



Proposed Amended Rule 1111 – Reduction Of NO_x Emissions From Natural Gas-Fired Furnaces

Proposed Amended Rule 1121 – Reduction of NO_x Emissions From Small Natural Gas-Fired Water Heaters

Public Workshop

October 3, 2024

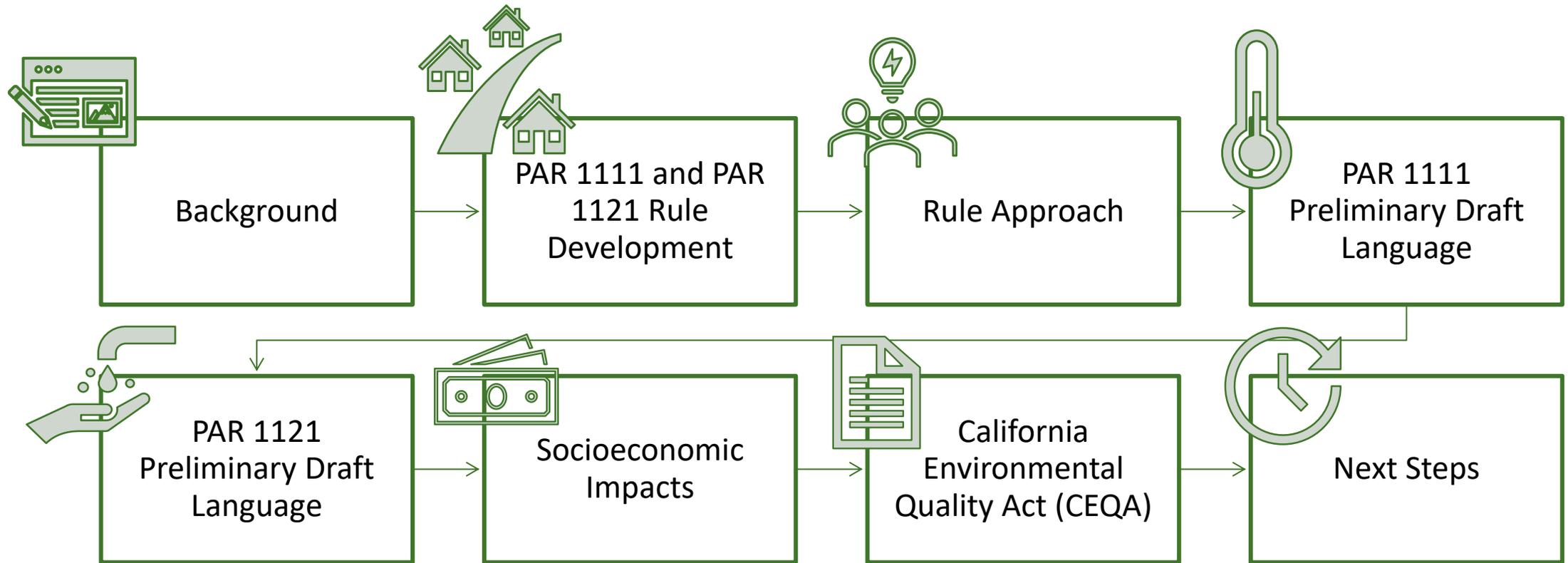
10:00 AM – 12:00 PM (PT)

Join Zoom Meeting:

<https://scaqmd.zoom.us/j/97271436016>

Meeting ID: 972 7143 6016

Agenda



Background



Rule 1111 and Rule 1121 Applicability

Rule 1111

- ▶ Applies to manufacturers, distributors, sellers, and installers
- ▶ Reduces NOx emissions from residential and commercial fan-type central furnaces used:
 - For comfort heating - rated heat input capacity of less than 175,000 Btu per hour (Btu/hr) or
 - For combination heating and cooling - cooling rate less than 65,000 Btu/hr

Rule 1121

- ▶ Applies to manufacturers, distributors, retailers, and installers
- ▶ Controls NOx of natural gas-fired water heaters with a rated heat input less than 75,000 Btu/hr

Rule 1111 Regulatory History

Rule 1111 was adopted on December 1, 1978

- Established NOx emission limit of 40 ng/J for natural gas-fired furnaces

Amended on November 6, 2009

- Lowered NOx emission limit from 40 ng/J to 14 ng/J with effective dates from October 2014 to October 2016
- Set emission limit for mobile homes at 40 ng/J by October 2012 and 14 ng/J by October 2018

