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## NO<sub>x</sub> RECLAIM WORKING GROUP MEETING

MAY 16, 2019  
SOUTH COAST AQMD  
DIAMOND BAR, CA  
CALL-IN # 1-888-450-5996  
PASSCODE: 3504968

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## Agenda

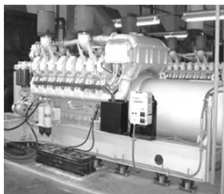
- Rulemaking Status
  - PAR 1110.2
  - PR 1109.1
  - PAR 218/218.1
  - PAR 1117
  - 1147 series
- PAR 2001/2015 (Regulation XX)
- New Source Review
  - Large Source Bank

## LANDING RULE UPDATES

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## Rulemaking Status

### PAR 1110.2



#### Gaseous- and Liquid-Fueled Engines

- Ongoing site visits
- Discussed initial proposal for NOx emission limits based on BARCT assessment
- Working Group Meeting #4 April 24, 2019
- Public Workshop: 2<sup>nd</sup> Quarter 2019
- Public Hearing: September 2019

### PR 1109.1



#### Refinery Equipment

- May 3, 2019 Board approved contracts for two third party consults for review of BARCT assessment
- Staff reviewing additional CEMS data from refineries
- Working Group Meeting #7 April 30, 2019
- Public Hearing: 4<sup>th</sup> Quarter 2019

### PAR 218 & 218.1



#### Monitoring, Reporting, and Recordkeeping – Continuous Emissions Monitoring Systems

- Applicable to non-RECLAIM and RECLAIM facilities
- Specifying CEMS requirements and performance standards
- Surveys to CEMS operators
- Working Group Meeting #2 May 2, 2019
- Public Hearing: 4<sup>th</sup> Quarter 2019

### PAR 1117



#### Glass Melting Furnaces

- Staff in data gathering phase
- Public Hearing: December 2019

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## Rulemaking Status (*Continued*)

### PAR 1147



#### Miscellaneous Combustion Sources

- 1<sup>st</sup> Working Group April 17, 2019
- Facility surveys mailed March 22, 2019
- Public Hearing: 4<sup>th</sup> Quarter 2019

### PR 1147.1



#### Large Miscellaneous Combustion Sources

- 1<sup>st</sup> Working Group April 17, 2019
- Facility surveys mailed March 22, 2019
- Public Hearing: 4<sup>th</sup> Quarter 2019

### PR 1147.2



#### Metal Melting Facilities

- Data gathering and site visits
- Facility surveys mailed March 22, 2019
- 1<sup>st</sup> Working Group May 16, 2019
- Public Hearing: 1<sup>st</sup> Quarter 2020

### PR 1147.3

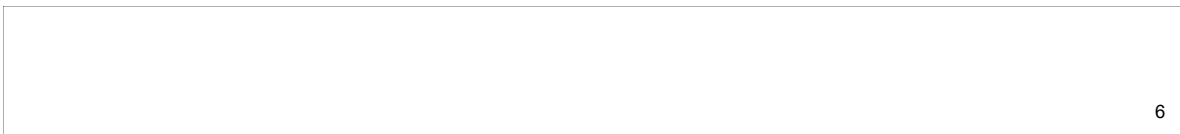


#### Aggregate Facilities

- Staff in data gathering phase
- Facility surveys mailed March 22, 2019
- Public Hearing: 2<sup>nd</sup> Quarter 2020

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## PAR 2001/2015 (REG XX)



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## Background

- EPA is recommending that facilities remain in RECLAIM until the following rules related to the RECLAIM transition are approved in the State Implementation Plan
  - Regulation XX-RECLAIM,
  - Regulation XIII - New Source Review, and
  - Command-and-control rules (landing rules)
- Stakeholders have also raised concerns about market impacts from exiting facilities

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## Rule 2001 Background and Proposed Amendments

- In October 2018, Rule 2001 was amended to:
  - Revise the criteria for facilities exiting RECLAIM; and
  - Add a provision to opt-out of RECLAIM
- PAR 2001 would remove the opt-out provision
- While in RECLAIM, facilities would be subject to:
  - Command-and-control rules
  - RECLAIM obligations (12 tons per day shave); and
  - RECLAIM New Source Review

