(Adopted January 9, 1998)(Amended January 7, 2005)(Amended May 5, 2006) (Amended December 7, 2018)(Amended [*Date of Rule Adoption*])

[RULE INDEX TO BE ADDED AFTER RULE ADOPTION]

PROPOSED AMENDED RULE 1146.2. EMISSIONS OF OXIDES OF NITROGEN FROM LARGE WATER HEATERS AND SMALL BOILERS AND PROCESS HEATERS

(a) Purpose and Applicability

The purpose of this rule is to reduce <u>Oxides of Nitrogen (NOx)</u> emissions from natural gas-fired <u>water heatersWater Heaters</u>, <u>boilersBoilers</u>, and <u>process heatersProcess Heaters</u> as defined in this rule. This rule applies to units that have a rated heat input capacity less than or equal to 2,000,000 BTU per hour. Type 1 Units as defined in this rule are typically, but not exclusively, large water heaters or smaller sized process heaters in the above range. Type 2 Units as defined in this rule are typically, small boilers or larger sized process heaters in this range. Beginning, January 1, 2000, the provisions of this rule are applicable to manufacturers, distributors, retailers, refurbishers, installers and operators of new units. Beginning July 1, 2002, the provisions of this rule are also applicable to operators of existing Type 2 Units.

(b) Applicability

The provisions of this rule are applicable to manufacturers, distributors, retailers, Resellers, installers, owners, and operators of Units that have a Rated Heat Input Capacity less than or equal to 2,000,000 British Thermal Units (Btu) per hour. The provisions of this rule are not applicable to manufacturers, distributors, retailers, Resellers, installers, owners, and operators of Units subject to the limits in South Coast AQMD Rule 1121 Control of Nitrogen Oxides from Residential Type, Natural Gas fired Water Heaters.

- (bc) Definitions
 - (1) BEST AVAILABLE RETROFIT CONTROL TECHNOLOGY (BARCT) as defined in the California Health and Safety Code Section 40406.
 - (21) BOILER OR STEAM GENERATOR means any equipment that is fired with or is designed to be fired with natural gas, used to produce steam or to heat water, and that is not used exclusively to produce electricity for sale. Boiler or Steam Generator does not include any waste heat recovery boiler

that is used to recover sensible heat from the exhaust of a combustion turbine or any unfired waste heat recovery boiler that is used to recover sensible heat from the exhaust of any combustion equipment.

- (3) BTU means British thermal unit(s).
- (42) CERTIFIED RETROFIT KIT means any burner and ancillary controls or blowers that have been demonstrated to comply with the provisions of this rule, on a retrofit basis, on a particular model of <u>unitUnit</u>.
- (5) FIRE TUBE BOILER means a BOILER that passes hot gases from a fire box through one or more tubes running through a sealed container of water. The heat of the gases is transferred through the walls of the tubes by thermal conduction, heating the water and ultimately creating steam.
- (3) EXISTING BUILDING means a building that is not a New Building as defined in this rule.
- (64) FORMER RECLAIM FACILITY means a facility, or any of its successors, that was in the Regional Clean Air Incentives Market as of January 5, 2018, as established in Regulation XX, that has received a final determination notification, and is no longer in the RECLAIM program.
- (75) HEAT INPUT means the chemical heat released due to assumed complete combustion of fuel into a unitUnit, using the higher heating value of the fuel. This does not include the sensible heat of incoming combustion air.
- (86) HEAT OUTPUT means the enthalpy of the working fluid output of the <u>unitUnit</u>.
- (7) HIGH TEMPERATURE UNIT means any Unit that is used-designed to produce steam or to heat water above 190180 degrees Fahrenheit.
- (109) INSTANTANEOUS WATER HEATER means a WATER HEATERtankless Water Heater with a RATED HEAT INPUT CAPACITYRated Heat Input Capacity less than or equal to 2,000,000 BTUBtu per hour that heats water only on-demand when it flows through a heat exchanger, which is a device used to transfer heat between two or more mediums of different temperatures.

