

File No. 251064

Committee Item No. _____

Board Item No. 44

COMMITTEE/BOARD OF SUPERVISORS

AGENDA PACKET CONTENTS LIST

Committee: _____

Date: _____

Board of Supervisors Meeting

Date: October 28, 2025

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OTHER

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Prepared by: Jocelyn Wong

Date: October 24, 2025

Prepared by: _____

Date: _____

1 [Supporting the Bay Area Air District's Zero-Emission Building Appliance Rules]

2 **Resolution supporting the Bay Area Air District's timely implementation of Rules 9-4**
3 **and 9-6 that establish zero-emission standards for building appliances.**
4

5 WHEREAS, The combustion of gas in building equipment like furnaces and water
6 heaters generates a range of air pollutants linked to poor health outcomes, including nitrogen
7 oxides (NOx), fine particle pollution (PM2.5), formaldehyde, carbon monoxide, and benzene,
8 which contribute to breathing problems, asthma attacks, cardiovascular issues, dementia, and
9 premature death; and

10 WHEREAS, Gas-powered furnaces and water heaters are major contributors to smog-
11 forming NOx pollution and PM2.5 in the Bay Area, causing up to 85 premature deaths and
12 15,000 asthma attacks per year, and costing the region \$890 million annually in health-related
13 costs from air pollution exposure; and

14 WHEREAS, Communities of color are disproportionately exposed to health-harming
15 pollution from gas combustion in homes and businesses, both nationally and in the Bay Area;
16 and

17 WHEREAS, The Bay Area faces an ongoing air quality crisis – with nearly 30
18 consecutive years failing to achieve national ambient air quality standards for ozone and 15
19 straight years of nonattainment with fine particulate matter standards – and further reductions
20 of particulate matter and ozone pollution through the implementation of all feasible measures
21 are needed for attainment and maintenance of these health-protective standards; and

22 WHEREAS, Gas-burning building equipment in the region's homes and businesses
23 emits more NOx pollution than all the Bay Area's passenger cars combined, making it one of
24 the top sources of pollution in the region; and
25

1 WHEREAS, The Bay Area Air District's Board of Directors adopted Rules 9-4 and 9-6
2 without any 'no' votes in March of 2023, establishing future zero-NOx standards for water
3 heaters and furnaces, and these rules will accelerate the transition to zero-polluting heating
4 equipment in the region as residents' old equipment reaches end of life; and

5 WHEREAS, The Air District's Implementation Working Group has worked with the Air
6 District to achieve a successful and equitable implementation of the zero-emission rules to
7 residential water heating in 2027; and

8 WHEREAS, San Francisco is engaging with the Air District to provide feedback on
9 additional rulemaking to introduce flexibility measures that reduce compliance complexity and
10 enhance equity within the zero-NOx equipment rules, thereby ensuring that residents who
11 may face challenges meeting these requirements have viable compliance options; and

12 WHEREAS, Switching from gas-powered space and water heating to efficient zero-
13 emission appliances like electric heat pumps reduces smog-forming pollution, enhances
14 climate resilience, and improves household resilience by introducing reliable cooling and
15 improved air filtration to homes without air conditioning; and

16 WHEREAS, The Air District's zero-NOx furnace and water heater rules help San
17 Francisco make substantial progress toward achieving its climate goals of reducing and
18 eventually eliminating the burning of fossil fuels, a step required to curb global warming and
19 mitigate sea level rise, extreme heat, and climate related natural disasters; and

20 WHEREAS, Adoption of these rules aligns with California's commitment to achieving
21 zero-emission space and water heating standards statewide by 2030, and San Francisco's
22 net-zero emissions goal by 2040; and

23 WHEREAS, San Francisco has been integrally involved in planning for the
24 implementation of these rules and has participated in the Air District's Implementation
25

1 Working Group, which has thus far examined challenges and recommended solutions for the
2 successful, equitable rollout of zero-emission residential water heating; now, therefore, be it

3 RESOLVED, That the City and County of San Francisco supports the timely
4 implementation of the Bay Area Air District's Rules 9-4 and 9-6 to accelerate the transition to
5 zero-emission water heaters and furnaces, with amendments to ensure flexibility for residents
6 who have particular difficulty with compliance - prioritizing equity and simplicity.

