NOx RECLAIM WORKING GROUP MEETING

DECEMBER 13, 2018
SCAQMD
DIAMOND BAR, CA
Agenda

- Landing Rule Updates
  - Rule 1146 Series/PR 1100
  - PR 1118.1
  - PAR 1134
  - PR 1109.1
  - PAR 1110.2
  - PAR 113

- New Source Review
  - Discussion of Key Issue #2 – Establishing baselines to determine NSR events
LANDING RULE UPDATES
Command-and-Control BARCT Rulemaking Status

Boilers, steam generators, and heaters
- Public Hearing: December 2018
- Amendments approved by the Board

Non-Refinery Flares
- Public Hearing: January 2019

Gas Turbines
- Public Workshop: December 18, 2018
- Public Hearing: April 2019
Command-and-Control BARCT Rulemaking Status

**PR 1109.1**

**Refineries**
- Request for Proposal for third party verification of BARCT analysis:
- Governing Board Approval Release December 7, 2018
- Working Group Meeting held November 28, 2018
- Next Working Group Meeting scheduled for mid-January
- Continuing site visits
- Public Hearing: 2019

**PAR 1110.2**

**Gaseous- and Liquid-Fueled Engines**
- Initiated site visits, more to be scheduled
- Sent survey questionnaire
- Public Workshop: 1st Quarter 2019
- Public Hearing: 3rd Quarter 2019

**PR 113**

**Monitoring, Reporting, and Recordkeeping**
- Integrated MRR requirements for:
  - Former RECLAIM
  - Possibly non-RECLAIM
- Initiated preliminary analysis
- Comparing District and Federal requirements
- Conducted five site visits
UPDATE ON NEW SOURCE REVIEW
Key Issue #1 Summary (November 8 Working Group Meeting)

3 Questions:

Do ongoing Rule 2005 holding requirements need to be retained?
- Facilities that were permitted during RECLAIM are required to hold RTCs equal to their PTE year after year
- A programmatic demonstration can be done to show equivalency to the SIP-approved Rule 2005 requirement

Should an ongoing demonstration of an offsetting requirement be made for sources that were permitted during RECLAIM?
- No, RECLAIM NSR has a holding requirement but does not have ongoing offsetting requirements

Should current federal offsetting be demonstrated programmatically or individually by facility?
- Future offsetting should be demonstrated programmatically
Summary of Three Key NSR Issues

Key Issue #1
For new sources that are permitted in RECLAIM, what are the offset obligations as facilities transition out of RECLAIM?

Key Issue #2
For permits issued without a NOx PTE, when and how will a baseline be established to determine if an NSR event occurs after facilities transition out of RECLAIM?

Key Issue #3
How will the SCAQMD ensure that sufficient offsets are available to satisfy NSR requirements?
Addressing Key Issue #2

- Permitting under Regulation XIII
- Regulation XIII versus RECLAIM NSR
- Proposed pathway to transition sources to Regulation XIII
Permitting Under Regulation XIII

- Regulation XIII is SIP-approved - Applies to the installation of any new source and to the modification of any existing source
- All new and modified permitted sources are reviewed under Regulation XIII
  - Regulation XIII acts as the “gatekeeper” to determine if a permit action results in an emission increase (NSR event)
  - Any emission increase must be offset (e.g., ERCs)
  - BACT and modeling is always required for new and modified sources
Permitting Under Regulation XIII (continued)

- When a facility submits a permit application for new or modified equipment, it will be evaluated for an emissions increase pursuant to Regulation XIII.
- An emission increase would occur if:

  \[
  \text{Post-modification PTE (lbs/day)} > \text{Pre-modification PTE (lbs/day)}
  \]

- The emission increase is determined with a baseline PTE specified in \text{lbs/day}. 
Baseline PTEs Issued for Permits Over Specific Timeframes

- Baseline PTEs in RECLAIM permits depend on when past emission increases occurred.

  - **Pre-NSR**
    - • Permits issued Pre-1976
  - **Post-NSR to Pre-RECLAIM**
    - • Permits issued between 1976 and 1993
  - **During RECLAIM**
    - • Permits issued post-1993
<table>
<thead>
<tr>
<th>Permits issued</th>
<th>PTEs Non-RECLAIM</th>
<th>PTEs RECLAIM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-1976 (Pre-Regulation XIII NSR)</td>
<td>No PTE</td>
<td>Same</td>
</tr>
<tr>
<td>1976-1993 (Post-NSR to Pre-RECLAIM)</td>
<td>PTE in lbs/day</td>
<td>Same</td>
</tr>
<tr>
<td>Post 1993 (During RECLAIM)</td>
<td></td>
<td>PTE lbs/hour</td>
</tr>
<tr>
<td>Post 1993 (During RECLAIM)</td>
<td></td>
<td>No specified PTE (some cases)</td>
</tr>
</tbody>
</table>
Sources that have never been subject to Regulation XIII or Rule 213 will have baseline emissions calculated pursuant to existing Regulation XIII provisions.

