



Air Pollution Control Board

Greg Cox	District 1
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November 15, 2013

NOTICE OF WORKSHOP

**FOR DISCUSSION OF PROPOSED NEW RULE 69.5.1 –
NATURAL GAS-FIRED WATER HEATERS AND REPEAL OF
EXISTING RULE 69.5 - NATURAL GAS-FIRED WATER HEATERS**

The San Diego County Air Pollution Control District (District) will hold a public meeting to consider comments concerning proposed new District Rule 69.5.1 – Natural Gas-Fired Water Heaters and the proposed repeal of existing Rule 69.5 – Natural Gas-Fired Water Heaters. Comments may be submitted in writing before, or made at, the workshop, which is scheduled as follows:

DATE: Thursday, January 16, 2014
TIME: 10:00 a.m. to 12:00 p.m.
PLACE: San Diego Air Pollution Control District
Main Conference Room
10124 Old Grove Road
San Diego, CA 92131

Air quality in San Diego County has substantially improved over the past two decades due to comprehensive efforts to reduce air pollutant emissions. Nevertheless, current State and federal air quality standards for ozone are not met in the region. Consequently, emissions of air pollutants that form ozone, including nitrogen oxides (NOx), must be reduced. State and federal laws require the District to update its rules to control NOx emissions from stationary sources as control technologies improve or control costs are reduced.

Existing Rule 69.5 regulates NOx emissions from natural gas-fired water heaters (units) with a rated heat input capacity of less than 75,000 Btu per hour, and has not been updated since its adoption in 1998. The District proposes repealing existing Rule 69.5 and adopting new Rule 69.5.1 that includes similar requirements, but with more stringent NOx emission limits reflecting the availability of lower-emitting and more energy efficient combustion technology. The proposed new rule does not affect existing water heaters, but rather applies only to new and replacement units.

Specifically, the proposed new rule will:

- Specify NOx emissions limits of 10 nanograms per joule or 15 parts per million (ppmv) for new water heaters, and 40 nanograms per joule or 55 ppmv for new mobile home water heaters.

OVER

- Prohibit the manufacture, sale, offer for sale, distribution, or installation for use within San Diego County, of any new unit with a rated heat input capacity of less than 75,000 Btu/hr that does not comply with the emissions standards of the rule.
- Require a manufacturer of any new unit to be offered for sale within San Diego County, to submit to the District a statement certifying that each model of water heater complies with the provisions of the rule.
- Require a manufacturer to display on the shipping carton and the nameplate of every new unit to be offered for sale within San Diego County, the model number and certification status of the unit in compliance with new Rule 69.5.1 or, alternatively, the most current requirements of the South Coast Air Quality Management District Rule 1121 (Control of Nitrogen Oxides from Residential Type, Natural Gas-Fired Water Heaters).
- Require a manufacturer to keep emissions test records and certification records for as long as the unit model is offered for sale or sold within San Diego County, or for three calendar years after manufacture, whichever is longer.
- Provide a six-month period after the date of adoption of Rule 69.5.1 before the new rule takes effect, allowing for depletion of existing inventories of new non-compliant water heaters.

If you would like a copy of proposed new Rule 69.5.1, please visit the District's website at http://www.sdapcd.org/homepage/public_part/workshops/public_workshops.pdf or contact Janet McCue at (858) 586-2712. If you have any questions concerning the rule, please contact Randy Consolacion at (858) 586-2752 or Natalie Yates at (858) 586-2756.



ROBERT REIDER, Deputy Director
Air Pollution Control District

RR:NY:jlm

RULE 69.5.1 NATURAL GAS-FIRED WATER HEATERS

(Adopted (*adoption date*), Effective (*6 months after adoption date*))

(a) **APPLICABILITY**

Except as otherwise provided in Section (b), this rule shall apply to any person who manufactures, distributes, sells, offers for sale, or installs, for use in San Diego County, a new water heater operated with natural gas and with a rated heat input capacity of less than 75,000 Btu per hour.

(b) **EXEMPTIONS**

(1) The provisions of this rule shall not apply to:

- (i) Water heaters used in recreational vehicles;
- (ii) Water heaters used exclusively to heat swimming pools and hot tubs;
- (iii) Water heaters using fuels other than natural gas;
- (iv) Instantaneous water heaters;
- (v) Existing or relocated water heaters.

(2) The provisions of Sections (e), (f) and (g) shall not apply to a new water heater used in conjunction with any equipment, product line, system, process line or process that is subject to permit requirements of Rule 10.

