SCAQMD Rule 1147

This pamphlet provides a summary of Rule 1147 requirements and compliance options including amendments adopted in July 2017.

Adopted by the South Coast Air Quality Management District (SCAQMD) Governing Board on December 5, 2008 with a compliance schedule phased in over 10 years. The purpose of this rule is to reduce nitrogen oxide emissions (NOX) from gaseous and liquid fuel fired combustion equipment.

Amended in July 2017 to provide additional compliance flexibility for units with NOx emissions of less than 1 pound per day.

Affects manufacturers, sellers, and owners of combustion equipment that are not subject to rules that affect boilers, liquid process heaters, turbines, and engines.

Regulates ovens, dryers, furnaces, afterburners, incinerators, and other equipment used in a variety of processes. Examples of processes regulated by the rule include metal casting, forging, heat treating, coating and curing operations, drying, asphalt manufacturing, and printing operations.

Please Note: This pamphlet is for information purposes only and does not supersede rule requirements.

SCAQMD Rule 1147 Frequently Asked Questions (FAQs)

How do I determine if my equipment is subject to Rule 1147?

Unless specifically exempt from the rule, any combustion equipment that is not exempt from a permit and is not subject to a source-specific NOx limit is subject to Rule 1147.

If uncertain, you can contact SCAQMD Small Business Assistance Office at (800) 388-2121 or ask for SCAQMD Compliance at (909) 396-2000 to be connected to the team that is responsible for inspecting your business. Alternatively, you can request feedback from the local gas utility or your consultant to evaluate your equipment and process.

How do I determine if my unit has NOx emissions of less than 1 pound per day?

Several options are available:

1. Equipment burner is rated between 325,000 to 1,200,000 BTU/HR, refer to Table 2 for low use limits.
2. Equipment natural gas usage is less than 7,692 standard cubic feet per day.
3. Call the Combustion Hotline at (909)-396-3419 to inquire on the calculations estimating your maximum permitted emissions (potential to emit).

Is a list of companies that perform emissions testing available?

The SCAQMD does provide a list of companies that are prequalified. Just go to http://www.aqmd.gov -> "Business Programs" -> "Laboratory Approval".

When is my equipment subject to Rule 1147 emission limits?

All new permitted equipment rated at ≥325,000 BTU/HR is required to demonstrate compliance with the NOx emission limit. Existing permitted in-use units with NOx emissions of less than 1 pound per day must demonstrate compliance with the emission limit at the time the unit is modified, replaced, relocated* or prior to 35 years of age.

Are ovens, dryers and dry roasters used in the preparation of food and food products subject to Rule 1147?

No. Food ovens, dry roasters, and food dryers are regulated by Rule 1153.1 (Commercial Food Ovens), not Rule 1147. However, fryers (including those used for oil roasting) and afterburners controlling emissions of organic gases and particulate matter from food ovens, roasters, and dryers are regulated by Rule 1147. It should be noted that ovens used in restaurants do not require an SCAQMD permit and are therefore not affected by Rule 1147.

Please Note: Relocation exemption available for existing less than 1 pound/day units when owner relocates entire facility.
**TABLE 1:**
Summary of Rule 1147 Requirements as Amended July 7, 2017

Any Unit Installed On Or After January 1, 2010

New Units

- Requirements for Units With Emissions Less than 1 Pound/Day
  - Demonstrate compliance with NOx emissions limit as stated in Table 3 using one of three options:
    - Emission testing of unit (source test)
    - Unit Certification (for product line of identical ovens, furnaces, heaters, etc.)
    - Burner Manufacturer Guarantee (Burner Manufacturer Certification) for an individual oven or furnace that includes burner, combustion air and fuel components, and control system for that particular unit
  - Keep records on-site documenting emission test results, unit certification, or burner manufacturer guarantee and SCAQMD approval of compliance demonstration
  - Perform combustion system maintenance and keep copy of combustion system maintenance manual and maintenance records on-site for all units including those exempt from emission limit
  - Keep records on site documenting emission test results, unit certification, or burner manufacturer guarantee and SCAQMD approval of applicable compliance demonstration
  - Perform combustion system maintenance and keep on site copies of combustion system maintenance manual and maintenance records.

Specific Existing Units

- Demonstrates compliance with NOx emissions limit as shown in Table 3 when unit or combustion system is modified or replaced
- Keep records on site documenting emission test results, unit certification, or burner manufacturer guarantee and SCAQMD approval of applicable compliance demonstration
- Perform combustion system maintenance and keep on site copies of combustion system maintenance manual and maintenance records

Date Range

- Any Unit Installed On Or After January 1, 2010
- Any Unit In-Use (Operating) Before January 1, 2010
- Specific Existing Units
  - Heated process tanks, parts washers, and evaporators in-use (operating) before January 1, 2010
  - Heated process tanks, parts washers, and evaporators installed and operating with an SCAQMD permit before January 1, 2014
  - Remediation units installed between December 5, 2008 and March 1, 2012

**Table 2:**
Small and Low Use Unit Daily Operating Limits

<table>
<thead>
<tr>
<th>Unit Rating (BTU/Hour)</th>
<th>Daily Hour Limit</th>
<th>Monthly Hour Limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>325,000 to 400,000</td>
<td>16</td>
<td>352</td>
</tr>
<tr>
<td>400,001 to 500,000</td>
<td>14</td>
<td>308</td>
</tr>
<tr>
<td>500,001 to 800,000</td>
<td>8</td>
<td>176</td>
</tr>
<tr>
<td>800,001 to 1,000,000</td>
<td>6</td>
<td>152</td>
</tr>
<tr>
<td>1,000,001 to 1,200,000</td>
<td>5</td>
<td>110</td>
</tr>
</tbody>
</table>

**Table 3:**
NOx Emission Limit for Unit Heat Ratings ≥ 325,000 BTU/hour
(Exemption for Units < 325,000 BTU/hour)

<table>
<thead>
<tr>
<th>Operation Temperature</th>
<th>NOx Emission Limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>1200°F</td>
<td>≤0.053 lb/mmBtu</td>
</tr>
<tr>
<td>≥1200°F</td>
<td>&lt;0.073 lb/mmBtu</td>
</tr>
</tbody>
</table>

1. Emission limit applies to burners in units fueled by 100% natural gas that are used to incinerate air toxics, VOCs, or other vapors; or to heat a unit. The emission limit applies solely when burning 100% fuel and not when the burner is incinerating air toxics, VOCs, or other vapors. The unit shall be tested or certified to meet the emission limit while fueled with natural gas.

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1. Relocation exemption available for existing less than 1 pound/day units when owner relocates entire facility.