# NOTICE OF SPECIAL MEETING
OF THE GOVERNING BOARD

Day One: May 9, 2019 - 1 p.m. - 5 p.m.
Day Two: May 10, 2019 - 9 a.m. - 12 p.m.

Renaissance Indian Wells • Crystal Ballroom
44400 Indian Wells Lane, Indian Wells, CA 92210

## AGENDA

It is expected that items 1 through 4 will be completed on Day One. However, items may be taken in any order and items may be heard on either day.

<table>
<thead>
<tr>
<th>Day One</th>
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</table>
| • Welcome | Dr. William A. Burke  
Chairman |
| 1 Overview of South Coast AQMD’s Compliance and Enforcement Program | Marian Coleman, Terrence Mann  
DEO/Compliance & Enforcement  
909.396.2415  
ADEO/Compliance & Enforcement  
909.396.3023 |
|   Staff will provide an overview of the Compliance and Enforcement program and new approaches to enforcement through team restructuring, use of technology, automation, training and collaboration. Information will also be presented regarding new techniques used to enhance inspections and streamline reports to increase efficiency. |   |
| 2 Sacramento Legislative Efforts | Derrick Alatorre  
DEO/Legislative, Public Affairs & Media  
909.396.3122 |
<p>|   South Coast AQMD’s legislative consultants will provide an oral report on efforts and future steps related to key legislation this year. (No Written Material) |   |</p>
<table>
<thead>
<tr>
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</table>
| 3 | Implementation of AB 617 | Philip Fine  
DEO/Planning,  
Rule Development & Area Sources  
909.396.2239 |
|   | Staff will provide an update on the implementation of AB 617 in the three communities designated for the first year of the program, and an overview of the process and timeline for recommending communities for the second year of the AB 617 program. |   |
| 4 | Update on Pacific Rim Initiative for Maritime Emission Reductions (PRIMER) | Sarah Rees  
ADEO/Planning,  
Rule Development & Area Sources  
909.396.2856 |
|   | The PRIMER concept is an approach to achieve NOx emission reductions in the shipping sector through international partnerships on incentive programs. Staff will provide an overview of the concept and report on efforts conducted to date. |   |
|   |   |   |
| **Day Two** |   |   |
| 5 | Impacts of Climate Change on Criteria Pollutants | Darrell Winner, Ph.D.  
Air and Energy National Research Program  
Environmental Protection Agency |
|   | Dr. Winner will provide a presentation on the impacts of climate change on criteria pollutants. *(No Written Material)* |   |
| 6 | Progress Towards Meeting Upcoming Air Quality Deadlines | Philip Fine  
DEO/Planning,  
Rule Development & Area Sources  
909.396.2239 |
|   | An update will be provided on progress towards meeting upcoming air quality goals, including rule development, incentive funding, and other ongoing work. |   |
| 7 | Update on South Coast AQMD Environmental Justice Efforts | Derrick Alatorre  
DEO/Legislative,  
Public Affairs & Media  
909.396.3122 |
|   | A summary of Environmental Justice events and other activities will be provided. |   |
| 8 | Information Management's Innovation and Cyber Security | Ron Moskowitz  
ADEO/Information Management  
909.396.3329 |
|   | Staff will provide an update on key Information Management projects, both current and future. These projects highlight significant aspects of South Coast AQMD’s information technology progression. |   |
### Public Comment

*Members of the public may address the Governing Board concerning any agenda item before or during consideration of that item (Govt. Code Section 54954.3). Speakers will be limited to three (3) minutes or less on each agenda item. At a special meeting, no other business may be considered. The agenda for this meeting is posted at South Coast AQMD Headquarters, 21865 Copley Drive, Diamond Bar, CA, and at 44400 Indian Wells Lane, Indian Wells, CA, at least 24 hours in advance of the meeting.*

### Adjournment

### Document Availability

*All documents (i) constituting non-exempt public records, (ii) relating to an item on the agenda, and (iii) having been distributed to at least a majority of the Governing Board after the agenda is posted, are available prior to the meeting for public review at the South Coast Air Quality Management District Clerk of the Boards Office, 21865 Copley Drive, Diamond Bar, CA 91765, and will also be available at the Retreat site (44400 Indian Wells Lane, Indian Wells, CA 92210) on the days of the meeting.*

### Americans with Disabilities Act

*The agenda and documents in the agenda packet will be made available, upon request, in appropriate alternative formats to assist persons with a disability [Govt. Code Section 54954.2(a)]. Disability-related accommodations will also be made available to allow participation in the Board Retreat. Any accommodations must be requested as soon as practicable. Requests will be accommodated to the extent feasible. Please contact Clerk of the Boards at 909-396-2500 from 7 a.m. to 5:30 p.m. Tuesday through Friday, or send the request to cob@aqmd.gov.*
South Coast AQMD’s Compliance & Enforcement Program

Governing Board Retreat
May 2019
Overview of the Office of Compliance & Enforcement (OCE)

I. Recent History

II. The Current Compliance Program

III. The Future of Enforcement
I. Recent History

• Created in June 2016
  • Previously part of Engineering & Compliance
  • New DEO and 2 manager positions added
  • Streamlined processes, such as approvals for violations
• Digitizing compliance resources
  a) Rule 1403 asbestos web app
I. Recent History (cont.)

b) Daily inspector activity reporting now electronic
Currently OCE consists of 131 staff members
II. Current Compliance Program

• Over 27,000 permitted sources

• More than 10,000 public complaints annually

• 83 inspectors
II. Current Compliance Program (cont.)

