
RULE 4905 NATURAL GAS-FIRED, FAN-TYPE ~~RESIDENTIAL~~-CENTRAL FURNACES
(Adopted October 20, 2005, Amended [*rule adoption date*])

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 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.

~~3.4~~ District: as defined in Rule 1020 (Definitions).

~~3.4 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.~~

3.5 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.

3.6 Manufactured Home: as defined in 42 United States Code Section 5402 and California Health and Safety Code Section 18007, ~~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.).~~

- 3.7 Natural Gas: a mixture of gaseous hydrocarbons containing at least 80 percent methane by volume, as determined according to Standard Method ASTM D1945-64.
- 3.8 Natural Gas-fired, Fan-type Central Furnace: a self-contained space heater using natural gas as a fuel and providing for circulation of heated air at pressures other than atmospheric through ducts more than 10 inches in length.
- 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 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 supplied, sold, offered

PROPOSED

November 18, 2014

for sale, installed, or solicited for installation for use within the District unless shall be certified pursuant to Section 6.1 to have it has certified NOx emissions of oxides of nitrogen less than or equal to 0.093 pounds per million BTU (lb/MMBtu) of heat output or 55 ppm NOx at 3.00% O₂ stack gas by volume on a dry basis (dry).

- 5.2 Effective on and after the specified compliance dates in Table 1, any natural gas-fired, fan-type central furnace supplied, sold, offered for sale, installed, or solicited for installation shall be certified pursuant to Section 6.1 and comply with the applicable NOx emission limit.

<u>Table 1 NOx Emission Limits</u>		
<u>Unit Type</u>	<u>NOx Emission Limit (ppmv limits are referenced at 3.00% O₂ stack gas by volume on a dry basis)</u>	<u>Compliance Date</u>
<u>Units installed in manufactured homes</u>	<u>0.093 lb/MMBtu heat output or 55 ppmv</u>	<u>January 1, 2015</u>
<u>All non-weatherized condensing units except those installed in manufactured homes</u>	<u>0.0325 lb/MMBtu heat output or 20 ppmv</u>	<u>April 1, 2015</u>
<u>All non-weatherized, non-condensing units except those installed in manufactured homes</u>	<u>0.0325 lb/MMBtu heat output or 20 ppmv</u>	<u>October 1, 2015</u>
<u>Weatherized units</u>	<u>0.0325 lb/MMBtu heat output or 20 ppmv</u>	<u>October 1, 2016</u>
<u>Units installed in manufactured homes</u>	<u>0.0325 lb/MMBtu heat output or 20 ppmv</u>	<u>October 1, 2018</u>

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 NOx 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>Units installed in manufactured homes</u>	<u>N/A</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</u>	<u>N/A</u>

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 (NOx Emissions From Natural gas-fired, Fan-type Central Furnaces).~~

6.1.1.3~~2~~ 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~~ 6.1.2.1 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:

6.1.2.2.1 Rated heat input capacity or rated cooling capacity,

6.1.2.2.2 The applicable NOx 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:

6.1.3.1~~2~~ Name and address of manufacturer,

6.1.3.2~~3~~ Brand name,

6.1.3.3~~4~~ Model number, as it appears on the rating plate of the unit,

6.1.3.4~~5~~ Rated heat input ~~rating capacity~~, British thermal units per hour, and

6.1.3.5~~6~~ 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 emission requirements in Section 5.0 shall be determined using California Air Resources Board Method 100, 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.~~

This page intentionally blank.