Public Workshop and CEQA Scoping Meeting for

Proposed Rule 1153.1
Emissions of Oxides of Nitrogen From Food Ovens

April 2, 2014
1:30 p.m. Auditorium
SCAQMD Headquarters
Diamond Bar, California
Overview

• Review rule proposal under consideration

• Solicit input on PR 1153.1 definitions, NOx emission limits, schedule and proposed CO limit

• Summarize rule development schedule
Background

• Rule 1147 as amended September 2011, provided a July 1, 2014 compliance date for food ovens

• As part of the 2011 amendment to Rule 1147 staff committed to:
  – Address implementation issues
  – Prepare a Technology Assessment for small sources

• Rules 219 and 222 as amended exempted some food ovens

• The assessment of the availability of ULN burner replacements and alternate control technologies for the food ovens is ongoing:
  – In many applications, suitable replacement ULN burners have not been available
  – Other concerns regard the impact of an altered heating profile on the texture and taste of the food product processed
PR 1153.1 Development Activity

- Staff is proposing to move food ovens, roasters and smokehouses from Rule 1147 and place them into Proposed Rule 1153.1

- Task Force meetings with stakeholders
  - October 23, 2013
  - January 9, 2014
  - March 6, 2014

- Discussions with stakeholders, site visits and dialog with manufacturers

- Draft proposal presented to industry at March 6, 2014 Task Force meeting

- Status update presented at March 21, 2014 Stationary Source Committee meeting
Proposed Rule 1153.1 Applicability

• PR 1153.1 Includes:
  – Ovens that require an SCAQMD Permit
  – Conveyorized baking/food ovens
  – Batch baking/food ovens
  – Dry Roasters
  – Smokehouse ovens/smoke generators

• Excludes:
  – Fryers (including fryers used for “nut roasting”)
  – Char-broilers
  – Control equipment such as afterburners
  – The above units included in a production line
Staff Proposal for Rule 1153.1

- Upon rule adoption, applicable **existing** equipment shift from Rule 1147 to PR1153.1 requirements
- **New or relocated** equipment would be subject to NSR and BACT
- Proposal Includes:
  - Higher NOx emission limits:
    - 40 ppm vs 30 ppm for units operating at temperatures < 500 °F
    - 60 ppm vs 30 ppm for units operating at temperatures ≥ 500 °F - < 1200 °F
  - Cap CO emissions at 800 ppm (vs. Rule 407 at 2,000 ppm)
  - Delay compliance dates
  - Phase-in based on 20-year vs 15-year life for all units
  - Exemption for small ≤ 1lb/day and low-use units
  - Testing exemption for infrared burners
  - Alternate compliance plan and mitigation fee options
- Maximum 2023 emissions forgone: 0.06 TPD (120 lbs/day)
## PR 1153.1 NO$_x$ Emission Limit

<table>
<thead>
<tr>
<th>Equipment Category(ies)</th>
<th>NOx Emission Limit</th>
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<tbody>
<tr>
<td></td>
<td>PPM @ 3% O$_2$, dry or Pound/mmBTU heat input</td>
</tr>
<tr>
<td></td>
<td><strong>Process Temperature</strong></td>
</tr>
<tr>
<td></td>
<td>≤ 500°F</td>
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<tr>
<td>In-use units with only radiant tube heating</td>
<td>60 ppm or 0.073 lb/mmBTU</td>
</tr>
<tr>
<td>Other in-use units</td>
<td>40 ppm or 0.042 lb/mmBTU</td>
</tr>
</tbody>
</table>
## PR 1153.1 In-Use Units Compliance Schedule

<table>
<thead>
<tr>
<th>Equipment Category(ies)</th>
<th>Permit Application Shall be Submitted By</th>
<th>Unit Shall Be in Compliance On and After</th>
</tr>
</thead>
<tbody>
<tr>
<td>Griddle ovens and ovens used solely for making pita bread</td>
<td>October 1, 2017</td>
<td>July 1, 2018</td>
</tr>
<tr>
<td>and manufactured prior to 1994</td>
<td></td>
<td></td>
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<tr>
<td>Other unit manufactured prior to 1992</td>
<td>October 1, 2015</td>
<td>July 1, 2016</td>
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<tr>
<td>Other unit manufactured between 1992 to 2000</td>
<td>October 1, 2018</td>
<td>July 1, 2019</td>
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<tr>
<td>Any unit manufactured after 2000</td>
<td>October 1 of the year prior to the</td>
<td>July 1 of the year the unit is 20 years</td>
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<td></td>
<td>compliance date</td>
<td>old</td>
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## Comparison of Implementation Schedules

