

**Air Pollution Control Board**

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Air Pollution Control District

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May 13, 1998

TO: New Rule 69.5 - Natural Gas Water Heaters &
New Rule 69.6 - Natural Gas-Fired, Fan-Type Central Furnaces
Workshop Participants and Other Interested Parties

FROM: Richard J. Smith
Deputy Director

**PROPOSED NEW RULES 69.5 AND 69.6
FINAL DRAFT RULE AND WORKSHOP REPORT**

Attached for your review are the workshop report and the final draft of proposed new Rule 69.5 - Natural Gas Water Heaters and Rule 69.6 - Natural Gas-Fired, Fan-Type Central Furnaces that will be considered for adoption by the Air Pollution Control Board on June 17, 1998.

If you have any questions, please call Rob Reider at (619) 694-8852 or me at (619) 694-3303.

RICHARD J. SMITH
Deputy Director

RJSm:JFO:ls

Attachments

**AIR POLLUTION CONTROL DISTRICT
COUNTY OF SAN DIEGO**

**PROPOSED NEW RULE 69.5 - NATURAL GAS-FIRED WATER HEATERS,
AND PROPOSED NEW RULE 69.6 - NATURAL GAS-FIRED,
FAN-TYPE CENTRAL FURNACES**

WORKSHOP REPORT

A workshop notice was mailed to all affected parties involved in manufacturing, distributing, selling, or installing residential-type natural gas-fired water heaters and natural gas-fired, fan-type central furnaces. Notices were also mailed to all local Chambers of Commerce, all local Economic Development Corporations, the U.S. Environmental Protection Agency (EPA), the California Air Resources Board (ARB), and other interested parties.

The workshop was held on April 22, 1998, and was attended by three industry representatives and six District staff. One comment was received by letter before the workshop. Comments and District responses follow.

1. WORKSHOP COMMENT

Are there any on-site emissions testing requirements for installed units?

DISTRICT RESPONSE

No, these rules do not require emissions testing for installed water heaters or furnaces. Testing affected models to demonstrate compliance will be the responsibility of manufacturers before unit distribution, sale, and installation.

2. WORKSHOP COMMENT

The proposed six-month grace period is adequate for depleting current retailer, distributor, and contractor stock inventory before rule implementation.

DISTRICT RESPONSE

Comment noted.

3. COMMENT BY LETTER

The Gas Appliance Manufacturers' Association (GAMA) advised that the proposed requirement to display "certification status" on the rating plate and shipping carton is not necessary. Instead, displaying the model number of the complying unit on the rating plate and shipping carton is adequate to identify certified models. Otherwise, manufacturers would incur unnecessary labeling expenses by applying a separate and distinct marking for the San Diego Air Pollution Control District. Other California air districts that have adopted NOx emission rules do not require a "certification status" marking, and the lack of such a marking has not been a problem in those districts. Revise section (f) of each rule as follows:

(f) Labeling

On the shipping carton and the nameplate of every water heater [furnace] to be offered for sale in San Diego County, the manufacturer shall display the model number ~~and South Coast Air Quality Management District certification status or San Diego Air Pollution Control District certification status~~ of the water heater [furnace] complying with Section (e) of this rule.

DISTRICT RESPONSE

The District agrees and proposes to revise Section (f), Labeling, of both Rule 69.5 and 69.6.

4/28/98
RR:RM:jo

**AIR POLLUTION CONTROL DISTRICT
COUNTY OF SAN DIEGO**

PROPOSED NEW RULE 69.5

Proposed new Rule 69.5 is to read as follows:

RULE 69.5 NATURAL GAS-FIRED WATER HEATERS

(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 natural gas-fired water heaters for use in San Diego County.

(b) EXEMPTIONS

The provisions of this rule shall not apply to:

- (1) Water heaters with a rated heat input capacity of 75,000 Btu per hour or greater;
- (2) Water heaters used in recreational vehicles; or
- (3) Water heaters used exclusively to heat swimming pools and hot tubs.

(c) DEFINITIONS

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

- (1) **"Btu"** means British thermal units.
- (2) **"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.
- (3) **"Mobile Home"** means a structure as defined in Section 18008 of the California Health and Safety Code.
- (4) **"Mobile Home Water Heater"** means a water heater manufactured exclusively for mobile home use.
- (5) **"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.
- (6) **"Recreational Vehicle"** means a motor vehicle designed and equipped for human habitation as defined in Section 362 of the California Vehicle Code.
- (7) **"Water Heater"** means a closed vessel in which water is heated by combustion of natural gas and is withdrawn for use external to the vessel at pressures not exceeding 160 psig, including 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 January 1, 1999, no person shall manufacture, distribute, sell, offer for sale, or install within San Diego County any:

(1) Natural gas-fired water heater that emits more than 40 nanograms of oxides of nitrogen (calculated as nitrogen dioxide) per joule (93 lbs of oxides of nitrogen per billion Btu) of heat output, or

(2) Natural gas-fired mobile home water heater that emits more than 50 nanograms of oxides of nitrogen (calculated as nitrogen dioxide) per joule (116 lbs of oxides of nitrogen per billion Btu) of heat output.

