AB 617 COMMUNITY STEERING COMMITTEE

Wilmington, Carson, West Long Beach August 13, 2020





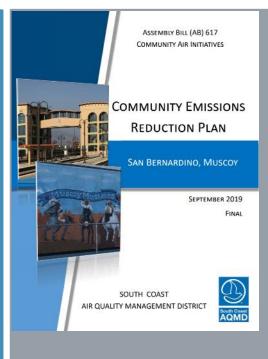
- Annual Report Overview
- CAMP Implementation Update
- **BARCT Overview**
- Technology Clearinghouse
- Refineries
 - Rule Development
 - Monitoring Update
- Ports Update

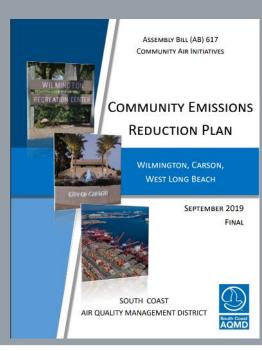
ANNUAL PROGRESS REPORT FOR AB 617 COMMUNITY EMISSIONS REDUCTION PLANS

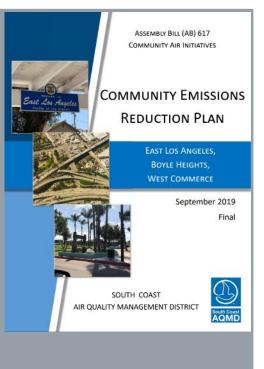
August 2020



South Coast Air Quality Management District







ANNUAL PROGRESS REPORT

NICOLE SILVA
PROGRAM SUPERVISOR



ANNUAL PROGRESS REPORT

Available online:

http://www.aqmd.gov/docs/defa ult-source/ab-617-ab-134/2019-20-draft-cerpprogress-report.pdf



AB 617* requires air districts to annually report the progress of CERP implementation



Annual reports submitted to CARB for review



CARB may suggest plan revisions to air districts





OVERVIEW OF ANNUAL PROGRESS REPORT

Report Elements

ANNUAL PROGRESS REPORT FOR

AB 617

COMMUNITY EMISSIONS

REDUCTION PLANS

August 2020



South Coast Air Quality Management District

Community Profile Updates

Overview of CERP Framework

Status of CERP Actions, Goals and Strategies

Metrics for Tracking Progress

Qualitative Assessment

Summary of Key Plan Adjustments



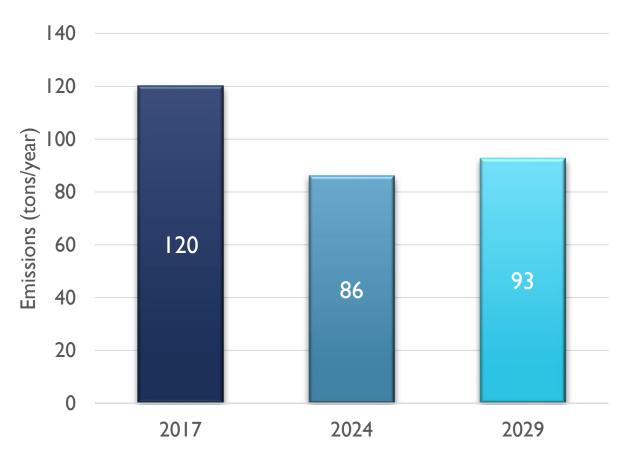




Air Quality Priority		Examples of Actions, Goals, and Strategies Required (September – June 2020)	Status of CERP
	Refineries	 Improve refinery flaring notifications Conduct refinery monitoring to identify and address VOC leaks 	 Deployed public portal to view flaring event notifications Rule 1180 monitoring initiated
	Ports	 Continue Port MOU development Update CSC on demonstration projects for ships and harbor craft 	 Port MOU initial concepts released, public hearing is TBD 1 demonstration project initiated, another funded by U.S. EPA
	Neighborhood Truck Traffic	 Conduct idling truck sweeps Conduct outreach events to inform the community members how to report idling trucks 	 4 enforcement sweeps, 219 trucks inspected, 4 NOV Truck idling outreach conducted at Wilmington Neighborhood Council meeting
New York	Oil Drilling and Production	 Use CalGEM data to identify oil well status Work with stakeholders to identify improvements for 1148.2 	 Oil well status provided to CSC CSC input received for notification updates, potential future rule development
	Railyards	 Provide incentive info to railyards (to replace diesel equipment) Continue ISR development for railyards 	 Incentive outreach provided via webcast ISR community workshops conducted, initial concepts released, public hearing expected second quarter 2021
Name of the latest and the latest an	Schools and Community Areas	 Provide air quality related programs to schools or information on programs and partner with local entities and community based organizations Install new air filtration systems/replacement filters at schools 	 Conducting outreach development in collaboration with community-based organizations CAPP incentive funding request letter for school air filtrations in April 2020