- (10) MOBILE HOME means a prefabricated structure on a permanently attached chassis.
- (10) MULTIFAMILY STRUCTURE means any structure which is used exclusively as a dwelling for more than four families, and where equipment subject to this rule is used by the owner or occupant of such a dwelling.
- (11) NEW BUILDING means a building that has never been used or occupied for any purpose, is newly constructed or a building with a major alteration which changes the occupancy classification of a building, which means a change in the formal designation of the primary purpose of the building pursuant to 2022 Title 24 California Building Code Part 2 Chapter 3 for occupancy classification and use, and does not have a Unit installed prior to the applicable Table 3 compliance dates.
- (1112) OXIDES OF NITROGEN (NOx) EMISSIONS means the sum of nitric oxides and nitrogen dioxides emitted, calculated, and expressed as nitrogen dioxide.
- (13) PARTS PER MILLION BY VOLUME (ppmv) means, for the purpose of this rule, Parts Per Million by Volume of a pollutant at a three percent oxygen correction on a dry basis at Standard Conditions.
- (1214) POOL HEATER means a WATER HEATER Water Heater designed to heat a pool, hot tub, or spa.
- (1315) PROCESS HEATER means any equipment that is fired with or is designed to be fired with natural gas and which transfers heat from combustion gases to water or process streams. <u>A</u> Process Heater does not include any kiln or oven used for annealing, drying, curing, baking, cooking, calcining, or vitrifying; or any unfired waste heat recovery heater that is used to recover sensible heat from the exhaust of any combustion equipment.
- (1416) PROTOCOL means <u>the</u> South Coast <u>Air Quality Management</u> <u>DistrictAQMD</u> Protocol to ensure standardization of compliance <u>certification test procedures, titled</u>: Nitrogen Oxides Emissions Compliance Testing for Natural Gas-Fired Water Heaters and Small Boilers.
- (1517) RECLAIM FACILITY means a facility, or any of its successors, that was in the Regional Clean Air Incentives Market as of January 5, 2018, as established in Regulation XX.
- (1618) RATED HEAT INPUT CAPACITY means the gross <u>HEAT INPUTHeat</u> <u>Input</u> of the combustion device, as supported by required documentation and which shall be specified on a permanent rating plate.

- (1719) RECREATIONAL VEHICLE means any vehicle used for recreational purposes designed to include a water heater and licensed to be driven or moved on the highways of California.
- (18) REFURBISHER means anyone who reconditions a Type 1 Unit or TYPE 2 UNIT and offers the unit for resale, for use in the District.
- (1920) RESELLER means anyone who sells either retail, wholesale, or on an individual basis TYPE 1 UNITS Type 1 Units or TYPE 2 UNITS Type 2 Units.
- (2021) RESIDENTIAL <u>STRUCTURE</u> means any structure which is designed for and used exclusively as a dwelling for not more than four families, and where such equipment is used by the owner or occupant of such a dwelling.
- (22) STANDARD CONDITIONS is as defined by Rule 102 Definition of <u>Terms.</u>
- (21) TANK TYPE WATER HEATER means a WATER HEATER with a RATED HEAT INPUT CAPACITY from 75,000 BTU per hour to 2,000,000 BTU per hour and with an integral closed vessel in which water is heated and stored for use external to the vessel.
- (2223) THERM means 100,000 BTUBtu.
- (23) THERMAL FLUID HEATER means a natural gas fired PROCESS HEATER in which a process stream is heated indirectly by a heated fluid other than water.
- (24) TYPE 1 UNIT means any WATER HEATERWater Heater, BOILERBoiler, or PROCESS HEATERProcess Heater with a RATED HEAT INPUT CAPACITYRated Heat Input Capacity less than or equal to 400,000 BTUBtu per hour, excluding TANK TYPE WATER HEATERSWater Heaters subject to the limits of DistrictSouth Coast AQMD Rule 1121.
- (25) TYPE 2 UNIT means any WATER HEATERWater Heater, BOILERBoiler, or PROCESS HEATERProcess Heater with a RATED HEAT INPUT CAPACITYRated Heat Input Capacity greater than 400,000 BTUBtu per hour up to and including 2,000,000 BTUBtu per hour.
- (26) UNIT means any BOILERBoiler, STEAM GENERATORSteam Generator, WATER HEATERWater Heater, or PROCESS HEATERProcess Heater as defined in this ruleparagraph (b)(2), (b)(4), (b)(5), (b)(10), (b)(12), (b)(13), (b)(21), (b)(23), (b)(24), (b)(25) or (b)(27).

- (27) WATER HEATER means any equipment that is fired with or designed to be fired with natural gas and that is used solely to heat water for use external to the equipment.
- (ed) Requirements
 - (1) On or after January 1, 2000, no person shall manufacture for use, or offer for sale for use, in the District any new Type 2 Unit, unless the NOx emissions level is less than or equal to 30 ppm of NOx emissions (at 3% O₂, dry) or 0.037 pound NOx per million BTU of heat input and no more than 400 ppm of carbon monoxide (at 3% O₂, dry), as certified by the District according to subdivision (d).
 - (2) On or after January 1, 2001, no person shall manufacture for use, or offer for sale for use, in the District any new Type 1 Unit, unless the NOx emissions level is less than or equal to 40 nanograms of NOx (calculated as NO₂) per joule (93 lb per billion BTU) of heat output or 55 ppm NOx emissions (at 3% O₂, dry), as certified by the District according to subdivision (d).
 - (3) Except for units at a RECLAIM or former RECLAIM facility, on or after July 1, 2002, no person shall operate in the District any unit with a rated heat input capacity greater than 1,000,000 BTU per hour but less than or equal to 2,000,000 BTU per hour manufactured prior to January 1, 1992, which does not meet the emissions limits required by paragraph (c)(1). Alternatively, a unit may be modified or demonstrated to meet the emission limits of paragraph (c)(1) pursuant to the provisions of subdivision (e).
 - (1) Prior to the applicable Table 3 compliance dates, no person shall manufacture, supply, sell, offer for sale, or install, for use within the South Coast AQMD, any Unit unless the Unit is certified pursuant to subdivision (f) not to exceed the applicable Table 1 emission limits.

