(Adopted December 1, 1978)(Amended July 8, 1983)(Amended November 6, 2009)
(Amended September 5, 2014)(Amended March 2, 2018)(Amended July 6, 2018)
(Amended December 6, 2019)(Amended September 4, 2020)(Amended October 1, 2021)
(Amended September 1, 2023)(Amended [DATE OF RULE ADOPTION])

# PROPOSED AMENDED RULE 1111

REDUCTION OF NO<sub>X</sub> EMISSIONS FROM NATURAL-GAS-FIRED , FAN-TYPE CENTRAL FURNACES

#### [RULE INDEX TO BE ADDED AFTER RULE ADOPTION]

(a) Purpose and Applicability

The purpose of this rule is to reduce Oxides of Nitrogen (NOx) emissions from fantype central natural gas-fired furnaces Furnaces used for interior space heating, as defined in this rule. This rule applies to manufacturers, distributors, sellers, and installers of residential and commercial fan type central furnaces, requiring either single phase or three phase electric supply, used for comfort heating with a rated heat input capacity of less than 175,000 BTU per hour, or, for combination heating and cooling units, a cooling rate of less than 65,000 BTU per hour.

## (b) Applicability

The provisions of this rule are applicable to manufacturers, distributors, retailers, Resellers, and Installers of natural gas-fired Furnaces used for interior space heating with a Rated Heat Input Capacity less than or equal to 2,000,000 British thermal units (Btu) per hour.

#### (bc) Definitions

- (1) ANNUAL FUEL UTILIZATION EFFICIENCY (AFUE) is defined in Section 10.1 of Code of Federal Regulations, Title 10, Part 430, Subpart B, Appendix N.
- (2) BTU means British thermal unit or units.
- (2) COMMERCIAL FURNACE is a self-contained space heater using natural gas, or any fan-type central furnace that is in natural gas-firing mode, providing for circulation of heated air at pressures other than atmospheric that have:
  - (A) A Rated Heat Input Capacity of 175,000 Btu per hour or more, but less than or equal to 2,000,000 Btu per hour; or
  - (B) For combination heating and cooling units, a cooling rate of 65,000 Btu per hour or more.

- (3) COMPLIANCE PORTAL means the dedicated webpage on the South Coast AQMD website for submitting reports, notifications, or any documents to comply with South Coast AQMD rule(s).
- (34) CONDENSING FURNACE means a high-efficiency furnace Residential Fan-Type Central Furnace that uses a second heat exchanger to extract the latent heat in the flue gas by cooling the combustion gasses to near ambient temperature so that water vapor condenses in the heat exchanger, is collected and drained.
- (45) DOWNFLOW FURNACE means a <u>condensing Condensing or non-condensing Non-Condensing furnace Furnace</u> installed in a configuration in which the furnace takes in cool air from the top, warms it, then releases the warm air through the ductwork below.
- (56) DUAL FUEL SYSTEM is a heating, ventilation, and air conditioning system utilizing a HEAT PUMP Heat Pump as the primary source of heating and cooling with a Residential FAN-TYPE CENTRAL FURNACE Fan-Type Central Furnace serving as auxiliary heating.
- (7) EXISTING BUILDING means a building that is not a New Building as defined in this rule. Existing Building includes any structures on the property such as sheds and detached garages.
- (6) FAN-TYPE CENTRAL FURNACE is a self-contained space heater using natural gas, or any fan-type central furnace that is in natural gas-firing mode, providing for circulation of heated air at pressures other than atmospheric through ducts more than 10 inches in length that have:
  - (A) a RATED HEAT INPUT CAPACITY of less than 175,000 BTU per hour; or
  - (B) for combination heating and cooling units, a cooling rate of less than 65,000 BTU per hour.
- (8) FLOOR FURNACE means a self-contained, floor-mounted space heater using natural gas without ducts that has a Rated Heat Input Capacity at or less than 2,000,000 Btu per hour.
- (9) FURNACE means any Residential Fan-Type Central Furnace, Commercial Furnace, Wall Furnace, or Floor Furnace as defined in this rule.
- (710) HEAT INPUT means the chemical heat released due to assumed complete combustion of fuel to a Furnace, using the higher heating value of the fuel.

  This does not include the sensible heat of incoming combustion air. means

- the higher heating value of the fuel to the furnace measured as BTU per hour-
- (11) HIGH-ALTITUDE means an elevation at or above 4,200 feet above sea level.
- (812) HEAT PUMP means an all-electric device that utilizes condensation and evaporation of refrigerant to absorb and release heat for heating, ventilation, and air conditioning applications.
- (13) INSTALL means the action of an Installer to place a Furnace in a position ready for use.
- (14) INSTALLER means a person who Installs a Furnace and is required to obtain a license issued by the Department of Consumer Affairs Contractors State License Board for a classification related to buildings and appliances.
- (915) MOBILE HOME means a prefabricated structure on a permanently attached chassis.structure, transportable in one or more sections, and is built on a permanent chassis and designed to be used as a dwelling with or without a permanent foundation when connected to the required utilities.
- (1016) MOBILE HOME FURNACE means a <u>Residential Fan-Type Central</u> <u>furnace Furnace</u> designed specifically and solely for installation to heat a mobile home.
- (17) NEW BUILDING means a building that 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, or any subsequent version of the Building Code. For Mobile Homes, the newly constructed building includes installation of the Mobile Home onto the property of residence. New Building is comprised of any structures on the property including, but not limited to sheds, detached garages, pools, and spas.
- (18) NON-CONDENSING FURNACE means a standard Residential Fan-Type

  Central Furnace that is not a Condensing Furnace, Weatherized Furnace, or

  Mobile Home Furnace.
- (1119) NOx EMISSIONS means the sum of nitrogen nitric oxide and nitrogen dioxide (oxides of nitrogen) in the flue gas emitted, calculated, and collectively expressed as nitrogen dioxide.
- (1220) RATED HEAT INPUT CAPACITY means the gross HEAT INPUT Heat Input of the combustion device, as supported by required documentation.

