and Government Affairs

APS:vb



Staff Responses to Comment Letter #7***Response to Comment 7-1***

Staff appreciates Port of Los Angeles's suggestion for modifying PR 2306 rule language in paragraph (j)(2) and providing the reference map. Please refer to staff responses to Comments 5-3 and 6-1.

Response to Comment 7-2

Please refer to staff response to Comment 6-2.

Response to Comment 7-3

Please refer to staff response to Comment 6-3. Staff believes that the revised rule language is consistent with the suggested language provided by the commentor, which reflects the Port of Los Angeles's current practice for its contractual agreements.

Comment Letter #8 from Sierra Club

From: Yassi Kavezade [REDACTED]

Sent: Tuesday, June 25, 2024 10:30 AM

To: Elaine-Joy Hills [REDACTED]; Ian MacMillan [REDACTED]

Subject: [EXTERNAL] Quick question on labor

Hi all,

Speaking very roughly here.. As tech for ZE cargo handling increases and brings on the possible threat of automation and displacement for workers, I am wondering how we can partner with unions operating at Railyards and ports to embed worker training language or some kind of job retention protection language to encourage operators to select technology that is safe for workers, fund trainings, and minimizes jobs displacement, etc. I'm sure there ideas out there from union leaders themselves.

Could this be something required in reporting data they turn into you? I know it's outside jurisdiction already but would there be any creative place to see these rules as way to grow jobs.

Thanks for entertaining this random question. Also really excited to get these rules done and continue this legacy at the air district.

Comment
8-1

Staff Responses to Comment Letter #8

Response to Comment 8-1

Staff appreciates the comment from Sierra Club. Staff has continued engagement with various stakeholders including labor groups. As correctly indicated in the comment, South Coast AQMD's regulatory authority is limited to air pollution control; as such, PR 2306 requirements are proposed for the purpose of reducing and facilitating emission reductions. In complying with PR 2306 requirements, staff expects that freight rail yard operators will also independently comply with any pertinent labor or safety rules and regulations; however, it is not within South Coast AQMD's purview to enforce such rules and regulations.

At the same time, Health and Safety Code Section 40728.5 requires that the South Coast AQMD Governing Board make good faith effort to minimize adverse socioeconomic impacts, including potential impacts on regional employment. The Socioeconomic Impact Assessment as included in Chapter 4 of this report does not identify additional employment impacts beyond what have been analyzed in CARB's regulatory impact analysis for statewide regulations. However, staff continues to welcome further feedback and suggestions during PR 2306 rulemaking (and

separately for PR 2304 rulemaking). While this rulemaking does not necessarily provide a mechanism to address job impacts as described in the comment, staff appreciates the issue raised and will continue to seek ways to address job impacts through other means. As one example, as part of the Volvo LIGHTS project for zero emission trucks, South Coast AQMD co-funded training programs for workers at Rio Hondo College and San Bernardino Valley College (<https://www.lightsproject.com/project-partners/>, <https://www.aqmd.gov/home/research/pubs-docs-reports/newsletters/august-september-2022/volvo-lights-project-wins-award>).

Additionally, please also refer to staff response to Comment PW-2 in terms of technology neutrality of PR 2306.

Comment Letter #9 from Port of Long Beach and Port of Los AngelesSAN PEDRO BAY PORTS
CLEAN AIR ACTION PLAN

July 24, 2024

Wayne Natri
Executive Officer
South Coast Air Quality Management District
21865 Copley Dr.
Diamond Bar, CA 91765

SUBJECT: COMMENTS ON PROPOSED RULE 2306 - FREIGHT RAIL YARDS

Dear Mr. Natri,

The Port of Long Beach (POLB) and Port of Los Angeles (POLA) (Ports) appreciate the opportunity to provide comments on Proposed Rule 2306 for Freight Rail Yards. We also want to thank SCAQMD staff, specifically Elaine Shen, for making herself available to discuss our comments related to the exemption included within Proposed Rule 2306 for certain POLB rail operations. We are following up on our previous comments, to better ensure that SCAQMD accomplishes its stated intent to regulate Port-related locomotive activity under Proposed Rule 2304 and not under Proposed Rule 2306. This important distinction must be adequately reflected in the rule language. However, the exemption (j) (2) language, as most recently revised in the 30-day package, would not exempt all rail activity occurring on property owned by the POLB and POLA, and therefore, would result in rail activity that would be regulated by both PR 2304 and PR 2306.

Comment
9-1

We are requesting minor changes to the proposed language to better fulfil the exemption's intent and reflect our geographical and jurisdictional boundaries. Our proposed edits are indicated below in bold underline:

(j) Exemptions

(1) The Freight Rail Yard Owner or Operator is not subject to the requirements in paragraphs (d)(1) through (d)(3), subparagraphs (d)(4)(C) through (d)(4)(D), paragraph (d)(5), and subdivision (f) of this rule for any of its owned- or operated Freight Rail Yards that is not an Intermodal Rail Yard and where Switching Activities occur no more than 30 calendar days per year within a Milestone Year and any of the two preceding calendar years.

Comment
9-2

Mr. Nastri

Page 2

(2) The City of Long Beach, the City of Los Angeles, and/or any third party under contractual operating agreement(s) with the City of Long Beach and/or the City of Los Angeles are not subject to the requirements of this rule for any of its owned- or operated-Freight Rail Yard that meets one of the following:

(A) An Intermodal Rail Yard located on dock at a Marine Terminal **that is wholly or partially** located within the Long Beach Harbor District or the Los Angeles Harbor District (Harbor Districts); or

(B) A Freight Rail Yard that is not an Intermodal Rail Yard and where the Freight Rail Yard Operations are solely for the purpose of moving Railcars to and/or from Marine Terminal(s) **that are wholly or partially** located within the Harbor Districts.

Comment
9-2 Con't

This clarification is necessary because at least one marine terminal in Long Beach – Pier A – is partially outside the Long Beach Harbor District. As shown in the attached map, the Harbor District boundary runs through the northwest corner of the Pier A marine terminal; this boundary has no effect on terminal operations, which are continuous across the property. The Ports believe our minor suggested edits achieve the proposed exemption’s intention while further clarifying the scope. The Ports are happy to provide more clarification upon request.

Thank you in advance for considering our comment. If you need any further information, please contact Renee Moilanen, POLB Director of Environmental Planning at (562) 283-7100 or Lisa Wunder, POLA Acting Director of Environmental Management at (310) 732-7688 or via email at lwunder@portla.org.