Equipment Category	NOx Emission Limit*	CO Emission Limit*		
<u>Type 1 Units, excluding</u> <u>Pool Heaters</u>	<u>14 ng/J or 20 ppmv</u>	<u>N/A**</u>		
Type 1 Pool Heaters	<u>40 ng/J or 55 ppmv</u>	<u>N/A**</u>		
Type 2 Units	<u>14 ng/J or 20 ppmv</u>	<u>400 ppmv</u>		

Table 1 – Emission Limits

* Nanograms per Joule (ng/J) of NOx (calculated as NO₂) of Heat Output or the specified ppmv of NOx or CO.

** Type 1 Units are not subject to a CO limit in Rule 1146.2 but may be subject to CO limits by other South Coast AQMD rules.

- (4) Except for units at a RECLAIM or former RECLAIM facility, on or after January 1, 2006, no person shall operate in the District any unit more than 15 years old, based on the original date of manufacture as specified in paragraph (c)(6), with a rated heat input capacity greater than 1,000,000 BTU per hour but less than or equal to 2,000,000 BTU per hour and manufactured on or after January 1, 1992, which does not meet the emissions limits required by paragraph (c)(1). Alternatively, a unit may be modified or demonstrated to meet the emission limits of paragraph (c)(1) pursuant to the provisions of subdivision (e).
- (5) Except for units at a RECLAIM or former RECLAIM facility, on or after January 1, 2006, no person shall operate in the District any unit more than 15 years old, based on the original date of manufacture as specified in paragraph (c)(6), with a rated heat input capacity greater than 400,000 BTU per hour but less than or equal to 1,000,000 BTU per hour manufactured prior to January 1, 2000, which does not meet the emissions limits required by paragraph (c)(1). Alternatively, a unit may be modified or demonstrated to meet the emission limits of paragraph (c)(1) pursuant to the provisions of subdivision (e).

(6) The original date of manufacture shall be determined by:

- (A) Original manufacturer's identification or rating plate permanently fixed to the equipment. If not available, then;
- (B) Invoice from manufacturer for purchase of equipment. If not available, then:
- (C) Unit is deemed to be more than 15 years old.

- (7) On or after January 1, 2010, no person shall manufacture for use or offer for sale for use within the District any Type 2 unit unless the unit is certified pursuant to subdivision (d) to a NOx emission level of less than 14 nanograms of NOx (calculated as NO₂) per joule of heat output or less than or equal to 20 ppm of NOx emissions (at 3% O₂, dry).
- (8) On or after January 1, 2012, no person shall manufacture for use or offer for sale for use within the District any Type 1 unit (excluding pool heaters), unless the unit is certified pursuant to subdivision (d) to a NOx emission level of less than 14 nanograms of NOx (calculated as NO₂) per joule of heat output or less than or equal to 20 ppm of NOx emissions (at 3% O₂, dry).
- (2) No person shall manufacture, supply, sell, offer for sale, or install, for use in the South Coast AQMD, any Unit, unless such Unit complies with the applicable Table 2 emission limits and Table 3 compliance dates.

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Equipment Category	NOx and CO Emission Limits (ppmv)	<u>Building</u> <u>Type</u>	Compliance Date	<u>Useful</u> Life (years)
Type 1 Unit*	0	<u>New</u>	January 1, 2025	15
<u>Type Font</u>	<u>0</u>	Existing	<u>January 1, 2029</u>	<u>17</u>
Instantaneous	0	New	<u>January 1, 2025</u>	25
(<u>Tankless) Water</u> <u>Heater</u>	<u>θ</u> -	Existing	January 1, 2029	<u>25</u>
Trans 1 De al Hastan	<u>0</u>	New	<u>January 1, 2027</u>	15
Type 1 Pool Heater		Existing	January 1, 2031	<u>15</u>
T	<u>θ</u>	New	January 1, 2027	25
<u>Type 2 Unit**</u>		Existing	January 1, 2031	<u>25</u>
Type 1 High	<u>0</u>	New	January 1, 2029	25
Temperature Unit		Existing	January 1, 2033	<u>25</u>
Type 2 High	0	New	January 1, 2029	25
Temperature Unit	<u>θ</u>	Existing	January 1, 2033	<u>25</u>

<u>* Referring to a Type 1 Unit that is not a High Temperature Unit, Type 1 Pool Heater, or</u> <u>Instantaneous Water Heater.</u>