- (21) RENTAL COMPANY means a company that provides Furnaces for installation via a rental agreement.
- (22) RESELLER means anyone who sells Furnace(s) either retail, wholesale, or on an individual basis.
- (23) RESIDENTIAL FAN-TYPE CENTRAL FURNACE is a self-contained natural gas-fired space heater, or any fan-type central furnace that is in natural gas-firing mode, providing for circulation of heated air at pressures other than atmospheric through ducts more than 10 inches in length that have:
  - (A) A Rated Heat Input Capacity of less than 175,000 Btu per hour; or
  - (B) For combination heating and cooling units, a cooling rate of less than 65,000 Btu per hour.

#### (1324) RESPONSIBLE OFFICIAL means:

- (A) For a corporation: a president or vice-president of the corporation in charge of a principal business function or a duly authorized person who performs similar policy-making functions for the corporation, or
- (B) For a partnership or sole proprietorship: general partner or proprietor, respectively.
- (14) SINGLE FIRING RATE means the burners and control system are designed to operate at only one fuel input rate and the control system cycles burners between the maximum heat output and no heat output.
- (1525) USEFUL HEAT DELIVERED TO THE HEATED SPACE is the AFUE (expressed as a fraction) multiplied by the heat input.
- (16) VARIABLE FIRING RATE means the burners and control system are designed to operate at more than one fuel input rate and the control system cycles burners between two or more heat output rates and no heat output.
- (26) WALL FURNACE means a wall-mounted, self-contained space heater using natural gas without ducts that exceed 10 inches that has a Rated Heat Input Capacity at or less than 2,000,000 Btu per hour.
- (1727) WEATHERIZED means a Residential Fan-Type Central Furnace designed for installation outside of a building, equipped with a protective jacket and integral venting, and labeled for outdoor installation.

### (ed) Requirements

- (1) A manufacturer shall not, after January 1, 1984, manufacture or supply for sale or use in the South Coast AQMD fan type central furnaces, unless such furnaces meet the requirements of paragraph (c)(3).
- (2) A person shall not, after April 2, 1984, sell or offer for sale within the South Coast AQMD fan-type central furnaces unless such furnaces meet the requirements of paragraph (e)(3).
- (3) Fan-type central furnaces shall:
  - (A) not emit more than 40 nanograms of oxides of nitrogen (calculated as NO<sub>2</sub>) per joule of useful heat delivered to the heated space; and
  - (B) be certified in accordance with subdivision (d) of this rule.
- (41) On or after October 1, 2012Prior to the applicable Table 2 compliance date, ano person shall not manufacture, supply, sell, resell, offer for sale, import, or installInstall, for use within the South Coast AQMD, fan type central furnaces subject to this rule any Residential Fan-Type Central Furnace, unless such furnaceFurnace is certified pursuant to subdivision (e) not to exceed complies with the applicable Table 1 emission limit and compliance date set forth in Table 1 and is certified in accordance with subdivision (d) of this rule:, expressed by nanograms of NOx per joule of Useful Heat Delivered to the Heated Space (ng/J).

Table 1 Furnace NOx Limits and Compliance Schedule

Compliance Date	Equipment Category	NOx Emission Limit (nanograms/Joule *)
October 1, 2012	Mobile Home Furnace	<del>40</del>
April 1, 2015	Condensing Furnace	14
October 1, 2015	Non condensing Furnace	14
October 1, 2016	Weatherized Furnace	14
October 1, 2018	Mobile Home Furnace	14

<u>Table 1 – Residential Fan-Type Central Furnace NOx Limits and Compliance Schedule</u>

<b>Equipment Category</b>	NOx Emission Limit (ng/J)	Compliance Date
Condensing Furnace	<u>14</u>	October 1, 2019
Non-Condensing Furnace	<u>14</u>	October 1, 2019

Weatherized Furnace	<u>14</u>	October 1, 2021
Mobile Home Furnace	<u>14</u>	October 1, 2018

(2) On and after the applicable Table 2 compliance date, no person shall manufacture, supply, sell, resell, offer for sale, import, or Install, any Furnace for use in the South Coast AQMD, that exceed the Table 2 NOx emission limits. The applicable Table 2 compliance dates for New Building types shall be determined based on the construction or alteration completion date.