These sources have never had an NSR event through RECLAIM.

Regulation XIII has an established methodology to calculate emissions increases in lbs/day:

Post-modification PTE – Actual Emissions (lbs/day)

Baseline PTE
Permits Issued Post-NSR to Pre-RECLAIM

- Sources that have been subject to Regulation XIII or Rule 213, but never had an NSR event during RECLAIM
- The baseline PTEs for these sources have already been established pursuant to Regulation XIII
- Regulation XIII emission increase calculation in lbs/day:
  \[
  \text{Post-modification PTE} - \text{Pre-modification PTE} \text{ (lbs/day)} = \text{Baseline PTE}
  \]
Sources with emission increases during RECLAIM that have been subject to Rule 2005

These sources may have:
1) Baseline PTE specified in lbs/day
2) Baseline PTE specified in lbs/hr
3) No specified PTE, only concentration limit
4) No specified PTE or concentration limit

These baseline PTEs need to be converted to lbs/day to determine emission increases pursuant to Regulation XIII
Baseline Calculations (continued)

1) Baseline PTE specified in lbs/day
   - No further action required

2) Baseline PTE specified in lbs/hr
   - Use hourly mass limit multiplied by daily throughput limit, if available
   - If not, use 24 hours per day
Permits Without Specified PTEs

- Some sources that were permitted during RECLAIM do not have specified PTEs in lbs/hr
- No specified PTE, only concentration limit
  - Applies to some large sources and process units
  - Mass rates based on concentration limits
- No specified PTE or concentration limit
  - Applies to some major sources that do not have an hourly mass limit
  - Mass rates based on continuous emissions monitoring systems (CEMS) data
3) No specified PTE, only concentration limit

- Use the most stringent concentration limit or equivalent concentration from RECLAIM emission factor, multiplied by throughput limit, if available
- If not, maximum throughput limit and 24 hours per day
- NOx PTE can be back-calculated from another pollutant PTE
Baseline Calculations (continued)

4) No specified PTE or concentration limit
   - Obtain maximum hourly emission rate from previous 12 month actuals prorated to maximum rated capacity and multiply by throughput limit, if available
   - If not, multiply by maximum throughput limit and 24 hours per day
   - Emission rate can be obtained from CEMS data
Overview of Establishing PTEs

Facility submits application for permit for new or modified source

Permit is evaluated

Never went through Rule 2005 or Regulation XIII (no PTE)

Never went through Rule 2005 (PTE in lbs/day)

Source went through Rule 2005

Convert to lbs/day using max hourly conditions
When Will Permits Be Evaluated?

- When the facility submits a permit application to install new or modify existing equipment

- RECLAIM facilities will be issued new permits when they exit, but will retain existing NSR limits/conditions until next NSR event
Summary

- Baseline calculations will occur when a facility submits a permit application to determine if the facility has an emissions increase.
- All permitting actions that result in an emissions increase will be subject to Regulation XIII:
  - Baseline PTEs in lbs/hr will be converted to lbs/day.
  - There is a baseline calculation methodology that covers all situations (e.g., for equipment without a PTE).
  - SIP-approved Regulation XIII will always be the “gatekeeper”.
Update of Key Issue #3 - Ensuring Sufficient Offsets

How will the SCAQMD ensure that sufficient offsets are available to satisfy NSR requirements?

- Discussed at October 2017 and April 2018 Working Group Meetings
  - Discussed concerns for availability of offsets in the open market
  - Discussed possible options for offsets
- Further discussion in subsequent meeting(s)
  - Identify potential sources of offsets after facilities transition out of RECLAIM?
NSR – Process Moving Forward

Continuing discussions with USEPA regarding RECLAIM NSR transition

- Ensure all NSR, AQMP, and CAA requirements will be met after sunset of RECLAIM program
- Weekly calls with EPA
- Periodic face-to-face meetings for more extensive discussions

Work with RECLAIM Working Group Meeting

- Monthly RECLAIM Working Group Meetings will shift focus towards NSR
- Continued discussions with stakeholders

Updates to Stationary Source Committee (SSC)

- Quarterly presentation with quarterly RECLAIM update
- Monthly written report
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Rules 1146, 1146.1, 1146.2 and Rule 1100

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