WCWLB EMISSION INVENTORY

Baseline Mobile Source DPM Emissions



- Chapter 5a, Table 5a-1 provides baseline for multiple pollutants
- 2017 is base year
- CARB Guidance required targets for future years:5 and 10 years
- Status of targets will be evaluated annually

EMISSION REDUCTION TARGETS



- Emission reduction targets established in each CERP (e.g., NOx, DPM, VOCs)
- Staff working with CARB, TAG, and CSC to quantify emission reductions for:
 - AB 617 incentives
 - CARB regulations
 - South Coast AQMD regulations
- Continue to refine metrics for AB 617 emission reductions

TOTAL INVESTMENT IN INCENTIVES

Future incentive based emission reductions dependent on program funding

Approximate Emission Reductions to date based on Pollutant and Total Investment



■ NOX ■ PM ■ ROG

ANNUAL PROGRESS REPORT TIMELINE

August 13

• Draft report released

August 28

deadline

• CSC comment • Stationary

Stationary
 Source
 Committee
 (Additional public comment)

September October 2

Governing Board Meeting Mid-October

• Submit report

to CARB staff

December 2020

 Report submitted to CARB Board for consideration

ANNUAL PROGRESS REPORT COMMENTS

Comments, Questions, Concerns?

Please submit comments
by August 28th to
Nicole Silva
nsilva@aqmd.gov
909-396-3384



CAMP IMPLEMENTATION & MONITORING PROGRESS REPORTS



UPDATE – 3RD QUARTER 2020

Dr. PAYAM PAKBIN

PROGRAM SUPERVISOR

AIR MONITORING PROGRESS REPORTS



Air monitoring activities are ongoing



Monitoring progress reports provide a status update on these activities



South Coast AQMD is seeking CSC input on the reports and next steps





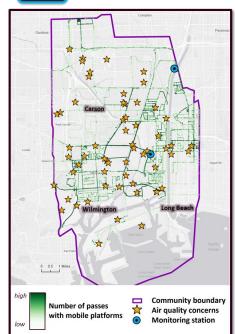
Click each of air quality priorities to see the progress reports

South Coast AQMD staff updates on Community Air Monitoring Plan (CAMP) are prov

100% of air quality concerns measured 22

community surveys

miles traveled with the mobile 1063 platforms



o be Initiated 🕜 Ongoing 🔽 Concluded

Refineries

- Mobile monitoring around refiner
- One year of fenceline monitoring a
- C Establish community sites around re
- C Establish baseline emissions and leak detection based on mobile and fenceline
- Collaborate with CSC on community air monitoring
- Explore smart leak detection and repair technologies

Neighborhood Truck Traffic

Mobile monitoring in "truck idling hotspots" identified by the CSC

Oil Drilling & Production

- **▼** Use data from Geologic Energy Management Division to identify active, idle, and abandoned
- Mobile monitoring around oil wells to detect potential leaks

Railvards

- Mobile monitoring around railyard facilities
- Collaborate with railyards to conduct air monitoring inside facilities

Ports

Air monitoring to detect vessels and oil tanker

*Last updated April 2020



For more information, please visit AB 617 website: www.aqmd.gov/ab617

AIR MONITORING **PROGRESS REPORTS**

Air monitoring updates for the period of June 2019 to August 2020 is now available online:

http://www.aqmd.gov/ab-617/CAMP/infographics/WCWLB



PROGRESS REPORTS FOR EACH AIR QUALITY **PRIORITY**

Progress report on the monitoring actions in the CERP

- Each report contains:
 - Background and objectives of air monitoring
 - Monitoring methods and strategies
 - Results of air monitoring
 - Next steps
 - Comprehensive reports and data interpretation



SEEKING CSC INPUT

Comments, Questions, Concerns?