- Geographic coverage of 68 sectors, plus facility-specific teams and subject matter expertise
Distribution of Facilities with Active Permitted Equipment
April 2019
Concentration of Complaints Received
Calendar Year 2018
Key Compliance Activities

• 364 Title V Major Sources
• 267 RECLAIM Facilities
• 7 Oil Refineries
• 108 Chrome Facilities
• Over 13,000 PERP Units
• Largescale Investigations
Inspection Trends
2016 to 2018

NOTICES TO COMPLY
- 2016: 3,685
- 2017: 3,406
- 2018: 3,578

NOTICES OF VIOLATION
- 2016: 664
- 2017: 1,432
- 2018: 2,491

ALL INSPECTIONS
- 2016: 21,509
- 2017: 22,972
- 2018: 24,556

April 26, 2019; CAR
Continued Emphasis on Technology

- Web-based complaint submission
- Upgrading Rule 1403 asbestos web app
- Digital document submission system
- Expanded use of investigative technologies
Enhanced Inspector Training

- First Responder Operations (FRO)
- Hazardous Waste Operations and Emergency Response (HAZWOPER) 40-hour certification
- AHERA (Asbestos)
- Defensive Driving
- CARB Courses
- Task Force/Criminal Investigations
Key Challenges & Efforts to Address

• Asbestos notifications and widespread noncompliance

• Non-Title V inspections

• Lost access to carpool lane
The Future of Enforcement

New initiatives/approaches:

- Asbestos Strike Force
- Complaint Resolution Team
- Coastal Odor Investigations
Current statistics do not capture all compliance activities

Additional rule requirements and outreach

Evaluating new metrics
Interagency Partnerships
The AB 617 Challenge

• Year One Communities:
  1. Wilmington, Carson, and West Long Beach
  2. East Los Angeles, Boyle Heights, and West Commerce
  3. San Bernardino and Muscoy

• Community Steering Committees

• Extent of new obligations not yet determined

• Anticipate 1-2 more communities in Year Two
Conclusions

- Significant changes and improvements over last 3 years
- Continuing to evolve and modernize
- Going forward... **Build, Connect, Lead!**
Implementation of AB 617

Governing Board Retreat
May 2019
Key Milestones and Activities for Year 1 Communities

**Activities**

**2018**
- Outreach
- Community Selection

**2019**
- Community Steering Committees
- Air Monitoring and Emission Reduction Plans

**2020**
- Plan Implementation
- Track Progress

**Milestones**

**Sept 2018**
- CARB set *statewide strategy* (select Year 1 communities, guidelines, benchmarks)

**July & Sept 2019**
- Deadline for SCAQMD to *begin air monitoring*
- Deadline for SCAQMD to *adopt emissions reduction plans*
3 SCAQMD Communities Approved by CARB for Year 1

- Wilmington, Carson, West Long Beach
- San Bernardino, Muscoy
- Boyle Heights, East Los Angeles, West Commerce
Community Steering Committees (CSCs)

- Committees were formed for each of the 3 communities
- Monthly meetings
- Participation has been very good

Members include:
- Active residents and community leaders
- Local business owners or workers, labor unions
- Community organizations
- Local agencies
- Schools
- Hospitals
- Elected officials

Land use agencies represented:
Community Steering Committee Meetings

Community Bus Tour
Making Progress

Community Reported Air Quality Concerns

Air Quality Concern Prioritization

Strategies and Proposed Actions for Reported Air Quality Concerns (Part 1)

Draft Air Monitoring Plan

Draft Community Emissions Reduction Plan

Begin Monitoring, Committee Consideration

Strategies and Proposed Actions for Reported Air Quality Concerns (Part 2)

Draft Air Monitoring Plan available for public input, submit to CARB staff

Board Hearing

November, December, January, February, March, April, May, June, July, August, September
Community Steering Committees - Progress to Date

- ~140 Community Steering Committee Members and Alternates
- 19 Community Meetings* held 60 to 150 attendees each
- 19 Additional meetings scheduled in 2019
- ~270 Potential Actions Identified

*3 Kickoff Meetings, 15 Steering Committee Meetings, 1 Technical Advisory Group Meeting
<table>
<thead>
<tr>
<th>Issue</th>
<th>Our approach</th>
</tr>
</thead>
</table>
| Ensure community voices are heard                                    | • Invite Committee presenters  
• Cohost-led meetings  
• Community testimony, community bus tour |
| Need more time for Committee discussion; Staff presentations too long | • Provide slides prior to meetings as reference material  
• Shortened presentations and allow for more discussion and Q&A |
| Potential conflicts of interest                                      | • Asked for member biographies                                               |
| Materials need to be made available sooner                          | • Hire and train additional staff to alleviate workload                      |
| Process feels rushed, need more time for discussing concerns         | • Individual meetings and discussions with committee members  
• Staff make themselves available after each meeting to discuss concerns |
| Need to provide information about resources for businesses           | • Conduct outreach to business community  
• Can include this as an action in the CERP                                 |
Positive Feedback from CSC Meetings

RE: having a cohost:
I am really pleased to see the co-host leading this meeting, and that he is a community member from this community, so huge congrats to SCAQMD for asking him to lead.

RE: committee membership:
A general realization of the importance of having diverse stakeholders (e.g. community organizations, businesses, etc) in these conversations.

RE: Spanish language materials:
I’m very thankful that you are providing all the materials in Spanish, and I can understand everything that goes on because it is all translated.

I want to thank the AQMD staff for working really hard to assure us that community voices are being heard in an effective way.

I would like to thank the AQMD team for their commitment and work to provide members of the committee with the materials and resources to productive discussions. I have learned so much during this process.
Air Quality Priority Areas:
• Refineries
• Ports
• Neighborhood Truck Traffic
• Oil drilling/production
• Rail
• Schools

Examples of Proposed Actions:
• Rule development for refinery equipment
• Improved notification systems/messaging
• Identify leaks using mobile monitoring, with enforcement follow-up
• Truck idling sweeps
• Oil tanker leak investigations
• Focused incentives to replace old diesel engines
• School air filtration
San Bernardino, Muscoy

Air Quality Priority Areas:
- Neighborhood Truck Traffic, especially Warehouse-related
- BNSF Rail Yard
- Warehousing
- Omnitrans
- Cement manufacturing facilities
- Schools

Examples of Proposed Actions:
- FBMSM for warehouses and rail yards
- Truck idling sweeps
- Focused incentives to replace old diesel engines
- Identify leaks using monitoring, with enforcement follow-up
- Fugitive dust outreach and enforcement
- School air filtration
East Los Angeles, Boyle Heights, West Commerce