REGULATION 9
INORGANIC GASEOUS POLLUTANTS
RULE 4
NITROGEN OXIDES FROM NATURAL GAS-FIRED FURNACES

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REGULATION 9
INORGANIC GASEOUS POLLUTANTS
RULE 4
NITROGEN OXIDES FROM NATURAL GAS-FIRED FURNACES

9-4-100 GENERAL

9-4-101 Description: This Rule limits emissions of nitrogen oxides from natural gas-fired furnaces.

(Amended 12/7/83 and 3/15/23)

9-4-102 Applicability: This Rule applies to any person who sells, installs, or offers for sale a natural gas-fired furnace for use within the District (Section 9-4-300s Standards) and any manufacturer who intends to sell or distribute for sale or installation a natural gas-fired furnace for use within the District (Section 9-4-400s Administrative Requirements and Section 9-4-600s Manual of Procedures).

(Adopted March 15, 2023)

9-4-200 DEFINITIONS

9-4-201 Annual Fuel Utilization Efficiency (AFUE): The efficiency as defined by Section 4.2.35 of the Code of Federal Regulations, Title 10, Part 430, Subpart B, Appendix N.

(Amended 12/7/83; Amended and Renumbered 3/15/23)

9-4-202 BTU: British thermal unit or units.

(Adopted March 15, 2023)

9-4-203 Furnace: A product with a heat input rate less than 175,000 BTU/hr which is designed to be a source of interior space heating.

203.1 Natural Gas-Fired Furnace: A furnace that utilizes single-phase, three-phase or direct current in conjunction with natural gas.

203.2 Natural Gas-Fired Fan Type Central Furnace: A self-contained space heater providing for circulation of heated air at pressures other than atmospheric through ducts more than 25 cm (10 in) in length with a heat input rate of less than 175,000 BTU/hr. This includes combination heating/cooling units with natural gas heating and also an electric cooling rate less than 65,000 BTU/hr.

(Adopted March 15, 2023)

9-4-204 Heat Input: The heat of combustion based on the gross (higher) heating value of the fuel, excluding the enthalpy of incoming combustion air.

(Adopted March 15, 2023)

9-4-205 Natural Gas: A mixture of gaseous hydrocarbons containing at least 80 percent methane by volume as determined by ASTM Standard D1945, 2003.

(Adopted March 15, 2023)

9-4-206 Nitrogen Oxides (NO_x): The sum of nitrogen oxide (NO) and nitrogen dioxide (NO₂), collectively expressed as nitrogen dioxide.

(Adopted March 15, 2023)

9-4-207 Useful Heat Delivered to the Heated Space: The Annual Fuel utilization efficiency (expressed as a fraction) multiplied by the heat input.

(Amended December 7, 1983; Renumbered March 15, 2023)

9-4-300 STANDARDS

9-4-301 Natural Gas-Fired Furnace Emission Standards: A person shall not sell, install or offer for sale within the District:

301.1 Any stationary residential natural gas-fired fan type central furnace manufactured after January 1, 1984, that emits more than 40 nanograms of nitrogen oxides expressed as NO₂ per joule of useful heat delivered to the heated space.

- 301.2** Any natural gas-fired fan type central furnace manufactured after January 1, 2024, that emits more than 14 nanograms of nitrogen oxides expressed as NO₂ per joule of useful heat delivered to the heated space.
- 301.3** Any natural gas-fired furnace manufactured after January 1, 2029, that emits more than 0.0 nanograms of nitrogen oxides expressed as NO₂ per joule of useful heat delivered to the heated space. This includes non-central installations such as wall furnaces as well as units installed in non-residential applications.

This section does not apply to furnaces used for mobile homes.