Sincerely,



RENEE MOILANEN
Director of Env. Planning
Port of Long Beach



LISA WUNDER
Acting Director of Env. Management
Port of Los Angeles

Attachment: Long Beach Harbor District Boundary Map
Los Angeles Harbor District Boundary Map



Port of LONG BEACH
THE GREEN PORT
Port of Long Beach | Environmental Planning
415 W. Ocean Blvd | Long Beach, CA 90802
562.283.7100

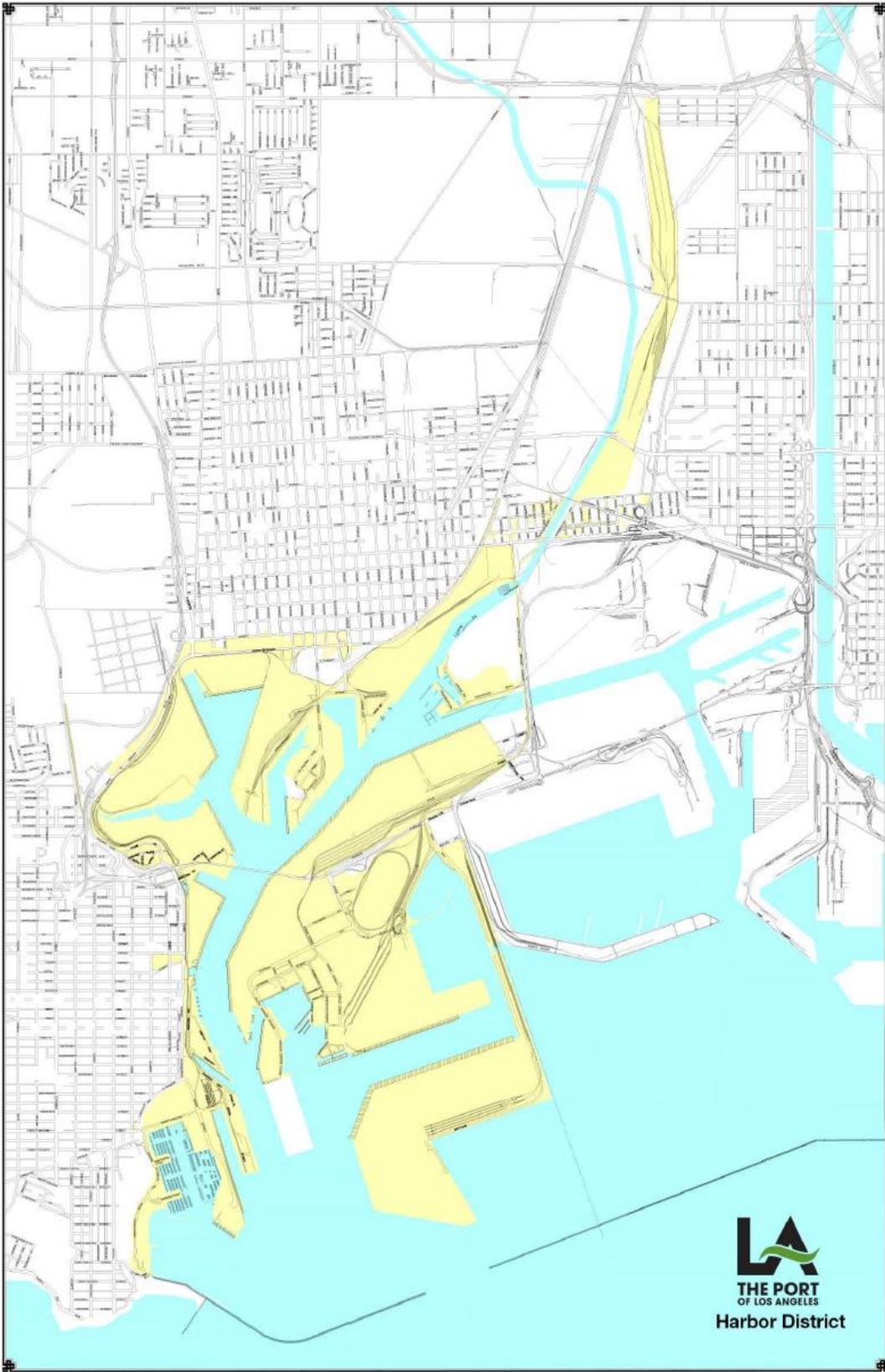


THE PORT
OF LOS ANGELES
Port of Los Angeles | Environmental Management
425 S. Palos Verdes Street | San Pedro, CA 90731
310.732.3675

The San Pedro Bay Ports Clean Air Action Plan was developed with the participation and cooperation of the staff of the US Environmental Protection Agency, California Air Resources Board and the South Coast Air Quality Management District.

Long Beach Harbor District and Coastal Zone Boundary





Staff Responses to Comment Letter #9**Response to Comment 9-1**

Staff thanks the Port of Long Beach and Port of Los Angeles for their comment. In regards to the interaction between PR 2306 and other facility-based measures, including PR 2304 that is currently in rule development, please see staff responses to Comment 6-1 and Comment 7-1 previously submitted by the Ports.

Response to Comment 9-2

Staff appreciates the comment and have revised the rule language as suggested for the purpose of added clarity.

Comment Letter #10 from Member of Congress Nanette Barragán

NANETTE DIAZ BARRAGÁN
 44TH DISTRICT, CALIFORNIA
 WWW.BARRAGAN.HOUSE.GOV
 FACEBOOK.COM/CONGRESSWOMANBARRAGAN
 TWITTER: @REPBARAGAN

CONGRESSIONAL HISPANIC CAUCUS
 CHAIRWOMAN

COMMITTEE ON ENERGY AND COMMERCE
 SUBCOMMITTEES:
 HEALTH
 ENVIRONMENT AND CLIMATE CHANGE
 ENERGY



Congress of the United States
House of Representatives
 Washington, DC 20515

WASHINGTON OFFICE:
 2312 RAYBURN HOUSE OFFICE BUILDING
 WASHINGTON, DC 20515
 (202) 225-8220

DISTRICT OFFICES:
 MAIN OFFICE
 4201 LONG BEACH BOULEVARD, SUITE 422
 LONG BEACH, CA 90807
 (310) 831-1799

701 E. CARSON STREET
 CARSON, CA 90745

8650 CALIFORNIA AVENUE
 SOUTH GATE, CA 90280

July 24, 2024

Members of the Governing Board
 South Coast Air Quality Management District
 21865 Copley Drive
 Diamond Bar, CA 91765

RE: Proposed Rule 2306 – Freight Rail Yards

Dear Members of the Governing Board:

I support the South Coast Air Quality Management District’s (SCAQMD) Proposed Rule 2306 – Freight Rail Yards (Rail Yards ISR) and urge the Governing Board to adopt the rule at the next meeting on August 2, 2024. The need to reduce pollution from freight rail yards in the South Coast Air Basin is long overdue and the proposed rule would result in significant air quality improvements and benefits for the region.

