



Air Pollution Control Board

Greg Cox	District 1
Dianne Jacob	District 2
Kristin Gaspar	District 3
Nathan Fletcher	District 4
Jim Desmond	District 5

August 20, 2019

NOTICE OF WORKSHOP

FOR DISCUSSION OF DRAFT PROPOSED AMENDMENTS TO RULE 69.2.1, DRAFT PROPOSED NEW RULE 69.2.2, AND RELATED DRAFT PROPOSED AMENDMENTS TO RULE 11 AND RULE 12

The San Diego County Air Pollution Control District (District) will hold a public meeting to present and receive input on draft proposed amendments to Rule 69.2.1 – Small Boilers, Process Heaters, Steam Generators, and Large Water Heaters; draft proposed new Rule 69.2.2 – Medium Boilers, Process Heaters, and Steam Generators; and related draft proposed amendments to Rule 11 – Exemptions from Rule 10 Permit Requirements and Rule 12 – Registration of Specified Equipment. Comments concerning these draft proposals may be submitted in writing before or made at the workshop, which is scheduled as follows:

DATE: Friday, September 27, 2019
TIME: 9:00 a.m. to 11:00 a.m.
PLACE: San Diego County Operations Center
5500 Overland Avenue, First Floor, Room 120
San Diego, CA 92123

San Diego County currently does not meet the National and State Ambient Air Quality Standards for ozone, and is designated as an ozone nonattainment area. Federal and State law require the District to adopt new and amended rules to further control and reduce ozone-forming emissions including oxides of nitrogen (NOx) from boilers, process heaters, steam generators, and water heaters. The proposed requirements (summarized below) are similar to existing regulatory requirements in several California air districts, and the emissions control technology, such as low-NOx burners, is well established.

1. Draft proposed amendments to Rule 69.2.1 – Small Boilers, Process Heaters, Steam Generators, and Large Water Heaters.

In summary, the drafted proposed amendments to Rule 69.2.1 will:

- Not affect any facility that currently operates equipment that is subject to the proposed amended rule until that equipment is replaced or new equipment is installed.
- Lower the applicability threshold from a heat input rating of 600,000 British thermal units per hour (Btu/hr) to 75,000 Btu/hr.
- Specify a NOx emissions limit of 20 parts per million by volume (ppmv) for new boilers, process heaters, steam generators and water heaters (units) when operated on natural gas, and 30 ppmv when operated on other fuels.

OVER

2. Draft proposed new Rule 69.2.2 – Medium Boilers, Process Heaters, and Steam Generators.

In summary, the draft proposed new Rule 69.2.2 will apply to both new and existing units as follows:

New Units:

- Prohibit the manufacture, sale, offer for sale, or distribution for use within San Diego County, or the installation or operation with San Diego County, of any new boiler, process heater, or steam generator with a heat input rating greater than 2 million Btu/hr to less than 5 million Btu/hr that is not certified by the District to comply with the emissions standard of the rule.
- Specify a NOx emissions limit of 30 ppmv for new units when operated on gaseous fuel, and 40 ppmv when operated on liquid fuel.
- Require an owner or operator to have a new unit initially tuned no later than one year after the date of installation, and tuned at least once every calendar year thereafter.

Existing Units:

- Require an owner or operator of an existing unit to have it initially tuned no later than July 1, 2021, and tuned at least once every calendar year thereafter.

All Units (New or Existing):

- Require an owner or operator of any unit to keep records of tune-ups and/or emissions testing onsite for a minimum of three calendar years.
- Require an owner or operator of any unit without a current District Permit to Operate to either register the unit or submit an application for an Authority to Construct/Permit to Operate no later than January 1, 2021.

3. Draft proposed amendments to Rule 11 – Exemptions from Rule 10 Permit Requirements, and Rule 12 – Registration of Specified Equipment.

- Rule 11 is proposed for revision to no longer exempt from District permit requirements boilers, process heaters, or steam generators with rated heat input between 2-5 million Btu/hr.
- Rule 12 is proposed for revision so that boilers, process heaters, and steam generators subject to draft proposed new Rule 69.2.2 may be registered in lieu of obtaining a Permit to Operate.
- In addition, as an unrelated update, paper shredders and small brewery grain silos are proposed to be added to Rule 12 so such equipment can also be registered in lieu of obtaining a Permit to Operate. This proposal will streamline the application review process providing affected facilities reductions in processing time and costs.

If you have any questions concerning these draft proposals or wish to submit comments, please contact Randy Consolacion (858-586-2752, randy.consolacion@sdcounty.ca.gov) or Angela M. Ortega (858-586-2753, angela.ortega@sdcounty.ca.gov).

Copies of the draft proposals and the workshop's location map are available on the District's website at http://www.sdapcd.org/content/sdc/apcd/en/Rule_Development/Workshops.html.

The District requests that workshop participants bring their own copies of the draft proposed rules. Those without internet access may contact Janet McCue at (858) 586-2712.

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 NOx¹ (ppmv)</u>	<u>Concentration of CO² (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>

¹Calculated as nitrogen dioxide at 3% oxygen on a dry basis.

²Calculated 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.