(Amended 12/7/83 and 3/15/23)

- 9-4-302 Certified Furnaces:** A person shall not sell, install or offer for sale within the District furnaces subject to the requirements of Section 9-4-301 unless such furnaces are certified in accordance with Sections 9-4-401, 402, 403, and 404.

(Amended and Renumbered 12/7/83; Amended 3/15/23)

9-4-400 ADMINISTRATIVE REQUIREMENTS

- 9-4-401 Certification:** The manufacturer shall have each appliance model tested in accordance with the following:

- 401.1** Nitrogen oxides, carbon dioxide and oxygen measurements, test equipment, and other required test procedures shall be in accordance with Section 9-4-601.
- 401.2** Operation of the furnace shall be in accordance with the procedures specified in Section 3.1 of the Code of Federal Regulations, Title 10, Part 430, Subpart B, Appendix N.
- 401.3** One of the two formulas shown below shall be used to determine the emissions of NO_x in units of nanograms per joule of useful heat delivered to heated space:

$$N = \frac{3.655 \times 10^{10} \times P}{(20.9 - Y) \times Z \times E}$$

or

$$N = \frac{4.566 \times 10^4 \times P \times U}{H \times C \times E}$$

Where:

- N = Calculated mass emissions of NO_x per unit of useful heat (nanograms per joule of useful heat delivered to the heated space).
- P = Measured concentration of NO_x in flue gas (parts per million by volume).
- Y = Measured concentration of O₂ in flue gas (percentage by volume).
- Z = Gross heating value of gas (joules per cubic meter at 0.0 degrees Celcius, 1 atm).
- E = AFUE (percentage), as defined in Section 9-4-201.
- U = Concentration of CO₂ in water-free flue gas for stoichiometric combustion (percentage by volume).
- H = Gross heating value of the fuel (BTU per cubic foot, 60°F, 30-in Hg.).
- C = Measured concentration of CO₂ in flue gas, (percentage by volume).

(Amended 12/7/83 and 3/15/23)

- 9-4-402 Compliance Statement:** The manufacturer shall submit to the APCO either of the following:

- 402.1** A statement that each affected furnace model meets the standards set forth in Section 9-4-301 of this Rule. The statement shall be signed and dated, and shall attest to the accuracy of all information. The statement shall include the brand name and model number as it appears on the furnace rating plate, or
- 402.2** A valid South Coast Air Quality Management District (SCAQMD) certification for SCAQMD Rule 1111 for furnaces demonstrating compliance with Section 9-4-301.2.

(Amended 12/7/83 and 3/15/23)

9-4-403 Identification: The manufacturer shall display the model number of the furnace complying with this rule on the shipping carton and rating plate.

9-4-404 Enforcement: The APCO may require the emission test results to be provided when deemed necessary to verify compliance and may periodically conduct such tests as are deemed necessary to ensure compliance.

(Amended March 15, 2023)

9-4-405 Interim Report: At least two years prior to the compliance date listed in Section 9-4-301.3, the APCO shall present to the Air District Board of Directors for consideration at a public meeting a report that includes the technology options currently (and projected to be) available to be sold, installed or offered for sale that do not conflict with the standard in Section 9-4-301.3; the projected costs of purchase and installation of such technology, including any ancillary costs, as applicable; any incentive programs available to reduce these costs; and infrastructure readiness associated with rule compliance.

(Adopted March 15, 2023)

9-4-600 MANUAL OF PROCEDURES

9-4-601 Determination of Emissions: Furnaces subject to Sections 9-4-301 and 302 shall be tested in accordance with the following provisions:

601.1 Each furnace model shall receive certification based on emission tests of a randomly selected unit of that furnace model.

601.2 The measurement of nitrogen oxides emissions shall be conducted in accordance US EPA Reference Method RM-7 (40 CFR Part 60, Appendix A, Test Method 7E).

601.3 The measurement of carbon dioxide shall be conducted in accordance with the Manual of Procedures, Volume IV, Method ST-5 or US EPA Method 3A.

