## Model Rule: NOx and GHG Emissions Standards for Space and Water Heaters

## Version 1.0

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NOTE: provisions in brackets ("[]") are text may be revised or removed by JURISDICTION; *words in italics* are placeholders for text that JURISDICTION may want to add; "\*\*\*" is text that may be added in a future version of the model rule; and "JURISDICTION" and "JURISDICTION's environmental protection agency" are placeholders for the state or the agency involved.

XX. NO<sub>X</sub> and GHG Emissions Standards for Space and Water Heaters.

A. Purpose and Applicability. This regulation limits emissions of nitrogen oxides and carbon dioxide, methane, and nitrous oxide from certain emitting water heaters, boilers, and furnaces with a rated heat input capacity of 2,000,000 British thermal units (Btu) per hour or less that are sold or offered for sale, or leased or offered for lease, in JURISDICTION for use in JURISDICTION or installed in JURISDICTION and applies to certain persons, such as manufacturers, refurbishers, distributors, retailers, and installers.

B. Incorporation by Reference. The following documents are incorporated by reference in this regulation:

(1) ASTM International, ASTM Specification D396-71 (2021).

(2) Bay Area Air Quality Management District, Regulation 9, Inorganic Gaseous Pollutants, Rule 4, Nitrogen Oxides from Natural Gas-Fired Furnaces, Sections 9-4-401 and 9-4-600 (March 15, 2023).

(3) Bay Area Air Quality Management District, Regulation 9, Inorganic Gaseous Pollutants, Rule 6, Nitrogen Oxides Emissions from Natural Gas-Fired Boilers and Water Heaters, Sections 9-6-401 and 9-6-601 (March 15, 2023).

(4) South Coast Air Quality Management District, Protocol 9, "Nitrogen Oxides Compliance Testing for Natural Gas-Fired Water Heaters and Small Boilers" (January 1998).

(5) South Coast Air Quality Management District, Rule 1111, Reduction of NO<sub>X</sub> Emissions from Natural-Gas-Fired, Fan-Type Central Furnaces, paragraphs (d)(1) and (2) (September 1, 2023).

(6) South Coast Air Quality Management District, Rule 1121, Control of Nitrogen Oxides from Residential Type, Natural Gas-Fired Water Heaters, paragraphs (d)(1) and (2) (September 1, 2023).

(7) South Coast Air Quality Management District, Rule 1146.2, Emissions of Oxides of Nitrogen from Large Water Heaters and Small Boilers and Process Heaters, paragraphs (c)(7) and (f)(1) and (2) (June 7, 2024).

(8) 10 CFR Part 430, Subpart B, Appendix N, §10.1 (March 13, 2023).

C. Definitions. The following terms have the following meanings in this regulation:

(1) "BAAQMD testing requirements" means:

(a) For water heaters and boilers, the requirements in BAAQMD, Regulation 9, Inorganic Gaseous Pollutants, Rule 6, Nitrogen Oxides Emissions from Natural Gas-Fired Boilers and Water Heaters, Sections 9-6-401 and 9-6-601 (March 15, 2023); or

(b) For furnaces, the requirements in BAAQMD, Regulation 9, Inorganic Gaseous Pollutants, Rule 4, Nitrogen Oxides from Natural Gas-Fired Furnaces, Sections 9-4-401 and 9-4-600 (March 15, 2023).

(2) "Bay Area Air Quality Management District" or "BAAQMD" means the air quality agency in northern California that is recognized by the United States Environmental Protection Agency and California as having primary responsibility to control air pollution in excess of air quality standards, except from motor vehicles, within a geographic area encompassing Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, and Sonoma counties.

(3) "British thermal unit" or "Btu" means the quantity of heat required to raise the temperature of one pound of water one degree Fahrenheit.

(4) "Boiler" means a product designed to heat water to supply low-pressure steam or hot water for space heating applications:

(a) Including, but not limited to, a combination boiler;

(b) Including a new, pre-owned, or refurbished product; and

(c) Excluding a product that is:

(i) Designed and manufactured exclusively to supply heated air for use in manufacturing, testing, or research and development;

(ii) Designed and manufactured exclusively for installation and use in a recreational vehicle[; or

(iii) (Additional exclusions adopted by JURISDICTION)].

(5) "Carbon dioxide equivalent" or " $CO_2e$ " means the amount of carbon dioxide ( $CO_2$ ) by weight emitted into the atmosphere that would produce the same global warming potential impact as a given weight of a greenhouse gas.

(6) "Category 1 boiler" means a boiler with a rated heat input capacity of less than 300,000 Btu per hour that is designed to:

(a) Use only single-phase electric current, or single-phase electric current or DC current, in conjunction with methane gas, propane, or heating oil;

(b) Be the principal heating source for the living space of a residence; and

(c) Either supply low pressure steam and operate at or below 15 pounds per square inch gauge (psig) steam pressure or supply hot water and operate at or below 160 psig water pressure and 250 °F water temperature.