<u>** Referring to a Type 2 Unit that is not a High Temperature Unit or Instantaneous Water</u> <u>Heater.</u>

Equipment Category	NOx and CO Emission Limits (ppmv)	Compliance Schedule	<u>Unit</u> <u>Age</u> (years)
<u>Type 1 Unit*</u>	<u>0</u>		<u>15</u>
Instantaneous Water Heater ≤- 200,000 Btu/hr	<u>0</u>	<u>Phase I</u>	<u>25</u>
Instantaneous Water Heater ≻- 200,000 Btu/hr	<u>0</u>	<u>Phase II</u>	<u>25</u>
Type 1 Pool Heater	<u>0</u>		<u>15</u>
<u>Type 2 Unit**</u>	<u>0</u>		<u>25</u>
<u>Type 1 High</u> <u>Temperature Unit</u>	<u>0</u>	<u>Phase III</u>	<u>25</u>
<u>Type 2 High</u> <u>Temperature Unit</u>	<u>0</u>		<u>25</u>

Table 2 - Zero-Emission Limits, Compliance Schedule, and Unit Age

<u>Referring to a Type 1 Unit that is not a High Temperature Unit, Type 1</u>
 <u>Pool Heater, or Instantaneous Water Heater.</u>

** Referring to a Type 2 Unit that is not a High Temperature Unit or Instantaneous Water Heater.

Table 3 – Compliance Dates for Zero-Emission Limits			
Phase	Building Type	Compliance Date	
Dhasa I	New	<mark>January 1, 2026</mark>	
<u>Phase I</u>	<u>Existing</u>	January 1, 2029	
Dhasa II	New	January 1, 2028	
<u>Phase II</u>	<u>Existing</u>	January 1, 2031	
Dhasa III	New	January 1, 2029	
Phase III	<u>Existing</u>	January 1, 2033	

(3) On and after the Table 3 compliance dates, an owner or operator of a Unit shall not operate a Unit which exceeds Table 2 emission limits once the Unit

age determined pursuant to subdivision (e) is greater than or equal to the applicable Table 2 Unit age.

(4) The owner or operator of a Unit may modify a Unit and demonstrate it meets the emission limits in subdivision (d) by:

(A) Installing a Certified Retrofit Kit; or

- (B) A source test to be conducted by an Independent Testing Laboratory according to the Protocol.
- (5) An owner or operator of a Unit that modifies or replaces a burner in the Unit shall comply with the following applicable emission limits:
 - (A) In Table 1 if the modification or replacement occurs:

(i) Prior to the applicable Table 3 compliance dates; or

(ii) Before the Unit reaches its Table 2 Unit age; or

- (B) In Table 2 if the modification or replacement occurs:
 - (i) On and after the applicable Table 3 compliance dates; and(ii) When the Unit has reached its Table 2 Unit age.
- (6) An owner or operator shall not operate any Type 2 Unit manufactured prior to January 1, 2010, in the South Coast AQMD which does not meet the NOx emission limit of 30 ppmv or 0.037 pound NOx per million Btu of heat input and no more than 400 ppmv of carbon monoxide.
- (7) An owner or operator shall not operate any Type 1 Unit manufactured prior to January 1, 2012, in the South Coast AQMD which does not meet the NOx emission limit of 55 ppmv.
- (8) The owner or operator of a Unit shall maintain on-site a copy of the manufacturer's and/or distributor's written instructions and retain a record of the maintenance activity for a period of not less than three years.
- (9) Effective [One Year After Date of Rule Adoption], in lieu of paragraphs
 (d)(6) and (d)(7), an owner or operator of a RECLAIM Facility or Former RECLAIM Facility shall not operate:
 - (A) Type 2 Units manufactured prior to January 1, 2010, which do not meet the NOx emission limit of 30 ppmv or 0.037 pound NOx per million Btu of heat input and no more than 400 ppmv of carbon monoxide; or
 - (B) Type 1 Units manufactured prior to January 1, 2012, which do not meet the NOx emission limit of 55 ppmv.