601.4 The measurement of oxygen shall be conducted in accordance with the Manual of Procedures, Volume IV, Method ST-14 or US EPA Method 3A.

(Adopted March 15, 2023)

REGULATION 9
INORGANIC GASEOUS POLLUTANTS
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9-6-400 ADMINISTRATIVE REQUIREMENTS

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9-6-600 MANUAL OF PROCEDURES

- 9-6-601 Determination of Emissions

REGULATION 9
INORGANIC GASEOUS POLLUTANTS
RULE 6
NITROGEN OXIDES EMISSIONS FROM NATURAL GAS-FIRED WATER
HEATERS

(Adopted April 1, 1992)

9-6-100 GENERAL

9-6-101 Description: This rule limits the emissions of nitrogen oxides from natural gas-fired water heaters and boilers.

(Amended November 7, 2007)

9-6-102 Applicability: This Rule applies to any person who sells, installs, or offers for sale a natural gas-fired water heater for use within the District (Section 9-6-300s Standards) and any manufacturer who intends to sell or distribute for sale or installation a natural gas-fired water heater for use within the District (Section 9-6-400s Administrative Requirements and Section 9-6-600s Manual of Procedures).

(Adopted March 15, 2023)

9-6-110 Exemptions: The requirements of Section 9-6-301 shall not apply to the following:

110.1 Natural gas-fired boilers and water heaters with a rated heat input capacity of greater than 2,000,000 BTU/Hour.

110.2 Natural gas-fired water heaters used in recreational vehicles.

110.3 Water heaters using a fuel other than natural gas.

110.4 Natural gas-fired pool/spa heaters with less than 400,000 Btu/Hour rated heat input capacity used exclusively to heat swimming pools, hot tubs or spas.

(Amended November 7, 2007)

9-6-200 DEFINITIONS

9-6-201 Boilers and Water Heaters: Any combustion equipment used to heat water or produce steam and that is not exclusively used to produce electricity for sale. For the purposes of this Rule, a boiler 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 from the exhaust of any combustion equipment.

(Adopted November 7, 2007)

9-6-202 BTU: British thermal unit or units.

(Adopted November 7, 2007)

9-6-203 Direct-Vent Water Heater: A storage tank water heater with air intake and exhaust ducts that use a gravity system to collect air from outside a building for combustion and exhaust combustion byproducts to the outside of a building.

(Adopted November 7, 2007)

9-6-204 Heat Input: The heat of combustion released by fuels burned in a unit based on the higher heating value of fuel. This does not include the enthalpy of incoming combustion air.

(Adopted November 7, 2007)

9-6-205 Heat Output: The product obtained by multiplying the recovery efficiency, as defined by Section 6.1.3 of the Code of Federal Regulation, Title 10, Part 430, Subpart B, Appendix E, by the input rating of the water heater.

(Renumbered November 7, 2007)

9-6-206 Instantaneous Water Heater: A device in which water is heated only when the water flows through a heat exchanger.

(Adopted November 7, 2007)

9-6-207 Mobile Home Water Heater: A closed vessel manufactured exclusively for mobile home use in which water is heated and is withdrawn for use external to the vessel at pressures not exceeding 160 psig, including the apparatus by which heat is generated

and all controls and devices necessary to prevent water temperatures from exceeding 210°F (99°C).

(Adopted November 7, 2007)

9-6-208 Natural Gas: A mixture of gaseous hydrocarbons containing at least 80 percent methane by volume as determined according to Standard Method ASTM D1945-64.

(Renumbered November 7, 2007)

9-6-209 NO_x Emissions: The sum of nitric oxide and nitrogen dioxide in the flue gas, collectively expressed as nitrogen dioxide.

(Adopted November 7, 2007)

9-6-210 Pool/Spa Heater: A device in which water is heated when pool or spa water circulates through a heat exchanger.

(Adopted November 7, 2007)

9-6-211 Power Direct-Vent Water Heater: A storage tank water heater with an air intake duct outside of a building with a blower installed to assist in the expulsion of exhaust gases.