The Rail Yards ISR will deliver the greatest benefits to those living in neighborhoods adjacent to railyards and disproportionately exposed to the deadly impacts of rail pollution. In conjunction with CARB’s In-Use Locomotive Rule and Advanced Clean Fleets regulations, the proposed Rail Yards ISR is estimated to reduce over 9 tons of nitrogen oxide emissions each day, which would greatly contribute to improved regional air quality and protecting public health. Additionally, the proposed rule is expected to prevent 275 premature deaths and over 1,940 emergency room visits and hospital admissions each year.

Comment 10-1

Railroads are an essential part of the supply chain, as well as our local and national economies, but they are also major sources of air pollution with serious public health consequences. My Congressional District, which includes the railyard adjacent communities of Wilmington and Long Beach, is burdened by one of the highest asthma rates in the nation. Existing regulations on locomotives have not kept pace with the cleaner technology readily available, and the railroads have not made sufficient investments in reducing emissions to meet the district’s clean air goals or combat excessively polluting trains from operating in the South Coast Air Basin. Strengthening regulations on rail yards will have a significant impact on the health and quality of life of my constituents.

Adoption of the proposed Rail Yards ISR is a necessary step, but the air district must use their legal authority, provided by Congress, to strengthen the regulations and continue to work with our frontline AB617 communities toward solutions that will more effectively reduce pollution

Comment 10-2

Rep. Barragán
Page 2

from freight rail yards, accelerate the transition to zero emission facilities, and provide greater public transparency of how the district will hold violators accountable.

Comment
10-2 Con't

As the Representative of California’s 44th Congressional District, I respectfully urge the SCAQMD Governing Board to consider the health and quality of life of frontline communities across the South Coast Air Basin by adopting the proposed Rail Yards ISR.

Sincerely,



Nanette Barragán
Member of Congress

Staff Responses to Comment Letter #10**Response to Comment 10-1**

Staff appreciates Congressman Barragán’s comment and concur with the importance of public health protection through this rulemaking.

Response to Comment 10-2

Staff recognizes that continued outreach to and engagement with AB 617 communities is an important aspect to the successful implementation of PR 2306 if the rule is adopted and becomes effective. PR 2306 requires freight rail yard owners and operators to report on the planning, development status, and use of on- and off-site zero emission infrastructure in support of freight rail yard operations. This reporting will facilitate information sharing and coordination to expedite the development of necessary infrastructure and deployment of zero emission technologies.

Staff intends to conduct public outreach to identify an appropriate method to make reported information publicly available in a user-friendly format and consistent with transparency obligations under the California Public Records Act. The outreach will be followed by an update to the South Coast AQMD Governing Board Mobile Source Committee. Please also refer to staff responses to PW-3-b and Comment 1-7 for further details.

Comment Letter #11 from U.S. EPA - La Kenya Evans-Hopper

From: Evans-Hopper, La Kenya <[REDACTED]>
Sent: Thursday, July 25, 2024 11:51 AM
To: Zoya Banan <[REDACTED]>
Cc: Valerie Al Rwais <[REDACTED]>; Elaine Shen <[REDACTED]>; Lo, Doris <[REDACTED]>; Lueders, Jesse (he/him/his) <[REDACTED]>
Subject: [EXTERNAL] EPA Comments for Draft ISR Rule 2306

Dear Zoya,

Thank you for the opportunity for EPA to comment on the draft language for South Coast AQMD Rule 2306. Our comments below are based on the draft proposed language as found on the Proposed Rule 2306 webpage for the public hearing on August 2, 2024.

1. Section (c)(17) is the definition for Locomotive Engine Certification Data. The definition references EPA locomotive certification procedures. While we understand this as a reference to the certification procedures under 40 CFR part 1033, we recommend revising this definition to include a CFR citation or other reference to clarify the applicable certification procedures.
2. The EPA recommends submitting Rule 2306 Calculation Methodology to the SIP at the same time that Rule 2306 is submitted to the SIP.

Comment
11-1

Comment
11-2

Please let me know if you have any questions.

Sincerely,

La Kenya Evans-Hopper (Ph.D)
Rules Office, Air and Radiation Division
Life Scientist
U.S. EPA Region 9
75 Hawthorne Street, San Francisco, 94105
Office: (415) 972-3245

Staff Responses to Comment Letter #11**Response to Comment 11-1**

Staff appreciates the comment and added the citation to U.S. EPA 40 CFR Part 1033 – Control of Emissions from Locomotives to the Definition section in Chapter 3 of this Staff Report.

Response to Comment 11-2

Staff appreciates U.S. EPA’s recommendation. PR 2306 and the accompanying PR 2306 Calculation Methodology and Data Appendix will be submitted to CARB for their consideration and transmittal to U.S. EPA.

Fees for PR 316.2 Reports					
<i>South Coast AQMD Staff Analysis Time (hour)</i>					
Staff	Burdened Hourly Rate	Initial Facility Information Report	Initial Zero Emission Infrastructure Report	Milestone Compliance Report	Zero Emission Infrastructure Status Update Report
Planning & Rules Manager	\$149.71	1.0	0.5	6.0	0.5
Program Supervisor	\$135.56	6.0	1.0	20.0	1.0
Air Quality Specialist	\$118.42	12.0	2.5	60.0	2.5
Air Quality Inspector II	\$101.36	10.0	10.0	10.0	10.0
Total Staff Costs per Report		\$3,397.71	\$1,520.07	\$11,728.26	\$1,520.07

Fees for PR 316.2 Notifications								
<i>South Coast AQMD Staff Analysis Time (hour)</i>								
Staff	Burdened Hourly Rate	Change of Freight Rail Yard Operator		Change of Freight Rail Yard Owner		Freight Rail Yard Shutdown	Exceedance of Low Activity Exemption Threshold	Proposed Freight Rail Yard Construction, Conversion, or Expansion Notification
		<i>Initial</i>	<i>Secondary</i>	<i>Initial</i>	<i>Secondary</i>			
Planning & Rules Manager	\$149.71	0.15	0.10	0.15	0.10	0.25	0.25	0.25
Program Supervisor	\$135.56	0.15	0.10	0.15	0.10	0.25	0.25	0.25
Air Quality Specialist	\$118.42	0.30	0.20	0.30	0.20	0.50	0.50	0.50
Total Staff Costs per Notification		\$ 78.32	\$ 52.21	\$ 78.32	\$ 52.21	\$ 130.53	\$ 130.53	\$ 130.53

ATTACHMENT K



**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 RULE 316.2 – FEES FOR RULE 2306

Pursuant to the California Environmental Quality Act (CEQA) Guidelines, the South Coast Air Quality Management District (South Coast AQMD), as Lead Agency, has prepared a Notice of Exemption pursuant to CEQA Guidelines Section 15062 – Notice of Exemption for the project identified above.