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## Rule 2015 Background

- Contains backstop provisions if actual emissions exceed the allocations by 5% or more
  - Backstop provisions focus on modifications to the RECLAIM program to prevent future exceedances
- Rule 2015 also includes provisions for an annual audit report each March

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## Proposed Amended Rule 2015

- Proposes an alternative backstop provision that:
  - Allows demonstration that actual NO<sub>x</sub> emissions will not exceed 14.5 tons per day on or after January 1, 2024 based on implementation of command-and-control rules
  - 14.5 tons per day represents the remaining NO<sub>x</sub> emissions to achieve the 12 ton per day shave
  - Alternative backstop provision acknowledges development and implementation of command-and-control rules
- Proposes to change annual RECLAIM audit report from March to April
  - Provides staff additional time to compile information

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## UPDATE ON NEW SOURCE REVIEW

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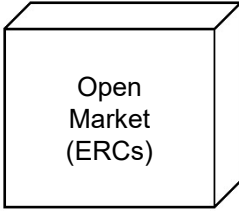
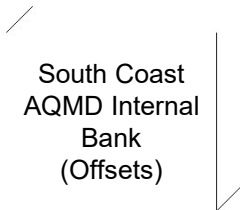
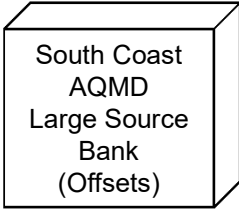
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## Large Source Bank

- Post-RECLAIM, facilities will need to comply with Regulation XIII – New Source Review
- Insufficient supply of NO<sub>x</sub> Emission Reduction Credits (ERCs) in the open market (Details in previous Working Group Meetings)
- Staff is proposing to establish a Large Source Bank to ensure NO<sub>x</sub> offsets are available to facilities post-RECLAIM
- EPA generally agrees with the concept of a large source bank
  - Some initial reservations about the quality of the offsets from the South Coast AQMD's Internal Bank
  - More details are needed

