



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

MAY 16, 2019

SOUTH COAST AQMD

DIAMOND BAR, CA

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PASSCODE: 3504968

# 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

# 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

# Rulemaking Status *(Continued)*

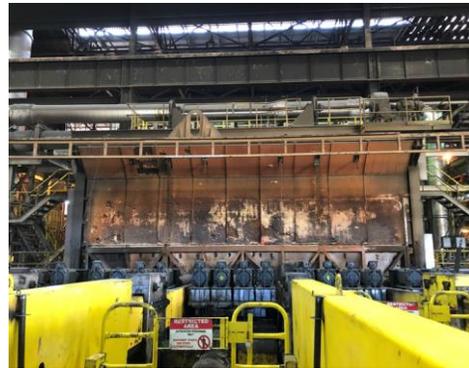
## PAR 1147



### 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



PAR 2001/2015 (REG XX)

# 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

# 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

# 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

# Proposed Amended Rule 2015

- Proposes an alternative backstop provision that:
  - Allows demonstration that actual NOx 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 NOx 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



# UPDATE ON NEW SOURCE REVIEW

# Large Source Bank

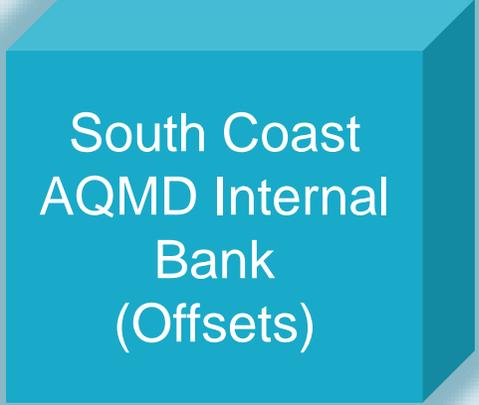
- Post-RECLAIM, facilities will need to comply with Regulation XIII – New Source Review
- Insufficient supply of NO<sub>x</sub> Emission Reduction Credits (ERCs) in the open market (Details in previous Working Group Meetings)
- Staff is proposing to establish a Large Source Bank to ensure NO<sub>x</sub> 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

# Overview of Potential Offset Sources Post-RECLAIM



## Open Market (ERCs)

- Available to all sources
- Cost of ERCs based on market value



## South Coast AQMD Internal Bank (Offsets)

- Available to facilities with PTE < 4 tons/year and Essential Public Services
- No usage fee



## South Coast AQMD Large Source Bank (Offsets)

### **PROPOSED**

- Available to facilities with PTE  $\geq$  4 tons/year
- Usage fee to be determined

# Comparison Between Internal Bank Offsets and Emission Reduction Credits (ERCs)

## Offsets

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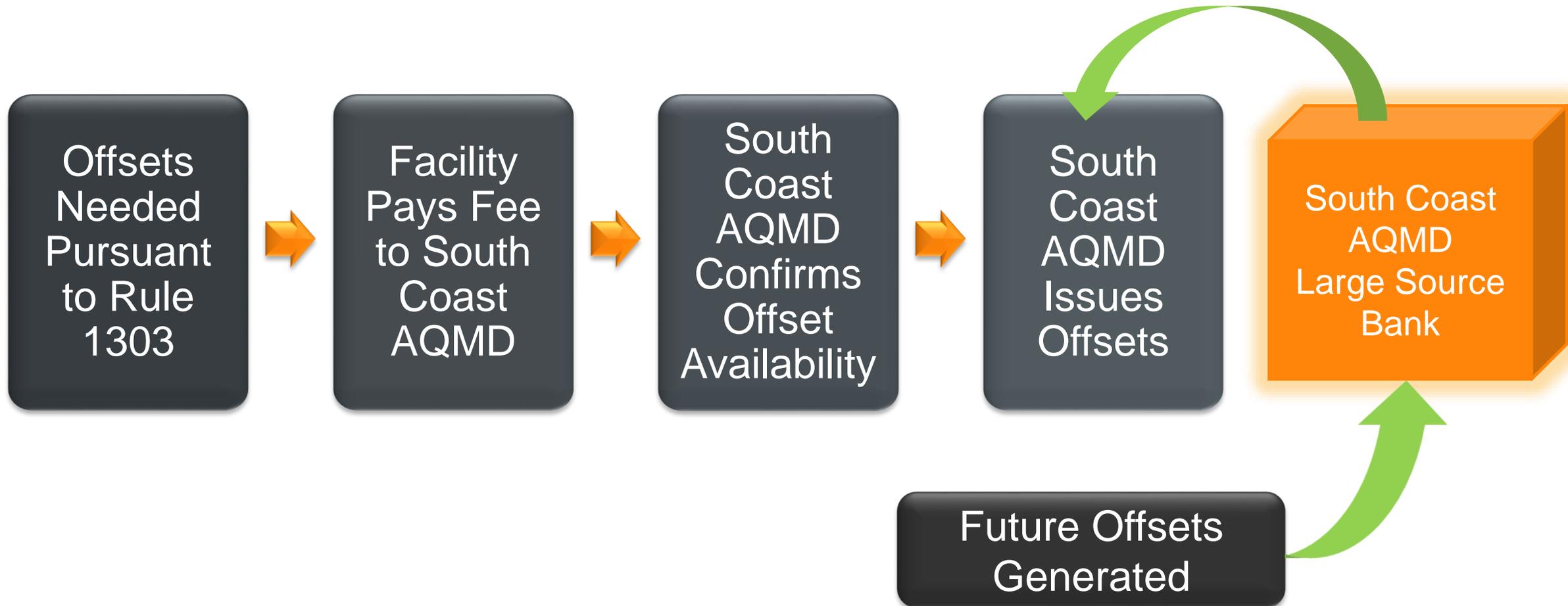
- Internal Bank
- Held by South Coast AQMD
- Issued pursuant to Rules 1304 and 1309.1
- Discounted according to Rule 1315