(Adopted November 7, 2007)

9-6-212 Power-Vent Water Heater: A storage tank water heater with an air intake duct outside of a building with a blower installed to assist in the expulsion of exhaust gases.

(Adopted November 7, 2007)

9-6-213 Rated Heat Input Capacity: The heat input capacity specified on the nameplate of the combustion unit.

(Renumbered November 7, 2007)

9-6-214 Storage Tank Water Heater: A closed vessel, in which water is heated and is withdrawn for use external to the vessel at pressures not exceeding 160 psig, including the apparatus by which heat is generated and all controls and devices necessary to prevent water temperatures from exceeding 210°F.

(Renumbered November 7, 2007)

9-6-300 STANDARDS

9-6-301 Natural Gas-Fired Storage Tank Water Heaters with a Rated Heat Input Capacity of 75,000 BTU/Hour or Less:

301.1 No person shall sell, install, or offer for sale within the District any natural gas-fired storage tank water heater, manufactured after July 1, 1992, with a rated heat input capacity of 75,000 BTU/Hour or less, that emits more than 40 nanograms of nitrogen oxides (calculated as NO₂) per joule of heat output.

301.2 No person shall sell, install, or offer for sale within the District any natural gas-fired storage tank water heater less than or equal to 50 gallons capacity that is manufactured after January 1, 2009, and that emits more than 10 nanograms of nitrogen oxides (calculated as NO₂) per joule of heat output. This subsection shall not apply to direct-vent, power-vent, power direct-vent water storage tank heaters and water heaters used for mobile homes.

301.3 No person shall sell, install, or offer for sale within the District any natural gas-fired storage tank water heater greater than 50 gallons capacity that is manufactured after January 1, 2010, and that emits more than 10 nanograms of nitrogen oxides (calculated as NO₂) per joule of heat output. This subsection shall not apply to direct-vent, power-vent, power direct-vent storage tank water heaters and water heaters used for mobile homes.

301.4 No person shall sell, install, or offer for sale within the District any natural gas-fired storage tank water heater that is manufactured after January 1, 2011, and that emits more than 10 nanograms of nitrogen oxides (calculated as NO₂) per joule of heat output. This subsection shall not apply to water heaters used for mobile homes.

301.5 No person shall sell, install, or offer for sale within the District any natural gas-fired storage tank water heater that is manufactured after January 1, 2027, with a rated heat input rating of 75,000 BTU/hour or less, that emits more than 0 nanograms of nitrogen oxides (calculated as NO₂) per joule of heat output. This subsection shall not apply to mobile home water heaters.

(Amended 11/7/07 and 3/15/23)

- 9-6-302 Certification of Boilers and Water Heaters:** No person shall sell, install, or offer for sale within the District any water heaters subject to Section 9-6-301, 303, 304, or 305 unless the water heater manufacturer brand name and model is certified in accordance with Sections 9-6-401 and 402.

(Amended November 7, 2007)

- 9-6-303 Natural Gas-Fired Boilers and Water Heaters with a Rated Heat Input Capacity of 75,001 to 2,000,000 BTU/Hour:**