Table 2 – Zero-Emission Limits and Compliance Schedule

<b>Equipment Category</b>	NOx Emission Limit (ng/J)	Building Type	<b>Compliance Date</b>
Residential Fan-Type	0.0	<u>New</u>	<u>January 1, 2026</u>
Central Furnace*	0.0	Existing	<u>January 1, 2028</u>
Commercial Furnace	0.0	New	<u>January 1, 2026</u>
Commercial Furnace		Existing	<u>January 1, 2028</u>
Malilla III and Frances	0.0	New	<u>January 1, 2026</u>
Mobile Home Furnace	0.0	Existing	<u>January 1, 2030</u>
Wall Furnaces and Floor	0.0	New	<u>January 1, 2026</u>
<u>Furnaces</u>	0.0	Existing	January 1, 2028

- \* Includes Condensing, Non-Condensing, and Weatherized Furnaces.
  - (5) Any manufacturer of fan type central furnaces regulated by this rule may elect to pay a per unit mitigation fee in lieu of meeting the 14 nanogram/Joule NOx emission limit in Table 1 of paragraph (c)(4) of this rule, provided the manufacturer complies with the following requirements:
    - (A) Prior to the phase one mitigation fee start date specified in Table 2, pays a per unit mitigation fee of \$200 for each condensing furnace and \$150 for each other type of furnace distributed or sold into the South Coast AQMD, disregarding the furnace size.
    - (B) On and after the phase one mitigation fee start date but no later than the mitigation fee option end date specified in Table 2, pays a per unit phase one or phase two mitigation fee for each condensing, non-condensing, weatherized or mobile home furnace according to Table 2.

Table 2 Alternate Compliance Plan with the Phase One and Phase Two Mitigation Fee Schedules

		Phase One	e Mitigation			
F	<del>urnace</del>	Ŧ	<del>Tee</del>	Phase Two Mitigation Fee		
<del>Size</del> <del>Range</del>	<del>Furnace</del> <del>Category</del>	Phase One Mitigation Fee Start Date	Phase One Mitigation Fee (\$/Unit)	Phase Two Mitigation Fee Start Date	Phase Two Mitigation Fee (\$/Unit)	Phase Two Mitigation Fee Option End Date
	Condensing	<del>May 1,</del> <del>2018</del>	<del>\$275</del>	October 1, 2018	<del>\$350</del>	September 30, 2019
<del>≤ 60,000</del>	Non- condensing	October 1, 2018	<del>\$225</del>	<del>April 1,</del> <del>2019</del>	<del>\$300</del>	September 30, 2019
BTU/hr	Weatherized	October 1, 2018	<del>\$225</del>	<del>April 1,</del> <del>2019</del>	<del>\$300</del>	September 30, 2021
	Mobile Home	October 1, 2018	<del>\$150</del>	<del>April 1,</del> <del>2019</del>	<del>\$150</del>	September 30, 2025
> 60,000 Btu/hr	Condensing	<del>May 1,</del> <del>2018</del>	<del>\$300</del>	October 1, 2018	<del>\$400</del>	September 30, 2019
	Non- condensing	October 1, 2018	<del>\$250</del>	<del>April 1,</del> <del>2019</del>	<del>\$350</del>	September 30, 2019
<del>and ≤</del> <del>90,000</del> <del>BTU/hr</del>	Weatherized	October 1, 2018	<del>\$250</del>	<del>April 1,</del> <del>2019</del>	<del>\$350</del>	September 30, 2021
<del>BTU/III</del>	Mobile Home	October 1, 2018	<del>\$150</del>	<del>April 1,</del> <del>2019</del>	<del>\$150</del>	September 30, 2025
> 90,000 BTU/hr	Condensing	<del>May 1,</del> <del>2018</del>	<del>\$325</del>	October 1, 2018	<del>\$450</del>	September 30, 2019
	Non- condensing	October 1, 2018	<del>\$275</del>	<del>April 1,</del> <del>2019</del>	<del>\$400</del>	September 30, 2019
	Weatherized	October 1, 2018	<del>\$275</del>	<del>April 1,</del> <del>2019</del>	<del>\$400</del>	September 30, 2021
	Mobile Home	October 1, 2018	<del>\$150</del>	<del>April 1,</del> <del>2019</del>	<del>\$150</del>	September 30, 2025

- (C) Submits an alternate compliance plan for each 12 month time period after the applicable Table 1 compliance date during which the manufacturer elects to pay the mitigation fee in lieu of meeting the NOx emission limit.
- (D) Submits to the South Coast AQMD an alternate compliance plan no later than 60 days prior to the applicable compliance date, or no later than March 16, 2018 for the condensing furnace compliance plan starting on April 1, 2018, which includes the following:
  - (i) a letter with the name of the manufacturer requesting the mitigation fee compliance option signed by a responsible official identifying the category of fan-type central furnaces

- and the 12 month alternate compliance period that the mitigation fees cover;
- (ii) an estimate of the quantity of applicable Rule 1111 fan type central furnaces to be distributed or sold into the South Coast AQMD during the alternate compliance period, which estimate shall be based on total distribution and sales records or invoices of weatherized or mobile home fan type central furnaces that were distributed or sold into the South Coast AQMD during the 12 month period of July 1 to June 30 prior to the applicable compliance date, along with supporting documentation;
- (iii) a completed South Coast AQMD Form 400A with company name, identification that application is for an alternate compliance plan (section 7 of form), identification that the request is for the Rule 1111 mitigation fee compliance option (section 9 of form), and signature of the responsible official;
- (iv) a check for payment of the alternate compliance plan filing fee (Rule 306, subdivision (c)).
- (E) Submits to the Executive Officer a report signed by the responsible official for the manufacturer identifying by model number the quantity of Rule 1111 fan-type central furnaces actually distributed or sold into South Coast AQMD and a check for payment of mitigation fees for the applicable 12 month alternate compliance period for the quantity of applicable Rule 1111 fan-type central furnaces distributed or sold into the South Coast AQMD during the alternate compliance period. The report and the payment of mitigation fees must be submitted to the South Coast AQMD no later than thirty (30) days after the end of each 12 month mitigation fee alternate compliance period.
- (F) Notwithstanding the requirements set forth in subparagraph (c)(5)(E), during the phase one period specified in Table 2, submits a report signed by the responsible official for the manufacturer identifying by model number the quantity of Rule 1111 fan-type central furnaces actually distributed or sold into South Coast AQMD and a check for payment of mitigation fees for the phase one period