[(\*\*\*) "Category 2 boiler" means \*\*\*.]

(7) "Category 1 furnace" means a furnace with a rated heat input capacity of less than 225,000 Btu per hour designed to use only single-phase electric current, or single-phase electric current or DC current, in conjunction with methane gas, propane, or heating oil and that:

(a) Is designed to be the principal heating source for the living space of a residence; and

(b) Is a forced-air central furnace or gravity central furnace.

[(\*\*\*) "Category 2 furnace" means \*\*\*.]

(8) "Category 1 water heater" means a storage type water heater with a rated heat input capacity of less than 75,000 Btu per hour designed to combust methane gas.

(9) "Category 2 water heater" means:

(a) A storage type water heater with a rated heat input capacity of at least 75,000 Btu per hour and not more than 105,000 Btu per hour that is designed to combust methane gas; or

(b) An instantaneous type water heater with a rated heat input capacity of less than 200,000 Btu per hour that is designed to combust methane gas.

(10) "Category 3 water heater" means:

(a) A storage type water heater with a rated heat input capacity of more than 105,000 Btu per hour and not more than 2,000,000 Btu per hour that is designed to combust methane gas;

(b) An instantaneous type water heater with a rated heat input capacity of at least 200,000 Btu per hour and not more than 2,000,000 Btu per hour that is designed to combust methane gas; or

(c) A hot water supply boiler with a rated heat input capacity of at least 300,000 Btu per hour and not more than 2,000,000 Btu per hour that is designed to combust methane gas.

(11) "Category 4 water heater" means a storage type or instantaneous type water heater with a rated heat input capacity of not more than 210,000 Btu per hour designed to combust heating oil or propane and not also designed to combust methane gas.

(12) "Certification status" means, for a Category 1, Category 2, Category 3, or Category 4 water heater, Category 1 boiler, or Category 1 furnace, information showing, if applicable and in a format specified by JURISDICTION's environmental protection agency, whether the model of the water heater, boiler, or furnace is certified in JURISDICTION under §H of this regulation and, if so, the lowest amounts of nanograms (ng) of nitrogen oxides emissions (calculated as nitrogen dioxide) and grams (g) of greenhouse gas emissions (in CO<sub>2</sub>e) per joule of heat output for which the model is so certified.

(13) "Circulating water heater" means a storage type water heater that:

(a) Does not have an operational scheme in which the burner or heating element initiates or terminates heating based on sensing flow;

(b) Has a water temperature sensor located at the inlet or the outlet of the water heater or in a separate storage tank that is the primary means of initiating and terminating heating; and

(c) Must be used in combination with a recirculating pump and either a separate storage tank or water circulation loop to achieve the water flow and temperature conditions recommended in the manufacturer's installation and operation instructions.

(14) "Combination boiler" means a product that combines an instantaneous type water heater with a boiler in a single unit.

(15) "Distributor" means a person that purchases a water heater, boiler, or furnace from a manufacturer, refurbisher, or other person in order to sell it to another person for resale.

[(16) "Environmental justice communities" means (JURISDICTION's definition).]

(17) "Flow-activated instantaneous type water heater" means an instantaneous type water heater that activates the burner or heating element only if heated water is drawn from the unit.

(18) "Forced air central furnace" means a furnace designed to supply heat generated by combustion of fuel, transferred to the air within a casing by conduction through heat exchange surfaces, and circulated through the duct system by means of a fan or blower.

(19) "Furnace" means a product that is designed to supply heated air through a system of ducts for space heating applications:

(a) Including, but not limited to a forced air central furnace or gravity central furnace;

(b) Including a new, pre-owned, or refurbished product; and

(c) Excluding a product that is:

(i) Designed and manufactured exclusively to supply heated air for use in manufacturing, testing, or research and development;

(ii) Designed and manufactured exclusively for installation and use in a recreational vehicle[; or

(iii) (Additional exclusions adopted by JURISDICTION)].

(20) "Gravity central furnace" means a furnace that depends primarily on natural convection for circulation of heated air and is designed to be used in conjunction with a system of ducts.

(21) "Greenhouse gas" or "GHG" means carbon dioxide ( $CO_2$ ), methane ( $CH_4$ ), or nitrous oxide ( $N_2O$ ).

(22) "Greenhouse gas emissions" means, from a water heater, boiler, or furnace respectively, the sum of the quantity of carbon dioxide, methane, and nitrous oxide emitted from the flue of the water heater, boiler, or furnace, calculated as grams of carbon dioxide equivalent per joule.