If the proposed project is approved, the Notice of Exemption will be filed for posting with the county clerks of Los Angeles, Orange, Riverside, and San Bernardino Counties. The Notice of Exemption will also be electronically filed with the State Clearinghouse of the Governor's Office of Planning and Research for posting on their CEQAnet Web Portal which may be accessed via the following weblink: <https://ceqanet.opr.ca.gov/search/recent>. In addition, the Notice of Exemption will be electronically posted on the South Coast AQMD's webpage which can be accessed via the following weblink: <http://www.aqmd.gov/nav/about/public-notices/ceqa-notices/notices-of-exemption/noe---year-2024>.

**NOTICE OF EXEMPTION FROM THE
CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)**

To: County Clerks for the Counties of Los Angeles, Orange, Riverside and San Bernardino; and Governor's Office of Planning and Research – State Clearinghouse

From: South Coast Air Quality Management District
21865 Copley Drive
Diamond Bar, CA 91765

Project Title: Proposed Rule 316.2 – Fees for Rule 2306

Project Location: Proposed Rule (PR) 316.2 is located within the South Coast Air Quality Management District's (South Coast AQMD) jurisdiction, which includes 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 portion of the Salton Sea Air Basin and the non-Palo Verde, Riverside County portion of the Mojave Desert Air Basin.

Description of Nature, Purpose, and Beneficiaries of Project: PR 316.2 establishes fees for owners and operators of freight rail yards which will be used to fund reasonable operating expenses incurred by South Coast AQMD implementing PR 2306 – Freight Rail Yards. PR 316.2 applies to owners and operators of proposed, new, and existing freight rail yards subject to PR 2306 and specifies: 1) fees for submitting the various reports and notifications required by PR 2306; 2) payment due dates; and 3) service charges for any returned checks. While there will be no emission reductions associated with its implementation, PR 316.2 will ensure that the South Coast AQMD will have the necessary resources to provide necessary cost recovery while implementing PR 2306 requirements.

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 15273 – Rates, Tolls, Fares, and Charges

Reasons why project is exempt: South Coast AQMD, as Lead Agency, has reviewed the proposed project (PR 316.2) 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. PR 316.2 is statutorily exempt from CEQA requirements pursuant to CEQA Guidelines Section 15273 – Rates, Tolls, Fares, and Charges, because it involves charges established by the South Coast AQMD, a public agency, for the purpose of meeting operating expenses associated with implementing PR 2306.

Date When Project Will Be Considered for Approval (subject to change):
South Coast AQMD Governing Board Public Hearing: August 2, 2024

CEQA Contact Person:	Phone Number:	Email:	Fax:
Jivar Afshar	(909) 396-2040	jafshar@aqmd.gov	(909) 396-3982

PR 316.2 Contact Person:	Phone Number:	Email:	Fax:
Cindy Guzman De La Rocha	(909) 396-3209	RailyardISR@aqmd.gov	(909) 396-3982

Date Received for Filing: _____ **Signature:** *(Signed and Dated Upon Board Approval)*

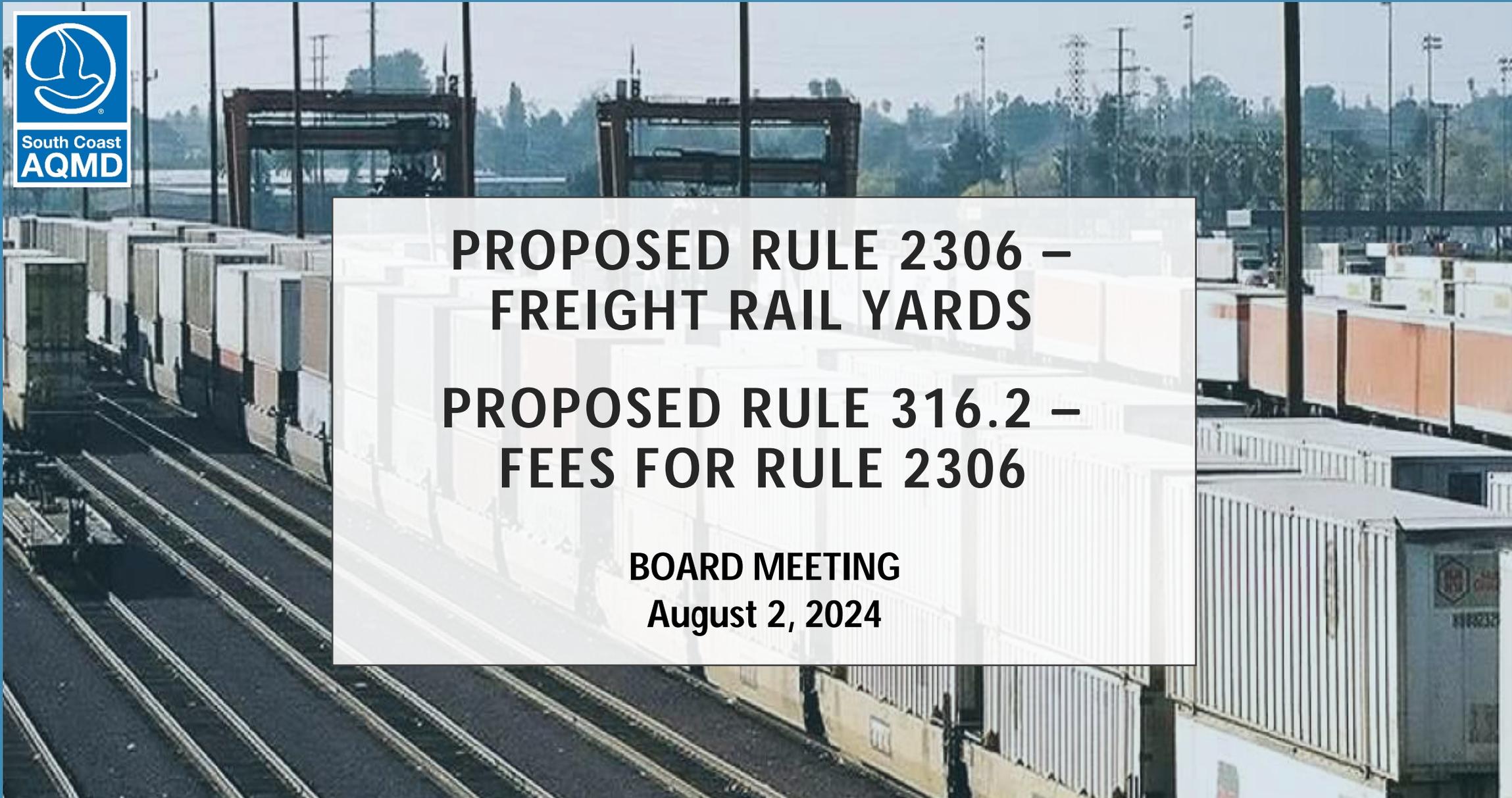
Kevin Ni
Program Supervisor, CEQA
Planning, Rule Development, and
Implementation