Please contact: Payam Pakbin ppakbin@aqmd.gov 909-396-2122

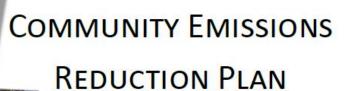


CERP IMPLEMENTATION

UPDATE – 3RD QUARTER 2020

Wilmington, Carson, West Long Beach August 13, 2020 ASSEMBLY BILL (AB) 617

COMMUNITY AIR INITIATIVES



WILMINGTON, CARSON,
WEST LONG BEACH

SEPTEMBER 2019

FINAL

SOUTH COAST
AIR QUALITY MANAGEMENT DISTRICT

CITY OF CARSON



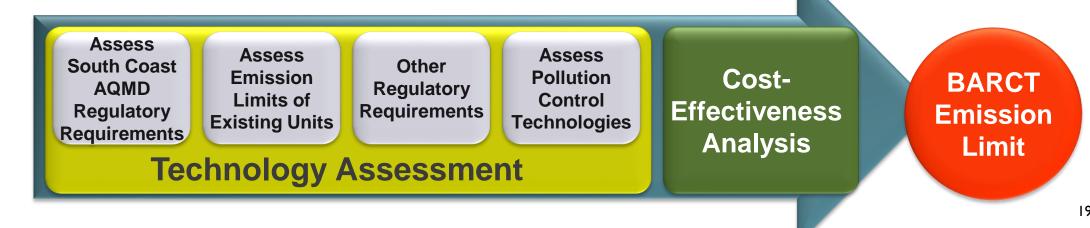
BARCT OVERVIEW

MICHAEL KRAUSE
PLANNING AND RULES MANAGER



BEST AVAILABLE RETROFIT CONTROL TECHNOLOGY (BARCT)

- BARCT emission limits represent the maximum degree of reductions achievable
- Must include a technology feasibility assessment coupled with a cost-effectiveness analysis for each class and category of equipment¹
- Could be achieved by retrofitting with control technology or replacing with cleaner,
 more efficient equipment





NO_X BARCT RULES UNDER DEVELOPMENT



PAR 218/218.1 and PR 218.2/218.3 – Continuous Emissions Monitoring Systems

Public Hearing: 1st Quarter 2021



PAR 1147 – Miscellaneous Combustion Sources

Public Hearing: December 2020



PR 1147.1 – Aggregate Facilities

Public Hearing: 2nd Quarter 2021



PR 1147.2 – Metal Melting and Heating Furnaces

Public Hearing: 1st Quarter 2021



PR 1109.1 – Refinery Equipment

Public Hearing: 1st Quarter 2021



TBD – Nitric Acid Processing Tanks

TBD



RECENTLY ADOPTED NOX BARCT RULES



Rules 1146, 1146.1, 1146.2 – Boilers, heaters, and steam generators

0.27 tons per day*



Rule 1135 - Electric Generating Facilities

1.7 tons per day*



Rule 1118.1 - Non Refinery Flares

tons per day*



Rule 1110.2 -Gaseous- and Liquid-Fueled Engines

0.29 tons per day*



Rule 1134 - Gas Turbines 1.8 tons per day*



Rule 1117 – Container Glass Melting/Sodium Silicate Furnaces

0.57 tons per day*

Total NOx Reductions = 4.63 tons per day*



CARB Technology Clearinghouse Update

AUGUST 13, 2020

Background

- AB 617 and the program's governing document (Blueprint) require the development of a Technology Clearinghouse that:
 - Identifies BACT, BARCT, and T-BACT
 - Ensures data supports updates to district BACT determinations
 - Identifies the best approaches for controlling emissions including rules, regulations, technologies, or practices for mitigation
- CARB's goal is to provide transparent access of accurate, useful information to the public through user-friendly systems

Current Status

- To date, CARB has released 3 prototype tools, and plans to release the first BACT tool later this summer
- Additional information, including release dates can be found at:

https://ww2.arb.ca.gov/technology-clearinghouse/project-components-and-release-dates