- (10) An owner or operator of a Unit that elects to comply with the low-use exemptions in paragraph (k)(2) or (k)(3) shall:
 - (A) Not operate the Unit that exceeds the applicable Table 1 emission limits within 180 days of failing to demonstrate compliance with paragraph (k)(2) pursuant to paragraph (g)(2); or
 - (B) Not operate the Unit that exceeds the applicable Table 2 emission limits within 180 days of failing to demonstrate compliance with paragraph (k)(3) pursuant to paragraph (g)(2).
- (9) Notwithstanding the exemptions contained in Rule 2001 Applicability and its accompanying Table 1 Rules Not Applicable to RECLAIM Facilities for Requirements Pertaining to NOx Emissions If Rule Was Adopted or Amended Prior to October 5, 2018, on or after May 5, 2006, the owner or operator of any Type 2 unit shall perform maintenance in accordance with the manufacturer's schedule and specifications as identified in a manual and other written materials supplied by the manufacturer or distributor. The owner or operator shall maintain on site a copy of the manufacturer's and/or distributor's written instructions and retain a record of the maintenance activity for a period of not less than three years.
- (10) Notwithstanding the exemptions contained in Rule 2001 Applicability and its accompanying Table 1 Rules Not Applicable to RECLAIM Facilities for Requirements Pertaining to NOx Emissions If Rule Was Adopted or Amended Prior to October 5, 2018, the owner or operator shall maintain on site a copy of all documents identifying the unit's rated heat input capacity. The rated heat input capacity shall be identified by a manufacturer's or distributor's manual or invoice. If a unit is modified, the rated heat input capacity shall be calculated pursuant to paragraph (f)(3). The documentation of rated heat input capacity for modified units shall include a description of all modifications, the dates the unit was modified and calculation of rated heat input capacity. All documentation shall be signed by the licensed person modifying the unit.
- (11) Notwithstanding the requirements in paragraph (c)(7), until December 31, 2010, any person may sell, offer for sale, or install any Type 2 units that are manufactured and purchased prior to January 1, 2010 and in compliance with paragraph (c)(1).
- (12) Notwithstanding the requirements in paragraph (c)(8), until December 31,
 2012, any person may sell, offer for sale, or install any Type 1 units that are

manufactured and purchased prior to January 1, 2012 and in compliance with paragraph (c)(2).

- (13) By January 1, 2022, the Executive Officer shall conduct a technology assessment and report to the Governing Board if the NOx emission limits in subdivision (c) represent BARCT.
 - (A) If the Executive Officer determines that the NOx emission limits specified in paragraph (c)(1) represents BARCT, notwithstanding the exemptions contained in Rule 2001 Applicability and its accompanying Table 1 Rules Not Applicable to RECLAIM Facilities for Requirements Pertaining to NOx Emissions If Rule Was Adopted or Amended Prior to October 5, 2018, the owner or operator of a RECLAIM or former RECLAIM facility with any Type 2 Units shall meet the NOx emission limit specified in paragraph (c)(1) by December 31, 2023. A Type 2 unit may be modified or demonstrated to meet the emission limit of paragraph (c)(1), pursuant to the provisions of subdivision (e). Alternatively, a Type 2 unit may be replaced with a certified unit in compliance with the provisions of paragraph (c)(7).
 - (B) If the technology assessment specified in this paragraph demonstrates that more stringent BARCT requirements are applicable, the Executive Officer shall initiate rule development for the implementation schedule of the more stringent BARCT requirements within six months after the technology assessment.

(e) Unit Age

- (1) For all Unit age determinations in this rule, an owner or operator of a Unit shall determine the Unit age as follows:
 - (A) Unit age shall be based on the original date of manufacture determined by:
 - (i) Invoice from purchase of Unit provided by manufacturer;
 - (ii) Original Unit manufacturer's identification or rating plate permanently affixed to the Unit; or
 - (iii) Any other method of determining Unit age that can be substantiated through written information as approved by the Executive Officer.

 (B) The Unit shall be deemed at the end of its Unit age as of January 1, ²⁰²⁴²⁰²⁵, for any Unit where the Unit age cannot be determined pursuant to subparagraph (e)(1)(A).

(df) Certification

- (1) The manufacturer shall obtain confirmation from an iIndependent tTesting ILaboratory prior to applying for certification for a natural gas Unit that, each uUnit model or retrofit kit complies with the applicable requirements of subdivision (ed). -This confirmation shall be based upon emission source tests of a randomly selected uUnit of each model, and the Protocol shall be adhered to during the confirmation testing of all uUnits subject to this rule.
- When applying for <u>uUnit(s)</u> certification, the manufacturer shall submit to the Executive Officer the following:
 - (A) A statement that the model is in compliance with subdivision (ed). The statement shall be signed and dated, and shall attest to the accuracy of all statements;
 - (B) General Information <u>including</u>:
 - (i) Name and address of manufacturer $\frac{1}{2}$
 - (ii) Brand name; and
 - (iii)- Model number, as it appears on the $\frac{1}{U}$ nit rating plate;
 - (C) A description of each model being certified; and
 - (D) A source test report verifying compliance with the emission limits in subdivision (ed) for each model to be certified. -The source test report shall be prepared by the confirming iIndependent tTesting ILaboratory and shall contain all of the elements identified in Section 10 of the Protocol for each uUnit tested. The source test shall have been conducted no more than ninety (90) days prior to the date of submittal to the Executive Officer.
- (3) When applying for <u>uUnit certification</u>, the manufacturer shall submit the items identified in paragraph (<u>df</u>)(2) no more than <u>ninety (90180</u>) days after the date of the source test identified in subparagraph (<u>df</u>)(2)(D) and at least 120 days prior to the date of the proposed sale of the units.
- (4) The Executive Officer shall certify a $\frac{\mathbf{u}U}{\mathbf{u}}$ nit model which complies with the provisions of subdivision (ed) and of paragraphs (df)(1), (df)(2), and (df)(3).