Air Quality Priority Areas:
• Traffic on Freeways, Intersections, Major Roadways
• Warehouse/Distribution Centers
• Rail Yard Emissions
• Schools, parks, & community centers
• Metal processing facilities
• Rendering plants
• Toxic waste/household waste facilities
• Auto body shops

Examples of Proposed Actions:
• FBMSM for warehouses and rail yards
• Truck idling sweeps
• Focused incentives to replace old diesel engines
• Rule development for toxic metals
• Outreach to small businesses
• Permit cross-checks
• School air filtration
Continuing Work and Remaining Issues

1. Effective collaborations and discussions with committee members to write actions into plans
2. Effective collaborations with other agencies
3. ZE technology availability, and how to encourage users to adopt
4. Land use elements – buffers, conditional use permits, truck routes
   • Warehouses
   • Oil drilling sites
   • Other industrial sites
Year 2 Community Selection for AB 617 – Build on Prior Year’s Efforts

Year 1 Outreach and Technical Work

Year 2 Approach

Outreach

Nominations

New Information

Summary Methods and Criteria for Community Prioritization

1. **All communities in consideration for AB 617**

2. **Separate by air basin**

3. **Apply screening criteria**

4. **Evaluate additional factors**

5. **Consider selection criteria for Year 1 communities**

Community Recommendations for AB 617 Implementation

Final Submittal from South Coast AQMD

55 Communities Identified
Year 2 Outreach Meetings to Discuss AB 617 Community Selection

- May 29 - Colton
- May 22 - Buena Park
- Feb 22 - North Shore
- June - TBD

Locations:
- Los Angeles
- San Bernardino
- Orange
- Riverside
Community Nominations – Key Elements

- A community that:
  - Is a disadvantaged community with local air pollution issues
  - Is organized and engaged around air pollution issues
  - Demonstrates experience and willingness to work with government agencies, organizations, business or business organizations, schools, hospitals, etc.
  - Demonstrates progress with science-based community air pollution projects, such as community air sensors projects or community plan development
Next Steps

➢ May 2019 – Draft Community Air Monitoring Plans available for public input
➢ May-July 2019 – Draft Community Emissions Reduction Plans (CERPs) with steering committees, make available for public input
➢ May-June 2019 – Year 2 Community Selection outreach and evaluations
➢ September 2019 – Board hearing to consider Year 1 CERPs and Year 2 Community Selection
Pacific Rim Initiative for Maritime Emission Reductions (PRIMER)

Governing Board Retreat

May 2019
Overview

• The importance of ship emissions and regulatory context
• Discussion of PRIMER concept and current status
• Opportunities for vessel engine retrofits & technology demonstration projects
• Next steps
Importance of Ship Emissions

Top 5 NOx Categories in Ports of LA/LB 2015

- **Ocean Going Vessels**: 53%
- **Trucks**: 20%
- **Locomotives**: 10%
- **Cargo Handling Equipment**: 7%
- **Harbor Craft**: 10%

**Top 5 NOx Categories in South Coast 2012 and 2023**

<table>
<thead>
<tr>
<th>Category</th>
<th>2012 NOx emissions (tons/day)</th>
<th>2023 NOx emissions (tons/day)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heavy-duty Diesel Trucks</td>
<td>80</td>
<td>60</td>
</tr>
<tr>
<td>Off-road Equipment</td>
<td>60</td>
<td>70</td>
</tr>
<tr>
<td>Ships &amp; Commercial Boats</td>
<td>50</td>
<td>60</td>
</tr>
<tr>
<td>Passenger Cars</td>
<td>40</td>
<td>30</td>
</tr>
<tr>
<td>Light-duty Trucks</td>
<td>30</td>
<td>20</td>
</tr>
</tbody>
</table>

Shipping is the only category with a projected increase in NOx emissions.
Challenges in Addressing Ship Emissions

Limited Regulatory Authority

- Mobile sources are subject to CARB and EPA regulatory authority
- Emissions from shipping are subject to international authority (IMO)

Current International Regulations are Insufficient

- Require cleaner vessels (Tier 3 engines) in Emission Control Areas (ECAs) for vessels built after 2016
- Very few Tier 3 vessels being produced due to slow fleet turnover and glut in pre-2016 keels
Current IMO Regulations for NOx

- Established classification of engines required for vessels based on year built

<table>
<thead>
<tr>
<th>Year Built</th>
<th>Engine Tier</th>
<th>NOx Emissions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-2000</td>
<td>Tier 0</td>
<td>uncontrolled</td>
</tr>
<tr>
<td>2000</td>
<td>Tier 1</td>
<td>9.8-17 g/Kwh</td>
</tr>
<tr>
<td>2011</td>
<td>Tier 2</td>
<td>15% cleaner than Tier 1</td>
</tr>
<tr>
<td>2016</td>
<td>Tier 3</td>
<td>75% cleaner than Tier 2</td>
</tr>
</tbody>
</table>
Current Emission Control Areas

- Imposes requirements within 200 nautical miles of an ECA
  - SOx: requires low sulfur fuel
  - NOx: requires vessels built after 2016 to meet Tier 3 engine standards
- North Sea and Baltic ECA will add NOx requirements in 2021

Chinese emission control zones for SOx; recently added NOx
Issue: Few Tier 3 Vessels are Being Built

- Tier 0-2 vessels are not restricted from entering ECAs
- Limited number of Tier 3 vessels built thus far and on order
- There is a surplus of pre-2016 keels; new vessels are being constructed on these keels
- Both San Pedro ports have incentive programs in place to attract Tier 3 vessels
  - Has not resulted in calls by Tier 3 vessels
  - In 2016, 79% of vessel calls were Tier 0 or Tier 1
  - Tier 3 vessels not projected until 2030s and 2040s
Regulations – Existing and Proposed Statewide Requirements for At-Berth Emissions

• CARB’s Existing Regulation
  • Applies to fleets of container, reefer, and cruise ships
  • Requirements for ships to use shore power or approved alternative technologies
    • 50% by 2015, 70% by 2017, 80% by 2020