Technology Clearinghouse Components

BACT & T-BACT



Emissions limits and associated control technologies required for new and modified equipment at stationary source facilities Rules (Including BARCT)



CARB and Air District rules and associated emissions limits for stationary, area, and mobile sources Next Generation Technology



Readily available and emerging clean technologies that are beyond existing regulatory limits

Contact Information

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Cassie Lopina, Manager: cassandra.lopina@arb.ca.gov

Vernon Hughes, Branch Chief:

vernon.hughes@arb.ca.gov





AIR QUALITY PRIORITY: REFINERIES

MICHAEL KRAUSE, PLANNING AND RULES MANAGER DR. OLGA PIKELNAYA, PROGRAM SUPERVISOR



CERP COMMITMENTS

Chapter 5b, Action I

Provide a summary of flare emissions data from Rule 1118 quarterly reports



Work with stakeholders on additional improvements to refinery flaring notifications



Initiate process to work with local public health departments to develop outreach materials





CERP COMMITMENTS

Chapter 5b, Action 3

Rule 1118 Development



Chapter 5b, Action 4

Rule 1178 Development (2021)



Chapter 5b, Action 5

Proposed Rule 1109.1 Development



RULE 1118 DEVELOPMENT

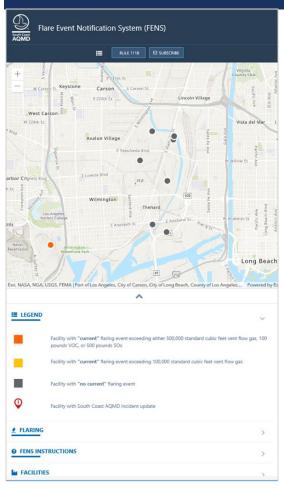
- Last amendment (in 2017) to Rule 1118 (Refinery Flares) set out a series of requirements
 - □ Notification of flaring events through a web-based system (including a new 100,000 scf daily threshold)
 - Submit Scoping Document to propose how to reduce emissions from planned flare events
 - Support Flare Monitoring System with new technology able to measure operating parameters
- Action taken includes:
 - □ Revamp of the Flare Event Notification System (FENS) including a new public portal
 - \square Request for Information (RFI) resulted in \sim 10 flare monitoring technologies seeking pilot program
 - □ Reviewed Scoping Documents and compiling concepts to be considered for next rule amendment
- Next steps to begin rule amendments for Governing Board consideration in 2021





AQ Priority: Refineries

FLARE EVENT NOTIFICATION SYSTEM (FENS)



- Rule III8 requires refineries to notify planned and unplanned flare events that exceed certain thresholds
- The new public portal in updated FENS (<u>www.aqmd.gov/FENS</u>) was publicly released in December 2019
- Displays all refinery flares on a regional map, active flaring and provides upcoming and historical past flare events
- Recent upgrades include additions to public portal such as wind speed/direction; to be released publicly in Fall 2020
- Interested public can be notified via e-mail of current and upcoming flare events (subscribe: http://www.aqmd.gov/sign-up)





RULE DEVELOPMENT EFFORTS - PROPOSED RULE 1109.1

- To date, staff has held 13 working group meetings, numerous meetings with vendors and stakeholders, as well as site visits
- All presentation material is available online at <u>http://www.aqmd.gov/home/rules-compliance/rules/scaqmd-rule-book/proposed-rules/proposed-rule-1109-1</u>
- Conducted detailed analysis on each piece of equipment
 - Initial BARCT limits for all categories presented to working group
 - Two consultants on contract reviewing staff's BARCT analysis
- Scheduling next working group meeting with community late August/early September to provide detailed overview
- Board consideration for rule adoption in 1st quarter 2021



CERP COMMITMENTS

Chapter 5b, Action 2 (monitoring)