(23) "Heat input" means the heat of combustion released by fuels burned in a water heater, boiler, or furnace based on the higher heating value of fuel and does not include the enthalpy of incoming combustion air.

(24) "Heat output" means:

(a) For water heaters or boilers, the following, as applicable:

(i) Rated heat input capacity multiplied by the ratio of energy delivered to the water to energy content of the fuel consumed;

(ii) The term, "H<sub>0</sub>", in Section 9.3 of South Coast AQMD Protocol 9, "Nitrogen Oxides Compliance Testing for Natural Gas-Fired Water Heaters and Small Boilers" (January 1998); or

(iii) The term as defined in South Coast AQMD, Rule 1146.2, Emissions of Oxides of Nitrogen from Large Water Heaters and Small Boilers and Process Heaters, paragraph (c)(7) (June 7, 2024).

(b) For furnaces, the product of the furnace's heat input multiplied by its annual fuel utilization efficiency under 10 CFR Part 430, Subpart B, Appendix N, §10.1 (March 13, 2023).

(25) "Heating oil" means a distillate fuel oil that has distillation temperatures of 400 degrees Fahrenheit (204 degrees Celsius) at the 10-percent recovery point and 640 degrees Fahrenheit (338 degrees Celsius) at the 90-percent recovery point and meets the specifications defined in ASTM Specification D396-71 (2021).

(26) "Hot water supply boiler" means a product that:

(a) Is shipped complete with heating equipment, mechanical draft equipment, and automatic controls;

(b) Has a rated input from 300,000 Btu per hour to 12,500,000 Btu per hour and of at least 4,000 Btu per hour per gallon of stored water;

(c) Is suitable for heating potable water; and

(d) Meets either or both of the following:

(i) It has the temperature and pressure controls necessary for heating potable water for purposes other than space heating; or

(ii) The manufacturer's product literature, product markings, product marketing, or product installation and operation instructions indicate that the boiler's intended uses include heating potable water for purposes other than space heating.

(27) "Independent testing laboratory" means:

(a) Regarding nitrogen oxides for a model designed to combust methane gas, a testing laboratory or government entity approved by:

(i) BAAQMD to conduct certification testing under applicable BAAQMD testing requirements;

(ii) South Coast AQMD to conduct certification testing under applicable South Coast AQMD testing requirements; or

(iii) JURISDICTION's environmental protection agency, in its sole discretion, to conduct certification testing under applicable BAAQMD or South Coast AQMD testing requirements or any other certification testing method that JURISDICTION's environmental protection agency determines, in its sole discretion, to be acceptable.

(b) Regarding nitrogen oxides for a model designed to combust heating oil or propane and not methane gas or regarding greenhouse gas for any model, a testing laboratory or government entity approved by JURISDICTION's environmental protection agency, in its sole discretion, to conduct certification testing under any certification testing method that JURISDICTION's environmental protection agency determines, in its sole discretion, to be acceptable.

(28) "Install" means, for a water heater, boiler, or furnace respectively, put the water heater, boiler, or furnace in place and ready for use.

(29) "Installer" means a person that, as a business or part of a business, puts a water heater, boiler, or furnace in place and ready for use.

(30) "Instantaneous type water heater" means a water heater that contains no more than one gallon of stored water per 4,000 Btu per hour of rated heat input capacity, including, but not limited to, a combination boiler, flow-activated instantaneous water heater, hot water supply boiler, or storage-type instantaneous water heater.

(31) "Joule" or "j" means a unit of heat output equal to the work done by a force of one newton acting through one meter.

(32) "Lease or offer to lease in JURISDICTION" means, for a water heater, boiler, or furnace respectively, grant or offer to grant, in JURISDICTION, the right to possess and use the water heater, boiler, or furnace for a period or periods of time but does not include granting or offering the right to possess and use a building that contains the water heater, boiler, or furnace.

[(33) "Low- and moderate-income" means (JURISDICTION's definition).]

(34) "Manufacturer" means a person that produces, assembles, or imports a water heater, boiler, or furnace for sale.

(35) "Methane gas" means a gaseous mixture of hydrocarbon compounds with methane (CH<sub>4</sub>) as the primary compound and sufficient energy content and a small enough share of impurities for transport through commercial gas pipelines and sale to end-users.

(36) "Model" means, for a water heater, boiler, or furnace respectively other than a refurbished product, a group of identical or essentially identical water heaters, boilers, or furnaces produced, assembled, or imported by a manufacturer or, for a refurbished product, a group of previously manufactured water heaters, boilers, or furnaces that, after repair or improvement by a refurbisher, are identical or essentially identical.

(37) "Nameplate" means a metal tag permanently attached to a water heater, boiler, or furnace respectively that contains information about the water heater, boiler, or furnace.

