

BOARD MEETING DATE: July 6, 2018

AGENDA NO. 26

PROPOSAL: Determine that Proposed Amendments to Rule 1111 – Reduction of NOx Emissions from Natural-Gas-Fired, Fan-Type Central Furnaces are Exempt from CEQA and Amend Rule 1111

SYNOPSIS: At the Public Hearing to adopt amendments to Rule 1111 on March 2, 2018, the Board directed staff to propose additional labeling requirements to better inform consumers when a unit is subject to a mitigation fee. Based on feedback from stakeholders as well as comments from Board members, staff is recommending provisions that will require furnace manufacturers to notify consumers on all consumer brochures, technical specification sheets, and the manufacturer's website that the unit is subject to a mitigation fee and is not eligible for the Clean Air Furnace Rebate Program.

COMMITTEE: Stationary Source, April 20 and May 18, 2018, Reviewed

RECOMMENDED ACTIONS:

Adopt the attached Resolution:

1. Determining that the proposed amendments to Rule 1111 – Reduction of NOx Emissions from Natural-Gas-Fired, Fan-Type Central Furnaces, are exempt from the requirements of the California Environmental Quality Act; and
2. Amending Rule 1111 – Reduction of NOx Emissions from Natural-Gas-Fired, Fan-Type Central Furnaces.

Wayne Natri
Executive Officer

PMF:SN:TG:GQ:YZ

Background

Rule 1111 - Reduction of NOx Emissions from Natural-Gas-Fired, Fan-Type Central Furnaces was adopted in December 1978 to reduce emissions of nitrogen oxides (NOx) from residential and commercial gas-fired fan-type space heating furnaces with a rated heat input capacity of less than 175,000 BTU per hour. The rule applies to manufacturers, distributors, sellers, and installers of such furnaces. Rule 1111 was

amended in 2009 to lower the NO_x emission limit from 40 to 14 ng/Joule (ng/J), and was again amended in 2014 to include a mitigation fee option where manufacturers can pay a per-unit fee in lieu of meeting the 14 ng/J limit. The rule was last amended in March 2018 to increase the mitigation fee and further extend the mitigation fee option, depending on the furnace type and heat input capacity, with no change to mobile home units.

In 2018, a rebate program was established to incentivize consumers to purchase and install 14 ng/J furnaces in the SCAQMD instead of the 40 ng/J units that are subject to a mitigation fee. The SCAQMD executed the contract with Electric & Gas Industries Association (EGIA) on May 4, 2018, for the rebate program. EGIA is currently working with furnace manufacturers, distributors, and contractors on consumer outreach programs, which focus on consumer points of sale.

At the March 2018 Public Hearing for the Rule 1111 amendment, the Board approved the proposed amendments and directed staff to return to the Board with a labeling requirement for units that are subject to the mitigation fee alternate compliance option. The objective is to better inform consumers that are purchasing a 40 ng/J furnace, that the furnace is subject to a mitigation fee and there are lower emitting furnaces (14 ng/J) commercially available and eligible for a consumer rebate.

Public Process

The proposed labeling requirements were discussed at the March 28, 2018 working group meeting. The proposal was also discussed on April 13, 2018 at a Public Consultation meeting.

Proposed Amendments

Based on comments from stakeholders and some Board members at Stationary Source Committee meetings, staff is not recommending to modify the existing labeling requirements for furnaces or shipping containers. Effective October 1, 2018, Proposed Amended Rule 1111 will require manufacturers with furnaces that are utilizing the mitigation fee alternative compliance option to clearly display on brochures, technical specification sheets, and the manufacturers' websites that, "If installed in SCAQMD only: This furnace does not meet the SCAQMD Rule 1111 NO_x 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."

Key Issues

Based on stakeholder comments, Proposed Amended Rule 1111 has been modified to remove requirements to add additional language to existing labeling on the furnace and its shipping container. With this revision, staff is not aware of any key remaining issues.

California Environmental Quality Act

Pursuant to the California Environmental Quality Act (CEQA) and SCAQMD Rule 110, the SCAQMD, as lead agency for the proposed project, has reviewed the proposed amendments to Rule 1111 pursuant to: 1) CEQA Guidelines Section 15002(k) – General Concepts, the three-step process for deciding which document to prepare for a project subject to CEQA; and 2) CEQA Guidelines Section 15061 – Review for Exemption, procedures for determining if a project is exempt from CEQA. SCAQMD staff has determined that it can be seen with certainty that there is no possibility that the proposed amendments to Rule 1111 may have a significant adverse effect on the environment. Therefore, the project is considered to be exempt from CEQA pursuant to CEQA Guidelines Section 15061(b)(3) – Activities Covered by General Rule. A Notice of Exemption has been prepared pursuant to CEQA Guidelines Section 15062 – Notice of Exemption. If the project is approved, the Notice of Exemption will be filed with the county clerks of Los Angeles, Orange, Riverside, and San Bernardino counties.

Socioeconomic Impact Assessment

The proposed amendments to Rule 1111 add consumer notification requirements for informational materials, including marketing brochures, technical specification sheets, and manufacturers' websites, for furnaces that are not certified to meet the 14 ng/J NO_x limit and are participating in the alternate compliance option. The proposed amendments are administrative in nature and cost impacts to manufacturers are expected to be minimal; as such there are no significant adverse socioeconomic impacts. The proposed amendments do not require that the manufacturers generate additional brochures or specification sheets. Instead, the requirement is to add information to brochures, technical specification sheets, and their website, which they already create, maintain, and distribute. In addition, the proposed amendments do not significantly affect air quality and emission limitations, and therefore, no Socioeconomic Impact Assessment is required under California Health and Safety Codes Sections 40440.8 and 40728.5.