• CARB’s Proposed Regulation (latest proposal)
  • 100% of visits in 2021 for regulated vessel types (80% control)
  • New requirements for other vessel types
    • Auto Carrier and Ro-Ro – 100% in 2025 (80% control)
    • Tankers – 100% in 2025 (50% control); 100% in 2031 (80% control)
  • New infrastructure requirements for terminal operators and ports
CARB’s current and proposed regulations reduce emissions from hoteling and anchoring, but not transiting and maneuvering.
Concept – Partner with Asian ports on shared routes to incentivize cleaner vessels on these routes

Sample route – CMA CGM between China and U.S. Pacific Coast
Pacific Rim Initiative for Maritime Emission Reduction (PRIMER)

- Identify top ports in China that are on the same routes as Ports of LA/LB
- Collaborate with regional authorities/ports/shipping lines to develop a joint program where each participating port provides an incentive for a call by a cleaner vessel
- Each port’s individual incentive is then leveraged to encourage changes in shipping behavior
  - Re-routing of existing Tier 3 vessels
  - Encourage construction of Tier 3 vessels on pre-2016 keels
  - Encourage retrofits of existing vessels cleaner than Tier 2

Preliminary estimates are very cost-effective for NOx emission reductions
Frequent Caller (>5) Container Vessels at Ports of LA/LB and Key Asian Ports in 2016
OGV Emissions by Vessel Type at Ports of LA/LB (2016)
OGV Emissions by Engine Type at Ports of LA/LB (2016)

- Main Engine: 49%
- Auxiliary Engine: 44%
- Auxiliary Boiler: 7%
Challenges

• Behavioral
  • Need to better understand current shipping behavior and business models
  • Tailor incentives so that they are sufficient to change behavior

• Technology
  • Identify feasible retrofit technologies and costs
  • Technology demonstration projects

• Emission trade-offs
  • Avoid GHG disbenefit associated with some retrofit technologies
PRIMER Current Status

Engagement with China
• August 2018: met with officials from the central government in Beijing and local officials in Hong Kong and Shanghai
• January 2019: met with officials in Shenzhen and presented at International MoVE 2019 Workshop in Chengdu, China

Technical analysis to support the concept
• Data analysis to understand shipping patterns
• Hired consultant for cost-optimization work

Held Technology Forum for OGV retrofits
• Convened engine manufacturers, shipping lines, ports and other stakeholders to discuss retrofit technology
• Secured commitment for a technology demonstration project
Potential OGV Retrofit Technologies

- **Selective Catalytic Reduction**
  - Urea solution used as reducing agent
- **Exhaust Gas Recirculation**
  - Recirculated exhaust air lowering peak combustion temperature
- **Fuel/Water Emulsification**
  - Water mixed into the fuel
- **Humid Air Motor**
  - Heated intake air saturated with water vapor
- **Direct Water Injection**
  - Water directly injected into the combustion cylinder
- **Battery/Hybrid**
Technology Demonstration Projects

• SCAQMD in discussions with MAN Energy Solutions and Wartsila on potential demo projects

• Draft proposal received from MAN Energy Solution for first retrofit technology demonstration project
  • Water/Fuel Injection technology for both main and auxiliary engines with 40% NOx reduction target
  • Shipping line confirmed participation (CMA CGM)
  • Details are being finalized (vessel identification, funding)
  • Schedule: 2019-2021

• Additional proposals for other technologies expected soon
Next Steps

• Research & information gathering
  • Better understand how shipping lines route vessels and factors that influence their decisions
  • Collect information on feasible technologies & costs
  • Identify and work with key industry partners

• Continue building relationships with key Asian partners
  • Meeting/information exchange
    • Initial emphasis on Shenzhen, Hong Kong, and Shanghai
    • Official communication platforms to be established
  • Collaboration with other US agencies
    • US EPA: US-China Green Ports and Vessels Initiative
    • POLA/POLB: US-China sister ports
Progress Towards Meeting Upcoming Air Quality Deadlines

Governing Board Retreat
May 2019
## Upcoming Deadlines to Attain National Standards

<table>
<thead>
<tr>
<th>Standard</th>
<th>Concentration</th>
<th>Classification</th>
<th>Attainment Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006 24-hour PM2.5</td>
<td>35 ug/m³</td>
<td>Serious</td>
<td>2019</td>
</tr>
<tr>
<td>1979 1-hour Ozone</td>
<td>120 ppb</td>
<td>Extreme</td>
<td>2022</td>
</tr>
<tr>
<td>1997 8-hour Ozone</td>
<td>80 ppb</td>
<td>Extreme</td>
<td>2023</td>
</tr>
<tr>
<td>2012 Annual PM2.5</td>
<td>12 ug/m³</td>
<td>Serious</td>
<td>2025</td>
</tr>
<tr>
<td>2008 8-hour Ozone</td>
<td>75 ppb</td>
<td>Extreme</td>
<td>2031</td>
</tr>
<tr>
<td>2015 8-hour Ozone</td>
<td>70 ppb</td>
<td>Extreme</td>
<td>2038</td>
</tr>
</tbody>
</table>
Ozone Trend in SCAB
PM2.5 Trend in SCAB
Future NOx Emissions and Reduction Goals

![Graph showing future NOx emissions and reduction goals. The graph illustrates a reduction in NOx emissions from 2012 to 2031. In 2023, there is a 45% reduction compared to the baseline, and in 2031, there is a 55% reduction compared to the baseline. The graph compares baseline emissions with carrying capacity emissions.]
2016 AQMP - Overall Control Strategy (NOx)

SCAQMD Measures:
- Stationary Source
- Localized Mobile Sources
- Regulatory Paths
- Incentives Components

CARB Measures:
- Mobile Sources (On-Road, Off-Road)
- Consumer Products
- Regulatory Paths
- Incentives Components
- Efficiency Gains
NOx Trend for Major Source Categories

South Coast Air Basin NOx Emissions

NOx Emissions (tons per day)

- Heavy-Duty Trucks and Buses
- Aircraft
- Trains
- OGV
- Off-road Equipment
NOx Emission Reductions Progress (tons per day)