(38) "Nitrogen oxides" or "NO<sub>X</sub>" means the sum of nitric oxide (NO) and nitrogen dioxide (NO<sub>2</sub>).

(39) "Nitrogen oxides emissions" means, from a water heater, boiler, or furnace respectively, nitrogen oxides emitted from the flue of the water heater, boiler, or furnace, calculated as nanograms of nitrogen dioxide per joule.

(40) "Person" means any individual, corporation, partnership, association, joint-stock company, business trust, unincorporated organization, firm, company, limited liability company, government agency, or any other legal entity or form of organization.

(41) "Propane" means a hydrocarbon whose chemical composition is predominantly  $C_3H_8$ , whether recovered from methane gas or crude oil.

(42) "Rated heat input capacity" means the maximum rate at which equipment is rated to use energy as specified on the nameplate of the equipment.

(43) "Recreational vehicle" means a multipurpose passenger vehicle with motive power, or a trailer designed to be drawn by a vehicle with motive power by means of a bumper, frame or fifth wheel hitch, that is designed to provide temporary residential accommodations with the presence of at least four of the following:

- (a) Cooking facilities;
- (b) Refrigeration or ice box;
- (c) Self-contained toilet;
- (d) Heating or air conditioning;
- (e) Potable water supply system with faucet and sink; and

(f) Separate 110-125 volt electrical power supply or heating oil or propane supply.

(44) "Refurbisher" means a person that repairs or improves, for sale, a previously manufactured water heater, boiler, or furnace.

(45) "Refurbished" means, for a water heater, boiler, or furnace respectively, a manufactured water heater, boiler, or furnace that is repaired or improved for sale.

(46) "Registered provider" means a person that, under I of this regulation, may offer to lease and install temporarily, or lease and install temporarily, on or after the applicable compliance date in Column D of Table 1 in I (3) of this regulation a water heater, boiler, or furnace that is not certified under I of this regulation to meet the applicable emissions limits in Column E of Table 1. (47) "Retailer" means a person that sells or leases a water heater, boiler, or furnace to another person for use.

(48) "Sell or offer to sell in JURISDICTION" means, for a water heater, boiler, or furnace respectively, transfer or offer to transfer, in JURISDICTION, ownership of the water heater, boiler, or furnace but does not include transferring, or offering to transfer, ownership of a building that contains the water heater, boiler, or furnace.

[(49) "Small business" means (JURISDICTION's definition).]

(50) "South Coast AQMD testing requirements" means:

(a) For water heaters and boilers, as applicable, the requirements in:

(i) South Coast AQMD, Rule 1121, Control of Nitrogen Oxides from Residential Type, Natural Gas-Fired Water Heaters, paragraphs (d)(1) and (2) (September 3, 2004);

(ii) South Coast AQMD, Rule 1146.2, Emissions of Oxides of Nitrogen from Large Water Heaters and Small Boilers and Process Heaters, paragraphs (f)(1) and (2) (June 7, 2024); or

(iii) South Coast AQMD, Protocol 9, "Nitrogen Oxides Emissions Compliance Testing for Natural Gas-Fired Water Heaters and Small Boilers" (January 1998).

(b) For furnaces, the requirements in South Coast AQMD, Rule 1111, Reduction of NOx Emissions from Natural-Gas-Fired, Fan-Type Central Furnaces, paragraphs (d)(1) and (2) (September 1, 2023).

(51) "South Coast Air Quality Management District" or "South Coast AQMD" means the air quality agency in southern California that is recognized by the United States Environmental Protection Agency and California as having primary responsibility to control air pollution in excess of air quality standards, except from motor vehicles, within a geographic area encompassing Los Angeles, Orange, Riverside, and San Bernardino counties.

(52) "Storage-type instantaneous water heater" means an instantaneous type water heater that includes a storage tank with a rated storage volume greater than or equal to 10 gallons.

(53) "Storage type water heater" means a water heater that heats and stores water at a thermostatically controlled temperature, including, but not limited to, a circulating water heater.

(54) "Water heater" means a product that is designed to heat potable water for use outside the heater upon demand:

(a) Including, but not limited to, an instantaneous type water heater or storage type water heater;

(b) Including a new, pre-owned, or refurbished product; and

(c) Excluding a product that is:

(i) Designed and manufactured exclusively to heat water for use in manufacturing, testing, or research and development;

(ii) Designed and manufactured exclusively for installation and use in a recreational vehicle;

(iii) Designed and manufactured exclusively to heat water for use in a pool, spa, sauna, or hot tub[; or

## (iv) (Additional exclusions adopted by JURISDICTION)].

D. NO<sub>X</sub> and GHG Emissions Limits for Water Heaters, Boilers, and Furnaces.

(1) No person shall sell or offer to sell, or lease or offer to lease, in JURISDICTION for use in JURISDICTION, or install or offer to install in JURISDICTION, a water heater, boiler, or furnace in a category in Column A of Table 1 in §D(3) of this regulation and manufactured or refurbished on or after [12 months after rule promulgation] unless the model of that water heater, boiler, or furnace is certified under §H of this regulation to emit nitrogen oxides at a rate equal to or less than the emissions limit in Column C of the corresponding Row.