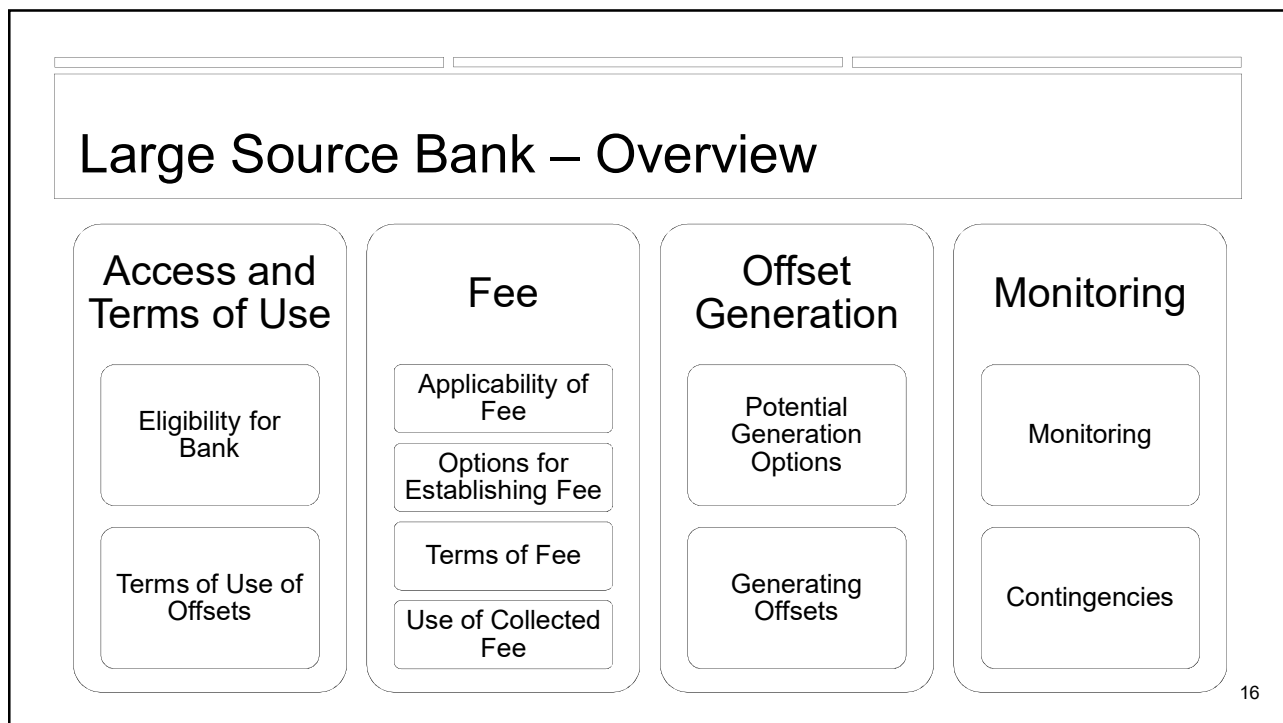
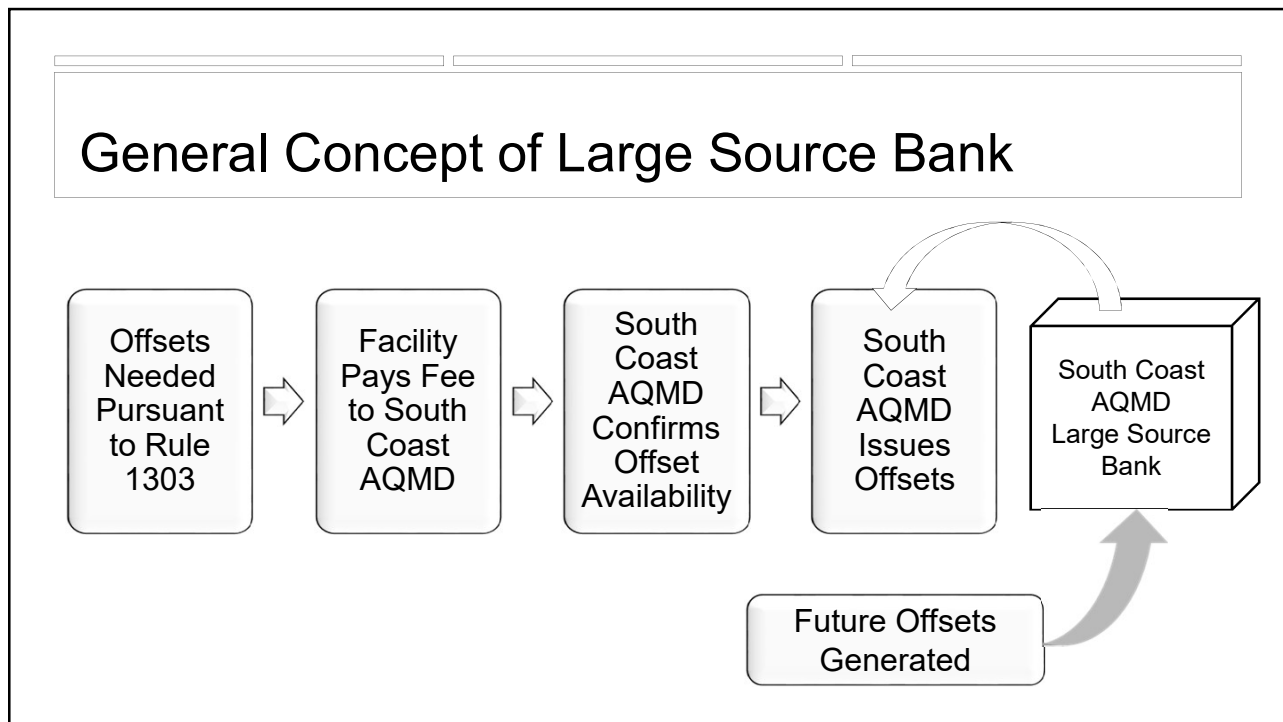
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## Overview of Potential Offset Sources Post-RECLAIM