Conduct mobile air measurement surveys, inspection follow-up



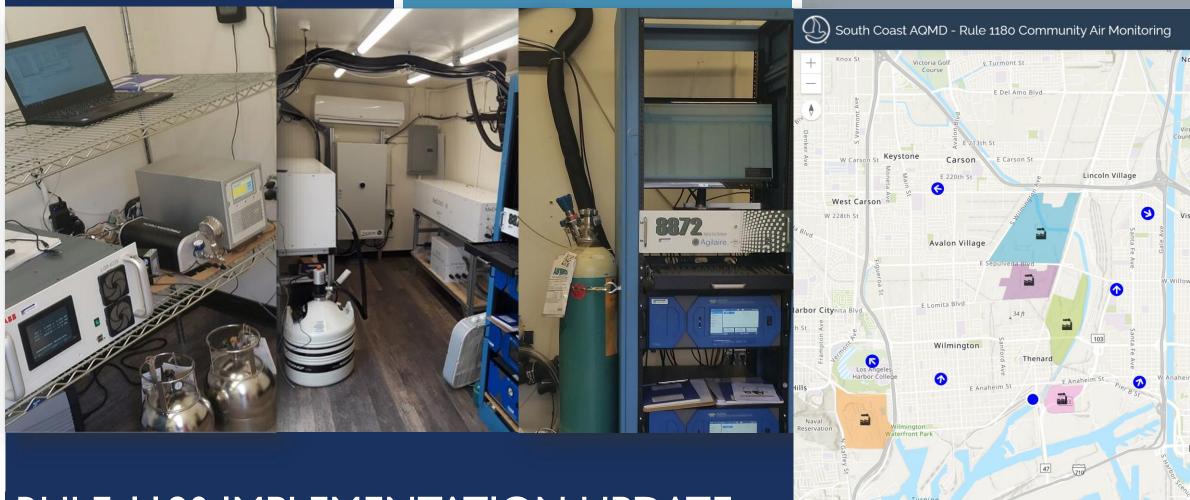
Explore Smart LDAR



Begin evaluating Rule 1180 fenceline monitoring data



South Coast AQMD



RULE 1180 IMPLEMENTATION UPDATE

OLGA PIKELNAYA PH.D PROGRAM SUPERVISOR



RULE 1180 MONITORING AT A GLANCE

Refinery Fenceline Air Monitoring

- 5 refineries in WCWLB community
- Nearly complete fenceline coverage
- Real-time monitoring for all required compounds
- Dedicated public data portal and notification system

Community Air Monitoring

- 6 permanent community stations and I temporary station in WCWLB community
- Real-time monitoring for all required compounds
- Dedicated public data portal and notification system

COMMUNITY AIR MONITORING - LOCATIONS





COMMUNITY AND FENCELINE AIR MONITORING - POLLUTANTS

Rule 1180 Air Pollutants

Volatile Organic Compounds

Total VOCs (Non-Methane Hydrocarbons)

Formaldehyde

Acetaldehyde

Acrolein

1,3-Butadiene

Styrene

BTEX (Benzene, Toluene, Ethylbenzene,

Xylene)

Other Compounds

Hydrogen Sulfide

Ammonia

Black Carbon

Hydrogen Fluoride"

Hydrogen Cyanide

Carbonyl Sulfide

Criteria Air Pollutants

Sulfur Dioxide

Nitrogen Oxides

Fenceline Air Monitoring (Rapid response)

- Open Path FTIR and UV-DOAS
- Point monitors for Hydrogen Sulfide and Black Carbon
- Wind speed/direction and visibility



LP DOAS Instrument

Community Air Monitoring (Rapid response)

- Optical FTIR and UV-DOAS
- Point monitors for Hydrogen Sulfide, Black Carbon and Hydrogen Fluoride
- Wind speed/ and wind direction



UV-DOAS optical cel

Community Air Monitoring

(Semi-continuous measurements)

- Automated GC (I-hour average) for BTEX and extensive list of VOC's
- Increased sensitivity: ~0.1 ppb detection limits