1997 Baseline - 1144
2012 Baseline - 524
2023 Baseline - 269
Carrying Capacity for 8-hour ozone - 141
2016 AQMP Continued Implementation

- **Rule/Regulation Adoption/Amendments**
  - Stationary and Mobile Sources
- **Policy Development**
  - Facility-Based Mobile Source Measures
  - ISR/MOU
  - New Incentive Programs
  - Ongoing Incentive Funding Efforts
  - Incentive RFP Project Awards
  - Lifecycle Analysis for Stationary Applications (NEAT model)
  - Electrification, Solar, Cleaner Technologies
Control Measures Adopted Since 2016 AQMP Approval

<table>
<thead>
<tr>
<th>AQMP Control Measure</th>
<th>SCAQMD Rule</th>
<th>Adoption Date</th>
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</thead>
<tbody>
<tr>
<td>Further Emission Reductions from Coatings, Solvents, Adhesives, and Sealants (CTS-01)</td>
<td>Rule 1168 – Adhesive and Sealant Applications</td>
<td>October 6, 2017 (1.4 tpd VOC)</td>
</tr>
<tr>
<td>Control of Metal Particulate from Metal Grinding Operations (TXM-01)</td>
<td>Rule 1430 - Control of Emissions from Metal Grinding Operations at Metal Forging Facilities</td>
<td>March 3, 2017</td>
</tr>
<tr>
<td>Control of Toxic Metal Particulate Emissions from Contaminated Soil (TXM-04)</td>
<td>Rule 1466 - Control of Particulate Emissions from Soils with Toxic Air Contaminants</td>
<td>July 7, 2017</td>
</tr>
<tr>
<td>Control of Lead Emissions from Stationary Sources (TXM-07)</td>
<td>Rule 1420 - Emissions Standard for Lead</td>
<td>December 1, 2017</td>
</tr>
</tbody>
</table>
## Control Measures Adopted Since 2016 AQMP Approval

<table>
<thead>
<tr>
<th>AQMP Control Measure</th>
<th>SCAQMD Rule</th>
<th>Adoption Date</th>
</tr>
</thead>
</table>
| **Further NOx Reductions from RECLAIM Assessment (CMB-05)**| Rule 1146 – Emissions of Oxides of Nitrogen from Industrial, Institutional and Commercial Boilers, Steam Generators, and Process Heaters  
Rule 1146.1 – Emissions of Oxides of Nitrogen from Small Industrial, Institutional and Commercial Boilers, Steam Generators, and Process Heaters  
Rule 1146.2 – Emissions of Oxides of Nitrogen from Large Water Heaters and Small Boilers and Process Heaters | December 2018 (0.27 tpd NOx)                                                 |
| **Further NOx Reductions from RECLAIM Assessment (CMB-05)**| Rule 1135 – Emissions of Oxides of Nitrogen from Electric Power Generating Facilities | November 2018 (1.8 tpd)                                       |
| **Emission Reductions from Non-Refinery Flares (CMB-03)**   | Rule 1118.1 – Control of Emissions from Non-Refinery Flares                    | January 2019 (0.2 tpd)                                      |
| **Further NOx Reductions from RECLAIM Assessment (CMB-05)**| Rule 1134 – Emissions of Oxides of Nitrogen from Stationary Gas Turbines      | April 2019 (2.8 tpd)                                       |
# Current SCAQMD Stationary Source Control Measure / Rule Development

<table>
<thead>
<tr>
<th>AQMP Control Measure</th>
<th>SCAQMD Rule</th>
<th>Adoption/Amendment Schedule</th>
</tr>
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<tbody>
<tr>
<td><strong>Further Emission Reductions from Coatings, Solvents, Adhesives and Sealants</strong></td>
<td>• Rule 1106 – Marine Coating Operations&lt;br&gt;• Rule 1106.1 – Pleasure Craft Coating Operations</td>
<td>• May 2019</td>
</tr>
<tr>
<td>(CTS-01)</td>
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</tbody>
</table>
| **Further NOx Reductions from RECLAIM Assessment**                                   | • Rule 1110.2 – Stationary Internal Combustion Engines<br>• Rule 1147.1 – Large Miscellaneous Combustion<br>• Rule 1109.1 – Refinery Equipment<br>• Rule 1147.2 – Metal Melting and Heat Treating Furnaces<br>• Rule 1117 – Glass Melting Furnaces<br>• Rule 1147.3 – Equipment at Aggregate Facilities<br>• Rule 1150.3 – NOx Reductions from Combustion Equipment at Landfills<br>• Rule 1179.1 – NOx Reductions from Combustion Equipment at Publicly Owned Treatment Work Facilities | • September 2019<br>• September 2019<br>• October 2019<br>• November 2019<br>• December 2019<br>• December 2019<br>• December 2019<br>• December 2019
## Current SCAQMD Stationary Source Control Measure / Rule Development

<table>
<thead>
<tr>
<th>AQMP Control Measure</th>
<th>SCAQMD Rule, Regulation, or Action</th>
<th>Adoption/Amendment Schedule</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improved Leak Detection and Repair (FUG-01)</td>
<td>• Rule 1142 – Marine Tank Vessel Operations</td>
<td>• October 2019</td>
</tr>
<tr>
<td>Emission Reductions at Commercial Marine Ports (MOB-01)</td>
<td>• Memorandum of Understanding (MOUs) with San Pedro Bay Ports</td>
<td>• November 2019</td>
</tr>
<tr>
<td>Emission Reductions at Commercial Airports (MOB-04)</td>
<td>• Memoranda of Understanding (MOUs) with Commercial Airports</td>
<td>• November 2019</td>
</tr>
<tr>
<td>Emission Reductions from Warehouse Distribution Centers</td>
<td>• Reg. XXIII – Indirect Source Regulation</td>
<td>• December 2019</td>
</tr>
</tbody>
</table>
## Current SCAQMD Stationary Source Control Measure / Rule Development