<div style="text-align: center;">  <p>Open Market (ERCs)</p> </div> <ul style="list-style-type: none"> <li>• Available to all sources</li> <li>• Cost of ERCs based on market value</li> </ul>	<div style="text-align: center;">  <p>South Coast AQMD Internal Bank (Offsets)</p> </div> <ul style="list-style-type: none"> <li>• Available to facilities with PTE &lt; 4 tons/year and Essential Public Services</li> <li>• No usage fee</li> </ul>	<div style="text-align: center;">  <p>South Coast AQMD Large Source Bank (Offsets)</p> </div> <p><b>PROPOSED</b></p> <ul style="list-style-type: none"> <li>• Available to facilities with PTE ≥ 4 tons/year</li> <li>• Usage fee to be determined</li> </ul>
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## Comparison Between Internal Bank Offsets and Emission Reduction Credits (ERCs)

<h3 style="text-align: center;">Offsets</h3> <hr/> <ul style="list-style-type: none"> <li><input type="checkbox"/> Internal Bank</li> <li><input type="checkbox"/> Held by South Coast AQMD</li> <li><input type="checkbox"/> Issued pursuant to Rules 1304 and 1309.1</li> <li><input type="checkbox"/> Discounted according to Rule 1315</li> </ul>	<h3 style="text-align: center;">Emission Reduction Credits (ERCs)</h3> <hr/> <ul style="list-style-type: none"> <li><input type="checkbox"/> Open Market</li> <li><input type="checkbox"/> Held by individual owners (facility, company, or broker)</li> <li><input type="checkbox"/> Issued pursuant Rule 1309</li> <li><input type="checkbox"/> Discounted according to Rules 1306 and 1309</li> </ul>
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## Access and Terms of Use

- NOx offsets in the new Large Source Bank would be accessible to:
  - Facilities with a NOx Potential to Emit  $\geq$  4 tons per year
    - This includes non-RECLAIM and former RECLAIM facilities
  - Former RECLAIM facilities with a NOx Potential to Emit  $<$  4 tons per year would use the South Coast AQMD Internal Bank (original internal bank)
  - Offsets obtained from the bank may not be sold or traded as assets
- South Coast AQMD Internal Bank is available for:
  - All facilities with a NOx Potential to Emit  $<$  4 tons per year (Rule 1304)
  - Essential Public Services (Rule 1309.1)

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## Fee for Large Source Bank

- Staff is considering a fee based on the amount of offsets needed
  - Offset fee will be per pound per day of NOx
- Collected fees will be used to fund projects to generate additional offsets
- Fee can help discourage facilities from requesting more offsets than needed

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## Possible Options for Establishing Fee for Large Source Bank

Cost-effectiveness threshold established by 2016 AQMP	Average cost-effectiveness of minor source BACT	Average cost-effectiveness of recently adopted BARCT rules	Average price of ERCs in the open market	Tiered Structure
<ul style="list-style-type: none"> <li>• \$50,000 per ton of NOx reduced</li> </ul>	<ul style="list-style-type: none"> <li>• \$30,000 per ton of NOx (4<sup>th</sup> Quarter value for 2018)</li> </ul>	<ul style="list-style-type: none"> <li>• \$11,000 per ton of NOx reduced (based on the weighted average for Rules 1134, 1135, and 1146 series)</li> </ul>	<ul style="list-style-type: none"> <li>• Average over past 2 years: \$88,000 per ton of NOx</li> <li>• Price can vary substantially</li> <li>• In 2009, \$400,000 per ton of NOx</li> </ul>	<ul style="list-style-type: none"> <li>• Tiered structured fee (e.g. Different fees for minor and major sources, sliding scale based on amount)</li> </ul>

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## Use of Collected Fee and Terms of Fee

- Use of Collected Fee
  - Fund projects to generate additional offsets for the Large Source Bank
- Terms of Fee
  - If a project does not commence construction and/or operation and the Permit to Construct and/or Permit to Operate is cancelled, the offsets can be returned to the South Coast AQMD with a refund
  - Any permitting fees pursuant to Rule 301 will not be refunded