- (5) Certification status shall be valid for three years from the date of approval by the Executive Officer. After the third year, recertification may be required according to the requirements of paragraphs (d)(1) and (d)(2).
- (eg) Modification (Retrofit) Provisions and Demonstrations of Compliance With Emission Limits.

Any unit, may be modified or demonstrated to meet the requirements of paragraph (c)(1), (c)(2), (c)(3), (c)(4), or (c)(5) provided:

- (1) The unit is certified pursuant to subdivision (d); or
- (2) A certified retrofit kit has been installed; or
- (31) The owner or operator of a Unit that elects to demonstrate compliance pursuant to subparagraph (d)(4)(B) shall maintain Aa copy of athe South Coast AQMD approved source test report on-site and make it available to the Executive Officer upon request. The source test report shall, at a minimum, include: conducted by an independent third party demonstrating the specific unit complies with the emission limits at low and high fire, shall be maintained on-site; and
 - (4A) <u>The source test report clearly specifies t</u> he emissions <u>limit</u> of the <u>uUnit(s)</u> in <u>parts per million ppmv</u> or <u>poundsng/J</u> of NOx <u>or ppmv</u> of <u>CO per million BTU</u> of <u>hH</u>eat <u>inputOutput;</u>.
 - (B) <u>The source test report must identify that the source test was</u> <u>conducted pursuant to a The DistrictSouth Coast AQMD</u> approved <u>pP</u>rotocol<u>used to conduct the source test</u>; and
 - (5C) The source test report shall be maintained on site at the facility where the unit is being operated and made available to the Executive Officer, at all times, upon request, as long as the unit is being operated. The model and serial numbers of the specified uUnit(s) shall clearly be indicated on the source test report.
 - (D) The Rated Heat Input Capacity of the Unit(s).
- (2) The owner or operator of a Unit that elects to comply with the exemption in paragraph (k)(2) or (k)(3) shall:
 - (A) Demonstrate compliance with the annual fuel consumptionTherm limit determined using one of the following methods:
 - (i) Fuel usage recorded by a non-resettable totalizing fuel meter, corrected to Standard Conditions;

- (ii) Fuel usage calculated by multiplying the number of hours recorded by a non-resettable totalizing time meter and the Rated Heat Input Capacity of the Unit; or
- (iii) Monthly fuel billing statement or any other equivalent methodology to quantify the fuel usage that is approved by the Executive Officer;
- (B) Calibrate the non-resettable totalizing fuel meter or non-resettable time meter according to the manufacturer's recommendation;
- (C) Use the higher heating value of 1,050 million Btu per million standard cubic feet for converting natural gas measured in volume to Therm; and
- (D) Maintain the fuel usage records for a period of not less than three years.
- (fh) Identification and Verification of Compliant Units
 - (1) Newly Manufactured Units

The manufacturer shall display the model number of the $\underline{\texttt{wU}}$ nit complying with subdivision (ed) on the shipping carton and permanent rating plate. The manufacturer shall also display the certification status on the shipping carton and on the $\underline{\texttt{wU}}$ nit.

(2) Certified Retrofit Kits

The manufacturer shall display the model number of the retrofit kit and manufacturer and model of applicable $\frac{\mathbf{u}U}{\mathbf{U}}$ nits on the shipping carton and in a plainly visible portion of the retrofit kit.

(3) Modified Units

A unit with a new or modified burner shall display the new rated heat input capacity and certification status on a new permanent rating plate. The gross heat input shall be based on the maximum fuel input corrected for fuel heat content, temperature and pressure.

(3) Rated Heat Input Capacity Documentation

The owner or operator of a Unit shall:

- (A) Maintain on-site a copy of all documents identifying the Unit's Rated Heat Input Capacity including the manufacturer's or distributor's manual or invoice; and
- (B) Maintain documentation of the Rated Heat Input Capacity for a Unit modified pursuant to paragraph (d)(5), signed by the licensed person

modifying the Unit, including a description of all Unit modifications, the dates the Unit was modified, and calculation of Rated Heat Input Capacity.

(g) Enforcement

(1)

The Executive Officer may periodically inspect distributors, retailers, and installers of units located in the District, and conduct such tests as are deemed necessary to ensure compliance with subdivision (c).