Amended on September 5, 2014

- Provided alternative compliance option through mitigation fees
- Amended six times from 2018 – 2023 to extend the mitigation fee end dates, increase mitigation fees, and allow limited exemptions for furnaces at high altitude

Rule 1121 Regulatory History

Rule 1121 was adopted on December 1, 1978

- Set emissions limit to 40 ng/J for gas-fired residential water heaters and 50 ng/J for gas-fired mobile home water heaters effective in 1982

Amended December 10, 1999

- Reduce emissions limit in two steps from 40 ng/J to 20 ng/J to 10 ng/J (effective January 2005)
 - Mitigation fee as alternative to meeting interim limit
- Mobile home emissions limit reduced to 40 ng/J (effective January 2000)

Most recently amended on September 3, 2004

- Extended the compliance dates and mitigation fee period

2022 AQMP Control Measures

2022 Air Quality Management Plan adopted December 2, 2022

- Established path for meeting federal ozone standards
- Seeking to require zero-emission technologies across all sections, wherever feasible, to meet stringent standards

Control Measures R-CMB-01, R-CMB-02, and C-CMB-02 aim to reduce NO_x emissions for residential water heating, residential space heating, and commercial space heating, with a focus on zero-emission standards

- PAR 1111 will implement Control Measures R-CMB-02 and C-CMB-02
- PAR 1121 will implement Control Measure R-CMB-01

PAR 1111 and PAR 1121 Rule Development



Public Process

- ▶ PAR 1111 and PAR 1121 were developed through a public process that started in the fourth quarter of 2023
 - Includes a series of working group meetings, individual stakeholder meetings, and site visits to affected facilities
- ▶ Staff has held six Working Group Meetings

October
5, 2023

November
28, 2023

January
31, 2024

April
4, 2024

June
20, 2024

August
15, 2024

Universe and Baseline Emission Estimates

- ▶ PAR 1111 universe updated to include commercial furnaces
- ▶ PAR 1111 and PAR 1121 will each impact over 5 million units, with over 10 tons per day of emission reductions in total

Category	Estimated Universe	Baseline Emissions Estimate (tons/day)
Residential Furnaces	4,200,000	3.99
Residential Multifamily Furnaces	1,000,000	0.52
Commercial Furnaces	100,000	3.19
Residential Water Heaters	5,100,000	2.32
Total	10,400,000	10.02

Rule Approach



PAR 1111 Approach

PAR 1111 proposes to:

- ▶ Expand applicability to furnaces up to 2 million Btu/hr
 - Currently, furnaces between 175 thousand Btu/hr to 2 million Btu/hr are not regulated
- ▶ Require the transition to zero-NOx emissions furnaces
- ▶ Establish zero-emission compliance dates for units installed in new or existing buildings
- ▶ Establish future effective dates with longer timelines areas of particular concern, especially mobile homes
- ▶ Provide alternative compliance options for specified cases

PAR 1121 Approach

PAR 1121 proposes to:

- ▶ Require the transition to zero- NOx emissions water heaters
- ▶ Establish zero-emission compliance dates for units installed in new or existing buildings
- ▶ Establish future effective dates with longer timelines areas of particular concern, especially mobile homes
- ▶ Provide alternative compliance options for specified cases

Key Rule Updates Summary

Updated rule structure for clarity

Removed outdated language and subdivisions

Added new definitions and provisions

Updated emissions limits to reflect BARCT assessment

PAR 1111 Updated Rule Structure Overview

Rule 1111

(a) Purpose and Applicability

(b) Definitions

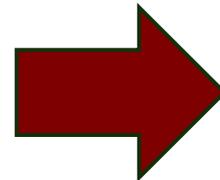
(c) Requirements

(d) Certification

(e) Identification of Compliant Units

(f) Enforcement

(g) Exemptions



PAR 1111

(a) Purpose

(b) Applicability

(c) Definitions

(d) Requirements

(e) Certification

(f) Identification of Compliant Units

(g) Alternative Compliance Options

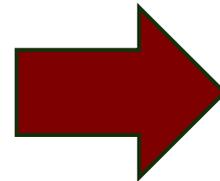
(h) Labeling, Recordkeeping, and Reporting

