

REVISED PROPOSED December 23, 2014

RULE 4905 NATURAL GAS-FIRED, FAN-TYPE ~~RESIDENTIAL~~—CENTRAL FURNACES (Adopted October 20, 2005, Amended [*Date of Adoption*])

1.0 Purpose

The purpose of this rule is to limit NOx emissions from natural gas-fired, fan-type ~~residential~~ central furnaces.

2.0 Applicability

The provisions of this rule shall apply to any person who supplies, sells, offers for sale, installs, or solicits the installation of natural gas-fired, fan-type ~~residential~~—central furnaces for use within the ~~District~~ San Joaquin Valley Air Basin with a rated heat input capacity of less than 175,000 British thermal units per hour, and for combination heating and cooling units with a rated cooling capacity of less than 65,000 British thermal units per hour.

3.0 Definitions

3.1 Air Pollution Control Officer (APCO): as defined in Rule 1020 (Definitions).

3.2 Annual Fuel Utilization Efficiency: the efficiency descriptor as defined by Section 430.2 of the Code of Federal Regulations, Title 10, Part 430, Subpart A.

3.3 Condensing Unit: for purposes of this rule, a natural gas-fired, fan-type central furnace, as defined in Section 3.8, that uses a second heat exchanger to extract the latent heat in the flue gas by cooling the combustion gasses to near ambient temperature so that water vapor condenses in the heat exchanger, is collected, and is drained.

3.43 District: as defined in Rule 1020 (Definitions).

3.54 Fan-type ~~Residential~~ Central Furnace: a self-contained space heater providing for circulation of heated air at pressures other than atmospheric through ducts more than 10 inches in length.

3.65 Heat Output (Central Furnace): the product obtained by multiplying the annual fuel utilization efficiency ~~as defined by Section 430.2 of the Code of Federal Regulations (CFR), Title 10, Part 430, Subpart A,~~ by the rated heat input capacity of the natural gas-fired, fan-type central furnace.

3.76 Manufactured Home: as defined in 42 United States Code Section 5402 and California Health and Safety Code Section 18007.5, ~~means a structure,~~

~~transportable in one or more sections, which, in the traveling mode, is eight body feet or more in width, or 40 body feet or more in length, or, when erected on site, is 320 or more square feet, and which is built on a permanent chassis and designed to be used as a dwelling with or without a permanent foundation when connected to the required utilities, and includes the plumbing, heating, air conditioning, and electrical systems contained therein; except that such term shall include any structure which meets all the requirements of this paragraph except the size requirements and with respect to which the manufacturer voluntarily files a certification and complies with the standards established under this part. "Manufactured home" includes a mobile home subject to the National Manufactured Housing Construction and Safety Act of 1974 (42 U.S.C., Sec. 5401, et seq.).~~

- ~~3.87~~ Natural Gas: a mixture of gaseous hydrocarbons containing at least 80 percent methane by volume, as determined according to Standard Method ASTM D1945-64.
- ~~3.98~~ NOx: any oxides of nitrogen.
- ~~3.109~~ Rated Cooling Capacity: ~~the cooling capacity specified on the nameplate of the cooling unit. Cooling capacity is the amount of heat energy the cooling system can displace in one hour (British thermal units per hour), as specified on the rating plate of the cooling unit.~~
- ~~3.110~~ Rated Heat Input Capacity: ~~the heat input capacity specified on the nameplate of the combustion unit. Heat input is the amount of energy consumed in one hour (British thermal units per hour), as specified on the rating plate of the combustion unit.~~
- ~~3.12~~ Responsible Official: for the purposes of this rule: for a corporation, a president or vice-president of the corporation in charge of a principal business function or a duly authorized person who performs similar policy-making functions; for a partnership or sole proprietorship, a general partner or proprietor, respectively.
- ~~3.13~~ Weatherized Unit: for the purposes of this rule, a natural gas-fired, fan-type central furnace designed for installation outside of a building, equipped with a protective jacket and integral venting, and labeled for outdoor installation.

4.0 Exemptions

~~[Reserved] The provisions of this rule shall not apply to:~~

~~4.1 Units installed in manufactured homes.~~

~~4.2 Units using fuels other than natural gas.~~

~~4.3 Nonfan-type residential central furnaces.~~

5.0 Requirements

5.1 No person shall supply, sell, offer for sale, install, or solicit the installation of any natural gas-fired, fan-type residential central furnace ~~for use within the District unless it has~~ is certified pursuant to Section 6.1 to have NO_x emissions of oxides of nitrogen less than or equal to 40 nanograms per joule (ng/J)–0.093 pounds per million BTU (lb/MMBtu) of heat output or 55 ppm NO_x at 3.00% O₂ stack gas by volume(dry).

5.2 Effective on and after the specified compliance dates in Table 1, no person shall supply, sell, offer for sale, install, or solicit the installation of any natural gas-fired, fan-type central furnace unless it is certified pursuant to Section 6.1 and complies with the applicable NO_x emission limit in Table 1.