(i) Alternative Compliance Options

Alternative Compliance Option for Utility Upgrades If an owner or operator of a Unit required to meet the Table 2 emission limits will encounter delays beyond the reasonable control of the owner or operator in meeting the applicable Table 3 compliance date or paragraph (d)(3) because the applicable utility company is unable to provide the necessary power to operate the Unit, the owner or operator shall:

- (A) Call 1-800-CUT-SMOG® at least 90 days prior to the Unit's applicable compliance date to notify the Executive Officer and request an extension of no longer than one-year from the applicable compliance date;
- (B) Obtain a letter from the Executive Officer prior to the Unit's compliance date approving the extension;
- (C) Provide a follow-up notification to the Executive Officer once the Unit complying with the Table 2 emission limits has been installed by calling 1-800-CUT-SMOG® within 24 hours of the installation; and
- (D) Maintain records for up to three years and make them available to the Executive officer upon request that demonstrate the power supply and the utility company's progress on providing the necessary power including but not limited to:
 - (i) An official document signed by the responsible party of the utility company that services the facility that includes:
 - (A) An explanation of the service upgrades required by the utility company:
 - (B) Communications with the utility provider when the service upgrade was requested;

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	(C) The estimated date the utility company will complet
	the service upgrades;
	(D) Additional information to substantiate that a
	additional time is necessary; and
	(E) Documentation which demonstrates that the delay
	are outside of the control of the owner or operator.
(2)	Alternative Compliance Option for Multiple Units
	An owner or operator of five or more Units that are required to meet th
	Table 2 emission limits in the same calendar year pursuant to paragrap
	(d)(3) may request an alternative compliance date by:
	(A) Submitting an alternative compliance plan at least one year prior t
	the applicable compliance date, with a filing fee payment pursuar
	to Rule 306 – Plan Fees; and
	(B) Specifying a compliance date in the alternative compliance plan for
	the number of units to meet the Table 2 emission limits as below:
	(i) Three or at least 30 percent of the Units by the applicabl
	compliance date:
	(ii) At least 30 percent of the Units one year after the applicable
	compliance date; and
	(iii) The remaining Units two years after the applicable
	compliance date.
<u>(3)</u>	Approval of Alternative Compliance Option for Multiple Units
	The Executive Officer shall review the request for alternative compliance
	date submitted pursuant to paragraph (i)(2) and provide written approval of
	disapproval based on whether the following criteria are met:
	(A) The owner or operator demonstrated they are operating five or more
	Units that are required to be replaced based on Unit age pursuant t
	paragraph (d)(3) to meet Table 2 emission limits in the sam
	<u>calendar year:</u>
	(B) The request was submitted at least one year prior to the applicable compliance date; and
	(C) The proposed alternative compliance date meets the criteri
	expecting in subpersorber $(i)(2)(\mathbf{P})$
<u>(4)</u>	specified in subparagraph (i)(2)(B).
<u>(4)</u>	specified in subparagraph (i)(2)(B). Alternative Compliance Option for Emergency Replacements If an owner or operator of a Unit that requires short term replacement du

	electrical upgrade is required to increase the power supply capacity to
	operate a Unit that complies with Table 2 emission limits may elect to:
	(A) For Units used in buildings that are not Residential Structures:
	(i) Install and operate a temporary Unit that complies with
	Table 1 emission limits for up to six months prior to
	installing a Unit that complies with Table 2 emission limits;
	(ii) No later than 24 hours after the date the temporary Unit was
	installed, notify the Executive Officer by calling 1-800-
	CUT-SMOG [®] to report the date the existing Unit failed and
	the date the temporary Unit was installed; and
	(iii) No later than 24 hours after the date the new Unit was
	installed, notify the Executive Officer by calling 1-800-
	CUT-SMOG [®] to report the date the temporary Unit was
	disconnected and the date the Unit complying with Table 2
	emission limits was installed; and
	(B) For Units used in Residential Structures, install and operate a Unit
	that complies with Table 1 emission limits for up to six months prior
	to installing a Unit that complies with Table 2 emission limits.
(5)	Alternative Compliance Option for Existing Buildings that are Mobile
	Homes
	An owner or operator of an Instantaneous Water Heater installed prior to
	[Date of Rule Adoption] in a Mobile Home may elect to install an
	Instantaneous Water Heater that complies with the Table 1 emission limits
	until January 1, 2033, in lieu of the Table 3 compliance dates. On and after
	January 1, 2033, the Unit must comply with the Table 2 emission limits
	upon replacement.
	no and Barratine Barrainenent
(j) Labeli (1)	ng and Reporting Requirement Pursuant to the labeling schedule in Table 4, any Unit that is supplied or
(1)	offered for sale for use within the South Coast AQMD prior to the
	applicable Table 3 compliance dates that complies with the Table 1
	emission limits, but not the Table 2 emission limits, shall prominently
	display the statement "For Installation and Use in Existing Buildings Only."
	display the statement of instantion and Use in Existing Dundlings Only.