(i) Exemptions

PAR 1121 Updated Rule Structure Overview

Rule 1121

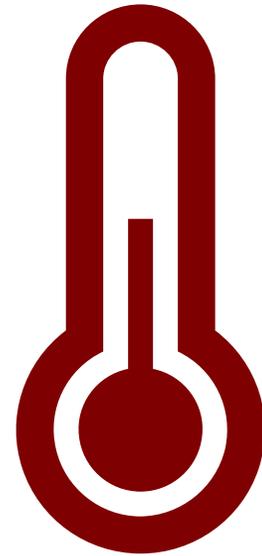
- (a) Applicability
- (b) Definitions
- (c) Requirements
- (d) Certification
- (e) Mitigation Fee
- (f) Enforcement
- (g) Exemptions
- (h) Final Progress Report



PAR 1121

- (a) Purpose
- (b) Applicability
- (c) Definitions
- (d) Requirements
- (e) Certification
- (f) Alternative Compliance Options
- (g) Labeling and Reporting
- (h) Exemptions

PAR 1111
Preliminary Draft
Rule Language



Purpose and Applicability

(a) Purpose and Applicability

The purpose of this rule is to reduce Oxides of Nitrogen (NOx) emissions from ~~fan-type 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.

- ▶ Added Subdivision (b) Applicability to align with current rules
- ▶ Added retailers and resellers to Applicability
 - Part of the supply chain intended for the rule

Key Definitions

- ▶ Original definition of Fan-Type Central Furnace changed to Residential Fan-Type Central Furnace to reflect expanded applicability
 - New definitions for Commercial, Floor, and Wall Furnaces
- ▶ Added definitions for New and Existing Buildings

(6) 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 and appurtenances such as pools and spas.

(2) COMMERCIAL 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 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.

(15) 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. 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.

Requirements (d)

- ▶ Removed provisions with obsolete requirements
- ▶ Streamlined rule structure
- ▶ Moved mitigation fee information to new alternative compliance options section (g)
- ▶ Created Table 2 for zero-emission limits with future implementation dates

Paragraph (d)(1): Current Emission Limits

- ▶ The requirements of current emission limits are consolidated in paragraph (d)(1) and Table 1

(41) ~~On or after October 1, 2012~~ Prior to the applicable Table 2 compliance date, ~~and~~ a person shall ~~not~~ manufacture, supply, sell, resell, offer for sale, import, or ~~install~~ Install, for use within the South Coast AQMD, ~~fan-type central furnaces subject to this rule~~ any Residential Fan-Type Central Furnace, unless such ~~furnace~~ Furnace 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 – Residential Fan-Type Central Furnace NOx Limits and Compliance Schedule

<u>Equipment Category</u>	<u>NOx Emission Limit (ng/J)</u>	<u>Compliance Date</u>
<u>Condensing Furnace</u>	<u>14</u>	<u>October 1, 2019</u>
<u>Non-Condensing Furnace</u>	<u>14</u>	<u>October 1, 2019</u>
<u>Weatherized Furnace</u>	<u>14</u>	<u>October 1, 2021</u>
<u>Mobile Home Furnace</u>	<u>14</u>	<u>October 1, 2018</u>

Paragraph (d)(2): Zero-Emission Limits

- ▶ (d)(2) requires zero-emission limits as listed in Table 2
 - Four equipment categories
 - Three of four categories from Table 1 collapsed into single Residential Fan-Type Central Furnace category
 - Earlier implementation for installations in new buildings
 - All requirements are for new equipment only; furnaces already in place do not need to comply

(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

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

* Includes Condensing, Non-Condensing, and Weatherized Furnaces.

Certification (e)

- ▶ Simplified language in section
- ▶ Specified the protocol for Rule 1111 certification test in clause (e)(1)(B)(ii)
- ▶ Added time limit for source test submittal in subparagraph (e)(4), aligning with Rule 1121

(ii) South Coast AQMD Rule 1111 Nitrogen Oxides Emissions Compliance Testing for Natural Gas-Fired, Fan-Type Central Furnaces certification protocol.

(4) When applying for certification of Furnaces, the manufacturer shall submit the items identified in paragraph (e)(4) no more than 180 days after the date of the source test identified in subparagraph (e)(4)(D).