(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) of this rule complies with the 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 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) Oxides of nitrogen emission test results of each model being certified.

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

(3) To comply with Subsections (e)(1) or (e)(2), a manufacturer may submit to the Air Pollution Control Officer a South Coast Air Quality Management District certification statement for the water heater model.

(f) LABELING

On the shipping carton and the nameplate of every ~~furnace~~ water heater to be offered for sale in San Diego County, the manufacturer shall display the model number ~~and South Coast Air Quality Management District certification status or San Diego Air Pollution Control District certification status~~ of the water heater complying with Section (e) of this rule.

(g) RECORDKEEPING

A manufacturer shall keep oxides of nitrogen emission test records and certification records for as long as the 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) of this rule, measurement of oxides of nitrogen shall be conducted in accordance with:

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

(2) South Coast Air Quality Management District Test Method 100.1 as approved by the federal Environmental Protection Agency in March 1989.

(i) EMISSION TEST REQUIREMENTS

Emission tests shall be performed in accordance with the procedures and methods outlined in the South Coast Air Quality Management District Protocol: Nitrogen Oxides Emissions Compliance Testing for Natural Gas-Fired Water Heaters and Small Boilers as it exists on (date of adoption).

**AIR POLLUTION CONTROL DISTRICT
COUNTY OF SAN DIEGO**

PROPOSED NEW RULE 69.6

Proposed new Rule 69.6 is to read as follows:

RULE 69.6 NATURAL GAS-FIRED FAN-TYPE CENTRAL FURNACES

(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 natural gas-fired, fan-type central furnaces, including combination heating and cooling units, for use in San Diego County.

(b) EXEMPTIONS

The provisions of this rule shall not apply to:

- (1) Fan-type central furnaces with a rated heat input capacity of 175,000 Btu per hour or greater, or
- (2) Combination heating and cooling units with a rated cooling capacity of 65,000 Btu per hour or greater, or
- (3) Fan-type central furnaces installed in mobile homes.

(c) DEFINITIONS

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

- (1) **"Btu"** means British thermal units.
- (2) **"Fan-Type Central Furnace"** means a self-contained space heater providing for circulation of heated air at pressures other than atmospheric through ducts more than 10 inches in length that has a rated heat input capacity of less than 175,000 Btu per hour or, for combination heating and cooling units, that has a rated cooling capacity of less than 65,000 Btu per hour.
- (3) **"Heat Output"** means the product obtained by multiplying the Annual Fuel Utilization Efficiency, as defined by Section 4.6 of Code of Federal Regulations, Title 10, Part 430, Subpart B, Appendix N, by the rated heat input capacity of the furnace.
- (4) **"Mobile Home"** means a structure as defined in Section 18008 of the California Health and Safety Code.
- (5) **"Rated Cooling Capacity"** means the cooling capacity, in Btu per hour, as specified by the manufacturer on the nameplate of the cooling unit.
- (6) **"Rated Heat Input Capacity"** means the heat input capacity of a furnace, in Btu per hour, as specified by the manufacturer on the nameplate of the furnace.

(d) STANDARDS

Except as otherwise provided in Section (b), effective January 1, 1999, no person shall manufacture, distribute, sell, offer for sale, or install within San Diego County any natural gas-fired, fan-type central furnace that emits more than 40 nanograms of oxides of nitrogen (calculated as nitrogen dioxide) per joule (93 lb of oxides of nitrogen per billion Btu) of heat output.

(e) CERTIFICATION

(1) A manufacturer of any new furnace to be offered for sale in San Diego County shall submit to the Air Pollution Control Officer a statement certifying that each model of furnace subject to the requirements of Section (d) of this rule complies with the 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 furnace 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) Oxides of nitrogen emission test results of each model being certified.

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

(3) To comply with Subsections (e)(1) or (e)(2), a manufacturer may submit to the Air Pollution Control Officer a South Coast Air Quality Management District certification statement for the furnace model.

(f) LABELING

On the shipping carton and the nameplate of every furnace to be offered for sale in San Diego County, the manufacturer shall display the model number ~~and South Coast Air Quality Management District certification status or San Diego Air Pollution Control District certification status~~ of the furnace complying with Section (e) of this rule.

(g) RECORDKEEPING

A manufacturer shall keep oxides of nitrogen emission test records and certification records for as long as the furnace 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) of this rule, measurement of oxides of nitrogen shall be conducted in accordance with:

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

(2) South Coast Air Quality Management District Test Method 100.1 as approved by the federal Environmental Protection Agency in March 1989.

(i) EMISSION TEST REQUIREMENTS

Emission tests shall be performed in accordance with the procedures and methods outlined in the South Coast Air Quality Management District Protocol: Rule 1111 Nitrogen Oxides Emissions Compliance Testing for Natural Gas-Fired, Fan-Type Central Furnaces as it exists on *(date of adoption)*.