

# **RULE 247 NATURAL GAS-FIRED WATER HEATERS, SMALL BOILERS AND PROCESS HEATERS**

Adopted 10-10-13  
(Amended 2/13/14)

## **CONTENTS**

### **100 GENERAL**

- 101 PURPOSE
- 102 APPLICABILITY
- 103 EXEMPTIONS

### **200 DEFINITIONS**

- 201 BOILER, STEAM GENERATOR OR WATER HEATER
- 202 BRITISH THERMAL UNIT (BTU)
- 203 NATURAL GAS
- 204 POOL/SPA HEATER
- 205 PROCESS HEATER
- 206 RATED HEAT INPUT CAPACITY
- 207 RECREATIONAL VEHICLE

### **300 STANDARDS**

- 301 NITROGEN OXIDES EMISSION LIMIT

### **400 ADMINISTRATIVE REQUIREMENTS**

- 401 COMPLIANCE SCHEDULE
- 402 CERTIFICATION REQUIREMENT
- 403 MANUFACTURER'S LABELING

### **500 MONITORING AND RECORDS**

- 501 RECORDKEEPING
- 502 TEST METHOD

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## 100 GENERAL

**101 PURPOSE:** To limit the emissions of oxides of nitrogen (NOx) from the use of natural gas-fired water heaters, small boilers and process heaters.

**102 APPLICABILITY:** The provisions of this rule shall apply to any person that offers for sale, sells, or installs any natural gas-fired water heater, boiler or process heater with a rated heat input capacity of greater than or equal to 75,000 British Thermal Units per hour (Btu/hr) and less than 5 million Btu/hr in Placer County.

**103 EXEMPTIONS:** The provisions of the Rule shall not apply to:

103.1. Water heaters used in recreational vehicles.

103.2. Water heaters used to heat pools/spas with a rated heat input capacity less than or equal to 400,000 Btu/hr.

103.3. Any propane-fired heating equipment.

**200 DEFINITIONS:** Unless otherwise defined below, the terms used in this rule are defined in Rule 102, DEFINITIONS.

**201 BOILER, STEAM GENERATOR OR WATER HEATER:** Any equipment fired with natural gas to produce hot water or steam.

**202 BRITISH THERMAL UNIT (BTU):** The amount of heat required to raise the temperature of one pound of water from 59° F to 60° F at one atmosphere.

**203 NATURAL GAS:** A mixture of gaseous hydrocarbons containing at least 80 percent methane by volume as determined according to ASTM Test Method D1945-03.

**204 POOL/SPA HEATER:** A device through which water is heated when pool or spa water circulates through a heat exchanger.

**205 PROCESS HEATER:** Combustion equipment which transfers heat from combustion gases to a liquid process stream other than water.

**206 RATED HEAT INPUT CAPACITY:** The heat input capacity specified on the nameplate of the combustion unit. If the combustion unit has been physically altered or modified such that its maximum heat input is different than the heat input capacity specified on the nameplate, the new maximum heat input shall be considered as the rated heat input capacity.

**207 RECREATIONAL VEHICLE:** Any vehicle used for recreational purposes and designed to include a natural gas-fired water heater and is required to be licensed to be driven or moved on the highways of California.

## 300 STANDARDS

**301 NITROGEN OXIDES EMISSION LIMIT:** No person shall offer for sale, sell, or install any natural gas-fired water heater, boiler or process heater subject to this rule with oxides of nitrogen (NOx) emissions in excess of 20 ppmv @ 3 percent oxygen.

## 400 ADMINISTRATIVE REQUIREMENTS

**401 COMPLIANCE SCHEDULE:** Effective January 1, 2015, no person shall offer for sale, sell or install any natural gas-fired water heater, boiler or process heater which does not comply with the requirements of Section 300.

**402 CERTIFICATION REQUIREMENT:**

402.1 A manufacturer of any water heater, boiler or process heater subject to Section 300 shall submit to the Air Pollution Control Officer (APCO) at least 30 days prior to sale, a statement that the unit is in compliance with the provisions of Section 300. The statement shall be signed and dated, and shall attest to the accuracy of all information. The statement shall include the brand name, model number, the heat input capacity rating as it appears on the rating plate, or

402.2 A manufacturer shall submit to this District an approved South Coast Air Quality Management District (SCAQMD) certification obtained from an independent testing laboratory. Any model of natural gas-fired water heater, boiler or process heater certified as complying with the SCAQMD Rule 1146.1 or Rule 1146.2 need not be recertified to the test protocol specified in Section 502. A certification of a model to San Joaquin Air Quality Management District Rule 4307 will also be accepted.

**403 MANUFACTURER'S LABELING:** A manufacturer shall display the model number of the water heater, boiler or process heater on the permanent rating plate of each unit. The manufacturer shall also display the certification status on the unit. If a shipping carton is used which obscures the labeling on the unit, the manufacturer shall display the model number and certification status on the carton.

**500 MONITORING AND RECORDS**

**501 RECORDKEEPING:** A manufacturer shall keep certification reports, test reports, and certification statements for as long as the water heater, boiler or process heater model is offered for sale, sold, or installed within the District, or for five years, whichever is longer.

**502 TEST METHOD:** The manufacturer shall have each water heater, boiler, or process heater subject to this rule tested in accordance with one of the following:

502.1 South Coast Air Quality Management District Protocol: "Nitrogen Oxides Emission Compliance Testing for Natural Gas-Fired Water Heaters and Small Boilers".

502.2 South Coast Air Quality Management District Test Method 100.1

502.3 EPA Reference Test Method 7E (40 CFR 60, Appendix A)

502.4 A manufacturer that has certified a unit model to demonstrate compliance with a State or local agency rule that meets the requirements of this Rule may submit the test results to the District in lieu of conducting duplicative testing.