Identification of Compliant Units (f)

(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 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 home;; 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.”;

- ▶ No requirement change
- ▶ Updated consumer notification to reflect current status of mitigation fees (only mobile home furnaces)
 - Removed obsolete language
 - Streamlined the structure

Alternative Compliance Options (g)

- ▶ New section for PAR 1111
- ▶ Includes existing mobile home furnace mitigation fee option for 14 ng/J limit
- ▶ Includes two new alternative compliance options allowing for temporary rental of natural gas-fired unit before installing a zero-emission furnace

Paragraph (g)(2): Alternative Compliance Option – Emergency Replacement

- ▶ Allows rental of a furnace for up to six months if electrical upgrades are required
 - Residential fan-type furnaces for rent shall meet Table 1 emission limits
 - Commercial, Floor, and Wall Furnaces for rent, with no emission standards previously, are not subject to Table 1 limits

(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 a Furnace that complies with Table 2 emission limits:

(A) For Residential Fan-Type Central Furnaces, a manufacturer, distributor, retailer, Reseller, or Installer may elect to offer a Furnace for rent that complies with Table 1 emission limits for up to six months prior to installing a Furnace that complies with Table 2 emission limits provided the manufacturer, distributor, retailer, Reseller, or Installer report the date the temporary Furnace was rented through the Compliance Portal no later than 72 hours after the date the temporary unit was rented and comply with the labeling requirement in paragraph (h)(4); or:

(B) For Commercial Fan-Type Central Furnaces, Floor Furnaces, and Wall Furnaces, a manufacturer, distributor, retailer, Reseller, or Installer may elect to offer a Furnace for rent for up to six months prior to installing a Furnace that complies with Table 2 emission limits provided the manufacturer, distributor, retailer, Reseller, or Installer report the date the temporary Furnace was rented through the Compliance Portal no later than 72 hours after the date the temporary unit was rented and comply with the labeling requirement in paragraph (h)(4).

Paragraph (g)(3): Alternative Compliance Option – Construction

- ▶ Allows rental of a furnace that complies with Table 1 emission limits for up to 24 months, if construction is required for:
 - Expanding the space or relocation
 - Utility upgrade
 - Replacing a furnace only

(3) Alternative Compliance Option for Construction

A manufacturer, distributor, retailer, Reseller, or Installer may elect to offer a natural gas-fired Furnace for rent for up to 24 months prior to complying with Table 2 emission limits, provided:

(A) The natural gas-fired Furnace is installed in an Existing Building that requires any construction listed below to comply with Table 2 emission limits:

- (i) Expanding the space designed to house the compliant Furnace or associated equipment;
- (ii) Relocating the compliant Furnace or associated equipment;
- (iii) Performing a utility upgrade; or
- (iv) Replacing a Furnace that does not require the simultaneous replacement of space cooling equipment; and

(B) The manufacturer, distributor, retailer, Reseller, or Installer shall:

- (i) Report the date the temporary Furnace was rented through the Compliance Portal no later than 72 hours after the date the temporary unit was rented;
- (ii) Comply with the labeling requirement in paragraph (h)(4); and
- (ii) Comply with Table 1 emission limits if the Furnace for rent is a Residential Fan-Type Central Furnace.

Labeling, Recordkeeping, and Reporting (h)

- ▶ Paragraphs (h)(1) and (h)(2) are existing labeling and recordkeeping requirements from Rule 1111 paragraphs (g)(4) and (g)(6)
- ▶ Paragraphs (h)(3), (h)(4), and (h)(5) provide new labeling and reporting requirements for zero-emission implementation



Paragraph (h)(3): Labeling

- ▶ Labeling requirement for furnaces sold in period between new building and existing building compliance dates
- ▶ Will be used as compliance tool in transition period

(3) Pursuant to the labeling schedule in Table 3, 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 prominently display the statement “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.”

Table 3 – Labeling Schedule

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

Labeling and Reporting for Zero-Emissions

Paragraph (h)(4) labeling requirements:

- ▶ For rental furnaces used in alternative compliance options (g)(2) and (g)(3)
- ▶ Labeling language specified

Paragraph (h)(5) annual reporting requirement:

- ▶ For natural gas-fired Furnace distributed or sold after zero-emission compliance date
- ▶ Specifying the rule provision that each model complies, for example:
 - Alternative compliance option for rental – (g)(2) or (g)(3)
 - Exemption for master-metered mobile home park – (i)(3)

(4) Any 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) Annual Reporting Requirement

Effective on and after the Table 2 compliance dates for Existing Buildings, manufacturers of natural gas-fired Furnace(s), distributed or sold for use into or within South Coast AQMD, shall submit a report by March 1st of the following calendar year 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 AQMD.

Exemptions (i)

- ▶ Obsolete exemptions removed
- ▶ Paragraphs (i)(1) and (i)(2) are existing exemptions
 - Their labeling and reporting requirements moved to subdivision (h)
- ▶ Paragraph (i)(3) exempts master metered mobile homes from zero-emission requirements

(3) The emission limits specified in paragraph (d)(2) shall not apply to 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.