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<tbody>
<tr>
<td><strong>Rule 1147</strong></td>
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<tr>
<td>&gt; 1 lb/day &amp; Mft &lt; 1998</td>
<td>Red</td>
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<td>&gt; 1 lb/day &amp; Unit 15 yrs old</td>
<td>Red</td>
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<td>≤ 1 lb/day &amp; Mft &lt; 1998</td>
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<td>Red</td>
<td>Red</td>
<td>Red</td>
<td>Red</td>
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<tr>
<td>≤ 1 lb/day &amp; Unit 20 yrs old</td>
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<tr>
<td><strong>Propose Rule 1153.1</strong></td>
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<tr>
<td>In Use &amp; Mft &lt; 1992*</td>
<td></td>
<td>Green</td>
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<tr>
<td>In Use Pita and griddle &amp; Mft &lt; 1994</td>
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<td>Green</td>
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<tr>
<td>In Use &amp; Mft &lt; 2000 (20 years old)</td>
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<td></td>
<td></td>
<td>Green</td>
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<tr>
<td>In Use &amp; 20 years old</td>
<td></td>
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<td></td>
<td></td>
<td>Green</td>
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*Except Pita and Griddle
Comparison of NOx Emissions Limits

<table>
<thead>
<tr>
<th>Process Temperature</th>
<th>NOx ppm</th>
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<tbody>
<tr>
<td>&lt; 1200 °F</td>
<td>30 ppm</td>
</tr>
<tr>
<td>≥ 1200 °F</td>
<td>60 ppm</td>
</tr>
<tr>
<td>Radiant Tube</td>
<td>50 ppm</td>
</tr>
<tr>
<td>≤ 500 °F</td>
<td>40 ppm</td>
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<tr>
<td>&gt; 500 °F</td>
<td>60 ppm</td>
</tr>
</tbody>
</table>

Legend:
- Rule 1147
- PR 1153.1
PR 1153.1 Key Components

- Allow use of Rule 1147 mitigation application for up to three years after Rule 1153.1 compliance date
- Alternate Compliance Plan for facilities with multiple units that have compliance dates within one year of each other
  - 3 years for 3 – 4 units
  - 5 years for 5 or more units
- Small and low use exemption for existing in-use units
  - ≤ 1 lb/day permit condition
  - Use limit based on rating
  - ≤ 1 lb/day by recordkeeping
  - Time meter required and gas meter optional for recordkeeping
- Include option for testing of ovens and afterburners together
Facilities, Equipment and Emissions

Facilities and Equipment

• 94 Facilities Total

• 210 Units Total
  75 with emissions >1 lb/day
  135 with emissions ≤1 lb/day

• 3 Categories of Equipment
  148 Food Ovens (81 ≤1 lb/day)
  61 Roasters (53 ≤1 lb/day)
  1 Smokehouse (≤1 lb/day)

Emissions

• NOx Emissions ~ 0.2 ton/day
  80% from > 1 lb/day units
  20% from ≤1 lb/day units

• % NOx Emissions by Category
  > 1 lb/day units
    • Food Ovens 70%
    • Roasters 30%
  ≤1 lb/day units
    • Food Ovens 70%
    • Roasters 30%
    • Smokehouse

• ~ 120 lb/day NOx forgone
EIR Process

- Scoping Meeting
- NOP/IS 30-day Review
- Draft EA 45-day Review
- Public Review & Comment
- Respond to Comments
- Final EA
- Prepare NOD
- Final EA Certification
Initial Study

• Preliminary analysis to identify potential adverse environmental impacts

• Notice of Preparation of an EA / Initial Study (NOP/IS) will be released for 30-day public review period in late April

• NOP/IS will be available online at www.aqmd.gov/ceqa/nonaqmd.html

• Hardcopies will be available at SCAQMD Headquarters or by calling 909.396.2039

• Any comments on the NOP/IS must be submitted to the SCAQMD by the end of the 30-day public review period
Potentially Significant Environmental Impacts

• Environmental topics currently identified that could be adversely affected by the proposed project to be further analyzed in the Draft EA:
  – Air Quality
Public Comments

• Responses to oral and written comments will be prepared and included in the Draft EA

• Mail written comments to:
  – Attn: Mr. Jeff Inabinet
  – South Coast AQMD
  – 21865 Copley Drive
  – Diamond Bar, CA. 91765

• Comments can also be submitted by:
  – E-mail to jinabinet@aqmd.gov
  – Fax to 909.396.2453
Questions or Comments, Contact:

**Rule Development**
Wayne Barcikowski  
[wbarcikowski@aqmd.gov](mailto:wbarcikowski@aqmd.gov)  
Phone (909) 396-3077

**California Environmental Quality Act (CEQA) Environmental Impact Analysis**
Jeffrey Inabinet  
[jinabinet@aqmd.gov](mailto:jinabinet@aqmd.gov)  
Phone (909) 396-2453
Schedule

• Public Workshop/CEQA Scoping: April 2, 2014
• Continue Task Force meetings and discussions with stakeholders
• Return to SSC for update on rule development
• Tentative Public Hearing Date: September 5, 2014
Discussion