(2) No person shall sell or offer to sell, or lease or offer to lease, in JURISDICTION for use in JURISDICTION, or install or offer to install in JURISDICTION, a water heater, boiler, or furnace in a category in Column A of Table 1 in §D(3) of this regulation and manufactured or refurbished on or after January 1, 2029 unless the model of that water heater, boiler, or furnace is certified under §H of this regulation to emit nitrogen oxides at a rate of 0.0 nanograms per joule or less and greenhouse gas at a rate of 0.0 grams per joule or less.

	Column A: Product Category	Column B: Compliance Date for Ultra-Low- NO <sub>X</sub> Emissions Limits	Column C: Ultra-Low- NO <sub>X</sub> Emissions Limits	Column D: Compliance Date for Zero-NO <sub>X</sub> & Zero-GHG Emissions Limits	Column E: Zero-NO <sub>X</sub> & Zero-GHG Emissions Limits
Row 1	<b>Category 1 water heater:</b> storage water heater with rated heat input <75,000 Btu/hr, designed for methane gas	[12 months after rule promulgation]	10 ng NO <sub>X</sub> /j	January 1, 2029	0.0 ng NOx/j 0.0 g GHG/j
Row 2	Category 2 water heater: storage water heater with rated heat input ≥75,000 Btu/hr and ≤105,000 Btu/hr or instantaneous water heater with rated heat input <200,000 Btu/hr, designed for methane gas	[12 months after rule promulgation]	14 ng NO <sub>X</sub> /j	January 1, 2029	0.0 ng NOx/j 0.0 g GHG/j
Row 3	Category 3 water heater: storage water heater with rated heat input >105,000 Btu/hr and $\leq$ 2,000,000 Btu/hr, instantaneous water heater with rated heat input $\geq$ 200,00 Btu/hr and $\leq$ 2,000,000 Btu/hr, or hot water supply boiler with rated heat input $\geq$ 300,000 Btu/hr and $\leq$ 2,000,000 Btu/hr, designed for methane gas	[12 months after rule promulgation]	14 ng NO <sub>X</sub> /j		- <u></u>
Row 4	Category 4 water heater: storage or instantaneous water heater with rated heat input ≤210,000 Btu/hr, designed for heating oil or propane			January 1, 2029	0.0 ng NOx/j 0.0 g GHG/j
Row 5	<b>Category 1 boiler:</b> boiler with rated heat input <300,000 Btu/hr, designed for methane gas, heating oil, or propane			January 1, 2029	0.0 ng NOx/j 0.0 g GHG/j
	[Category 2 boiler: boiler with rated heat input ≥300,000 Btu/hr and ≤2,000,000 Btu/hr, designed for methane gas, heating oil, or propane				
Row 6	<b>Category 1 furnace:</b> furnace with rated heat input <225,000 Btu/hr, designed for methane gas, heating oil, or propane			January 1, 2029	0.0 ng NOx/j 0.0 g GHG/j
	[Category 2 furnace: furnace with rated heat input $\geq$ 225,000 Btu/hr and $\leq$ 2,000,000 Btu/hr, designed for methane gas, heating oil, or propane				]

(3) Table 1 -- Emissions Limits for Water Heaters, Boilers, and Furnaces.

E. Certification Applications.

(1) A manufacturer or refurbisher may apply to JURISDICTION's environmental protection agency for a certification required under §D of this regulation that a model of its Category 1, Category 2, Category 3, or Category 4 water heater, Category 1 boiler, or Category 1 furnace complies with an applicable emissions limit for nitrogen oxides or greenhouse gas under §D of this regulation.

(2) Separately for each model and each applicable emissions limit, the manufacturer or refurbisher seeking certification under E(1) of this regulation shall submit to JURISDICTION's environmental protection agency a certification application based on:

(a) A currently valid certification under §F of this regulation; or

(b) A compliance statement under §G of this regulation.