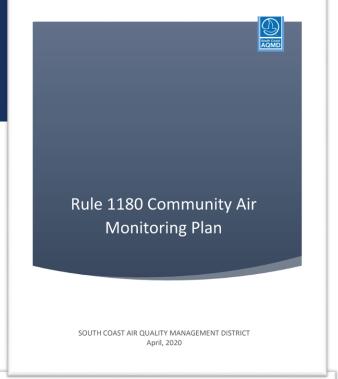


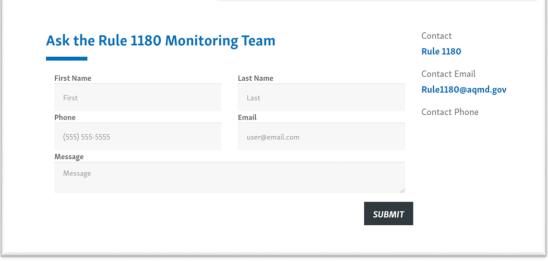
Mini Auto-GC

AQ Priority: Refineries

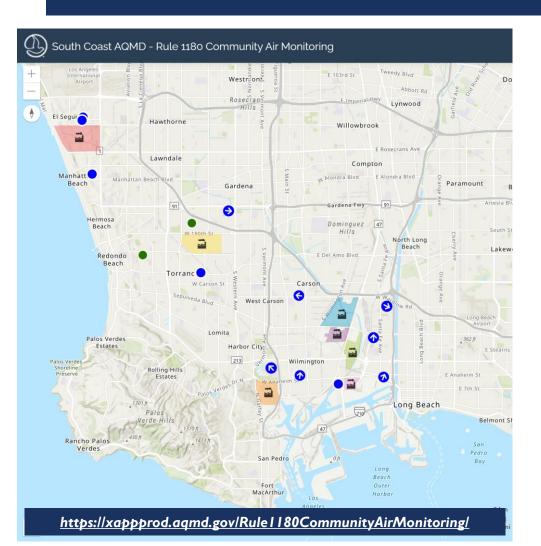
RULE 1180 RESOURCES - www.aqmd.gov/Rule 1180

- Latest updates on Rule 1180 Community and Fenceline Air Monitoring
- Important documents
 - Refinery Fenceline Air Monitoring Plans and related Quality Assurance Project Plans
 - Community Air Monitoring Plan
 - Presentations from earlier meetings
- Submit questions or comments
- Link to the Rule 1180 Data Portal
- Announcements for Community Meetings
 - Next meeting in early Fall 2020
- Link to sign-up for notifications (available soon)





RULE 1180 AIR MONITORING DATA PORTAL



Community Air Monitoring

- View current levels of pollutants at each community site
- View historical data trends
- Data download
- Frequently Asked Questions

Refinery
Fenceline Air
Monitoring

- Links to each refinery fenceline air monitoring portal
- Future plans for integration of refinery air monitoring data

20

Rule 1180 community air monitoring data in WCWLB community will also available through the AB 617 air monitoring website soon

COMMUNITY AIR QUALITY NOTIFICATIONS

Instrument Detection **Capabilities**

Notify the public when levels of pollutants at the fenceline and in the community exceed health-based thresholds

I-hr rolling averages updated every 5 minutes

I hour **Acute OEHAA RELs or NAQS or** CAAOS (whichever is lower)

No exceedance levels were measured at Rule 1180 community air monitoring sites so far

> Two valid H₂S notifications; five false benzene, carbonyl sulfide, 1,3 butadiene notifications issued by the refineries



Example of a Notification Email

Levels of Benzene (VOC or other pollutants) have exceeded a 1-hour standard or short-term health

An air pollution monitor located at Elm Avenue Community Air Monitoring Station measured high levels of Benzene (VOC or other pollutant

Identify the pollutant and concentration

This notification is for information purposes only In the event of an emergency, please refer to your City or County's emergency notices

of the pollitant and associated kely to experience health effects. When a threshold is exceeded, it does not necessarily on that you face significant health risks. However, it does increase the likelihood of ing health effects. These thresholds are meant to be conservative, to protect children.

der adults, and people with certain health conditions, who may be more sensitive to the

ever, while levels of this chemical are high you can stay indo ctivity to reduce how much of this chemical you breathe in. Y are sensitive to the effects of this chemical, so pregnant v

do you find it? Benzene in the atmosph and manufacture items such as rubbe in indoor environments and is a sign

Why measure it? Benzene

ources of benzene include volc-

lung irritation

he exposure are related to anemia and effects on the bone marrow. Benzene is classified as a

and gasoline vapors. It is also widely used to make other chemicals

esticides. Cigarette smoke is responsible for most of the benzene found

second only to diesel exhaust as a cancer-causing pollutant in the LA Basin. While

What concentration

cally found in air in the South Coast Air Basin?