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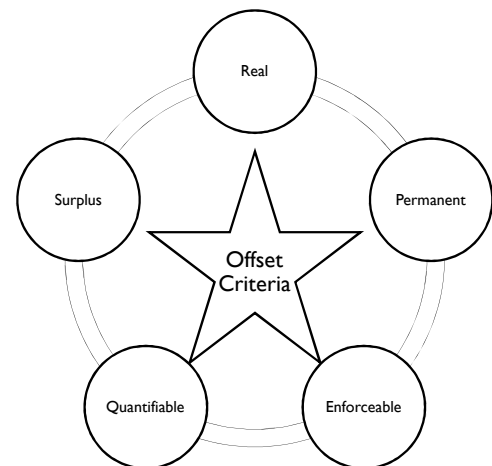
## Potential Generation Options

- Upon inception, the Large Source Bank will be seeded by offsets from the existing South Coast AQMD Internal Bank
- Emission reductions generated from facilities that obtained offsets from the Large Source Bank would go back to the Large Source Bank
  - Facilities that provide additional offsets, greater than the initial allocation:
    - Could be eligible to access offsets from the Large Source Bank at a discounted fee, or
    - May receive credit for future offsets
- Air pollution control projects funded by the offset fees collected

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## Generating Offsets

- Emission reductions for generating offsets are based on an actual emissions, not on a potential to emit basis
- Historically, offsets in the existing South Coast AQMD Internal Bank have been generated from orphan shutdowns
- Offsets are discounted upon generation and annually according to SIP approved Rule 1315
  - 20% discount for orphan shutdowns in order for the offsets to be real and based on actual emission reductions
  - Discounted annually to BARCT to meet federal criteria that offsets must be surplus at time of use



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## Generating Surplus Offsets

- Surplus at time of use for Federal NSR equivalency
  - All credits deposited into the internal bank are discounted to ensure they remain surplus at the time of use
  - Surplus adjustment for the offsets in the internal bank is an annual BARCT discount
    - Entire balance for each specific pollutant is discounted
    - Discount based on the percent reduction in overall permitted emission projected to be achieved as a result of implementation of command-and-control rules that became effective during the previous calendar year
- Offsets in the internal bank are discounted differently than ERCs in the open market
  - The surplus adjustment for emission reductions used to generate ERCs is a discount to current BACT at time of generation

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## Monitoring and Tracking

- Credits and debits from the Large Source Bank need to be monitored to ensure availability of offsets
- Key areas for monitoring and tracking
  - Amount of offsets in the Large Source Bank
  - Trend of credits and debits
  - Need for additional offsets

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## Time of Use Mechanisms and External Contingencies

- Considering various tracking and monitoring approaches to ensure availability of offsets
- Time of use mechanisms
  - Mechanisms that are implemented at the time of offset use such as fees or debit thresholds
- External contingencies
  - Corrective measures that are implemented after an annual report shows amount of offsets in the Large Source Bank or debit trends from the Large Source Bank are reaching a specific threshold

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## Time of Use Mechanisms

- South Coast AQMD Internal Bank contains a threshold for use of offsets, with no access fee
- Staff is evaluating if an emissions threshold for the Large Source Bank is needed
- An emissions threshold for the Large Source Bank may not be needed since a fee will be established at time of offset use
  - Assessing a fee at time of use can discourage overuse of offsets

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## External Contingencies

- Annual reporting
  - Track cumulative credits and debits from Large Source Bank
  - Track trends for credits and debits
- If annual report shows amount of offsets in the Large Source Bank or debit trends from the Large Source Bank are reaching a specific threshold, implement corrective measures
- Possible corrective measures
  - Increase fee
  - Transfer additional offsets from South Coast AQMD Internal Bank
  - Seek additional generation opportunities
  - Temporary annual threshold to restrict use of offsets

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## Considerations for Establishing Amount of Offsets for Large Source Bank

