

**RULE 69.2.1 SMALL BOILERS, PROCESS HEATERS, AND STEAM GENERATORS, AND LARGE WATER HEATERS** (Adopted ~~March 25, 2009~~ (date of adoption); Effective ~~March 25, 2010~~ January 1, 2021)

(a) **APPLICABILITY**

Except as otherwise provided in Section (b), this rule shall apply to any person who manufactures, sells, offers for sale or distributes for use within San Diego County, or installs within San Diego County a new unit (boiler, process heater, ~~or steam generator,~~ or water heater) with a heat input rating from ~~600,000~~ 75,000 Btu per hour to 2 million Btu per hour.

(b) **EXEMPTIONS**

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

(i) Any waste heat recovery boilers that are used to recover heat from the exhaust of gas turbines, internal combustion engines, or other combustion equipment.

(ii) Furnaces, kilns, and any combustion equipment where the material being heated is in direct contact with the products of combustion.

(iii) Thermal oxidizers and associated waste heat recovery equipment.

(iv) Units with a heat input rating from 75,000 Btu per hour to 400,000 Btu per hour that operate exclusively to heat residential swimming pools and hot tubs.

(v) Hot water pressure washers.

(vi) Dual-fueled units.

(vii) Existing or relocated units.

(2) The provisions of Sections (e) and (f) shall not apply to new units with a heat input rating from 75,000 Btu per hour to less than 1,000,000 Btu per hour that operate primarily on non PUC quality natural gas or liquid fuel.

(c) **DEFINITIONS**

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

(1) **"Boiler" or "Steam Generator"** means any combustion equipment fired with gaseous and/or liquid fuel and used to produce steam or to heat water.

(2) **"Btu"** means British thermal unit.

(3) **"Dual-Fueled Unit"** means any unit designed to operate primarily on natural gas and other fuel as backup.

(4) **"Existing Unit"** means any unit which was installed and capable of operation before January 1, 2021.

(35) **"Furnace"** means any enclosed structure in which heat is produced by the combustion of any fuel.

(46) **"Gaseous Fuel"** means natural gas or liquefied petroleum gas.

(57) **"Heat Input Rating"** means the maximum steady state heat input capacity of a unit, in Btu per hour, as specified by the manufacturer.

(8) **"Hot Water Pressure Washer"** means a high-pressure cleaning machine in which the hot water discharge line (spray nozzle) is hand supported and is intended for commercial and industrial applications.

(9) **"Installed"** means a unit is located onsite at the final destination and is capable of operation.

(10) **"Instantaneous Water Heater"** means a water heater that heats water only when it flows through a heat exchanger.

(611) **"Kiln"** means an oven, furnace, or heated enclosure used for processing a substance by burning, firing, or drying.

(712) **"Liquefied Petroleum Gas (LPG)"** means a gas, consisting primarily of propane, propylene, butane, and butylene in various mixtures, that is stored as a liquid at high pressure.

(813) **"Liquid Fuel"** means any fuel which is a liquid at standard conditions, including distillate oils.

(914) **"New Unit"** means a unit installed, manufactured, or sold on or after ~~March 25,~~  
2010 January 1, 2021.

(4015) **"Process Heater"** means any combustion equipment fired with liquid and/or gaseous fuel and which transfers heat from the combustion gases to water or process streams. Pool H heaters used for swimming pools, spas and/or therapy pools shall be considered process heaters.

(16) **"PUC Quality Natural Gas"** means California Public Utility Commission Quality Natural Gas that is any gaseous fuel, gas-containing fuel where the sulfur content is no more than one-fourth (0.25) grain of hydrogen sulfide per one hundred (100) standard cubic feet and no more than five (5) grains of total sulfur per one hundred (100) standard cubic feet. PUC quality natural gas also means high methane gas of at least 80% methane by volume.

(17) **"Relocated Unit"** means an existing unit which is moved within San Diego County from one stationary source to another stationary source. A relocated unit is deemed to maintain the status of an existing unit at the subsequent stationary source.

(18) **"Stationary Source"** means the same as defined in Rule 2 - Definitions.

(19) **"Steam Generator"** means any combustion equipment fired with gaseous and/or liquid fuel and used to produce steam or to heat water.

(20) **"Tank Type Water Heater"** means a water heater with an integral closed vessel in which water is heated and stored for use external to the vessel.

(4421) **"Thermal Oxidizer"** means combustion equipment fired with gaseous fuel and used to control emissions of air contaminants from industrial or commercial processes.

(4222) **"Unit"** means any boiler, steam generator, or process heater, or water heater.

(23) **"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). Types of water heaters include instantaneous and tank type water heaters.