no later than thirty (30) days after the end of the phase one period. The 12 month compliance plan payment as specified in subparagraph (c)(5)(E) that includes this phase one period shall be reconciled so as not to include the phase one payment.

(G) For the last and remaining 6-month period of the condensing furnace final alternate compliance plan ending on September 30, 2019, specified in Table 2, submits a report signed by the responsible official for the manufacturer identifying by model number the quantity of Rule 1111 fan-type central furnaces - condensing furnaces actually distributed or sold into South Coast AQMD and a check for payment of mitigation fees to the South Coast AQMD no later than October 30, 2019.

### (de) Certification

- (1) The manufacturer shall have each appliance Furnace model that is required to be certified to meet Table 1 emission limits to be tested in accordance with the following:
  - (A) Oxides of nitrogenNOx measurements, test equipment, and other required test procedures shall be in accordance with South Coast AQMD Method 100.1-; and
  - (B) Operation of the <u>furnace\_Furnace\_shall\_be\_in</u> accordance with the procedures specified in:
    - (i) Section 4.0 of Code of Federal Regulations, Title 10, Part 430, Subpart B, Appendix N<sub>-</sub>; or
    - (ii) South Coast AQMD Rule 1111 Nitrogen Oxides Emissions

      Compliance Testing for Natural Gas-Fired, Fan-Type

      Central Furnaces certification protocol.
- (2) One of the two formulas shown below shall be used to determine the nanograms of oxides of nitrogenNOx per joule of useful heat delivered to the heated space: Useful Heat Delivered to the Heated Space:

$$N = \underbrace{4.566 \times 10^4 \times P \times U}_{\text{H x C x E}}, \qquad N = \underbrace{3.655 \times 10^{10} \times P}_{\text{(20.9-Y) x Z x E}}$$

Where:

N = nanograms ng/J of emitted oxides of nitrogenNOx per joule of useful heat.

- P = concentration (<u>parts per million by ppm</u> volume) of oxides of nitrogen NOx in flue gas as tested.
- U = volume percent <u>carbon dioxide</u> (CO<sub>2</sub>) in water-free flue gas for stoichiometric combustion.
- H = gross heating value of fuel, <u>BTU/eu.ft.</u> <u>Btu/ft<sup>3</sup></u> (60°F, 30-in. Hg).
- C = measured volume percent of CO<sub>2</sub> in water-free flue gas, assuming complete combustion and no <u>carbon monoxide</u> CO-present.
- E = AFUE, percent
- $Y = \text{volume percent of } \underline{\text{oxygen } \Theta_2}$ -in flue gas.
- $Z = \text{heating value of gas, } \frac{\text{joules/eu. meter } J/m^3}{\text{ATMatmosphere}}$  (0.0°C, 1
- (3) Prior to the date a furnace model is first shipped to a location in the South Coast AQMD for use in the South Coast AQMD, the manufacturer shall obtain Executive Officer's approval for the emission test protocol and emission test results verifying compliance with the applicable NOx limit specified in Table 1, submitting the following. When applying for certification of Furnaces, the manufacturer shall submit to the Executive Officer the following:
  - (A) A statement that indicating the model is in compliance with subdivision (e)(d) that is (The statement shall be signed and dated by a responsible official Responsible Official, and dated, and shall attesting to the accuracy of all statements.);
  - (B) General Information, including
    - (i) Name and address of manufacturer:
    - (ii) Brand name; and-
    - (iii) Model number, as it appears on the <u>furnace\_Furnace\_rating</u> plate-;
  - (C) A description of the <u>furnace\_Furnace\_and</u> specifications for each model being certified-; <u>and</u>
  - (D) A source test report verifying compliance with the emission limits in subdivision (d) for each model to be certified. The source test report shall contain all the elements identified in the procedures specified in (e)(2) for each unit tested.