F. Certification Based on Another Government Entity's Certification.

(1) Any manufacturer or refurbisher applying for certification of a model of water heater, boiler, or furnace under E(2)(a) of this regulation shall submit an application that includes the following information in an electronic format specified by JURISDICTION's environmental protection agency:

(a) Name and address of the manufacturer or refurbisher;

(b) Brand name, product line, and model number of the model, with any refurbished water heater, boiler, or furnace being identified as having a different model than the previously manufactured water heater, boiler, or furnace that was refurbished;

(c) Description and specifications of the model, including, but not limited to, rated heat input capacity and any fuel that the model is designed to combust;

(d) Whether the application is based on an initial certification or a recertification by the government entity;

(e) A currently valid certification that the model emits at a rate equal to or less than the applicable emissions limit in Table 1 in D(3) of this regulation:

(i) For nitrogen oxides for a model designed to combust methane gas, by BAAQMD, South Coast AQMD, or any other government entity that is designated by JURISDICTION's environmental protection agency, in its sole discretion, as having an emissions testing method and certification requirements that are acceptable and applicable to the model;

(ii) For nitrogen oxides for a model designed to combust heating oil or propane and not methane gas, by any government entity that is designated by JURISDICTION's environmental protection agency, in its sole discretion, as having an emissions testing method and certification requirements that are acceptable and applicable to the model; or

(iii) For greenhouse gas for any model, by any government entity that is designated by JURISDICTION's environmental protection agency, in its sole discretion, as having an emissions

testing method and certification requirements that do not include any accounting for the source of the carbon in the fuel combusted and are acceptable and applicable to the model.

(2) If the government entity under F(1)(e)(i), (ii), or (iii) of this regulation subsequently requires recertification of the model regarding the certified emissions limit, the manufacturer or refurbisher shall submit to JURISDICTION's environmental protection agency within 60 days of that recertification requirement a new certification application under E(2)(a) of this regulation based on recertification by the government entity in order for the model to remain certified by JURISDICTION's environmental protection agency.

G. Certification Based on Compliance Statement. Any manufacturer or refurbisher applying for certification of a model of water heater, boiler, or furnace under E(2)(b) of this regulation shall submit an application that includes the following information in an electronic format specified by JURISDICTION's environmental protection agency:

(1) Name and address of the manufacturer or refurbisher;

(2) The information under F(1)(b) and (c) of this regulation for the model;

(3) A statement that the model identified in G(2) of this regulation complies with the applicable emissions limit in Table 1 in D(3) of this regulation and a detailed explanation of description of how the model achieves compliance;

(4) If an emissions testing method and certification requirements are specified or accepted under F(1)(e)(i), (ii), or (iii) of this regulation as applicable, a source test report that:

(a) Uses and complies with the testing method and meets the certification requirements;

(b) Includes emissions test results that verify compliance with the emissions limit;

(c) Is prepared by an independent testing laboratory; and

(d) The following statement signed and dated by the person responsible for the report at the independent testing laboratory under G(4)(c) of this regulation: "Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information in this source test report are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant civil and criminal penalties for submitting false statements or information or omitting required statements or information, including the possibility of fine or imprisonment."; and

(5) The following statements signed and dated by a managerial level employee responsible for the certification request at the manufacturer or refurbisher: "Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information in this request for certification are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant civil and criminal penalties for submitting false statements or information or omitting required statements or information, including the possibility of fine or imprisonment."

H. Action on Requests for Certification.

(1) JURISDICTION's environmental protection agency may request the manufacturer or refurbisher applying under E(2)(a) or (b) of this regulation to provide additional information that the Department determines, in its sole discretion, is needed to review the certification application.

(2) JURISDICTION's environmental protection agency may certify a model of water heater, boiler, or furnace as in compliance with an emissions limit, as requested under E(2)(a) or (b) of this regulation, if JURISDICTION's environmental protection agency determines, in its sole discretion, that compliance is demonstrated by, as applicable:

(a) The emissions test results or other information on which the currently valid certification under E(2)(a) of this regulation is based; or

(b) The compliance statement under E(2)(b) of this regulation.

(3) JURISDICTION's environmental protection agency shall inform the manufacturer or refurbisher applying under E(2)(a) or (b) of this regulation of the determination to certify or not to certify the model under H(2) of this regulation and its basis.

I. Temporary Leasing and Installation.

(1) Notwithstanding the prohibitions in §D of this regulation, on or after January 1, 2029, a Category 1, Category 2, or Category 4 water heater, a Category 1 boiler, or a Category 1 furnace of a model that is not certified under §H of this regulation to emit nitrogen oxides at a rate of 0.0 nanograms per joule or less and greenhouse gas at a rate of 0.0 grams per joule or less may be:

(a) Sold or offered for sale, or leased or offered for lease, in JURISDICTION to a registered provider;

(b) Offered in JURISDICTION by a registered provider for temporary lease and installation in JURISDICTION for temporary use in a building in JURISDICTION; or

(c) Temporarily leased and installed in JURISDICTION by a registered provider for temporary use in a building in JURISDICTION.