**PROPOSED RULE 2306 –
FREIGHT RAIL YARDS**

**PROPOSED RULE 316.2 –
FEES FOR RULE 2306**

**BOARD MEETING
August 2, 2024**



OVERVIEW



PR 2306 will
reduce NOx
emissions from
mobile sources
attracted to
freight rail yards



PR 316.2 will
recover reasonable
costs from
implementing
Rule 2306

PUBLIC PROCESS



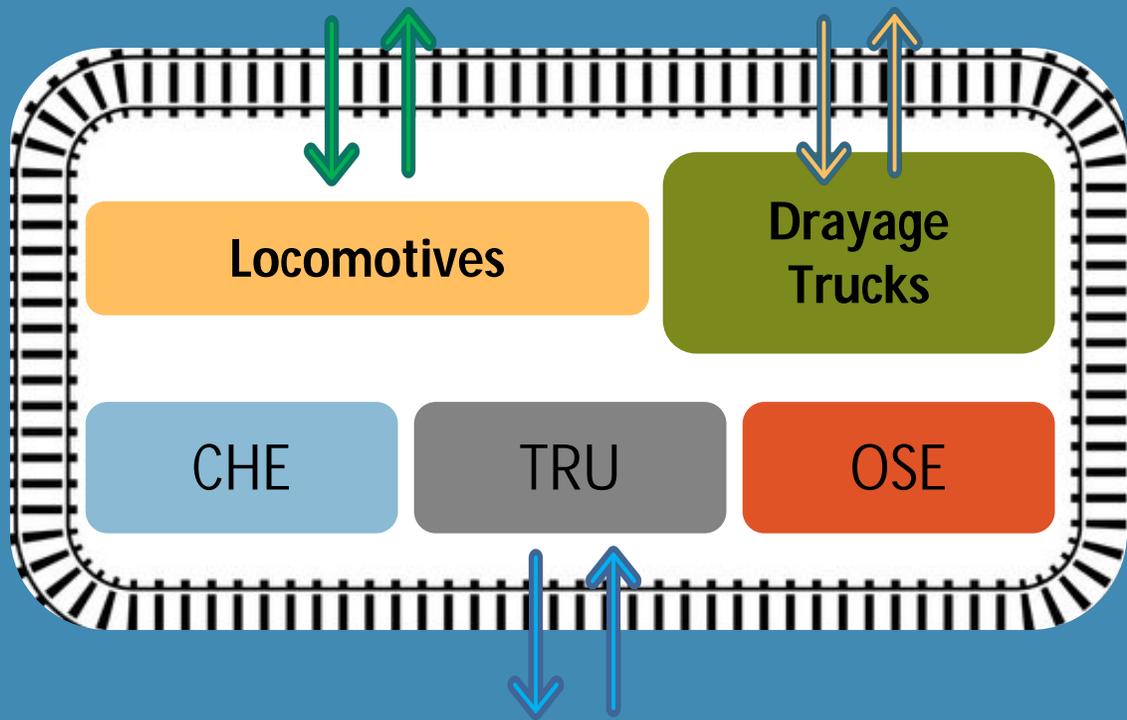
Presented 16 Updates to Mobile Source Committee (3 on current proposal) and 5 Updates to the Board

PR 2306 ADDRESSES FREIGHT RAIL YARD EMISSIONS

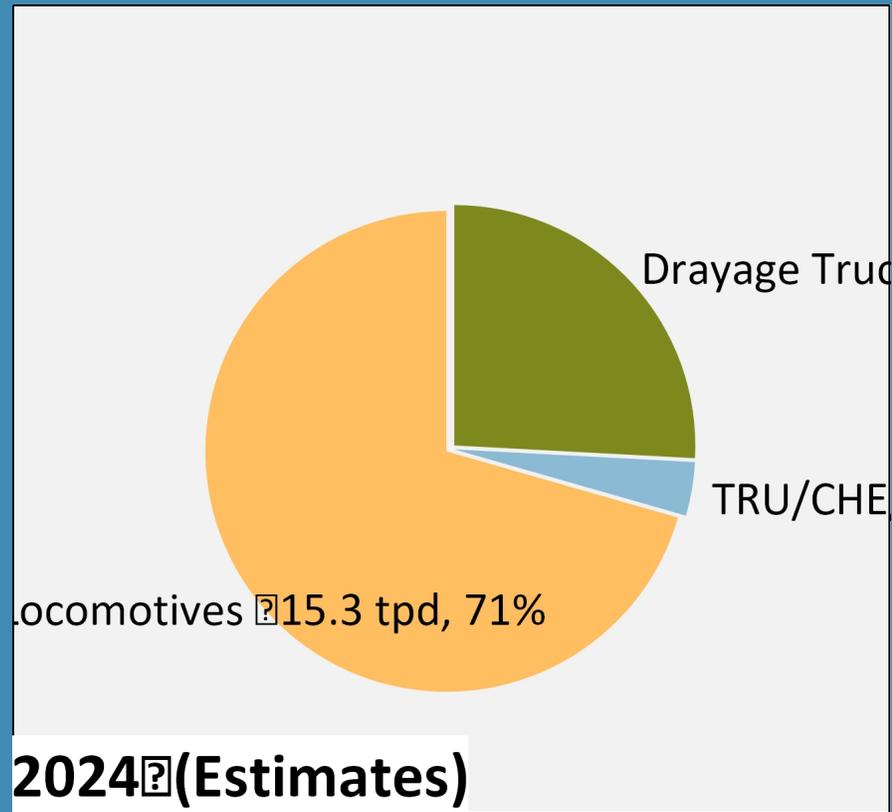
- Part of the suite of AQMP Facility-Based Mobile Source Measures to collectively address freight emissions
 - *Facilitates CARB's State SIP Strategy in South Coast AQMD*
 - *Assists attainment of state and federal air quality standards*
- PR 2306 complements implementation of CARB's:
 - *In-Use Locomotive Regulation*
 - *Advanced Clean Fleets Regulation*
- Implements AB 617 Community Emissions Reduction Plans for rail yard-adjacent EJ communities