<table>
<thead>
<tr>
<th>AQMP Control Measure</th>
<th>SCAQMD Rule</th>
<th>Adoption/Amendment Schedule</th>
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</thead>
<tbody>
<tr>
<td>Air Toxics Rules</td>
<td>• Rule 1407 - Arsenic, Cadmium and Nickel from Non-Ferrous Metal Operations</td>
<td>• September 2019</td>
</tr>
<tr>
<td>Air Toxics Rules</td>
<td>• Rule 1480 - Toxics Monitoring</td>
<td>• September 2019</td>
</tr>
<tr>
<td>Air Toxics Rules</td>
<td>• Rule 1410 - Hydrogen Fluoride Use at Refineries</td>
<td>• November 2019</td>
</tr>
<tr>
<td>Air Toxics Rules</td>
<td>• Rule 1435 - Metal Heat Treating Processes</td>
<td>• November 2019</td>
</tr>
<tr>
<td>Air Toxics Rules</td>
<td>• Rule 1426 - Metal Finishing Operations</td>
<td>• December 2019</td>
</tr>
</tbody>
</table>
CARB Mobile Source Control Measures / Rule Development

• Adopted Measures
  • South Coast Incentive Measure (HD Vehicles) – March 2018
    • 1,300 drayage / refuse trucks
    • 1 tpd of NOx reductions in 2023 (out of 3 tpd commitment)
  • Innovative Clean Transit – December 2018
  • Zero-Emission Airport Shuttle Buses – February 2019 (first hearing)

• Upcoming Rule Activities
  • Advanced Clean Trucks – December 2019
  • Ocean-Going Vessels At-Berth – Q4 2019
  • HD Low NOx Engine Standards – Q1 2020
## Emission Reductions from Rules Adopted Since 2016

<table>
<thead>
<tr>
<th>Agency</th>
<th>Measure</th>
<th>2023 NOx Reductions (tpd)</th>
</tr>
</thead>
<tbody>
<tr>
<td>South Coast AQMD</td>
<td>Rule 1118.1 – Non-Refinery Flares</td>
<td>0.2</td>
</tr>
<tr>
<td>South Coast AQMD</td>
<td>Rule 1134 – Stationary Gas Turbines</td>
<td>2.8</td>
</tr>
<tr>
<td>South Coast AQMD</td>
<td>Rule 1135 – Electricity Generating Facilities</td>
<td>1.8</td>
</tr>
<tr>
<td>South Coast AQMD</td>
<td>Rule 1146 – Non-Refinery Boilers and Heaters</td>
<td>0.27</td>
</tr>
<tr>
<td>CARB</td>
<td>South Coast On-Road Heavy Duty Vehicle Incentive Measure</td>
<td>1.00</td>
</tr>
<tr>
<td>CARB</td>
<td>HD Diesel Vehicle Emission Control System Warranty</td>
<td>0.02</td>
</tr>
<tr>
<td>CARB</td>
<td>Low Carbon Fuel Standard and Alternative Diesel Fuels</td>
<td>0.20</td>
</tr>
<tr>
<td>CARB</td>
<td>Portable Engine ATCM and Registration Program</td>
<td>0.38</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td><strong>6.7</strong></td>
</tr>
</tbody>
</table>
2016 AQMP Measures with Incentive Components

Stationary Source Control Measures

• CMB-01 (Transition to Zero and Near-Zero Emissions Technologies for Stationary Sources)
• CMB-02 (Emission Reductions from Replacement with Zero and Near-Zero NOx Appliances in Commercial and Residential Applications)
• ECC-03 (Additional Enhancements in Reducing Existing Residential Building Energy Use)

Mobile Source Control Measures

• On-road (passenger vehicles, heavy duty trucks, etc.)
• Off-road (construction, lawn and garden, locomotive, etc.)

Need $1-2 Billion per year over ~13 years
Incentive Funding Since AQMP adoption (2017-2019)

• Federal Funding
  • Targeted Air Shed (2 grants) $9 M
  • EPA Diesel Emission Reduction Act $3 M
  Total: $12 M

• State Funding
  • AB 2766 Subvention Program $110 M
  • AB 134 – Community Air Protection Funds for Carl Moyer $108 M
  • South Coast Portion SB 856 $85 M
  • Carl Moyer $63 M
  • AB 923 – DMV $50 M
  • South Coast AQMD Special Funds $47 M
  • Mobile Source Air Pollution Reduction Review Committee $46 M
  • Enhanced Fleet Modernization Program $21 M
  • Prop 1B $18 M
  • Near-Zero Emission Trucks with CEC Grants and the Ports $12 M
  • Funding Agricultural Replacement Measures for Emission Reductions $4 M
  Total: $564 M
## Expected Future Incentive Funding (all values approximate)

- **AB 617-related**: $100 M/yr
- **Carl Moyer**: $60 M/yr
- **AB 2766 Subvention Fund**: $30 M/yr
- **VW Settlement**: $20-30 M/yr
- **Mobile Source Air Pollution Reduction Review Committee**: $20 M/yr

**Total**: $230-240/yr
Further Deployment of Advanced Technologies and CAA Section 182(e)(5)

✓ 2016 AQMP included measures for deployment of advanced cleaner technologies

➢ New federal and state regulatory actions
➢ System efficiencies
➢ Local authority/measures (e.g., facility-based measures)
➢ Incentives to accelerate deployment faster than regulations could achieve

• Federal CAA Section 182(e)(5) allows for anticipated development of new control techniques or improvement of existing control technologies for attainment demonstration in extreme areas

• Contingency measures required 3 years prior to implementation date (i.e., 2023 attainment date)
  • Provide full reductions assigned to 182(e)(5) measures
  • Measures already adopted
Contingency Measure Development Plan

- Accounting of NOx reductions achieved to date
  - Adopted CARB and South Coast AQMD measures since 2016 AQMP adoption
  - Proposed measures/programs to be adopted by end of 2019/early 2020
  - Incentive measures funded to date
- Additional reductions expected from new and anticipated sources of funding
- Identify remaining balance
  - Contribution of federal sources and federal responsibility
  - Measures for additional incentive funding, regulations, actions
- Due to U.S. EPA December 31, 2019
ENVIRONMENTAL JUSTICE

Equitable environmental policymaking and enforcement to protect the health of all residents, regardless of age, culture, ethnicity, gender, race, socioeconomic status, or geographic location, from the health effects of air pollution

-SOUTH COAST AQMD
WHAT LEADS TO ENVIRONMENTAL INJUSTICE?