(2) For a sale or offer to sell, lease or offer to lease, or temporary installation or offer for temporary installation to qualify under I(1)(a), (b), or (c) of this regulation:

(a) The model of any Category 1 or Category 2 water heater temporarily installed or to be temporarily installed must be certified under H of this regulation to emit nitrogen oxides at a rate of 10 ng NO<sub>X</sub>/j or less for a Category 1 water heater or 14 ng NO<sub>X</sub>/j or less for a Category 2 water heater; and

(b) The registered provider involved must be on JURISDICTION's environmental protection agency's list of registered providers under SJ(2) of this regulation during the entire time period of, as applicable:

(i) The sale or offer to sell;

(ii) The lease or offer to lease;

(iii) The offer for temporary lease and installation; or

(iv) The temporary lease and installation and the removal and replacement of the temporary product.

(3) For a temporary lease and installation to qualify under I(1)(c) of this regulation:

(a) The temporarily installed water heater, boiler, or furnace must be leased and installed for use only to provide sufficient time to complete modification, including, but not limited to, electric service upgrade, of the building in JURISDICTION that is necessary for installation of a water heater, boiler, or furnace of a model that:

(i) Will replace the temporarily installed product; and

(ii) Is certified under §H of this regulation to emit nitrogen oxides at a rate of 0.0 nanograms per joule or less and greenhouse gas at a rate of 0.0 grams per joule or less or is not subject to this regulation.

(b) The period of use of the temporarily installed product under I(3)(a) of this regulation shall not exceed 6 months, after which time the temporarily installed product shall be removed and a replacement product of a model described in I(3)(a)(i) of this regulation shall be installed.

(c) The contract for the temporary lease and installation shall include:

(i) The name and business address of the registered provider;

(ii) The name and business address of the installer to be used by the registered provider;

(iii) The following statement: "Under this contract, the above-named registered provider is temporarily leasing and installing, for temporary use in a building in JURISDICTION, a water heater, boiler, or furnace that is not certified to meet applicable zero-nitrogen oxides or zero-greenhouse gas emissions limits and that the provider will remove and replace.";

(iv) The name of the person that is temporarily leasing, and having temporarily installed, the water heater, boiler, or furnace under I(3)(c)(ii) of this regulation and purchasing or leasing a water heater, boiler, or furnace to replace that temporarily installed product and the address where installation of the temporary and replacement products will be made;

(v) The brand name, model number, serial number, date of manufacture or refurbishment, and, if applicable, certification status of the temporarily installed and replacement products under I(3)(c)(iv) of this regulation;

(vi) A summary of the modification of the building that is necessary for installation of the replacement product under I(3)(c)(v) of this regulation; and

(vii) The projected dates for installation and removal of the temporarily installed product and installation of the replacement product under I(3)(c)(v) of this regulation.

J. Registered Providers.

(1) Any person may apply to JURISDICTION's environmental protection agency to be included on a list of registered providers under I(2) of this regulation by submitting a registration application under I(4) of this regulation.

(2) List of registered providers. JURISDICTION's environmental protection agency shall make available to the public a list of registered providers comprising the information under J(4)(a) and (b) of this regulation submitted by providers applying to be on the list, which list shall be updated to reflect any changes under J(3) of this regulation.

(3) Changes in list of registered providers.

(a) A person on the list under I(2) of this regulation shall submit to JURISDICTION's environmental protection agency a registration application under I(4) of this regulation updating its information under I(4)(a) or (b) of this regulation that is on the list within 60 days of any change in that information.

(b) A person on the list under J(2) of this regulation may submit a registration application under J(4) of this regulation for removal from the list.

(c) A person that submits an application for removal under J(3)(b) of this regulation may submit a new application under J(1) of this regulation for inclusion on the list.

(4) A registration application under J(1) or (3)(a) or (b) of this regulation shall include the following information in an electronic format specified by JURISDICTION's environmental protection agency:

(a) Identification of the person, including all business names and business addresses and physical locations;

(b) A list of the owners and any operators of the person;

(c) Whether the person is applying for inclusion on the list, updating its information on the list, or applying for removal from the list; and

(d) The following certification statement signed and dated by a managerial level employee who is responsible for the submission at the provider: "Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the information provided is to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant civil and criminal penalties for submitting false statements or information or omitting required statements or information, including the possibility of fine or imprisonment."

K. Record Keeping and Labeling Requirements. Starting on [date 12 months after rule promulgation] for a Category 1, Category 2, or Category 3 water heater or January 1, 2029 for a Category 4 water heater, Category 1 boiler, or Category 1 furnace:

(1) A manufacturer or refurbisher that sells or leases in JURISDICTION any of these water heaters, boilers, or furnaces (including any that the manufacturer or refurbisher intends to be shipped and installed outside of JURISDICTION) shall maintain, for at least 5 years from the later of the date of creation of the record or the date of the product's manufacture or refurbishing,

copies of all records or information necessary to demonstrate compliance with this regulation and provide those records or information to JURISDICTION on request, including, but not limited to, for each water heater, boiler, or furnace:

(a) All records addressing any information submitted by the manufacturer or refurbisher under  $\xi E$ , F, G, or H of this regulation about the model of the product;

(b) Brand name;

(c) Model number;

(d) Serial number;

(e) Date of manufacture or refurbishment;

(f) Certification status;

(g) Date of sale or lease; and

(h) Date and destination, including recipient and address, of shipment if shipped by the manufacturer or refurbisher.