FREIGHT RAIL YARD EMISSION SOURCES



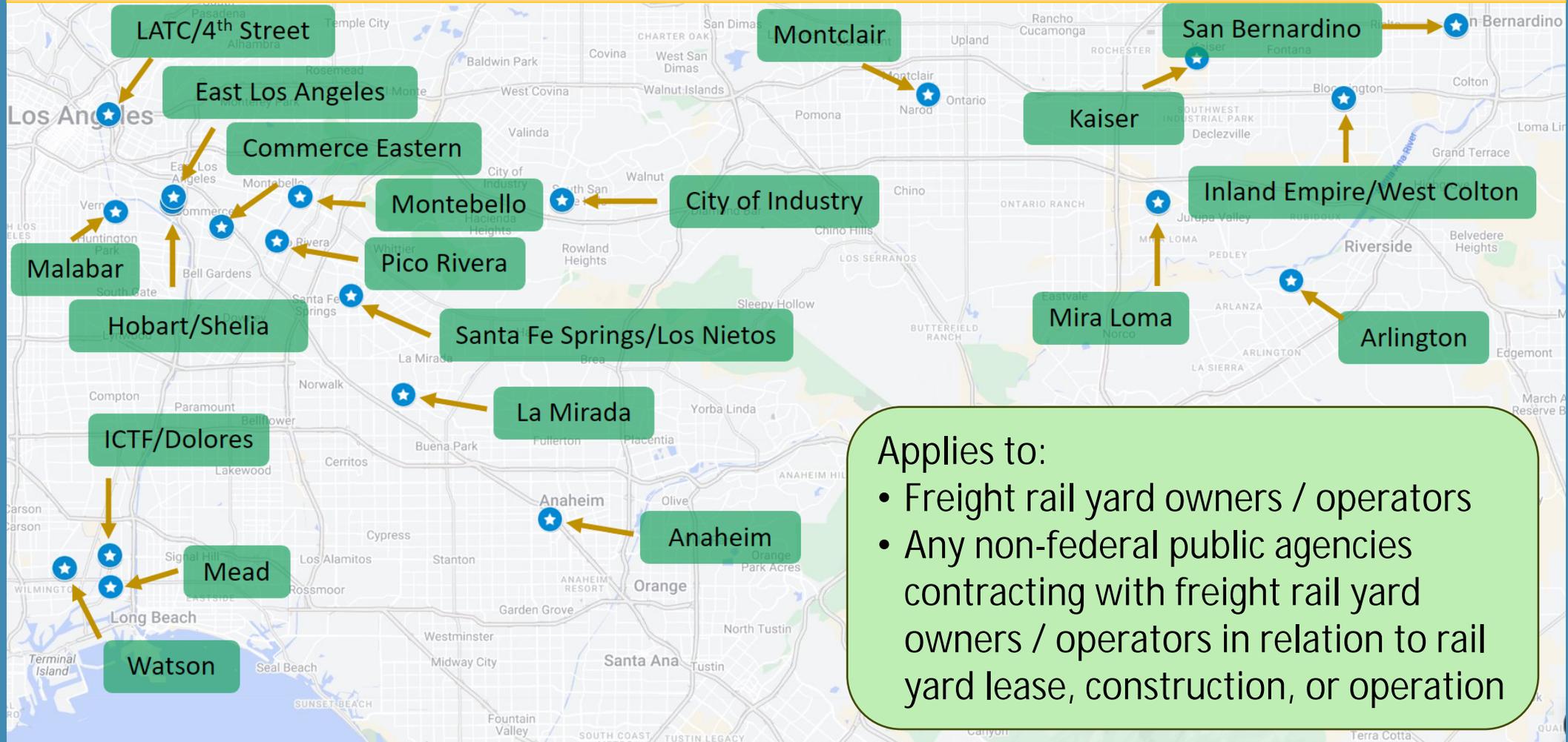
CHE = Cargo Handling Equipment
TRU = Transportation Refrigeration Unit
OSE = Other Support Equipment



Total NO_x emissions associated with freight rail yards make up nearly 9% of total South Coast Air Basin emissions

PR 2306 APPLICABILITY

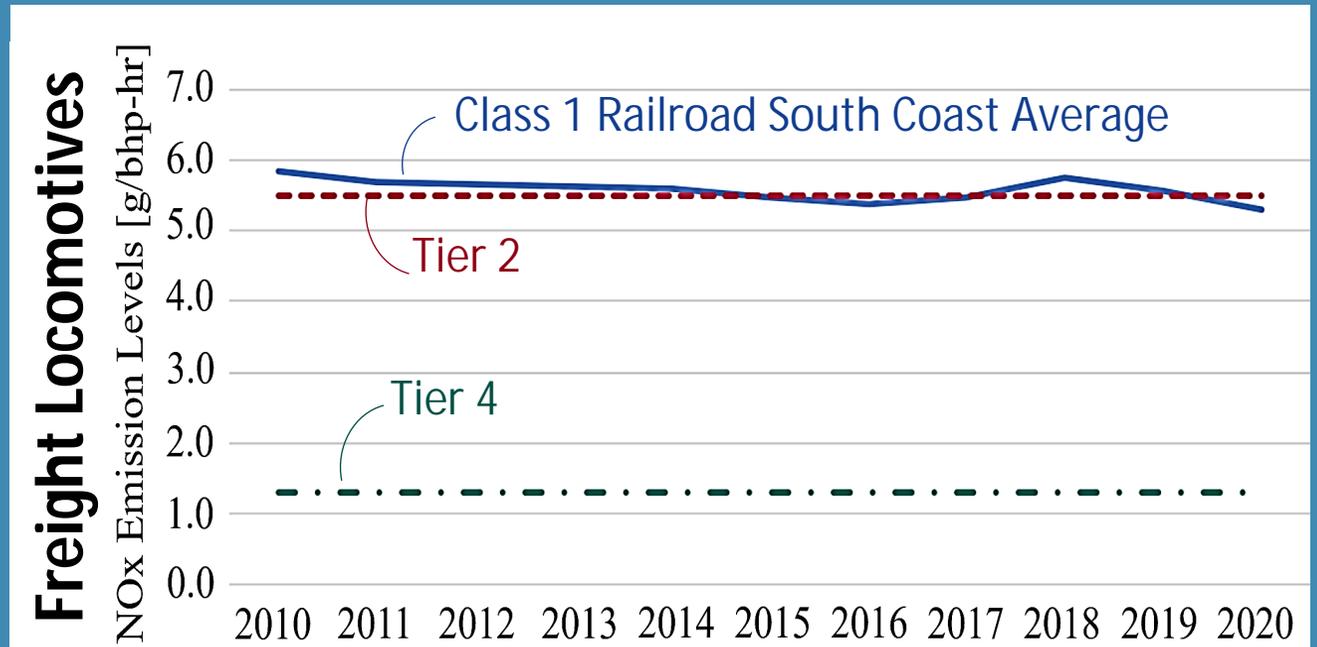
Freight Rail Yards Potentially Subject to PR 2306