NO VOICE
ENVIRONMENTAL JUSTICE AT THE SOUTH COAST AQMD

- Since joining the Board, Chairman Burke has made environmental justice (EJ) a top priority for the District

- In 1997, the South Coast AQMD adopted four guiding principles and 10 EJ initiatives. Since then, EJ has been interwoven into many initiatives at the District

- In 2009, the Governing Board restructured the Ethnic Community Advisory Council to the Environmental Justice Advisory Group (EJAG)

- In 2015, Chairman Burke launched the Environmental Justice Community Partnership (EJCP)
Guiding Principles of Environmental Justice

• All basin residents have the right to live and work in an environment of clean air, free of airborne health threats.

• Government is obligated to protect the public health.

Clean Air Ranger Education Program
Honey Hollow Elementary School
4/25/19
Guiding Principles of Environmental Justice

(continued)

• The public and private sectors have the right to be informed of scientific findings concerning hazardous and toxic emission levels, and to participate in the development and implementation of adequate environmental regulations in their communities.

• The Governing Board is to uphold the civic expectation that the public and private sectors of the basin will engage in practices that contribute to a healthy economy and truly livable environment.
Key To Environmental Justice

MEANINGFUL COMMUNITY INVOLVEMENT
ENVIRONMENTAL JUSTICE COMMUNITY PARTNERSHIP (EJCP)

Holmes United Methodist Church 3320 West Adams Blvd., Los Angeles, CA 90018
Free parking available onsite.
Free lunch will be served.

Tora Canyon Middle School 86-150 Avenue 66, Thermal, CA 92274
Free lunch will be served.
Free ChildCare will be provided.

San Bernardino Valley College Conference Room B 100 701 South Mountain Avenue San Bernardino, CA 92410

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

South Coast Air Quality Management District Environmental Justice Community Partnership invites you to attend

Our Voices, Our Lives, Our Air: A Community Conversation on Air Pollution and Health

In Partnership with California Air Resources Board, Ozone Action, and SCAQMD
Thursday, May 5, 2016, 10:00 AM — 1:00 PM

For more information, call: 909-396-3352

San Bernardino Valley College Conference Room B 100 701 South Mountain Avenue San Bernardino, CA 92410

Our Voices, Our Lives, Our Air: A Community Conversation on Air Pollution and Health

In Partnership with San Bernardino Valley College and Center for Community Action and Environmental Justice in San Bernardino, CA.
Thursday, June 30, 2016, 9:30 AM — 1:00 PM

For more information, call: 909-396-3352

San Bernardino Valley College Conference Room B 100 701 South Mountain Avenue San Bernardino, CA 92410
ENVIRONMENTAL JUSTICE
COMMUNITY PARTNERSHIP (EJCP)

You are invited to South Coast Air Quality Management District’s

Lunch & Learn Workshop
How Electric Vehicles Can Help Clean Our Air & Improve Public Health

Please join us to discuss the impact technology has in improving air quality, especially in environmental justice communities.

Thursday, August 9, 2018
12:30 PM – 2:30 PM
Lunch & Registration
California Community Foundation: Jean Polavsky Center
281 South Figueroa Street, Suite 100
Los Angeles, CA 90012

Complementary lunch and parking will be offered. Menus will include vegetarian options. Spanish translation will be available.

Registration Required
Email: ejcp@aqmd.infol
Phone: 855-396-2211
Web: www.envirojusticeworkshops2018.eventbrite.com

The South Coast Air Quality Management District invites you to:

ENVIRONMENTAL JUSTICE CONFERENCE
Technology’s Role in the Future of Environmental Justice

This conference is part of the Environmental Justice Initiative, which addresses the impact of climate change and environmental justice on communities.

Wednesday, September 26, 2018
11:30 A.M.– 5:00 P.M.
Lunch and Registration
California State University Dominguez Hills
1000 E. Victoria Street
Carson, CA 90745

Guest speakers from SCAG/SCAQMD will present on:
- Air pollution
- Electric vehicles
- Incentives available to the community
- AB 1597: Spanish translation will be available.

Registration Required
Email: ejcp@aqmd.infol
Phone: 855-396-2211
Web: www.envirojusticeworkshops2018.eventbrite.com

You are invited to South Coast Air Quality Management District’s

Lunch & Learn Workshop
How Electric Vehicles Can Help Clean Our Air & Improve Public Health

Please join the South Coast Air Quality Management District (SCAQMD) and this community to discuss how technology can improve air quality.

Thursday, August 30, 2018
11:30 A.M., Lunch & Registration
Reena Community Center
4103 Jackson Street
Riverside, CA 92503

Complementary lunch and parking. Menus will include vegetarian options. Spanish translation will be available.

Free Workshop
Registration Required
Email: ejcp@aqmd.infol
Phone: 855-396-2211
Web: www.envirojusticeworkshops2018.eventbrite.com

You are invited to South Coast Air Quality Management District’s

Lunch & Learn Workshop
How Electric Vehicles Can Help Clean Our Air & Improve Public Health

Please join the South Coast Air Quality Management District (SCAQMD) and this community to discuss how technology can improve air quality.

Friday, January 11, 2019
11:30 A.M., Complementary Lunch & Registration
Reno Community Center
4040 1st Street
Reno, NV 89503

Complementary lunch and parking will be offered. Spanish translation will be available.

Registration Required
Email: ejcp@aqmd.infol
Phone: 855-396-2211
Web: www.envirojusticeworkshops2018.eventbrite.com

A Community Workshop on Air Pollution and Recognition of Environmental Justice Leaders

Thursday, July 20, 2017
10:00 A.M., Complementary Lunch & Registration
Jefferson Civic Center
201 Montrose Avenue
Los Angeles, CA 90004

Complementary lunch and parking will be offered. Spanish translation will be available.

