PROPOSED AMENDED RULE 1111
PUBLIC CONSULTATION

NOVEMBER 21, 2019
SAN BERNARDINO FIRE STATION # 91
302 CALIFORNIA HIGHWAY 173
LAKE ARROWHEAD, CA

PAR 1111 - Current Rulemaking

• During the November 1, 2019 Board meeting, concerns were raised by installers from the San Bernardino Mountain area regarding:
  • Limited availability of compliant (14 ng/J NOx) furnaces for high altitude applications
  • Potential public health and safety issues resulting from the lack of available compliant furnaces

• To develop proposed amendments to Rule 1111 - Reduction of NOx Emissions from Natural Gas-Fired Fan-Type Central Furnaces in order to allow additional time for furnace manufacturers to develop high altitude kits and guidance for compliant 14 ng/J units.

• Enforcement discretion and interim product variances were put in place to ensure no gap in availability of high altitude furnaces during rulemaking
PAR 1111 - Background

Rule applies to manufacturers, distributors, sellers, and installers of residential and commercial natural gas-fired fan-type central furnaces

**First adopted and established 40 ng/J NOx emission limit**

- **Dec 1978**

**Technology development prototype furnaces demonstrated 14 ng/J NOx limit is feasible**

- **Nov 2009**

**Extended and increased mitigation fee to allow manufacturers additional time**

- **2010 to 2013**

**Final compliance date for condensing and noncondensing furnaces**

- **Sept 2014**

- **Mar 2018**

- **Oct 2019**

- **Amended R1111: Required 14 ng/J NOx emission limit by 2014**

Final Compliance Date for Condensing and Noncondensing Furnaces

High Altitude Installations

**2nd Week of Sept**

- Staff was informed that compliant (14 ng/J NOx) units for high altitude areas (≥4,500 feet) may not be available
- Staff called furnace manufacturers to confirm

**3rd Week of Sept**

- Confirmed no compliant (14 ng/J NOx) furnaces for high altitude (≥4,500 feet) areas
- Two manufacturers were scheduling high altitude testing

**4th Week of Sept**

- Staff developed interim process to provide temporary relief
  - High altitude installation request form
  - Discussed Product Variance with furnace manufacturers for high altitude areas

**1st Week of Oct**

- 40 ng/J furnaces could be installed in high altitude areas using the interim process (no gap in availability of high altitude furnaces)
- Staff continued working with manufacturers to encourage petitioning for a product variance

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1. month
2. month
3. month
4. month
5. month
Current Status of Product Variances

Manufacturers with Product Variance or Petition for Product Variance

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Interim Product Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carrier Corporation</td>
<td>granted on Oct. 24, 2019</td>
</tr>
<tr>
<td>Goodman Manufacturing</td>
<td>granted on Oct. 23, 2019</td>
</tr>
<tr>
<td>Trane Inc.</td>
<td>granted on Oct. 23, 2019</td>
</tr>
<tr>
<td>Johnson Controls, Inc</td>
<td>granted on Nov. 12, 2019</td>
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</tbody>
</table>

Remaining Three Manufacturers
No variance action initiated

No high altitude installation requests were received for these three manufacturers during interim process.

Comparison of Proposed Amended Rule 1111 and Variance

<table>
<thead>
<tr>
<th></th>
<th>Rule Amendment</th>
<th>Variance</th>
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</thead>
<tbody>
<tr>
<td>Manufacturer Applicability</td>
<td>✓ All furnace manufacturers</td>
<td>✓ Only those manufacturers who are granted a product variance</td>
</tr>
<tr>
<td>Supply Chain Applicability</td>
<td>✓ Relief for entire supply chain</td>
<td></td>
</tr>
<tr>
<td>Mitigation Fee</td>
<td>✓ No Mitigation Fee</td>
<td>✓ Mitigation fee applies to those with product variance</td>
</tr>
<tr>
<td>Elevation</td>
<td>✓ ≥4,200 feet above sea level</td>
<td>✓ ≥4,500 feet above sea level*</td>
</tr>
<tr>
<td>Recordkeeping</td>
<td>✓ Required from manufacturer, distributor, and installer</td>
<td>✓ Required from manufacturer (to obtain from distributor and installer)</td>
</tr>
<tr>
<td>Duration of Relief</td>
<td>✓ October 1, 2020</td>
<td>✓ Different for each manufacturer or when there is a comparable available compliant (14 ng/l NOx) unit</td>
</tr>
<tr>
<td>Approval</td>
<td>✓ Governing Board</td>
<td>✓ Hearing Board</td>
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* Additional conditions for units between 4,500 and 5,000 feet above sea level
Status of High Altitude Kits and Guidance for Compliant Furnaces (14 ng/J)

- Process for high altitude furnaces
  - Test 14 ng/J furnaces at high altitudes (same units available at lower elevations)
  - Develop guidance for high altitude operation
  - Develop high altitude kits (e.g., gas valves for fuel/air ratio), if needed
- Four manufacturers testified during variance hearings that anticipate guidance/kits to be available between February to September 2020

Proposed Amended Rule 1111

- Allow all manufacturers to sell non-compliant (40 ng/J NOx) units in high altitude (≥4,200 feet above sea level) areas until October 1, 2020
- Require manufacturers, distributors, and installers to track and report the sales and installations of 40 ng/J furnaces
Future Assessments

➢ Spring 2020, staff will hold a public meeting to gather input on development of:
  ➢ Compliant 14 ng/J high altitude furnaces
  ➢ Weatherized furnaces – compliance date October 1, 2020
  ➢ Overall implementation of Rule 1111
➢ May 2020 provide an update to the Stationary Source Committee on information gathered from public meetings

Public Meetings

✓ Public Workshop November 14, 2019
✓ Stationary Source Committee November 15, 2019
☐ Public Consultation (Lake Arrowhead) November 21, 2019
☐ End of Public Workshop Comment Period November 22, 2019
☐ Public Hearing December 6, 2019
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