- (4) When applying for certification of Furnaces, the manufacturer shall submit the items identified in paragraph (e)(3) no more than 180 days after the date of the source test identified in subparagraph (e)(3)(D).
- (ef) Identification of Compliant Units
  - (1) The manufacturer of the <u>furnace\_Furnace\_complying</u> with subdivisions (c) (d) and (d)(e) shall display the following on the shipping container label and rating plate of the <u>furnace\_Furnace</u>:
    - (A) Model number;
    - (B) Rated Heat input capacity Input Capacity;
    - (C) Applicable NOx emission limit in Table 1 or Table 2; and
    - (D) Date of manufacture or date code.
  - (2) Any non-certified <u>natural gas-fired furnace Furnace</u> shipped to a location in the South Coast AQMD for distribution or sale outside of the South Coast AQMD shall have a label on the shipping container identifying the <u>furnace</u> Furnace as not certified for use in the South Coast AQMD.
  - (3) Consumer Notification Requirement
    - The manufacturer of any mobile home Furnace that is distributed or offered for sale into or within the South Coast AQMD that elects to comply using an alternate compliance plan pursuant to paragraph (g)(1) in lieu of meeting the 14 ng/J certification NOx emission limit, shall:
    - (A) Only distribute or publish Informative Materials that clearly display the following language: "If installed in South Coast AQMD, this furnace is only allowed to be installed and used in mobile homes; does not meet the South Coast AQMD Rule 1111 NOx emission limit (14 ng/J); and is subject to a mitigation fee of up to \$150.";
    - (AB) For the purposes of subparagraph  $\frac{(e)(3)(B)(f)(3)(A)}{(e)(3)(B)(f)(3)(A)}$ , "Informative Materials" shall mean the following:
      - (i) The consumer brochure for the furnace;
      - (ii) The technical specification sheet for the furnace; and
      - (iii) The manufacturer's website that promotes, discusses, or lists the <a href="furnace-Furnace-">furnace-</a>;
    - (B) Effective October 1, 2018, for any furnace that is for distribution or sale inside of the South Coast that is using an alternate compliance plan in lieu of meeting the 14 ng/J certification limit, a manufacturer shall only distribute or publish Informative Materials that clearly

- display the following language: "If installed in South Coast AQMD only: This furnace does not meet the South Coast AQMD Rule 1111 NOx emission limit (14 ng/J), and thus is subject to a mitigation fee of up to \$450. This furnace is not eligible for the Clean Air Furnace Rebate Program: www.CleanAirFurnaceRebate.com."
- (C) A manufacturer may use alternative language in lieu of subparagraph  $\frac{(e)(3)(B)(f)(3)(A)}{(e)(3)(B)(f)(3)(A)}$ , provided the alternative language is:
  - (i) Similar to the language in subparagraph  $\frac{(e)(3)(B)(f)(3)(A)}{(e)(a)(a)}$ ;
  - (ii) Submitted to the Executive Officer by August 1, 2018; and
  - (iii) Approved by the Executive Officer no later than August 31, 2018; and
- (D) The manufacturer shall use the language in subparagraph  $\frac{(e)(3)(B)(f)(3)(A)}{(e)(3)(B)(f)(3)(A)}$  if the alternative language is not approved.

### (g) Alternative Compliance Options

(1) Mitigation Fee Alternative Compliance Option

Prior to the applicable Table 2 compliance date, a manufacturer of Mobile Home Furnaces may elect to pay a per unit mitigation fee for selling or enabling distributors, retailers, Resellers, or Installers to sell Mobile Home Furnaces certified to emit 40 ng/J or less of NOx in lieu of complying with the 14 ng/J NOx emission limit in Table 1, provided the manufacturer complies with the following requirements:

- (A) Pays a per unit mitigation fee of \$150 for each Mobile Home Furnace distributed or sold into or within the South Coast AQMD;
- (B) Submits an alternative compliance plan, no later than 60 days prior to the applicable compliance date, for each 12-month time period after the applicable Table 1 compliance date during which the manufacturer elects to pay the mitigation fee in lieu of meeting the NOx emission limit that includes:
  - (i) A letter with the name of the manufacturer requesting the mitigation fee compliance option signed by a Responsible Official, identifying the category of Residential Fan-type Central Furnaces and the 12--month alternate compliance period that the mitigation fees cover;

- (ii) An estimate of the quantity of applicable Mobile Home
  Furnace to be distributed or sold into or within the South
  Coast AQMD during the alternate compliance period, which
  estimate shall be based on total distribution and sales records
  or invoices of Mobile Home Furnaces that were distributed
  or sold into or within the South Coast AQMD during the 12month period of July 1 to June 30 prior to the applicable
  compliance date, along with supporting documentation;
- (iii) A complete South Coast AQMD Form 400A with company name, identification that application is for an alternative compliance plan (section 7 of form), identification that the request is for the Rule 1111 mitigation fee compliance option (section 9 of form), and signature of the Responsible Official; and
- (iv) Payment for the alternate compliance plan filing fee pursuant to Rule 306– Plan Fees.
- (C) Submits to the Executive Officer a report signed by the Responsible

  Official for the manufacturer, no later than 30 days after the end of
  each 12-month mitigation fee alternate compliance period, that shall
  for the applicable 12-month alternate compliance period:
  - (i) Identify each model number and the quantity of Mobile

    Home Furnaces distributed or sold into or within South

    Coast AQMD; and
  - (ii) Include the payment of mitigation fees.
- (2) Alternative Compliance Option for Emergency Replacements
  - If a Furnace requires a short-term replacement due to sudden unit failure after the applicable Table 2 compliance date and an electrical upgrade is required to increase the power supply capacity to operate in compliance with Table 2 emission limits:
  - (A) For Residential Fan-Type Central Furnaces, a Rental Company may offer a Furnace for rent that complies with (d)(1) for up to six months prior to complying with paragraph (d)(2); or
  - (B) For Commercial Furnaces, Floor Furnaces, and Wall Furnaces, a Rental Company may offer a Furnace for rent for up to six months prior to complying with paragraph (d)(2).