Registration Required
Email: ejcp@aqmd.infol
Phone: 855-396-2211
Web: www.envirojusticeworkshops2018.eventbrite.com

For more information, call (800)356-2737 or e-mail ejcp@aqmd.infol.

SCAG/SCAQMD is the air pollution control agency of Orange County and the urban portion of Los Angeles, Riverside, and San Bernardino Counties.

Visit us on Facebook, YouTube, and Instagram: @EnviroJusticeACCP.
Environmental Justice Inter-Agency Task Force

The Task Force was created for government agencies with jurisdiction in Los Angeles County to better streamline the complaint process and promote environmental justice in the community.

Inter-Agency Task Force Representatives include:

- Los Angeles County Public Works, California Safe Schools
- Los Angeles County Department of Public Health
- California Department of Resources Recycling and Recovery
- California Air Resources Board
- Del Amo Action Committee
- City of LA Sanitation, City of Los Angeles
- Los Angeles Department of Building & Safety, Local Enforcement Agency Program
- Los Angeles County District Attorney's Office
- California Environmental Protection Agency
- Department of Toxic Substances Control
- County of Los Angeles – “The Works” App (211)
# CLEAN AIR RANGER EDUCATION (CARE) PROGRAM in Elementary Schools

**Program Topics**

<table>
<thead>
<tr>
<th>Topic</th>
<th>Color</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air Pollution and Health</td>
<td>Orange</td>
</tr>
<tr>
<td>Air Quality Flags</td>
<td>Purple</td>
</tr>
<tr>
<td>South Coast AQMD Mobile Application</td>
<td>Yellow</td>
</tr>
<tr>
<td>“Do One Thing”</td>
<td>Blue</td>
</tr>
<tr>
<td>Demonstration of Zero Emission Equipment</td>
<td>Green</td>
</tr>
</tbody>
</table>
2019 Environmental Justice Community Learning Tour

- California State University Los Angeles & Port of Los Angeles
- 35 Participants
Environmental Justice Community Partnership (EJCP) Advisory Council

The EJCP Advisory Council was formed in 2016 as an agency initiative to strengthen and build upon South Coast AQMD’s relationships and alliances with community stakeholders and organizations.

14 Members

6 representing Los Angeles County
3 representing Orange County
2 representing Riverside County
3 representing San Bernardino County
YLAC’s Mission

The mission of the Young Leaders Advisory Council is for South Coast AQMD to educate and engage young adults regarding the region’s clean air issues and at the same time to garner from them greater insight into their generation’s concerns, values and priorities about air quality.

17 Members

4 representing Los Angeles County
5 representing Orange County
4 representing Riverside County
4 representing San Bernardino County
The mission of EJAG is to advise and assist South Coast AQMD in protecting and improving public health in the most impacted communities through the reduction and prevention of air pollution.

18 Members

10 representing Los Angeles County
2 representing Orange County
4 representing Riverside County
2 representing San Bernardino County
ENVIRONMENTAL JUSTICE
Since 2015
South Coast AQMD has hosted:

12 Community Workshops
8 EJ Leader Awards
12 EJCP Meetings
14 EJAG Meetings
4 Young Leaders Advisory Council Meetings
3 Community Learning Tours
2 Inter-Agency Summits
1 Inter-Agency Task Force Meeting
4 EJ Conferences
2019 EJCP Goals

Recruit new members and host quarterly EJCP meetings.

Implement the Clean Air Ranger Education (CARE) Pilot Program, consisting of student assembly presentations in each of the four counties.

Inter-Agency Task Force quarterly meetings.

Community Learning Tour

Host the Fifth Annual Environmental Justice Conference

Engage and build long lasting relationships with community members, stakeholders, and community organizations.
AB 617

1. Wilmington, West Long Beach, Carson
2. East Los Angeles, Boyle Heights, West Commerce
3. San Bernardino, Muscoy

Community Air Monitoring
Community Emission Reduction Plans
Easier Access to Emissions Data
Best Emission Controls
Clean Technology Investments
As we continue to integrate environmental justice principles into the South Coast AQMD’s initiatives, we pave the way to clean the air for all.
Any Questions?
Agenda

- Internal IT Steering Committee
- New FIND
- Mobile Application
- Office 365
- Cyber Security
- Projects
Internal IT Steering Committee

- Monitor and Report on Projects
- Provide Project Guidance
- Prioritize Projects
New F.I.N.D. (Facility INformation Detail)

- Intuitive and Easy Navigation
- Clear, Consistent Design
- Mobile Compatibility
- Easy One-page Facility Search Feature
- Facility Locations Displayed on a Map Interface
Mobile Application

• Technology Innovation Award
  • Citizens Category
  • Government Technology – Special Districts

• 4.8 Star rating in Apple App Store
• 3500+ installations
• Android Version coming soon
Office 365

- Migrated to Cloud Based Email – Outlook 365
  - Completed April 2019
- Latest Desktop Software
  - Office 2016 for PC, Mac, iPhone and Android
- Cloud Based File Sharing
  - OneDrive
- Cloud Based Internal Websites
  - SharePoint Online
Cyber Security

• Deployed Next Generation Endpoint Protection
  • CrowdStrike

• Security Awareness Training
  • KnowBe4

• Cloud Based Email Protection
  • Cisco Email Security

• Next Generation Firewall
  • Cisco, Fortinet, Palo Alto Networks
Information Management Application Development

• **Projects in Progress:**
  - Mobile Application for Android
  - AQ-SPEC and AB617 data management system
  - VW Mitigation Incentive Filing System
  - Online Equipment Registration System (R222)
  - Permit Automation Phase II 400-E Forms
  - Legal Division New System
  - Flare Event Notification System
  - PeopleSoft eRequisition
  - Transportation Plan On Line Form Filing
Information Management Operations

• Projects in Progress:
  • Office 365, OneDrive and SharePoint
  • Network Core Switch Upgrade
  • Next Generation Firewall
  • Ingres Database Upgrade
  • Server Migration to the Cloud (Azure)
  • Laptops Replacing Desktops
  • Server Storage Upgrade
  • Security Testing and Training
Thank You!