(<u>**hk**</u>)

Table 4 – Labeling Schedule					
	Unit's	Labeling Requirements			
	Compliance Schedule	Start Date	End Date		
	Phase I	January 1, 2026	January 1, 2029		
	Phase II	January 1, 2028	January 1, 2031		
	Phase III	January 1, 2029	January 1, 2033		
(2)	Effective January	1, 2029, to Januar	y 1, 2033, an Instar	ntaneous Water	
<u> </u>			f less than or equal to		
			Mobile Home within		
	AQMD and comp	blying with the alter	native compliance da	te in paragraph	
	(i)(5) shall promi	nently display the st	atement "For Installa	tion and Use in	
	Mobile Homes Or	<mark>nly."</mark>			
<u>(3)</u>	Annual Reporting	Requirement			
	Effective on and a	fter the Table 3 com	pliance dates for Exis	sting Buildings,	
	manufacturers of	natural gas-fired Ur	<u>it(s) shall submit a re</u>	<mark>eport by March</mark>	
	1 st of the followin	<mark>g calendar year to th</mark>	e Executive Officer.	<u> The report shall</u>	
	include:				
	(A) Name of the Na	he product manufact	<mark>urer:</mark>		
		duct model(s);			
			eat Input Capacity of o		
			th Coast AQMD; and	<u>1</u>	
	(D) The applic	able equipment cate	<u>gory in Table 2.</u>		
Exem	ptions				
(1)	The provisions of	this rule shall not ap	ply to:		
	(A) Units used in $\frac{1}{R}$ ecreational $\frac{1}{V}$ ehicles.				
	(B) Units subject to the <u>a NOx emission</u> limits in <u>DistrictSouth Coas</u>				
	AQMD Rule 1121 – Control of Nitrogen Oxides Ffrom Residentia Type, Natural Gas-fired Water Heaters- <u>; and</u>				
	(C) Units at a RECLAIM or former RECLAIM facility subject to a NO				
	emission limit in a different rule for an industry-specific category				
	defined in Rule 1100 Implementation Schedule for NOx Facilities.				
	AQMD Rule 1121 – Control of Nitrogen Oxides F <u>f</u> rom Residentia Type, Natural Gas-fired Water Heaters- <u>; and</u> (C) Units at a RECLAIM or former RECLAIM facility subject to a NO				
	defined in Rule 1100 Implementation Schedule for NOx Facilities.				

(ĐC) Units at a municipal sanitation service facility subject to a NOx emission limit in a Regulation XI rule adopted or amended after December 7, 2018Rule 1179.1 – Emission Reductions From

<u>Combustion Equipment at Publicly Owned Treatment Works</u> Facilities.

- (2) <u>Until the applicable Table 3 compliance dates</u>, <u>T</u>the <u>Table 1 provisions of</u> paragraphs (c)(3), (c)(4), and (c)(5) <u>emission limits</u> shall not apply to:
 - (A) Any residential unit.
 - (B) <u>Type 2</u> Units <u>manufactured prior to January 1, 2000</u> with a rated heat input capacity greater than 400,000 BTUper hour, but less than or equal to 2,000,000 BTUper hour that are demonstrated to use less than 9,000 <u>T</u>therms during every calendar year. <u>Compliance with</u> the exemption limit shall be demonstrated by a calculation based on the annual fuel consumption recorded by an in line fuel meter or the annual operating hours recorded by a timer and using one of the following methods.
 - (i) Annual therm usage recorded by fuel meter and corrected to standard pressure; or
 - (ii) Amount of fuel (i.e., in thousand cubic feet of gas corrected to standard pressure) converted to therms using the higher heating value of the fuel; or
 - (iii) Annual therm usage calculated by multiplying the number of hours fuel is burned by the rated heat input capacity of the unit converted to therms.
- (3) Table 2 emission limits shall not apply to Type 2 Units that meet Table 1 emission limits and are demonstrated to use less than 3,000 Therms during every calendar year.
- (4) The provisions of paragraphs (d)(3), (d)(4), (d)(5), (d)(6), (d)(7), and (d)(8) and subparagraph (i)(1)(D) shall not apply to Units installed or used for Residential and Multifamily-Structures.
- (5) Certification requirements specified in paragraphs (f)(1) through (f)(4) shall not apply to Units complying with Table 2 emission limits.

(i) Progress Reports

Any person that manufacturers Type 1 units or Type 2 fire tube boilers, steam boilers producing steam pressure greater than 100 pounds per square inch or thermal fluid heaters subject to this rule shall submit to the District a report on progress towards compliance with the emission limits of paragraphs (c)(7) and

(c)(8). Progress reports shall include detailed information on all burner and control technologies evaluated and emission tests. The progress reports shall be submitted to the District for the following categories of equipment by the specified date:

- (1) Type 2 fire tube boilers, steam boilers producing steam pressure greater than 100 pounds per square inch and thermal fluid heaters shall be submitted to the District by January 31, 2008.
- (2) Type 1 units shall be submitted to the District by January 31, 2010.