PAR 1121
Preliminary Draft
Rule Language



PAR 1121 (a) & (b) Purpose and Applicability

- ▶ Added Purpose (a) to align with recently adopted and amended rules
- ▶ Applicability also includes resellers – newly defined term

(a) Purpose

The purpose of this rule is to reduce Oxides of Nitrogen (NOx) emissions from natural gas-fired Water Heaters as defined in this rule.

(~~a~~b) Applicability

~~This~~ The provisions of this rule ~~applies~~ are applicable to manufacturers, distributors, retailers, Resellers, and ~~installers~~ Installers of natural gas-fired ~~water heaters~~ Water Heaters, with ~~heat input a~~ Rated Heat Input Capacity ~~rates~~ less than 75,000 British thermal units (Btu) per hour.

PAR 1121 (c) Definitions

- ▶ Most new definitions and revisions align with PAR 1111
 - ▶ New definitions include:
 - Compliance Portal
 - Existing Building
 - Install
 - Installer
 - Mobile Home
 - New Building
 - Parts per Million by Volume (ppmv)
 - Reseller
 - Standard Conditions
 - ▶ Revisions made to following definitions:
 - Heat Input
 - Heat Output
 - Independent Testing Laboratory
 - Mobile Home Water Heater
 - NOx Emissions
 - Protocol
 - Rated Heat Input Capacity
 - Recreational Vehicle
 - Water Heater

PAR 1121 (c) Definitions

- ▶ New Building and Existing Building defined to differentiate between compliance dates
 - ▶ Install, Installer, and Reseller defined to clarify applicability
- (2) EXISTING BUILDING means a building that is not a New Building as defined in this rule. Existing Building includes any structures on the property including, but not limited to, sheds, detached garages, pools, and spas.
- (10) 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. For Mobile Homes, the newly constructed building includes installation of the Mobile Home onto the property of residence. New Building is comprised of any structure(s) on the property including, but not limited to sheds, detached garages, pools, and spas.
- (6) INSTALL means the action of an Installer to place a Water Heater in a position ready for use.
- (7) INSTALLER means a person who Installs a Water Heater -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.
- (16) RESELLER means anyone who sells Water Heater(s) either retail, wholesale, or on an individual basis.

PAR 1121 (c) Definitions

- ▶ Mobile Home, Mobile Home Water Heater, and Water Heater revised to clarify the applicable equipment categories

- (8) MOBILE HOME means a prefabricated structure on a permanently attached chassis.
- (79) MOBILE HOME WATER HEATER means a Water Heater ~~closed vessel~~ manufactured exclusively for ~~mobile home~~ Mobile Home use ~~in which water is heated by combustion of gaseous fuel 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).~~
- (1418) WATER HEATER means a closed vessel ~~other than a mobile home water heater in which water is heated by combustion of gaseous fuel and is withdrawn for use~~ that is fired with, or designed to be fired with, natural gas 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).~~

PAR 1121 Paragraph (d)(1): Current Emission Limits

- ▶ Existing requirements in Rule 1121 paragraphs (c)(1) to (c)(8) consolidated into PAR 1121 paragraph (d)(1)
- ▶ PAR 1121 (d)(1) details the current emission limits for the two equipment categories

(1) Prior to the applicable Table 2 compliance date, no person shall manufacture, supply, sell, resell, offer for sale, import, or Install, for use in the South Coast AQMD, any Water Heater unless the Water Heater is certified pursuant to subdivision (e) and does not exceed the Table 1 NOx limit, expressed by nanograms of NOx per joule of Heat Output (ng/J) or ppmv.

Table 1 – NOx Emission Limits

<u>Equipment</u>	<u>NOx Emission Limits</u>	
	<u>ng/J</u>	<u>ppmv</u>
<u>Water Heater*</u>	<u>10</u>	<u>15</u>
<u>Mobile Home Water Heater</u>	<u>40</u>	<u>55</u>

* Excluding Mobile Home Water Heater

PAR 1121 Paragraph (d)(2): Zero-Emission Limits

- ▶ PAR 1121 (d)(2) specifies zero-emission requirements with compliance schedule summarized in Table 2
 - Two equipment categories
 - Future compliance dates specified for each equipment category
 - Earlier implementation date for new buildings

(2) On and after the applicable Table 2 compliance dates, no person shall manufacture, supply, sell, resell, offer for sale, import, or Install a Water Heater for use in the South Coast AQMD that exceeds 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