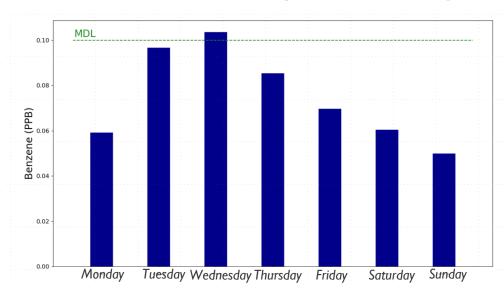
For more information about how the thresholds were determined, please refer to the South Coast AQMD Rule 1180 Refinery Fenceline Air Monitoring Notification Guidelines Rule 1180 Community Air Monitoring For questions regarding air monitoring or air quality, call South Coast AQMD at 1-800-CUT-SMOG

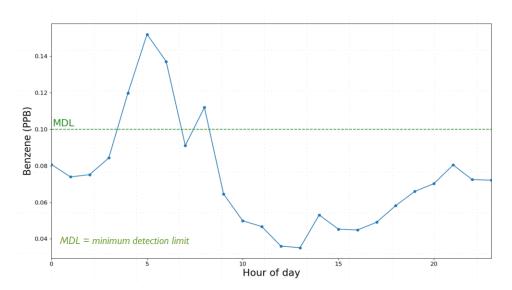
AQ Priority: Refineries

*Staff is actively working with each refinery to improve data QA/QC and minimize false detections

COMMUNITY AIR MONITORING DATA AT A GLANCE

Hudson Community Air Monitoring Station average concentrations (April – July 2020)





- Benzene levels were generally low
 - ~80% of Auto-GC and ~100% of UV-DOAS data were below instruments' detection limits
- All hourly benzene concentrations were below OEHHA acute 1-hour Relative Exposure Limit (REL) of 8 ppb
- The highest benzene level (5.3ppb; I-hour average) was recorded on 5/5/2020 at 7am at Leeward Bay site



DISCUSSION

Comments, Suggestions, Questions

Please contact:
Olga Pikelnaya
opikelnaya@aqmd.gov
909-396-3157







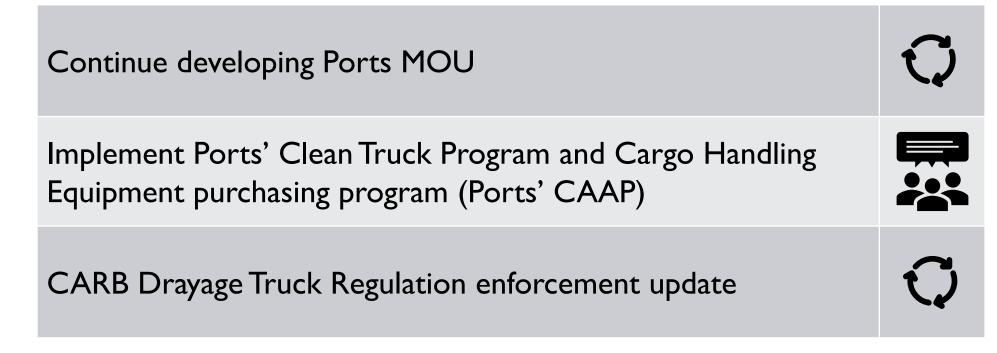
AIR QUALITY PRIORITY: PORTS

DR. SARAH REES ASSISTANT DEPUTY EXECUTIVE OFFICER



CERP COMMITMENTS

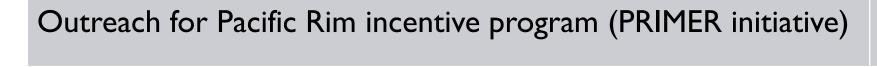
Chapter 5c, Action 3





CERP COMMITMENTS

Chapter 5c, Action 2





Partnerships with Asian port regions for clean OGV incentives



Initiate process to work with local public health departments to develop outreach materials



Demonstration project updates for ships and harbor craft







SOUTH COAST AQMD PORTS MOU

- Ports MOU under development based on CAAP measures over last two years
 - Clean Truck Program identified as the only CAAP measure with a performance target (\$10/TEU) and quantifiable reductions
 - Last MOU working group meeting in December 2019
- MOU development has stalled because of the Ports delays in the adoption and implementation of Clean Trucks Program. Remaining issues:
 - Clean truck fund rate exemptions
 - Tariff for truck rate
 - Details about the structure of incentive program for NZE and ZE port trucks
 - Uncertainty about timing to start rate collection and incentive program