(The map represents known freight rail yards potentially subject to PR 2306 and may not be exhaustive. See PR 2306 for detailed definitions related to rule applicability)

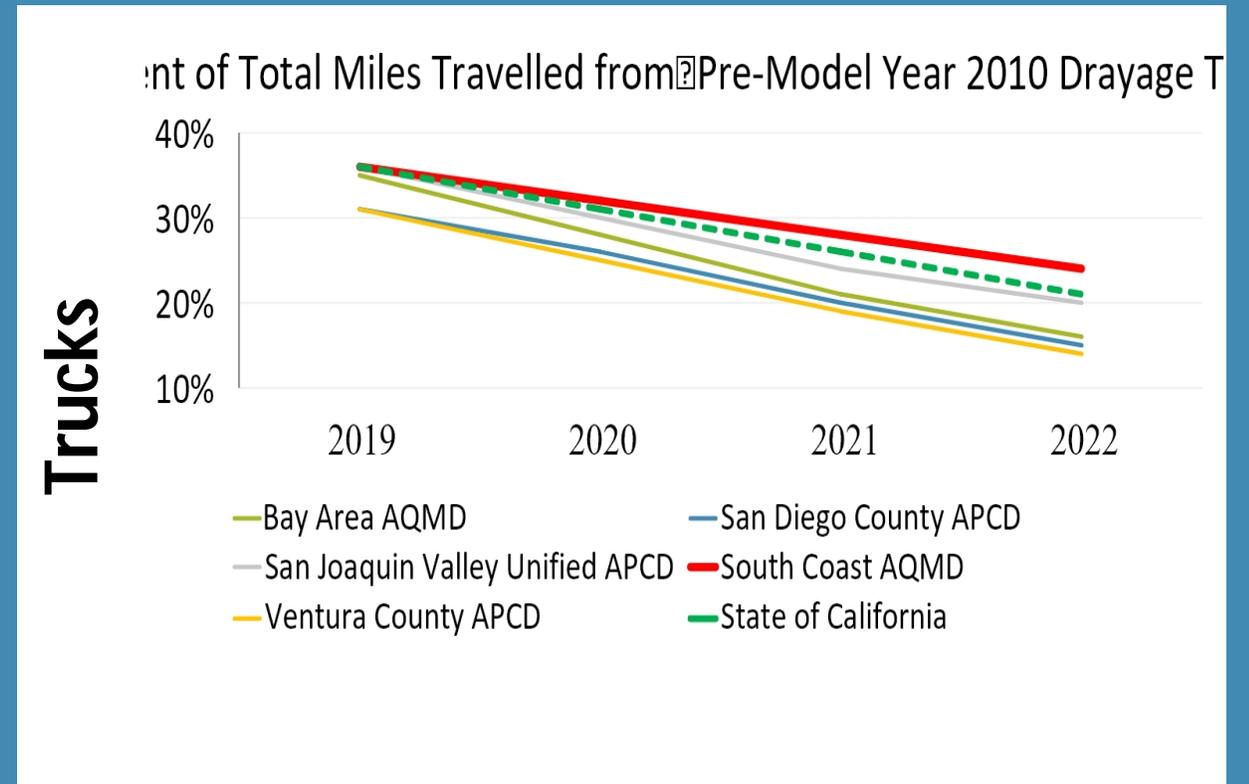
FREIGHT RAIL YARD EMISSIONS REMAIN TOO HIGH

- Railroad emission rates in South Coast Air Basin have not improved in the past decade despite federal standards and CARB MOU
 - Lack of investment by railroads in newest, Tier 4 locomotives



STATE-WIDE REGULATIONS DO NOT ENSURE REDUCTIONS IN SOUTH COAST AQMD

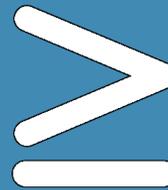
- CARB rules will significantly reduce emissions statewide
- No guarantee proportional reductions in South Coast AQMD
- South Coast AQMD emission reductions lagged behind rest of state for other state rules



PR 2306 ENSURES NECESSARY EMISSION REDUCTIONS

**% NOx Reductions from
Facility-Level Compliance
with PR 2306**

**% NOx Reductions from
Statewide Compliance with
State Regulations**



PR 2306 KEY COMPONENTS

Reduce NOx Emissions Associated with New and Existing Freight Rail Yards

Operators shall:

- ***Meet or exceed percent NOx reductions targets***
 - Milestone years
 - Based on emission reductions throughout California from implementation of recently adopted state rules
 - Can choose multiple compliance pathways, all ensuring NOx reductions at facility level
- ***Provide reports*** to demonstrate facility NOx reductions

- Owners and operators shall ***report on zero emission infrastructure*** planning, development, and use, with regular updates
 - Railroads must request grid upgrade by electrical utilities if a need is identified
- ***Non-federal public agencies*** shall include PR 2306 compliance requirements in their freight rail yard contract provision(s)
- ***Exemptions*** for very low use facilities, as well as certain port-owned/operated facilities

Effective upon U.S. EPA approval of PR 2306 SIP inclusion and waiver/authorization for CARB rules