(c) **DEFINITIONS**

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

- (1) **“Btu”** means British thermal units.
- (2) **“Existing Water Heater”** means a water heater which was installed and capable of operation before (*rule effective date*).
- (3) **“Heat Output”** means the product obtained by multiplying recovery efficiency, as defined by Section 6.1.3 of the Code of Federal Regulations, Title 10, Part 430, Subpart B, Appendix E, by the rated heat input capacity of the water heater.
- (4) **“Installed”** means located onsite at the final destination and capable of operation.
- (5) **“Instantaneous Water Heater”** means a water heater that heats water only when it flows through a heat exchanger.

(6) **“Mobile Home”** means a structure as defined in Section 18007 or 18008 of the California Health and Safety Code.

(7) **“Mobile Home Water Heater”** means a water heater manufactured exclusively for mobile home use.

(8) **“New Water Heater”** means a water heater installed, manufactured, or sold on or after (*rule effective date*).

(9) **“Rated Heat Input Capacity”** means the heat input capacity of a water heater, in Btu per hour, as specified by the manufacturer on the nameplate of the water heater.

(10) **“Recreational Vehicle”** means the same as defined in Section 18010 of the California Health and Safety Code.

(11) **“Relocated Water Heater”** means an existing water heater which is moved within San Diego County from one stationary source to another stationary source. A relocated water heater is deemed to maintain the status of an existing water heater at the subsequent stationary source.

(12) **“Stationary Source”** means the same as defined in Rule 2.

(13) **“Water Heater”** means a closed vessel in which water heated by combustion of natural gas is withdrawn for use external to the vessel at pressures not exceeding 160 psig. Water heater consists of the apparatus by which heat is generated and all controls and devices necessary to prevent water temperatures from exceeding 210°F (99°C).

(d) **STANDARDS**

Except as otherwise provided in Section (b), effective (*rule effective date*), no person shall manufacture, distribute, sell, offer for sale, or install, for use within San Diego County:

(1) Any new water heater (not for use in a mobile home) that operates on natural gas and emits more than:

(i) 10 nanograms of nitrogen oxides (calculated as nitrogen dioxide) per joule (23 lbs of nitrogen oxides per billion Btu) of heat output, or

(ii) 15 parts per million by volume nitrogen oxides (calculated as nitrogen dioxide) at 3% oxygen on a dry basis (17.5 lbs per billion Btu of heat input).

(2) Any new mobile home water heater that operates on natural gas and emits more than:

(i) 40 nanograms of nitrogen oxides (calculated as nitrogen dioxide) per joule (93 lbs of nitrogen oxides per billion Btu) of heat output, or

(ii) 55 parts per million by volume nitrogen oxides (calculated as nitrogen dioxide) at 3% oxygen on a dry basis (71 lbs per billion Btu of heat input).

(e) **CERTIFICATION**

(1) A manufacturer of any new water heater to be offered for sale in San Diego County shall submit to the Air Pollution Control Officer a statement certifying that each model of water heater subject to the requirements of Section (d) complies with all other provisions of this rule.

(i) The statement shall be signed, dated, and attest to the accuracy of all information.

(ii) The statement shall be submitted at least 30 days before the new water heater model is offered for sale, sold, or installed within San Diego County.

(iii) The statement shall include:

(A) Brand name,

(B) Model number,

(C) Rated heat input capacity as specified on the nameplate, and

(D) Test results of emissions of nitrogen oxides for each model being certified.

(2) A manufacturer shall submit to the Air Pollution Control Officer a certification statement for any water heater model whose design is changed in any manner which may alter emissions of nitrogen oxides.

(3) Alternatively, to comply with Subsections (e)(1) or (e)(2), a manufacturer may submit to the Air Pollution Control Officer a certification statement for the water heater model as required in the South Coast Air Quality Management District (SCAQMD) Rule 1121, Section (d).

(f) **LABELING**

On the shipping carton and the nameplate of every new water heater to be offered for sale in San Diego County, the manufacturer shall display the model number of the new water heater complying with Section (e) requirements, or alternatively, the most current requirements of the SCAQMD Rule 1121.

(g) **RECORD KEEPING**

A manufacturer shall keep test records for emissions of nitrogen oxides and certification records for as long as the new water heater model is offered for sale or sold within San Diego County, or for three calendar years after manufacture, whichever is longer. Such records shall be provided to the District upon request.

(h) **TEST METHODS**

To determine compliance with Section (d), measurement of emissions of nitrogen oxides shall be conducted in accordance with:

(1) San Diego Air Pollution Control District Test Method 100, as approved by the U.S. Environmental Protection Agency (EPA) in May 1995; or

(2) SCAQMD Test Method 100.1, as approved by the U.S. EPA in March 1989.

(i) **EMISSION TEST REQUIREMENTS**

Emission tests shall be performed in accordance with the procedures and methods outlined in the SCAQMD Protocol: Nitrogen Oxides Emissions Compliance Testing for Natural Gas-Fired Water Heaters and Small Boilers, January 1998.