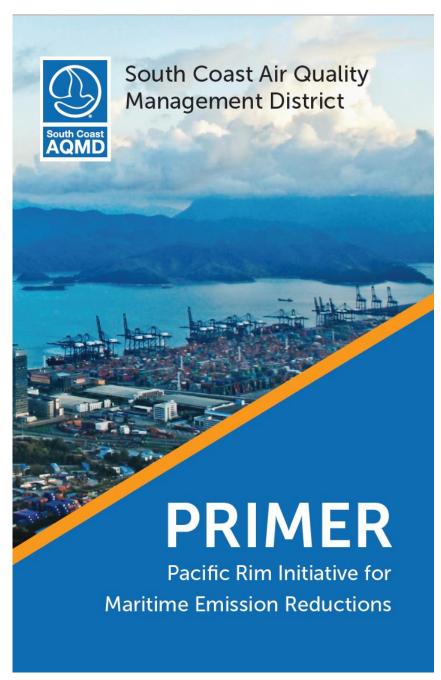
SOUTH COAST AQMD PORTS MOU (CONTINUED)

- South Coast AQMD/CARB discussions with Ports staff on the possible framework of an incentive program
 - Necessary to quantify potential emission reductions for inclusion into the Ports MOU
 - Outreach to other stakeholders

Contact

Zorik Pirveysian Planning and Rules Manager 909-396-243 | zpirveysian@aqmd.gov





PRIMER INITIATIVE

- Coordinated efforts to incentivize cleaner ocean-going vessels (OGV) on trans-Pacific routes
 - OGV emissions largely regulated through international treaties (via International Maritime Organization)
 - OGV NOx-abating technologies require significant capital investment but also large NOx reduction benefits per \$ invested

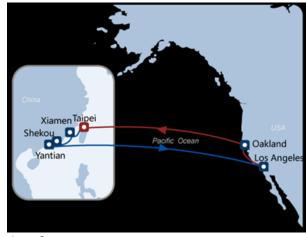
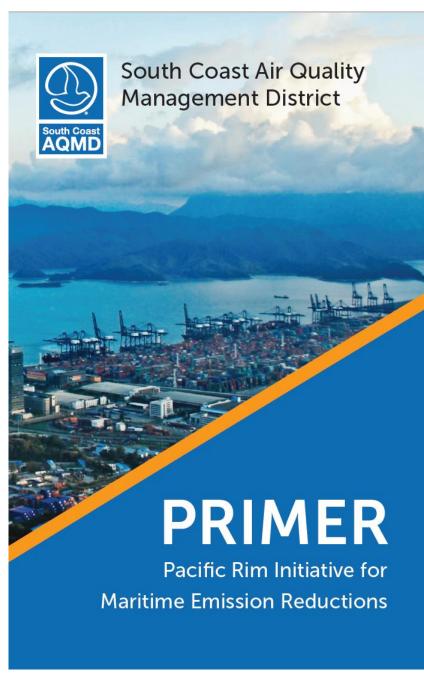


Image Source: http://lines.coscoshipping.com/home/Services/route/11





PRIMER INITIATIVE (CONT'D)

- Ongoing engagement with Chinese, Japanese, and South Korean authorities to build formal partnerships
 - A cleaner OGV partnership MOU is under discussion with Shenzhen (world's 4th largest container port complex)
- Ongoing outreach & collaboration with the industry
 - Initiated NOx-abating technology demonstration projects
 - Seeking input from ocean carriers for PRIMER framework development
 - Conducting technical analyses to understand ship routing behavior and optimize potential incentive amounts

Contact

Elaine Shen, Program Supervisor



CSC Member Stipends

NEXT STEPS

Future Announcements

- Newsletters
- Continue CERP implementation
- Finalize Annual Progress Report

Future Meeting

- Tentatively October 29, 2020 (virtual)
- AQ Priority Updates & Agenda Topics
 - □ What would you like to hear about? (i.e., Enforcement updates)
- Other topics?



CSC Member Update

Public Comment

SOUTH COAST AQMD CONTACTS: WCWLB



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