- Projected demand for offsets from RECLAIM sources
  - Historical data for RECLAIM as a whole
  - If not all sources access the bank, need to determine demand for subset of sources
- Growth factor to apply to demand
  - The 2016 AQMP and 2015 RECLAIM amendments contain growth factors
  - Other possible calculations for growth factor
- 1.2 factor to satisfy federal offset ratio 1.2-to-1

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## Summary

- Due to the lack of ERCs in the open market, staff is proposing to establish a Large Source Bank to ensure NOx offsets are available to facilities post-RECLAIM
- NOx offsets in the new Large Source Bank would be accessible to facilities with a NOx PTE  $\geq$  4 TPY
- Staff is considering potential options for establishing a fee for the Large Source Bank
- Staff is considering time of use and external contingencies to ensure availability of offsets

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## Contacts

General RECLAIM Questions	New Source Review	
<ul style="list-style-type: none"> <li>• Gary Quinn, P.E. Program Supervisor 909-396-3121 gquinn@aqmd.gov</li> <li>• Kevin Orellana Program Supervisor 909-396-3492 korellana@aqmd.gov</li> </ul>	<ul style="list-style-type: none"> <li>• Michael Morris Planning and Rules Manager 909-396-3282 mmorris@aqmd.gov</li> <li>• Kevin Orellana Program Supervisor 909-396-3492 korellana@aqmd.gov</li> </ul>	<ul style="list-style-type: none"> <li>• Lizabeth Gomez Air Quality Specialist 909-396-3103 lgomez@aqmd.gov</li> <li>• Melissa Gamoning Assistant Air Quality Specialist 909-396-3115 mgamoning@aqmd.gov</li> </ul>

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## Contacts

### Proposed Rule 1109.1

- |   |  |
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| <ul style="list-style-type: none"> <li>• Heather Farr<br/>Program Supervisor<br/>909-396-3672<br/>hfarr@aqmd.gov</li> <li>• Jong Hoon Lee<br/>Air Quality Specialist<br/>909-396-3903<br/>jhlee@aqmd.gov</li> </ul> | <ul style="list-style-type: none"> <li>• Sarady Ka<br/>Air Quality Specialist<br/>909-396-2331<br/>ska@aqmd.gov</li> </ul> |
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### Rule 1135

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## Contacts

Proposed Amended Rule 1110.2	Rules 1147/1147.1	Proposed Rule 1147.2
<ul style="list-style-type: none"> <li>• Kevin Orellana Program Supervisor 909-396-3492 korellana@aqmd.gov</li>   <li>• Rudy Chacon Air Quality Specialist 909-396-2726 rchacon@aqmd.gov</li> </ul>	<ul style="list-style-type: none"> <li>• Gary Quinn Program Supervisor 909-396-3121 gquinn@aqmd.gov</li>   <li>• Shawn Wang Air Quality Specialist 909-396-3319 swang@aqmd.gov</li> </ul>	<ul style="list-style-type: none"> <li>• Uyen-Uyen Vo Program Supervisor 909-396-2238 uvo@aqmd.gov</li>   <li>• James McCreary Assistant Air Quality Specialist 909-396-2451 jmccreary@aqmd.gov</li> </ul>

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## Contacts

Rules 1146, 1146.1, 1146.2		Rule 1118.1
<ul style="list-style-type: none"> <li>• Gary Quinn, P.E. Program Supervisor 909-396-3121 gquinn@aqmd.gov</li>   <li>• Kalam Cheung, Ph.D. Program Supervisor 909-396-3281 kcheung@aqmd.gov</li> </ul>	<ul style="list-style-type: none"> <li>• Lizabeth Gomez Air Quality Specialist 909-396-3103 lgomez@aqmd.gov</li>   <li>• Shawn Wang Air Quality Specialist 909-396-3319 swang@aqmd.gov</li> </ul>	<ul style="list-style-type: none"> <li>• Heather Farr Program Supervisor 909-396-3672 hfarr@aqmd.gov</li>   <li>• Steve Tsumura Air Quality Specialist 909-396-2549 stsumura@aqmd.gov</li> </ul>

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