Proposed Amended Rule 1153.1
Emissions of Oxides of Nitrogen from Commercial Food Ovens

Working Group Meeting #1
July 9, 2021

Join Zoom Webinar Meeting
https://scaqmd.zoom.us/w/97082341703
Teleconference Dial-In: 1-669-900-6833
Webinar Meeting ID: 970 8234 1703
Agenda

Meeting Format
Rule Development Process
RECLAIM Background
BARCT Analysis
Rule 1153.1
Meeting Format

South Coast AQMD acknowledges the challenges to businesses and stakeholders due to COVID-19

Consistent with Governor Newsom's Executive Order N-29-20 (March 17, 2020) and to ensure safe social distancing, Working Group Meetings will be held via Zoom and telephone.

Although it is a different format, staff will take the time to listen to all stakeholder comments.

In addition to Working Group Meetings, staff is available for individual meetings.

Through the rulemaking process, South Coast AQMD will be transitioning to conducting meetings with a hybrid approach of in-person and remote access (Zoom and telephone).
Rule Development Process
Objectives:
- Build consensus and work through issues
- Opportunity for early input by stakeholders
- Develop a rule that affected sources can implement

Assists staff in understanding:
- Issues and concerns
- Industry terms, industry practices, etc.
- Applicable technologies
- Best management practices

- Comprised of stakeholders including industry, environmental groups, community members, and public agencies
- Held throughout the rule development process and open to the public
Overview of Rule Development Process

Stakeholder Input

- Stakeholders can provide input throughout the rulemaking process
- Early input is strongly encouraged to help develop proposed rule amendments and to address issues
- Working Group Meetings, Individual Meeting, and Site Visits allow stakeholders to directly speak to staff to discuss individual issues
RECLAIM Background

• 2016 Air Quality Management Plan
  • Adoption Resolution called for further NOx reductions from an assessment of the RECLAIM program, including:
    • 5 tons per day NOx reduction to be achieved no later than 2025; and
    • Transitioning RECLAIM to a command-and-control regulatory structure

• 2017 – AB 617
  • Applicable to facilities in the state greenhouse cap and trade program
  • Requires an implementation schedule by January 1, 2019
  • Requires Best Available Retrofit Control Technology (BARCT) implementation by December 31, 2023
    • Prioritize older, higher emitting units
    • Focus on units that have not implemented BARCT since 2007
BARCT Requirements

California Health and Safety Code Section 40406 defines BARCT as:

“...an emission limitation that is based on the maximum degree of reduction achievable, taking into account environmental, energy, and economic impacts by each class or category of source.”

California Health and Safety Code Section 40920.6 requires:

- Evaluation of BARCT prior to adopting rules or regulations
- Assessment of the cost-effectiveness of the potential control option
BARCT Analysis

* BARCT analysis is conducted for each equipment category and fuel type
Rule 1153.1
Rule 1153.1 Background

• Adopted on November 7, 2014
• Moved food ovens from Rule 1147 (miscellaneous combustion) into Rule 1153.1
  • Rule 1153.1 has higher NOx limits than Rule 1147
  • Relative to Rule 1147, Rule 1153.1 delayed compliance for at least two years
• In addition to NOx emission limits, Rule 1153.1 includes:
  • CO emission limits
  • Alternative compliance options
  • Emission testing
  • Equipment maintenance
  • Recordkeeping
Rule 1153.1 Applicability and Affected Sources

- Applies to ovens, dryers, smokers, and dry roasters used to prepare human food or beverage ingredients
- 6 RECLAIM facilities and 92 non-RECLAIM facilities that operate permitted food ovens, dryers, smokers, or dry roasters
- Estimated NOx emissions from RECLAIM and non-RECLAIM units are both 0.1 tons/day (0.2 tons/day total)