- 303.1** No person shall sell, install, or offer for sale within the District any large natural gas-fired boiler, storage tank water heater, or instantaneous water heater with a rated heat input capacity from 75,001 to 400,000 BTU/Hour, inclusive, manufactured after January 1, 2008, that emits more than 40 nanograms of nitrogen oxides (calculated as NO₂) per joule of heat output.
- 303.2** No person shall sell, install, or offer for sale within the District any large natural gas-fired boiler, storage tank water heater, or instantaneous water heater with a rated heat input capacity from 75,001 to 400,000 BTU/Hour, inclusive, manufactured after January 1, 2013, that emits more than 14 nanograms of nitrogen oxides (calculated as NO₂) per joule of heat output.
- 303.3** No person shall sell, install, or offer for sale within the District any large natural gas-fired boiler, storage tank water heater, or instantaneous water heater with a rated heat input capacity from 400,001 to 2,000,000 BTU/Hour, inclusive, manufactured after January 1, 2008, that emits more than 20 nanograms of nitrogen oxides (calculated as NO₂) per joule of heat output, or more than 30 ppm NO_x at 3% O₂, dry.
- 303.4** No person shall sell, install, or offer for sale within the District any large natural gas-fired boiler, storage tank water heater, or instantaneous water heater with a rated heat input capacity from 400,001 to 2,000,000 BTU/Hour, inclusive, manufactured after January 1, 2013, that emits more than 14 nanograms of nitrogen oxides (calculated as NO₂) per joule of heat output, or more than 20 ppm NO_x at 3% O₂, dry.
- 303.5** No person shall sell, install, or offer for sale within the District any large natural gas-fired boiler, storage tank water heater, or instantaneous water heater with a rated heat input capacity from 75,001 to 2,000,000 BTU/Hour, inclusive, manufactured after January 1, 2031, that emits more than 0.0 nanograms of nitrogen oxides (calculated as NO₂) per joule of heat output.

(Adopted 11/7/07; Amended 3/15/23)

- 9-6-304 Natural Gas-Fired Mobile Home Water Heaters:** No person shall sell, install, or offer for sale within the District any natural gas-fired mobile home water heater manufactured after January 1, 2008, that emits more than 40 nanograms of nitrogen oxides (calculated as NO₂) per joule of heat output.

(Adopted November 7, 2007)

- 9-6-305 Natural Gas-Fired Pool/Spa Heaters:**

- 305.1** No person shall sell, install, or offer for sale within the District any natural gas-fired pool/spa heater with an input rating from 400,001 to 2,000,000 BTU/Hour, inclusive, manufactured after January 1, 2008, that emits more than 40 nanograms of nitrogen oxides (calculated as NO₂) per joule of heat output, or more than 55 ppm NO_x at 3% O₂, dry.
- 305.2** No person shall sell, install, or offer for sale within the District any natural gas-fired pool/spa heater with an input rating from 400,001 to 2,000,000 BTU/Hour, inclusive, manufactured after January 1, 2013, that emits more than 14 nanograms of nitrogen oxides (calculated as NO₂) per joule of heat output, or more than 20 ppm NO_x at 3% O₂, dry.

(Adopted November 7, 2007)

9-6-400 ADMINISTRATIVE REQUIREMENTS

9-6-401 Compliance with Emissions Standards: The manufacturer shall obtain confirmation from an independent testing laboratory that each boiler or water heater model it intends to sell or distribute for sale into the District that is subject to the requirements of Sections 9-6-301, 303, 304, or 305 has been tested in accordance with the procedures in Section 9-6-601.

(Amended November 7, 2007)

9-6-402 Compliance Statement: The manufacturer shall submit to the APCO either of the following:

402.1 The manufacturer shall submit a statement to the APCO that each boiler or water heater model meets the emission standard set forth in Section 9-6-301 or 303. The compliance statement must:

402.1.1 Provide the following general information: name and address of manufacturer, brand name, trade name, model number and heat input rating as it appears on the water heater rating plate.

402.1.2 Provide a description of the model being certified.

402.1.3 Include a complete certification source test report demonstrating that the boiler or water heater model was tested in accordance with procedures in Section 9-6-601 and a written statement that the model complies with Section 9-6-301, 303, 304, or 305.

402.1.4 Be submitted to the APCO no more than 90 days after the date of the emissions compliance test conducted in accordance with Section 9-6-401.

402.1.5 Be submitted to the APCO no less than 90 days before the intention to sell or distribute a new water heater model within the District, or no less than 90 days before the effective dates in Section 9-6-301, 303, 304, and 305.

402.2 The manufacturer shall submit to the APCO an approved South Coast Air Quality Management District (SCAQMD) certification issued pursuant to SCAQMD Rules 1121 and 1146.2 to demonstrate compliance with Section 9-6-301.1 through 301.4, 303.1 through 303.4, 304, or 305. This option does not apply to units demonstrating compliance with Sections 9-6-301.5 and 303.5.