KEY REMAINING ISSUES

Communicating rule performance with the public

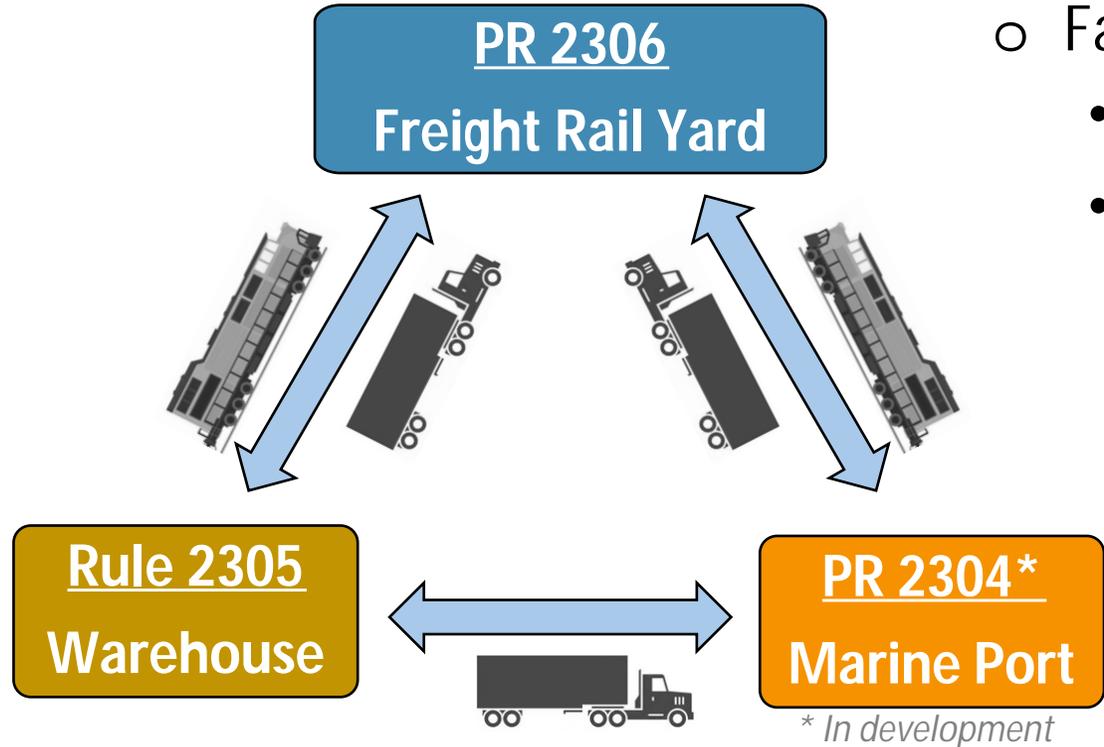
- Board Resolution directs staff to consult with public during rule implementation about making rule reporting data accessible in user-friendly format

Request for stronger targets to ensure emissions reduced from all mobile sources

- PR 2306 is designed to be consistent with state rules
 - Up to 82% NOx reductions by 2037
- Compliance through emission reductions from one or more mobile sources as long as targets are met
 - Locomotives, drayage trucks, cargo-handling equipment, transportation refrigeration units, etc.

KEY REMAINING ISSUES (CONT.)

Concern about potentially overlapping requirements between PR 2306 and other facility-based measures



- Facility-based measures
 - Applicable to respective types of facilities
 - Designed to not conflict with:
 - Other facility-based measures
 - CARB or U.S. EPA requirements applicable to fleets and engine manufacturers
- Actions taken by one facility type can help other facility types reduce their emissions

POTENTIAL FUTURE STAFF ACTIVITY FROM BOARD ACTION TODAY

Federal Approval

Report back to Mobile Source Committee on status of:

- PR 2306 SIP inclusion
- Authorization/waiver of CARB rules

Status update in March/April 2025

Compliance Outreach

Conduct outreach to affected facilities about PR 2306 and 316.2 requirements:

- When specific effective date of PR 2306 is known

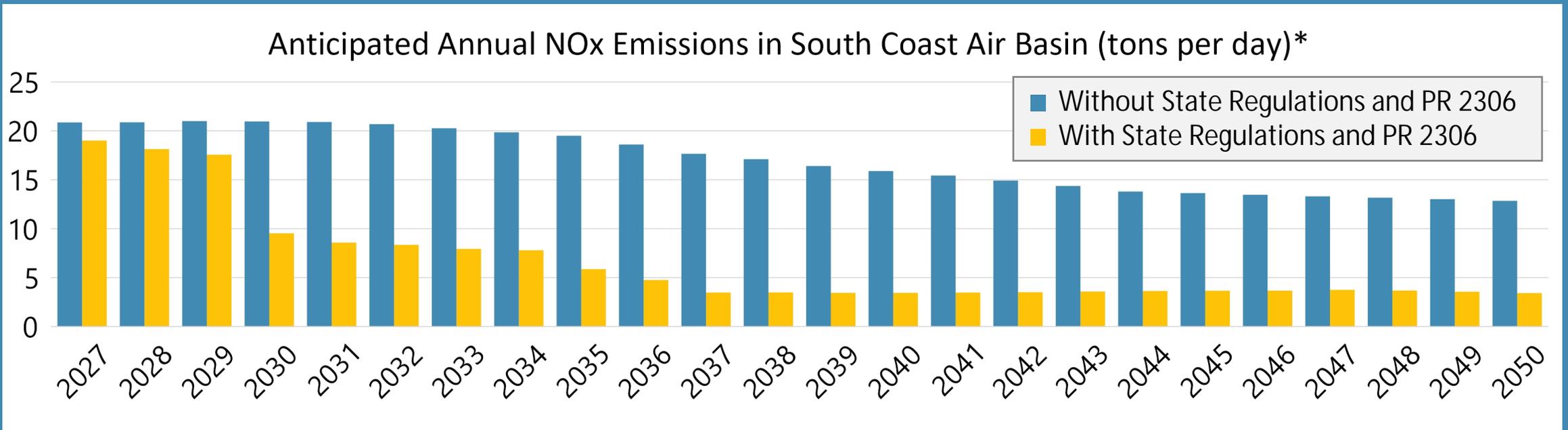
Access to Information

Report back to Mobile Source Committee on:

- Recommended approach to make compliance information publicly available in a user-friendly format, identified via public outreach

EMISSION REDUCTIONS AND HEALTH BENEFITS

- On average **10.5 tons per day of NOx reductions** projected over 2027 - 2050 from implementation of PR 2306, in conjunction with CARB's In-Use Locomotive and Advanced Clean Fleets regulations
 - **~300 premature deaths** avoided per year
 - **~2,100 emergency department visits and hospital admissions** avoided per year



* Estimated based on CARB's projections for statewide implementation of state rules

CEQA AND SOCIOECONOMIC IMPACTS

California Environmental Quality Act (CEQA)

- **PR 2306** relies on the CEQA analyses previously conducted for the 2022 and 2016 AQMPs which adequately describe the activities and impacts
- **PR 316.2** is statutorily exempt from CEQA

Cost Impacts

- Nominal incremental compliance costs expected for PR 2306 due to majority of costs attributable to implementation of recently adopted state rules
- New incremental report and notification preparation costs and the associated PR 316.2 fees estimated at ~\$15,000 per facility per year

STAFF RECOMMENDATIONS

Adopt Resolution:

- Determining that Proposed Rule 2306 – Freight Rail Yards does not require a new environmental document
- Determining that Proposed Rule 316.2 – Fees for Rule 2306 is exempt from the requirements of CEQA
- Adopting:
 - Rule 2306
 - Rule 316.2
- Approving:
 - Proposed Rule 2306 Calculation Methodology and Data Appendix