<table>
<thead>
<tr>
<th>Permitted Equipment Type</th>
<th>Number of Units</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>RECLAIM</td>
<td>Non-RECLAIM</td>
</tr>
<tr>
<td>Food Ovens</td>
<td>14</td>
<td>102</td>
</tr>
<tr>
<td>Dryers</td>
<td>46</td>
<td>7</td>
</tr>
<tr>
<td>Roasters</td>
<td>0</td>
<td>58</td>
</tr>
<tr>
<td>Smokehouses/Smoke Generators</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>66</strong></td>
<td><strong>171</strong></td>
</tr>
</tbody>
</table>

Implementation of Rule 1153.1 Emission Limits

- Phased-in compliance with NOx and CO emission limits for in-use units are based on date of equipment manufacture.
- Allows implementation to align with timeline of when burner replacements or burner control system upgrades at the end of burner life.
- Implementation dates range from 2018 to 2022.
Rule 1153.1 Emission Limits

- Established NOx and CO limits for in-use equipment based on process temperature

* Carbon Monoxide Limit is 800 ppm by volume, referenced to 3% oxygen
## Additional Rule 1153.1 Provisions

<table>
<thead>
<tr>
<th>Alternative Compliance Plans</th>
<th>Compliance Demonstration</th>
<th>Equipment Monitoring and Maintenance</th>
<th>Recordkeeping</th>
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## Alternative Compliance Options

<table>
<thead>
<tr>
<th>Alternative Compliance Plan Option</th>
<th>Conditions for Alternative Plan</th>
<th>Current Use by Facilities</th>
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</table>
| Option 1: Alternative Compliance Plan for Three or More Units with Compliance Dates in the Same Year or Two Consecutive Years | • Delay and phase in compliance no more than:  
  • Three years for 3 or 4 units; and  
  • Five years for ≥ 5 units  
  • ≥ 1 unit must meet the applicable emission limit by the first compliance date, and ≥ 1 unit must meet the applicable emission limit each year thereafter | One |
| Option 2: Alternative Compliance Plan for Units with Full Burner Replacements Prior to November 7, 2014 | • Extend compliance by:  
  • Five years after the replacement if the unit operates > 8 hours on any day; or  
  • Ten years after the replacement if the unit operates ≤ 8 hours on each day of operation | Zero |
| Option 3: Mitigation Fee | • Delay compliance up to 3 years | Zero |
## Additional Requirements

### Compliance Demonstration
- Source testing; or
- Certification for units that do not allow fuel or combustion air adjustment

### Equipment Monitoring and Maintenance
- Fuel meters for units complying with a lbs/MMBtu emission limit
- Combustion system maintenance

### Recordkeeping
- Rated heat input capacity for modified units
- Source test reports and certification records
- Installation, operation, modification, and maintenance/repair
- Alternative compliance plan and mitigation fee payments
Exemptions

- The following equipment are exempt from Rule 1153.1
  - Units subject to Rules 222, 1146, 1146.1, 1146.2, Regulation XX
  - Solid fuel-fired combustion equipment
  - Charbroilers
  - Fryers
  - Emission control equipment (i.e., afterburners)
- Units with ≤ 1 pound per day of NOx emissions
  - Exempt from the emissions limits and emissions testing
  - Subject to equipment maintenance and recordkeeping requirements
- Units heated solely with infrared burners
  - Exempt from emissions testing
Next Steps

Staff is in the information gathering phase of rule development

Future working group meetings will share results of BARCT Analysis

Stakeholders are welcome to request individual meetings to discuss rule concepts

Staff will be conducting site visits to further understanding
Tentative Schedule

- Individual Meetings and Site Visits
  - Ongoing

- Next Working Group Meeting
  - 4-6 Weeks

- Public Workshop
  - November 2021

- Stationary Source Committee
  - November 2021

- Set Hearing
  - January 7, 2022

- Public Hearing
  - February 4, 2022
Contact Information

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For more information:  
PAR 1153.1 Proposed Rules Web Page

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