<u>Table 1 NO_x Emission Limits and Compliance Schedule</u>		
<u>Unit Type</u>	<u>NO_x Emission Limit (nanograms/Joule)</u>	<u>Compliance Date</u>
Units installed in manufactured homes	40	February 1, 2015
<u>All non-weatherized condensing units except those installed in manufactured homes</u>	<u>14</u>	<u>April 1, 2015</u>
<u>All non-weatherized, non-condensing units except those installed in manufactured homes</u>	<u>14</u>	<u>October 1, 2015</u>
Weatherized units	14	October 1, 2016
Units installed in manufactured homes	14	October 1, 2018

5.3 Sell-Through Period

Any natural gas-fired, fan-type central furnace manufactured prior to the applicable compliance date in Table 1 may be supplied, sold, offered for sale, or installed until the applicable sell-through period end-date in Table 2, provided the unit is compliant with the following requirements:

5.3.1 The NO_x emission limits and certification requirements in effect on the date of manufacture of the unit, and

5.3.2 The labeling requirements specified in Section 6.1.2.

<u>Table 2 Sell-through Period End-Dates for Units Manufactured Prior to the Applicable Compliance Dates in Table 1</u>	
<u>Unit Type</u>	<u>Sell-through Period End-date</u>
<u>All non-weatherized condensing units except those installed in manufactured homes</u>	<u>January 26, 2016</u>
<u>All non-weatherized, non-condensing units except those installed in manufactured homes</u>	<u>July 27, 2016</u>
<u>Weatherized units</u>	<u>July 27, 2017</u>
<u>Units installed in manufactured homes (for certified 40 ng/J units)</u>	<u>July 27, 2019</u>

5.4 Emission Fee Option

Any manufacturer of units regulated by this rule may elect to pay a per unit emission fee of \$290 for each condensing furnace and \$225 for each non-condensing or manufactured home furnace distributed or sold into the San Joaquin Valley in lieu of meeting the 14 ng/J emission limit in Table 1 of this rule, provided the NOx emission rate is less than or equal to 40 ng/J. A manufacturer may elect to pay the per unit emission fee for a time period of no more than 36 months after the applicable compliance date in Table 1. A manufacturer shall submit a compliance plan for each 12-month time period after the applicable compliance date during which the manufacturer elects to pay the emission fee in lieu of meeting the NOx emission limit.

5.4.1 Any manufacturer electing to comply using this emission fee option shall submit to the APCO a compliance plan no later than 30 days prior to the applicable compliance date in Table 1. The compliance plan shall include the following:

5.4.1.1 A letter with the name of the manufacturer requesting the emission fee option signed by a responsible official identifying the unit type and the 12-month emission fee option compliance period that the emission fees cover.

5.4.1.2 An estimate of the quantity of applicable units to be distributed or sold into the San Joaquin Valley Air Basin during the emission fee option compliance period and supporting documentation. The estimate shall be based on total distribution and sales records or invoices of condensing, non-condensing, weatherized or mobile home fan-type central furnaces that were distributed or sold into the San Joaquin Valley Air Basin during the 12-month period of July 1 to June 30 prior to the applicable compliance date, along with supporting documentation.

5.4.2 The manufacturer shall submit a report to the APCO, signed by the responsible official for the manufacturer, identifying by model number the quantity of applicable units actually distributed or sold into the San Joaquin Valley Air Basin during the applicable 12-month emission fee option compliance period and a check for payment of emission fees for those units. The report and payment of emission fees must be submitted to the APCO no later than thirty (30) days after the end of each 12-month emission fee option compliance period.

6.0 Administrative Requirements

6.1 Emission Certification

6.1.1 Certified emissions levels shall be demonstrated by an emission certification approved under any of the following:

6.1.1.1 Certification testing as described in Section 6.2 of this rule,

6.1.1.2 The South Coast Air Quality Management District Certification List for Rule 1111 (NO_x Emissions From Natural-gas-fired, Fan-type Central Furnaces), or

6.1.1.3 Other emission certification programs approved by the APCO and the United States Environmental Protection Agency.

6.1.2 The manufacturer of the natural gas-fired, fan-type central furnace shall comply with the following labeling requirements:

6.1.2.1 ~~The central furnace manufacturer shall~~ Display the model number of the unit-appliance complying with Section 5.0 on the shipping container carton and the rating plate of the unit appliance; and

6.1.2.2 Units manufactured after the applicable compliance date in Table 1 shall display the following on the shipping container and the rating plate of the unit, in addition to the labeling requirements under Section 6.1.2.1:

6.1.2.2.1 Rated heat input capacity or rated cooling capacity,

6.1.2.2.2 The applicable NO_x emission limit in Section 5.0, and

6.1.2.2.3 The date of manufacture or date code of the unit.

6.1.3 Upon request of the APCO, each manufacturer shall submit to the District a statement confirming the ~~appliance-unit~~ subject to this rule is in compliance with the emission limit specified in Section 5.0. The statement shall be signed, dated, and shall attest to the accuracy of all information. The statement shall include:

6.1.3.~~12~~ Name and address of manufacturer,

6.1.3.~~23~~ Brand name,

6.1.3.~~34~~ Model number, as it appears on the rating plate of the unit,

6.1.3.~~45~~ Rated heat input ~~ratingcapacity~~, British thermal units per hour, and

6.1.3.~~56~~ A source test report verifying compliance with Section 5.0.

6.2 Certification Testing

6.2.1 During testing, each tested natural gas-fired, fan-type central furnace model shall be operated in accordance with the procedures specified in 10 CFR 430, Subpart B, Appendix N.

6.2.2 Compliance with the ~~oxides of nitrogen-NOx~~ NOx emission requirements in Section 5.0 shall be determined using California Air Resources Board Method 100, SCAQMD Method 100.1, or United States Environmental Protection Agency Methods 7E and 3A.

6.3 Recordkeeping

Compliance testing records shall be maintained for five years and made available to the APCO upon request.

~~7.0 Compliance Schedule~~

~~On and after January 1, 2007, no person shall supply, sell, offer for sale, install, or solicit the installation of a unit subject to this rule unless it meets the requirements of section 5.0.~~