<u>Equipment Category</u>	<u>NOx limit (ng/J)</u>	<u>Building Type</u>	<u>Compliance Date</u>
<u>Water Heater*</u>	<u>0.0</u>	<u>New</u>	<u>January 1, 2026</u>
	<u>0.0</u>	<u>Existing</u>	<u>January 1, 2027</u>
<u>Mobile Home Water Heater</u>	<u>0.0</u>	<u>New</u>	<u>January 1, 2026</u>
	<u>0.0</u>	<u>Existing</u>	<u>January 1, 2030</u>

* Excluding Mobile Home Water Heater

PAR 1121 (e): Certification

- ▶ Minor revisions to certification section
 - Updated references;
 - Removed obsolete paragraphs; and
 - Revised previous 90 days to 180 days for manufacturers to submit items identified in paragraph (e)(2)
 - In alignment with the similar requirement in other rules (e.g., Rule 1146.2)

(de) Certification

- (1) The manufacturer shall obtain confirmation that each model of ~~water heater~~ Water Heater complies with the applicable requirements of ~~subdivision (e) paragraph (d)(1)~~ from an ~~independent testing laboratory~~ Independent Testing Laboratory prior to applying for certification for a natural gas-fired Water Heater. This confirmation shall be based upon emission source tests conducted pursuant to the Protocol of a randomly selected unit of each model ~~and the Protocol shall be adhered to during the confirmation testing of all water heaters subject to this rule.~~
- (2) When applying for certification of ~~water heaters~~ Water Heaters, the manufacturer shall submit to the Executive Officer the following:
 - (A) A statement that the model is in compliance with subdivision (e) paragraph (d)(1). ~~The statement shall be signed and dated~~ by the manufacturer ~~and dated, and shall~~ attesting to the accuracy of all statements;
 - (B) General Information, including:
 - (i) Name and address of manufacturer;
 - (ii) Brand name, trade name; and
 - (iii) Model number, as it appears on the ~~water heater~~ Water Heater rating plate;
 - (C) A description of each model being certified; and
 - (D) A source test report verifying compliance with ~~subdivision (e) paragraph (d)(1)~~ for each model to be certified. ~~The source test report shall be, prepared by the confirming independent testing laboratory~~ Independent Testing Laboratory and ~~shall~~ containing all of the elements identified in ~~Section 10 of the Protocol for each unit tested. The source test shall have been conducted no more than ninety days prior to the date of submittal to the Executive Officer.~~

PAR 1121 Paragraph (f)(1): Emergency Replacements

40

- ▶ Alternative Compliance for Emergency Replacements
- ▶ Manufacturer, distributor, retailer, reseller, or installer may elect to offer a water heater for rent for up to six months prior to installing a zero-emission water heater, provided:
 - Water heater for rent shall comply with Table 1 emission limits; and
 - Reporting and labeling requirements are met

(f) Alternative Compliance Options

(1) Alternative Compliance Option for Emergency Replacements

If a Water Heater requires a short-term replacement due to sudden Water Heater failure after the applicable Table 2 compliance date and an electrical upgrade is required to increase the power supply capacity to operate a Water Heater that complies with Table 2 emission limits, a manufacturer, distributor, retailer, Reseller, or Installer may elect to offer a Water Heater for rent that complies with Table 1 emission limits for up to six months prior to installing a Water Heater that complies with Table 2 emission limits, provided the manufacturer, distributor, retailer, Reseller, or Installer:

- (A) Reports the date the temporary Water Heater was rented through the Compliance Portal no later than 72 hours after the date the Water Heater was rented; and
- (B) Complies with the labeling requirement in paragraph (g)(2).

PAR 1121 Paragraph (f)(2): Construction

- ▶ Allow water heater for rent that complies with Table 1 emission limits for up to 24 months prior to installing a zero-emission water heater if construction is required for:
 - Expanding the space;
 - Relocating compliant water heater or associated equipment; or
 - Utility upgrade

(2) Alternative Compliance Option for Construction

A manufacturer, distributor, retailer, Reseller, or Installer may elect to offer a Water Heater for rent that complies with Table 1 emission limits for up to 24 months prior to installing a Water Heater that complies with Table 2 emission limits, provided:

(A) The Water Heater is installed in an Existing Building that requires any construction listed below to comply with Table 2 emission limits:

- (i) Expanding the space designed to house the compliant Water Heater or associated equipment;
- (ii) Relocating the compliant Water Heater or associated equipment, or
- (iii) Performing a utility upgrade; and

(B) The manufacturer, distributor, retailer, Reseller, or Installer shall:

- (i) Report the date the temporary Water Heater was rented through the Compliance Portal no later than 72 hours after the date the Water Heater was rented; and
- (ii) Comply with the labeling requirement in paragraph (g)(2).