(Amended 11/7/07 and 3/15/23)

9-6-403 Identification: The water heater manufacturer shall display the model number and the certification status of a water heater complying with this rule on the shipping carton and on the rating plate of each unit.

(Amended November 7, 2007)

9-6-404 Interim Report: At least two years prior to the compliance date listed in Sections 9-6-301.5 and 303.5, the APCO shall present to the Air District Board of Directors for consideration at a public meeting a report that includes the technology options currently (and projected to be) available to be sold, installed or offered for sale that do not conflict with the standard in Section 301.3; the projected costs of purchase and installation of such technology, including any ancillary costs, as applicable; any incentive programs available to reduce these costs; and infrastructure readiness associated with rule compliance.

(Adopted March 15, 2023)

9-6-600 MANUAL OF PROCEDURES

9-6-601 Determination of Emissions: Emissions of oxides of nitrogen from water heaters subject to Section 9-6-301, 303, 304, or 305 shall be tested in accordance with the following provisions:

601.1 Each water heater model shall receive certification based on emission tests of a randomly selected unit of that water heater model.

601.2 The measurement of nitrogen oxides emissions shall be conducted in accordance with EPA Reference Method 7, including 7A-7E.

- 601.3** Each tested water heater shall be operated in accordance with Section 2.4 of American National Standards ANSI Z21.10.1-1990 at normal test pressure, input rates, and with a five-foot exhaust stack installed during the nitrogen oxides emissions tests.
- 601.4** The following procedure shall be used to calculate the NO_x emission rate in nanograms of NO_x per joule of heat output:

$$N = \frac{4.566 \times 10^4 \times P \times U}{H \times C \times E}$$

Where:

N = NO_x Emission Rate in nanograms of NO_x emitted per joule of heat output

P = Concentration of NO_x in the flue gas in parts per million (volume)

U = Dry volume percent of CO₂ in flue gas necessary for stoichiometric combustion

H = Gross heating value of the gas, BTU/ft³ (at 60°F and 30"Hg)

C = Dry volume percent of CO₂ in flue gas

E = Recovery efficiency, percentage, as defined in Section 6.1.3 of the Code of Federal Regulation, Title 10, Part 430, Subpart B, Appendix E.

(Amended 12/7/07 and 3/15/23)

Introduction Form

(by a Member of the Board of Supervisors or the Mayor)

I hereby submit the following item for introduction (select only one):

- ☐ 1. For reference to Committee (Ordinance, Resolution, Motion or Charter Amendment)
- ☒ 2. Request for next printed agenda (For Adoption Without Committee Reference)
(Routine, non-controversial and/or commendatory matters only)
- ☐ 3. Request for Hearing on a subject matter at Committee
- ☐ 4. Request for Letter beginning with "Supervisor _____ inquires..."
- ☐ 5. City Attorney Request
- ☐ 6. Call File No. _____ from Committee.
- ☐ 7. Budget and Legislative Analyst Request (attached written Motion)
- ☐ 8. Substitute Legislation File No. _____
- ☐ 9. Reactivate File No. _____
- ☐ 10. Topic submitted for Mayoral Appearance before the Board on _____

The proposed legislation should be forwarded to the following (please check all appropriate boxes):

- ☐ Small Business Commission ☐ Youth Commission ☐ Ethics Commission
- ☐ Planning Commission ☐ Building Inspection Commission ☐ Human Resources Department

General Plan Referral sent to the Planning Department (proposed legislation subject to Charter 4.105 & Admin 2A.53):

- ☐ Yes ☒ No

(Note: For Imperative Agenda items (a Resolution not on the printed agenda), use the Imperative Agenda Form.)

Sponsor(s):

Mandelman

Subject:

[Resolution Supporting the Bay Area Air District's Zero-Emission Building Appliance Rules]

Long Title or text listed:

Resolution supporting the Bay Area Air District's rules that establish zero-emission standards for building appliances.

Signature of Sponsoring Supervisor: _____