## Emission Reduction Credits (ERCs)

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- Open Market
- Held by individual owners (facility, company, or broker)
- Issued pursuant Rule 1309
- Discounted according to Rules 1306 and 1309

# General Concept of Large Source Bank



# Large Source Bank – Overview

## Access and Terms of Use

Eligibility for Bank

Terms of Use of Offsets

## Fee

Applicability of Fee

Options for Establishing Fee

Terms of Fee

Use of Collected Fee

## Offset Generation

Potential Generation Options

Generating Offsets

## Monitoring

Monitoring

Contingencies

# 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)

# 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 NO<sub>x</sub>
- Collected fees will be used to fund projects to generate additional offsets
- Fee can help discourage facilities from requesting more offsets than needed

# Possible Options for Establishing Fee for Large Source Bank

Cost-effectiveness threshold established by 2016 AQMP

- \$50,000 per ton of NOx reduced

Average cost-effectiveness of minor source BACT

- \$30,000 per ton of NOx (4<sup>th</sup> Quarter value for 2018)

Average cost-effectiveness of recently adopted BARCT rules

- \$11,000 per ton of NOx reduced (based on the weighted average for Rules 1134, 1135, and 1146 series)

Average price of ERCs in the open market

- Average over past 2 years: \$88,000 per ton of NOx
- Price can vary substantially
- In 2009, \$400,000 per ton of NOx

Tiered Structure

- Tiered structured fee (e.g. Different fees for minor and major sources, sliding scale based on amount)

# Use of Collected Fee and Terms of Fee

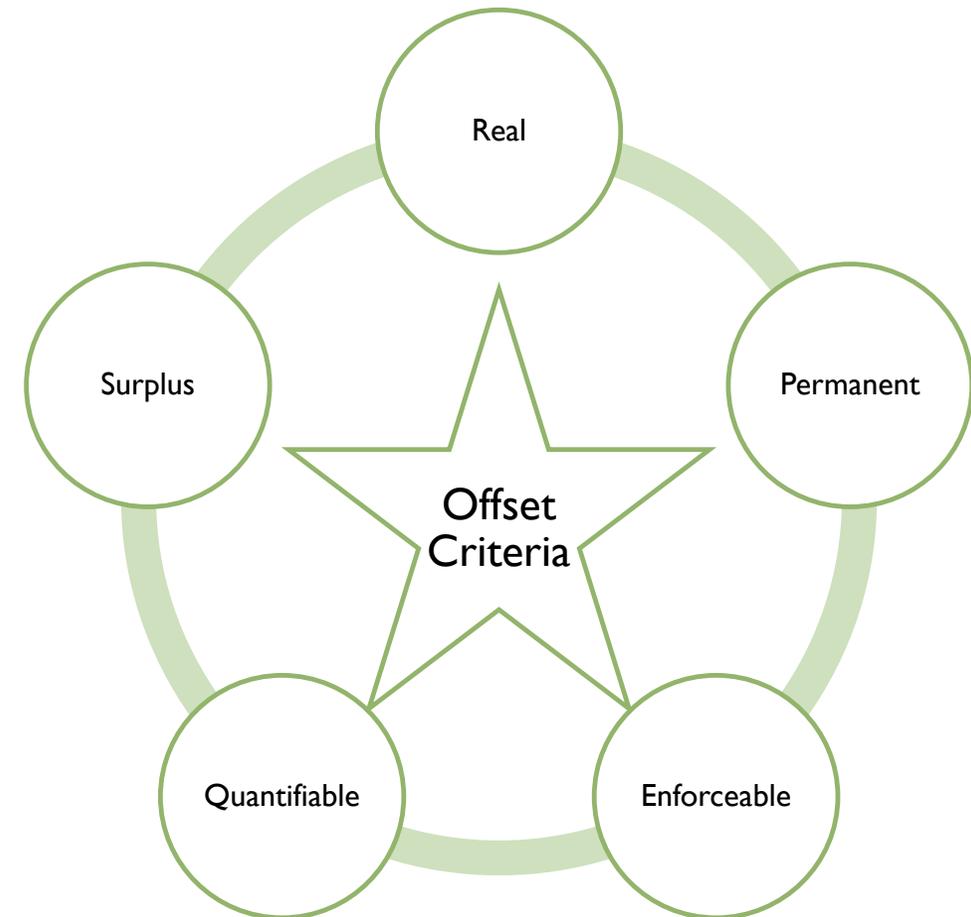
- Use of Collected Fee
  - Fund projects to generate additional offsets for the Large Source Bank
- Terms of Fee
  - If a project does not commence construction and/or operation and the Permit to Construct and/or Permit to Operate is cancelled, the offsets can be returned to the South Coast AQMD with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

# 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

# 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



# 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

# 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

# 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

# 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

# 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

# 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

# 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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