PAR 1121 (g): Labeling and Reporting

- ▶ Paragraph (g)(1) details the labeling requirements for units that can only be installed in existing buildings
 - Schedule in Table 3 aligns with the compliance dates for new buildings and existing buildings
- ▶ Paragraph (g)(2) specifies the labeling requirements for a rental water heater under alternative compliance option
- ▶ Paragraph (g)(3) states the general labeling requirements for Water Heaters manufactured for sale in the South Coast AQMD

(g) Labeling and Reporting

- (1) Pursuant to the labeling schedule in Table 3, any Water Heater 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 prominently display the statement "If Installed in South Coast AQMD: 1) After January 1, 2026, shall not be sold for installation in new buildings 2) After January 1, 2027, only for installation in mobile homes; and 3) After January 1, 2030, not compliant for use and installation in South Coast AQMD."

Table 3 – Labeling Schedule

<u>Equipment</u>	<u>Labeling Requirement</u>	
	<u>Start Date</u>	<u>End Date</u>
<u>Water Heater*</u>	<u>January 1, 2026</u>	<u>January 1, 2027</u>
<u>Mobile Home Water Heater</u>	<u>January 1, 2026</u>	<u>January 1, 2030</u>

* Excluding Mobile Home Water Heater

- (2) Any Water Heater supplied or offered for rent for use within the South Coast AQMD in accordance with an alternative compliance option in subdivision (f) shall prominently display the statement "If Installed or used in South Coast AQMD: This unit is for rent only."
- (3) The manufacturer of any Water Heater manufactured for sale in the South Coast AQMD shall clearly display on the shipping carton and the name plate of the water heater:
- (A) Model number;
 - (B) Date of manufacture; and
 - (C) Certification status.

PAR 1121 Paragraph (g)(4): Annual Reporting

- ▶ Annual reporting for manufacturers of natural gas-fired Water Heaters distributed or sold for use into or within the South Coast AQMD
 - Required to submit a report by March 1st of the following year to the Executive Officer
 - Subparagraphs (g)(4)(A) to (g)(4)(E) detail the information to be included in the report

(4) Annual Reporting Requirement

Effective on and after the Table 2 compliance dates for Existing Buildings, manufacturers of natural gas-fired Water Heaters, distributed or sold for use into or within South Coast AQMD, shall submit a report by March 1st of the following calendar year to the Executive Officer. The report shall include:

- (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 for use in the South Coast AQMD.

PAR 1121 (h): Exemptions

▶ The following are exempt from PAR 1121:

➤ Existing exemptions:

- Recreational Vehicles
- Water heaters subject to 1146.2

➤ New exemption:

- Mobile home water heaters installed in master-metered mobile home parks

(gh) Exemptions

- (1) The provisions of this rule shall not apply to: [Water Heaters used in Recreational Vehicles.](#)
- (2) The provisions of this rule shall not apply to Water Heaters subject to Rule 1146.2 – [Emissions of Oxides of Nitrogen from Large Water Heaters and Small Boilers and Process Heaters.](#)
- (3) The emission limits specified in paragraph (d)(2) shall not apply to [Mobile Home Water Heaters 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.](#)

Technology Check-in

Staff intends to conduct a technology check-in and provide an update on zero-emission technologies by June 1, 2027

- Check-in with manufacturers on technology development
- Provide an update on the market adoption of some newer technologies which further addresses small spaces, limited power supply, mobile home application, etc.
- Reevaluate fuel switching costs

Will be included in the Resolution

- Legally required document detailing the Board's action on a rule
- Summarizes findings made by staff needed to adopt or amend a rule

Technology Assessment Text in Resolution

The technology check-in will be included as part of the Resolution included with the Governing Board Package such as:

*“**BE IT FURTHER RESOLVED**, that the South Coast AQMD Governing Board directs staff to report on the status of the zero-emission technologies by June 1, 2027, and conduct a technology assessment if there are potential challenges for any equipment category; and amend the requirements through the public process for applicable equipment categories if deemed appropriate”*

Socioeconomic Impacts



Socioeconomic Impact Assessment

- ▶ A Socioeconomic Impact Assessment will be prepared and released for public review and comment at least 30 days prior to the South Coast AQMD Governing Board Hearing for PAR 1111 and PAR 1121, which is scheduled for December 6, 2024 (subject to change)
 - The analysis will consider:
 - Range of probable costs or savings
 - Impacts to small businesses
 - Impact on employment and the regional economy