(2) A manufacturer or refurbisher that sells or offers to sell, or leases or offers to lease, in JURISDICTION any of these water heaters, boilers, or furnaces respectively for use in JURISDICTION shall display for each water heater, boiler or furnace:

(a) On the individual shipping container, its brand name, model number, serial number, date of manufacture or refurbishment, and certification status; and

(b) On a nameplate that is attached to the product and in a format specified by JURISDICTION's environmental protection agency, its model number, serial number, maximum heat input capacity, date of manufacture or refurbishment, and certification status.

(3) A distributor or retailer that sells or leases in JURISDICTION any of these water heaters, boilers, or furnaces (including any that the distributor or retailer intends to be shipped and installed outside of JURISDICTION) shall maintain for at least 5 years from the later of the date of creation of the record or the date of the product's sale or lease, copies of all records or information necessary to demonstrate compliance with this regulation and provide those records or information to JURISDICTION on request, including, but not limited to, for each water heater, boiler, or furnace:

(a) The information under (t)(b) - (f) of this regulation;

(b) Date of sale or lease; and

(c) Date and destination, including recipient and address, of shipment if shipped by the distributor or retailer.

(4) A registered provider that leases and installs in JURISDICTION any of these water heaters, boilers, or furnaces that is not certified under §H of this regulation to emit nitrogen oxides at a

rate of 0.0 nanograms per joule or less and greenhouse gas at a rate of 0.0 grams per joule or less shall maintain, for at least 5 years from the later of the date of creation of the record or the date of the product's lease or installation, copies of all records or information necessary to demonstrate compliance with this regulation and provide those records or information to JURISDICTION on request, including, but not limited to, for each water heater, boiler, or furnace:

- (a) The information under ((1)(b) (f)) of this regulation;
- (b) Dates of lease and installation;
- (c) Dates and destination, including recipient and address, of the lease and installation; and
- (d) Date of removal.

(5) A manufacturer, refurbisher, distributor, retailer, or registered provider shall include with any record or information that it provides to JURISDICTION on request under §K(1), (3), or (4) of this regulation the following statement signed and dated by a managerial level employee responsible for responding to the request at the manufacturer, refurbisher, distributor, retailer, or registered provider: "Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the records or information provided are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant civil and criminal penalties for submitting false statements or information or omitting required statements or information, including the possibility of fine or imprisonment."

[L. Enforcement and Penalties.

(1) JURISDICTION's environmental protection agency or its agent may periodically, as JURISDICTION's environmental protection agency or its agent deems, in its sole discretion, necessary to ensure compliance with this regulation, conduct on-site inspections (including inspection of records) in JURISDICTION of manufacturers, refurbishers, distributors, retailers, installers, or registered providers.

(2) If JURISDICTION determines that a manufacturer, refurbisher, distributor, retailer, installer, registered provider, or other person is in violation of any provision of this regulation, that violation is subject to fines and penalties under *(JURISDICTION's statutory authority)*.

(3) For purposes of L(2) of this regulation, a violation constitutes a separate violation with respect to each water heater, boiler, or furnace involved, except that the maximum fines and penalties per person shall not exceed (*xxx*) dollars for any related series of violations under (*JURISDICTION's statutory authority*).

(4) For purposes of L(2) of this regulation, fines or penalties may be levied against an installer or registered provider that installs a water heater, boiler, or furnace in violation of this regulation but not against any of the installer's or provider's nonmanagerial employees who perform that installation.

(5) Fines and penalties collected under L(2), (3), or (4) of this regulation shall be used to offset the cost of installing water heaters, boilers, or furnaces that have zero-nitrogen oxides and zerogreenhouse gas emissions or that are subject to and meet the applicable emissions limits in Table 1 in D(3) of this regulation for low- and moderate-income households or households or small businesses in environmental justice communities under *(JURISDICTION's statutory authority)*.]

[M. Stakeholder Participation and Equity.

(Each JURISDICTION may include, in this section, provisions for stakeholder participation in the implementation of this regulation and for ensuring accessibility and affordability of zero-NOx-and-GHG-emissions water heaters, boilers, and furnaces for low- and moderate-income households or households or small businesses in environmental justice communities, consistent with its applicable statutes, regulations, or other legal directives or through its existing stakeholder bodies.)]