- (3) Alternative Compliance Option for Construction
  - A Rental Company may offer a natural gas-fired Furnace for rent for up to 24 months prior to complying with paragraph (d)(2), provided:
  - (A) The Furnace is installed in an Existing Building that requires any construction listed below to comply with paragraph (d)(2):
    - (i) Expanding the space designed to house the compliant furnace or associated equipment;
    - (ii) Relocating the compliant furnace or associated equipment; or
    - (iii) Performing a utility upgrade; and
  - (B) The Furnace shall comply with (d)(1) if the Furnace for rent is a Residential Fan-Type Central Furnace.
- (4) Alternative Compliance Option for Multifamily Properties
  - An owner of a property with ten or more housing units may elect to own one Furnace per ten housing units that complies with (d)(1) and install for up to 24 months prior to installing a Furnace that complies with Table 2 emission limits for a housing unit, provided:
  - (A) The Furnace was manufactured prior to the applicable Table 2 compliance date and complies with paragraph (d)(1); and
  - (B) The Furnace is installed in an Existing Building that requires any construction listed below to comply with paragraph (d)(2):
    - (i) Expanding the space designed to house the Furnace that complies with paragraph (d)(2) or associated equipment;
    - (ii) Relocating the Furnace that complies with paragraph (d)(2) or associated equipment; or
    - (iii) Performing a utility upgrade.
- (h) Labeling, Recordkeeping, and Reporting
  - (1) Labeling and Recordkeeping for Propane Conversion Kits

    If the manufacturer, distributor, Reseller, or Installer of any Furnace elects to comply pursuant to the exemption in paragraph (i)(1):
    - (A) The shipping carton or the name plate of the furnace shall clearly display: "This furnace is to be installed for propane firing only.

      Operating in natural gas mode is in violation of the South Coast AQMD Rule 1111"; and

- (B) The manufacturer shall submit a report by March 1<sup>st</sup> of the following calendar year to the Executive Officer, which includes, but not limited to:
  - (i) The quantity of propane conversion kits for Furnaces distributed or sold for use into South Coast AQMD for the applicable compliance plan period; and
  - (ii) The quantity of propane conversion kits for Furnaces distributed or sold for use into the South Coast AQMD during the 12 month period of July 1 to June 30 prior to the applicable compliance date.
- (2) Labeling and Recordkeeping for High-Altitude Furnaces

  If the manufacturer, distributor, Reseller, or Installer of any Furnace elects to comply with the exemptions in paragraph (i)(3):
  - (A) The manufacturer, distributor, Reseller, or Installer shall record and maintain for up to five years, the following information, and make it available to the Executive Officer upon request:
    - (i) Model number and serial number of the Furnace;
    - (ii) Manufacturers shall record the date and number of Furnaces sold to a distributor, the distributor's name and full contact information (address and phone number);
    - (iii) Distributors and Resellers shall record the date and number of Furnaces sold to an installer, the installer's name and full contact information (address and phone number); and
    - (iv) Installers shall record the installation date and address of each Furnace installation.
  - (B) The manufacturer shall clearly display on the shipping carton, or the name plate of the furnace, the following:
    - (i) For a Downflow Furnace distributed for installation pursuant to subparagraph (i)(3)(A): "This furnace must be installed only as a replacement in a downflow configuration at or above 4,200 feet above sea level in the South Coast AQMD.

      Installation of this furnace for new construction, in any other configuration, or at a lower elevation will be a violation of South Coast AQMD Rule 1111.";
    - (ii) For a Furnace with a rated heat input capacity greater than or equal to 100,000 Btu per hour distributed for installation

following:

- pursuant to subparagraph (i)(3)(A) or for a Furnace distributed for installation pursuant to subparagraph (i)(3)(B) or (i)(3)(C): "This furnace must be installed only as a replacement at or above 4,200 feet above sea level in the South Coast AQMD. Installation of this furnace for new construction or at a lower elevation will be a violation of South Coast AQMD Rule 1111."; and
- (iii) For a Dual Fuel System distributed for installation pursuant to subparagraph (i)(3)(D): "This furnace must be installed only as a replacement at or above 4,200 feet above sea level in the South Coast AQMD that is part of a dual fuel system paring with an electric heat pump. Installation of this furnace for new construction or at a lower elevation will be a violation of South Coast AQMD Rule 1111.".
- New and Existing Building Labeling Requirement

  Pursuant to the labeling schedule in Table 3, the manufacturer of any

  Furnace that is supplied or offered for sale for use in the South Coast

  AQMD prior to the applicable Table 2 compliance dates that complies with

  the Table 1 emission limits but not the Table 2 emission limits, shall clearly

  display on the shipping container, or the name plate of the furnace, the
  - (A) "If Installed in South Coast AQMD: 1) After January 1, 2026, shall not be sold for installation in new buildings 2) After January 1, 2028, only for installation in mobile homes; and 3) After January 1, 2030, not compliant for use and installation in South Coast AQMD.";
  - (B) A manufacturer may use alternative language in lieu of subparagraph (h)(3)(A), provided the alternative language is:
    - (i) Similar to the language in subparagraph (h)(3)(A);
    - (ii) Submitted to the Executive Officer at least six months prior to the applicable start date in Table 3; and
    - (iii) Approved by the Executive Officer prior to the appliable start date in Table 3; and
  - (C) The manufacturer shall use the language in subparagraph (h)(3)(A) if the alternative language is not approved.

