

VENTURA COUNTY AIR POLLUTION CONTROL DISTRICT

RULE 74.11.1 - LARGE WATER HEATERS AND SMALL BOILERS

(Adopted 9/14/99, revised 9/11/12)

A. Applicability

Until January 1, 2013, the provisions of this rule shall apply to any person selling, offering for sale, or installing, a new natural gas-fired water heater, boiler, steam generator or process heater with a rated heat input capacity greater than or equal to 75,000 BTU/hr and less than or equal to 2,000,000 BTU/hr in Ventura County.

After January 1, 2013, the provisions of this rule shall apply to any person selling, offering for sale, or installing, a new natural gas-fired water heater, boiler, steam generator or process heater with a rated heat input capacity greater than or equal to 75,000 BTU/hr and less than 1,000,000 BTU/hr in Ventura County.

B. Requirements

1. Until January 1, 2014, no person shall sell, offer for sale, or install in Ventura County any new unit with a rated heat input capacity of greater than or equal to 75,000 BTU/hr and less than or equal to 400,000 BTU/hr that does not meet the following criteria:
 - a. Oxides of nitrogen emissions shall not exceed 40 nanograms per joule of heat output (93 pounds per billion BTU), or 55 parts per million, and
 - b. The unit is certified in accordance with Section C.
2. After January 1, 2014, no person shall sell, offer for sale, or install in Ventura County any new unit with a rated heat input capacity of greater than or equal to 75,000 BTU/hr and less than or equal to 400,000 BTU/hr that does not meet the following criteria:
 - a. Oxides of nitrogen emissions shall not exceed 14 nanograms per joule of heat output (32.5 pounds per billion BTU), or 20 parts per million, and
 - b. The unit is certified in accordance with Section C.

Subsection B.2.a shall not apply to units specifically designed to heat swimming pools, hot tubs or spas. For such units, oxides of nitrogen emissions shall not exceed 40 nanograms per joule of heat output (93 pounds per billion BTU), or 55 parts per million.

3. Until January 1, 2013, no person shall sell, offer for sale, or install in Ventura County any new unit with a rated heat input capacity of greater than 400,000 BTU/hr and less than or equal to 2,000,000 BTU/hr that does not meet the following criteria:
 - a. Oxides of nitrogen emissions shall not exceed 30 parts per million and carbon monoxide emissions shall not exceed 400 parts per million, and
 - b. The unit is certified in accordance with Section C.
4. After January 1, 2013, no person shall sell, offer for sale, or install in Ventura County any new unit with a rated heat input capacity of greater than 400,000 BTU/hr and less than 1,000,000 BTU/hr that does not meet the following criteria:
 - a. Oxides of nitrogen emissions shall not exceed 20 parts per million and carbon monoxide emissions shall not exceed 400 parts per million, and
 - b. The unit is certified in accordance with Section C.

C. Certification

1. Every subject unit offered for sale in Ventura County shall be certified by the Air Pollution Control Officer (APCO). On or before the applicable compliance date specified in Subsections B.1 or B.2, and thereafter at least 30 days prior to the date of proposed sale in Ventura County, the manufacturer shall submit a compliance report for each applicable new or modified unit by model. Certification shall be valid for three (3) years from the date of written approval by the APCO.
 - a. For each model certified, the manufacturer shall obtain from an independent testing laboratory a certification source test verifying compliance with the emission limits in Section B. Source tests shall be conducted on a randomly selected unit no more than 90 days prior to the date of proposed sale of the model in Ventura County. Tests shall be conducted and reports shall be prepared according to Attachment A of this rule.
 - b. The compliance report shall contain the following information:
 - 1). General Information
 - i Name and address of manufacturer,
 - ii Brand name,

iii Model number, as it appears on the permanent nameplate, and

iv Description of the model being certified, including burner type and rated heat input capacity.

- 2). A report on the source test specified in Subsection C.1.a
- 3). A signed and dated statement attesting to the accuracy of all statements and information in the Compliance Report.

2. The requirements of Subsection C.1 notwithstanding, applicable equipment certified by the South Coast Air Quality Management District in accordance with the requirements of SCAQMD Rule 1146.2, adopted May 5, 2006, shall be considered certified for use in Ventura County.

D. Identification of Complying Water Heaters

The manufacturer shall display both the model number, the date of manufacture, and the certification status, as determined in Section C of this rule, of an applicable unit on the permanent nameplate. If the permanent nameplate is obscured by packaging, the model number and certification status shall also appear on the packaging.

E. Enforcement

1. The APCO may periodically inspect distributors, retailers, and installers of water heaters located in the District and require such tests as are deemed necessary to ensure compliance with the provisions of this rule.
2. Oxides of nitrogen emissions are measured as nitrogen dioxide using CARB Method 100. Parts per million measurements are by volume and referenced to three (3) percent stack gas oxygen on a dry basis. Field emission tests shall be conducted on units fired at maximum rated capacity, or as near thereto as practicable.

F. Definitions

For the purposes of this rule the following definitions shall apply:

1. "Boiler, Steam Generator": Any external combustion equipment fired with liquid and/or gaseous fuel and used to produce either steam or hot water. These terms do not include any unfired waste heat recovery boiler that is used to recover sensible heat from a combustion device.

2. "Heat Output": The product H_O as defined in Section 9.3 of the South Coast Air Quality Management District *Protocol* cited in Attachment A.
3. "New Unit": Any applicable water heater, boiler, steam generator or process heater sold, offered for sale, or installed after January 1, 2014, for units subject to the requirements of Subsection B.2 or January 1, 2013, for units subject to the requirements of Subsection B.4.
4. "Process Heater": Any external combustion equipment fired with liquid and/or gaseous fuel and which transfers heat from combustion gases to water or process streams. Process Heater does not include any kiln or oven used for drying, baking, cooking, calcinating or vitrifying or any fuel-fired degreasing or metal finishing equipment.
5. "Rated Heat Input Capacity": The gross heat input capacity specified on the nameplate of either the unit or the burner.
6. "Unit": A water heater, boiler, steam generator or process heater.
7. "Water Heater": A device that heats water at a thermostatically-controlled temperature for delivery on demand. Water is heated by the combustion of either liquid and/or gaseous fuel and withdrawn for use external to the vessel at pressures not exceeding 160 psig. The device includes the apparatus by which heat is generated and all controls and equipment necessary to prevent water temperatures from exceeding 210°F (99°C).

Attachment A
Certification Source Tests

Certification source tests, as specified in Subsection C.1, shall be conducted according to "*Nitrogen Oxides Emissions Compliance Testing for Natural Gas-Fired Water Heaters and Small Boilers*," Protocol, South Coast Air Quality Management District, Source Testing and Engineering Branch, Applied Science and Technology.