(d) **STANDARDS**

Except as otherwise provided in Section (b), effective ~~March 25, 2010~~ January 1, 2021, no person shall manufacture, distribute, sell, offer for sale, or install within San Diego County any new unit that has emissions that exceed the following levels:

(1) ~~Emissions of oxides of nitrogen, calculated as nitrogen dioxide at 3% oxygen on a dry basis, that exceed the following levels:~~

(i) ~~30 parts per million by volume when operated on a gaseous fuel as a primary fuel.~~

(ii) ~~40 parts per million by volume when operated on a liquid fuel as a primary fuel.~~

(2) ~~Emissions of carbon monoxide, calculated at 3% oxygen on a dry basis, that exceed 400 parts per million by volume.~~

| <u>Equipment Type</u> | <u>Fuel</u>                       | <u>Heat Input Rating (Btu per hour)</u>  | <u>Concentration of NOx<sup>1</sup> (ppmv)</u> | <u>Concentration of CO<sup>2</sup> (ppmv)</u> |
|-----------------------|-----------------------------------|--|--|---|
| <u>New unit</u>       | <u>Natural gas</u>                | <u>75,000 to 400,000</u>                 | <u>20</u>                                      | <u>N/A</u>                                    |
| <u>New unit</u>       | <u>Natural gas</u>                | <u>Greater than 400,000 to 2,000,000</u> | <u>20</u>                                      | <u>400</u>                                    |
| <u>New unit</u>       | <u>Non PUC Gas or Liquid fuel</u> | <u>75,000 to 400,000</u>                 | <u>77</u>                                      | <u>N/A</u>                                    |
| <u>New unit</u>       | <u>Non PUC Gas or Liquid fuel</u> | <u>Greater than 400,000 to 2,000,000</u> | <u>30</u>                                      | <u>400</u>                                    |

<sup>1</sup>Calculated as nitrogen dioxide at 3% oxygen on a dry basis.

<sup>2</sup>Calculated as carbon monoxide at 3% oxygen on a dry basis.

(e) **CERTIFICATION STATEMENT**

(1) A manufacturer of any unit to be offered for sale within San Diego County shall submit to the Air Pollution Control Officer a statement certifying that each model of boiler, process heater, ~~or steam generator, or 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 attested to the accuracy of all information by a representative of the manufacturer.

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

(iii) The statement shall include:

(A) Brand name,

(B) Model number,

(C) Heat input rating as specified on the nameplate, and

(D) Oxides of nitrogen and carbon monoxide 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 unit model whose design is changed in any manner which may alter oxides of nitrogen or carbon monoxide emissions.

(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 unit model as required in the South Coast Air Quality Management District (SCAQMD) Rule 1146.2, Section (d) – Certification.

(f) **LABELING**

A manufacturer shall display on the shipping carton and the nameplate of every unit to be offered for sale within San Diego County, the model number and certification status of the unit complying with Section (e) ~~of this rule~~, or alternatively, the most current requirements of the SCAQMD Rule 1146.2.

(g) **RECORD KEEPING**

A manufacturer shall keep test records for oxides of nitrogen and carbon monoxide emissions 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 date of manufacture, whichever is longer. Such records shall be provided to the ~~San Diego County Air Pollution Control~~ District upon request.

(h) **TEST METHODS**

~~To determine compliance with Section (d) of this rule, the manufacturer shall obtain measurements of oxides of nitrogen and carbon monoxide contents conducted by an independent testing laboratory in accordance with:~~

- ~~(1) San Diego County Air Pollution Control District Test Method 100 as approved by the federal Environmental Protection Agency, or~~
- ~~(2) SCAQMD Test Method 100.1 as approved by the federal Environmental Protection Agency.~~

When more than one test method or set of test methods are specified in this Section, a violation of any requirement of this rule established by any one of the specified test methods or set of test methods shall constitute a violation of this rule.

(1) To determine compliance with Section (d), the manufacturer shall obtain measurements of oxides of nitrogen and carbon monoxide contents conducted by an independent testing laboratory in accordance with:

- (i) San Diego County Air Pollution Control District Test Method 100, Test Procedures for the Determination of Nitrogen Oxides, Carbon Monoxide and Diluent Gases by Continuous Emission Monitoring, May 1995, or its most current version approved by the U.S. Environmental Protection Agency (EPA), or
- (ii) SCAQMD Test Method 100.1, Instrumental Analyzer Procedures for Continuous Gaseous Emission Sampling, March 1989, or its most current version approved by EPA.

(2) For natural gas-fired units, 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.

(3) Other test methods which are determined to be equivalent to the test methods specified in this rule and approved, in writing, by the Air Pollution Control Officer, California Air Resources Board and EPA.