Table 3 – Labeling Schedule

Furnace's Compliance	<u>Labeling Requirements</u>		
<u>Schedule</u>	Start Date	End Date	
Mobile Home Furnaces	<u>January 1, 2026</u>	<u>January 1, 2030</u>	
All Other Furnaces	January 1, 2026	<u>January 1, 2028</u>	

### (4) Labeling Requirement for Rental Units

The manufacturer of a Furnace supplied or offered for rent for use within the South Coast AQMD in accordance with an alternative compliance option in subdivision (g), shall prominently display the statement "If Installed or used in South Coast AQMD: This unit is for rent only."

(5) Recordkeeping for Rental Companies

The Rental Company offering units pursuant to paragraphs (g)(2) and (g)(3) shall:

- (A) Register all Furnace(s) offered for rent through the Compliance
  Portal no later than 72 hours after receiving the Furnace(s); and
- (B) Record the rental date and return date of each Furnace, maintain those records for five years, and make those records available to the Executive Officer upon request.
- (6) Recordkeeping for Owners of Multifamily Properties

The owner of a multifamily property that elects to purchase Furnaces pursuant to paragraph (g)(4) shall:

- (A)- Register the Furnaces through the Compliance Portal no later than 72 hours after receiving the Furnace(s); and
- (B) Record the date of installation and date of removal each time when a Furnace is used, maintain records for five years, and make those records available to the Executive Officer upon request.

#### (7) Annual Reporting Requirement

Effective on and after the Table 2 compliance dates for Existing Buildings for any equipment category, manufacturers of natural gas-fired Furnace(s), distributed or sold for use into or within South Coast AQMD, shall submit a report for that equipment category by March 1<sup>st</sup> of the following calendar year and every 12 calendar months thereafter to the Executive Officer, which includes:

- (A) Name of the product manufacturer;
- (B) List of product model(s);

- (C) The applicable equipment category in Table 2;
- (D) The provision of this rule that each model complies; and
- (E) Number of units and Rated Heat Input Capacity of each model that was sold into or within the South Coast AOMD.

#### (f) Enforcement

The Executive Officer may periodically conduct such tests as are deemed necessary to ensure compliance with subdivisions (c), (d), and (e).

# (gi) Exemptions

- (1) The provisions of this rule shall not apply to furnaces installed in mobile homes before October 1, 2012.
- (2) For furnaces manufactured, purchased, and delivered to the South Coast AQMD prior to the applicable compliance date in Table 1, any person may, until 300 days after the applicable compliance date, sell, offer for sale, or install such a furnace in the South Coast AQMD, so long as the furnace meets the requirements of paragraph (c)(3) and subdivisions (d) and (e).
- (3) For furnaces that have been encumbered in a contractual agreement, signed prior to January 1, 2018, by a furnace manufacturer or distributor for future or planned construction, the manufacturer shall be allowed to sell the units within the South Coast AQMD at the mitigation fee specified in subparagraph (c)(5)(A), provided:
  - (A) An application for exemption is submitted to the Executive Officer prior to April 2, 2018;
  - (B) The total quantity of furnaces in application(s) by any one manufacturer does not exceed 15 percent of furnaces distributed and sold in the previous compliance plan period;
  - (C) Those furnaces are sold no later than their mitigation fee option end dates specified in Table 2; and
  - (D) The following documents and information are provided to the Executive Officer, including but not limited to:
    - (i) contractual agreement for the units sold or to be sold in the South Coast AQMD;
    - (ii) quantity, model number, and serial number of the subject units:
    - (iii) contract execution date; and
    - (iv) name(s) of the contractor (s).

- (E) Failure to comply with the requirements specified in subparagraphs (g)(3)(A) through (g)(3)(D) shall result in the requirement to paying or retroactively paying the corresponding mitigation fee specified in paragraph (c)(5) within 30 days upon notification from the Executive Officer.
- (41) The manufacturer of any natural gas<u>-fired furnace</u> that is not certified to meet the 14 ng/J of NOx emission <u>limit</u> and is to be installed with a propane conversion kit for propane firing only in the South Coast AQMD, is exempt from subdivisions (e)(d) and (d)(e), provided the labeling and reporting requirements in paragraph (h)(1) are followed.
  - (A) Effective June 1, 2018, the shipping carton or the name plate of the furnace clearly displays: "This furnace is to be installed for propane firing only. Operating in natural gas mode is in violation of the South Coast AQMD Rule 1111."
  - (B) The following documents and information shall be provided to the Executive Officer, accompanying the compliance plan report specified in subparagraphs (c)(5)(E), (c)(5)(F), and (c)(5)(G), including but not limited to:
    - (i) The quantity of propane conversion kits for furnaces actually distributed or sold into South Coast AQMD for the applicable compliance plan period;
    - (ii) The quantity of propane conversion kits for furnaces distributed or sold into the South Coast AQMD during the 12 month period of July 1 to June 30 prior to the applicable compliance date; and
    - (iii) Photographic evidence of the required language set forth in subparagraph (g)(4)(A) as it appears on the carton or unit, including all versions utilized by the manufacturer, for approval by the Executive Officer. The photographs must be sufficient to verify the wording is correct and that it is "clearly visible," taking into account the font type, size, color, and location on the carton or unit.
  - (C) The manufacturer of this type of unit which has been installed in the South Coast AQMD without meeting above requirements shall be in violation of South Coast AQMD Rule 1111.