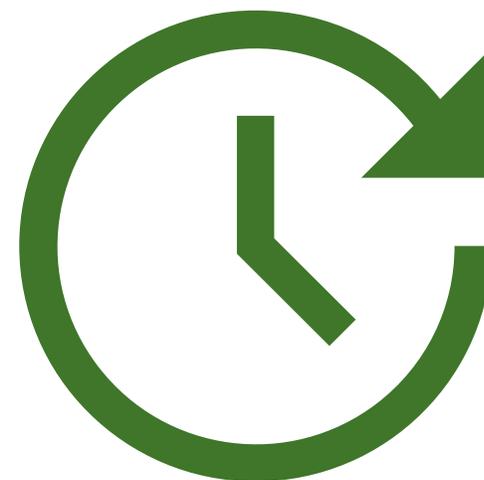
California
Environmental
Quality Act (CEQA)



California Environmental Quality Act (CEQA)

- ▶ Staff has prepared a Draft Subsequent Environmental Assessment (SEA) for PARs 1111 and 1121 which tiers off the Final Program Environmental Impact Report (EIR) for 2022 AQMP
- ▶ Potentially significant adverse impacts are expected for:
 - **Air Quality** related to construction activities
 - **Energy** due to increased demand for electricity and natural gas
- ▶ Draft SEA will be released for a 46-day public review and comment period from September 27, 2024 to November 12, 2024

Next Steps



Next Steps

October 18, 2024
Stationary Source Committee



Conduct site visits and hold stakeholder meetings



November 5, 2024
Release draft rules and draft staff report



December 6, 2024 (subject to change)
Public Hearing

Sign Up for Notifications

53

- To receive newsletter updates via email for notifications regarding the 1111 and 1121 rule development and other forthcoming building appliances rules, please subscribe by checking the **Rule 1111**, **Rule 1121**, and **Building Appliances** check boxes located under Rule Updates:

<http://www.aqmd.gov/sign-up>

- To receive printed copies of South Coast AQMD publications via mail, please visit:

<http://www.aqmd.gov/nav/contact/subscription-services>

Sign Up

The South Coast AQMD offers periodic newsletter updates via Email on a variety of topics . Click on the Manage Subscriptions link at the bottom of the form to update your subscriptions (unsubscribe from lists, subscribe to additional lists, or change your Email address).

If you wish to receive daily pollution forecasts or alerts for specific pollution levels in your area, sign up for **Air Alerts**.

For printed copies of South Coast AQMD publications that mailed to you, please visit **Subscription Services** (charges may apply).

Enter the following Information:

Email Address: Re-Enter Email Address:

First Name (optional): Last Name (optional):

Subscribe by checking the box adjacent to the E-Mail List(s) you are interested in and then **CLICK** on the **Subscribe** button below:

Rule Updates:

<input checked="" type="checkbox"/> Building Appliances	Working Group for Residential and Commercial Building Appliances
<input type="checkbox"/> Rule 1111	Reduction of NOx Emissions from Natural-Gas-Fired, Fan-Type Central Furnaces
<input type="checkbox"/> Rule 1121	Control of Nitrogen Oxides from Residential - Type, Natural-Gas-Fired Water Heaters

Staff Contacts

Jen Vinh	AQ Specialist	jvinh@aqmd.gov	909.396.2148
Peter Campbell	AQ Specialist	pcampbell@aqmd.gov	909.396.3185
Emily Yen	AQ Specialist	eyen@aqmd.gov	909.396.3206
Yanrong Zhu	Program Supervisor	yzhu1@aqmd.gov	909.396.3289
Heather Farr	Planning and Rules Manager	hfarr@aqmd.gov	909.396.3672
Michael Krause	Assistant DEO	mkrause@aqmd.gov	909.396.2706

Staff Contacts: Socio and CEQA

Daniel Penoyer	AQ Specialist, Socio	dpenoyer@aqmd.gov	909.396.2205
Tony Tian, Ph.D.	Program Supervisor, Socio	ttian@aqmd.gov	909.396.2323
Jivar Afshar	AQ Specialist, CEQA	jafshar@aqmd.gov	909.396.2040
Kevin Ni	Program Supervisor, CEQA	kni@aqmd.gov	909.396.2462
Barbara Radlein	Planning and Rules Manager	bradlein@aqmd.gov	909.396.2716
Michael Krause	Assistant DEO	mkrause@aqmd.gov	909.396.2706