- (5) Condensing or non-condensing furnaces that are certified to meet the 40 ng/J NOx limit and are installed at or above 4,200 feet above sea level are exempt from paragraph (c)(4), if that unit is installed on or before March 31, 2022.
- (6) Effective April 1, 2022, downflow furnaces rated less than 175,000 BTU per hour in heat input capacity and condensing or non-condensing furnaces with\_rated heat input at or greater than 100,000 BTU per hour, either of which are installed at elevations at or above 4,200 feet above sea level as a replacement for an existing furnace are exempt from paragraph (c)(4)(d)(1), provided that
- (A) The downflow furnace is certified to meet the 40 ng/J NOx limit, is replacing an existing furnace, and the shipping carton or name plate of the furnace clearly displays: "This furnace must be installed only as a replacement in a downflow configuration at or above 4,200 feet above sea level in the South Coast AQMD. Installation of this furnace for new construction, in any other configuration, or at a lower elevation will be a violation of South Coast AQMD Rule 1111."; or
- (B) The condensing or non-condensing furnace rated at or greater than 100,000 BTU per hour in heat input capacity is certified to meet 40 ng/J NOx limit, is replacing an existing furnace Furnace, and the shipping carton or name plate of the furnace clearly displays: "This furnace must be installed only as a replacement at or above 4,200 feet above sea level in the South Coast AQMD. Installation of this furnace for new construction or at a lower elevation will be a violation of South Coast AQMD Rule 1111."
- (2) Paragraph (d)(2) shall not apply to the following Furnaces:
  - (A) Mobile Home Furnaces for installation or use in master-metered

    Mobile Home parks, which are Mobile Home parks that take
    electricity through a master meter and then distribute it to park
    residents through their own system; and
  - (B) Furnaces that will be installed or used in New Buildings with building permit issued prior to [Date of Adoption] by the appropriate enforcement agency; and
  - (C) Furnaces sold to a Rental Company that will offer Furnaces for rent pursuant to paragraphs (g)(2) and (g)(3).

- (3) Furnaces for installation or use in Existing Buildings at High-Altitude are exempt from the following emission limits until the dates below, provided the manufacturer, distributor, Reseller, or Installer complies with the recordkeeping and labeling requirements in paragraphs (h)(2):
  - (A) Until January 1, 2030, Downflow Furnaces with a Rated Heat Input
    Capacity less than 175,000 Btu per hour and Condensing or NonCondensing Furnaces with a Rated Heat Input Capacity greater than
    or equal to 100,000 Btu per hour that are certified to emit 40 ng/J or
    less of NOx are exempt from paragraph (d)(1);
  - (B) Until January 1, 2030, Furnaces that comply with paragraph (d)(1) are exempt from paragraph (d)(2);
  - (C) Until January 1, 2032, Wall Furnaces or Floor Furnaces are exempt from paragraph (d)(2); and
  - (D) Until January 1, 2035, a Dual Fuel System with the Furnace certified to comply with paragraph (d)(1) are exempt from paragraph (d)(2) provided the Heat Pump component is Installed no more than 24 months after the Furnace in the Dual Fuel System.
- (7) Effective April 1, 2022 and until September 30, 2022, a manufacturer, distributor, or installer that manufactures, supplies, sells, offers for sale, or installs a natural gas furnace certified to meet 40 ng/J of NOx that is installed and operated as part of a dual fuel system at or above 4,200 feet above sea level in the South Coast AQMD, shall only install such a unit that:
  - (A) Is designed by the manufacturer with a system switchover point between heat pump and furnace at the external temperature of 32°F with a nonadjustable system that would prevent any person from changing the external ambient switchover temperature of 32°F;
  - (B) Includes installation of an external temperature sensor which acts as the sole method to determine switchover point;
  - (C) For systems equipped with condensing, noncondensing, or mobile home furnaces, includes communicating technology between the heat pump and furnace installed at the point of manufacture to prevent system operation without a heat pump and requires operations of only the heat pump at and above the switchover temperature outlined in (g)(7)(A); and

- (D) The shipping carton or the name plate of the furnace clearly displays: "This furnace must be installed only in a dual fuel configuration with an electric heat pump. Installation of this furnace without a heat pump in a dual fuel configuration will be a violation of South Coast AOMD Rule 1111."
- (8) The manufacturer of any furnace that elects to use the exemption in paragraph (g)(4), (g)(5), (g)(6), or (g)(7) shall record the following information and shall make this information available upon request to the Executive Officer:
  - (A) Sales date to distributor;
  - (B) Distributor's name and full contact information (address and phone number);
  - (C) Model number of the furnace and heat pump (if applicable); and
  - (D) Serial number of the furnace and heat pump (if applicable).
- (9) The distributor that elects to use the exemption in paragraph (g)(4), (g)(5), (g)(6), or (g)(7) shall record the following information and shall make this information available upon request to the Executive Officer:
  - (A) Sales date to installer;
  - (B) Installer's name and full contact information (address and phone number);
  - (C) Model number of the furnace and heat pump (if applicable); and
  - (D) Serial number of the furnace and heat pump (if applicable).
- (10) The installer that elects to use the exemption in paragraph (g)(4), (g)(5), (g)(6), or (g)(7) shall record the following information and shall make this information available upon request to the Executive Officer:
  - (A) Installation date;
  - (B) Address of furnace installation;
  - (C) Model number of the furnace and heat pump (if applicable); and
  - (D) Serial number of the furnace and heat pump (if applicable).