Resource Impacts

Existing staff resources are adequate to implement the proposed rule amendments.

Attachments

- A. Summary of Proposal
- B. Key Issues and Responses
- C. Rule Development Process
- D. Key Contacts List
- E. Resolution
- F. Proposed Amended Rule 1111
- G. Final Staff Report
- H. CEQA – Notice of Exemption
- I. Board Meeting Presentation

ATTACHMENT A
SUMMARY OF PROPOSAL

**Proposed Amended Rule 1111 – Reduction of NO_x Emissions From Natural-Gas-Fired,
Fan-Type Central Furnaces**

Summary of Proposed Amendment

Consumer Notification Requirement

- Applicable to manufacturers of any furnace that is for distribution or sale inside the District using an alternate compliance option in lieu of meeting the 14 ng/J certification limit.
- Becomes effective on October 1, 2018. The manufacturer must only distribute or publish Informative Materials that clearly display the following language, or other language as approved no later than August 31, 2018 by the Executive Officer: “If installed in SCAQMD only: This furnace does not meet the SCAQMD Rule 1111 NO_x 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.”

Informative Materials mean the following:

- The consumer brochure for the furnace;
- The technical specification sheet for the furnace; and
- The manufacturer’s website that promotes this furnace

ATTACHMENT B
KEY ISSUES AND RESPONSES

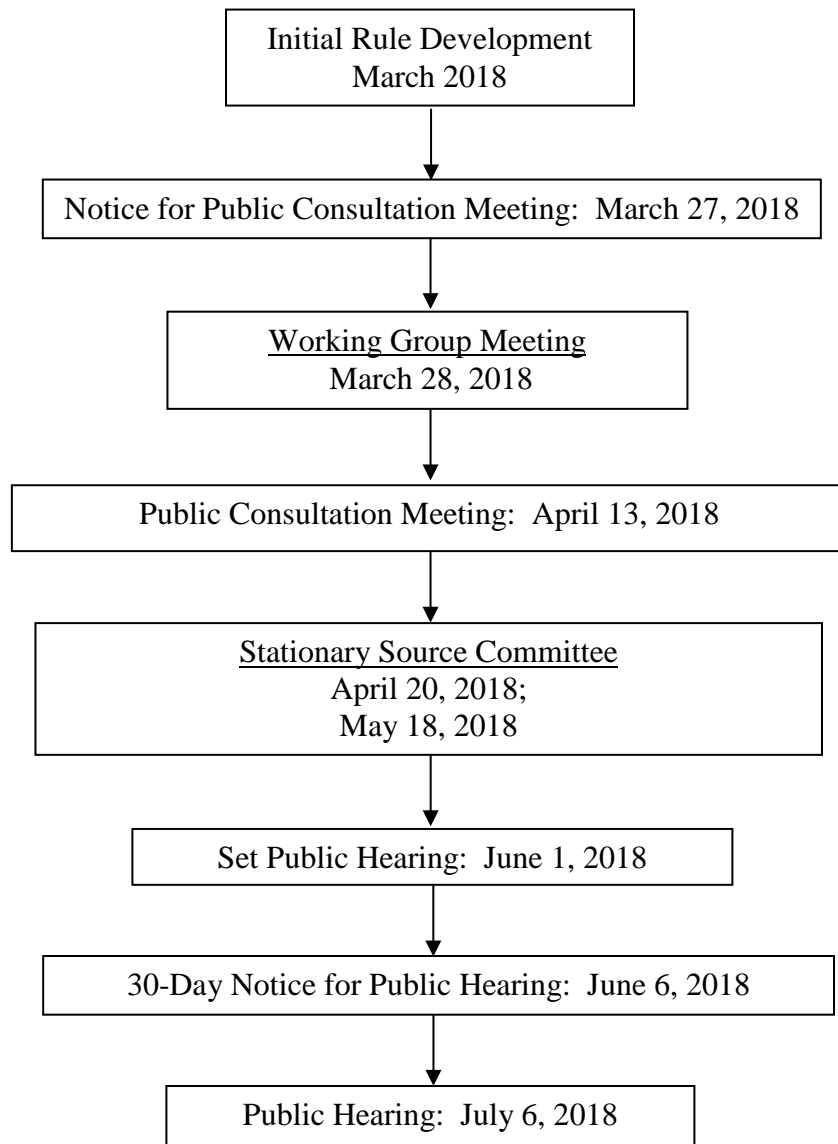
**Proposed Amended Rule 1111 – Reduction of NO_x Emissions From Natural-Gas-Fired,
Fan-Type Central Furnaces**

Staff is not aware of any key remaining issues.

ATTACHMENT C

RULE DEVELOPMENT PROCESS

Proposed Amended Rule 1111 – Reduction of NO_x Emissions from Natural-Gas-Fired, Fan-Type Central Furnaces



Four (4) months spent in rule development

One (1) Working Group Meeting

One (1) Public Consultation Meeting

ATTACHMENT D
KEY CONTACTS LIST

Air Conditioning, Heating, and Refrigeration Institute (AHRI)

Air-Tro

Bard Manufacturing

Beckett Gas, Inc.

Bekaert Combustion Technology

Carrier Corporation

Gas Technology Institute (GTI)

Goodman Manufacturing Company

Heating, Air-conditioning & Refrigeration Distributors International (HARDI)

Howard Industries

Ingersoll Rand (Trane)

Johnson Controls

Lantec Products, Inc.

Lennox International Inc. (+Allied)

Nortek Global HVAC

Rheem Manufacturing

ATTACHMENT E

RESOLUTION NO.18_____

A Resolution of the SCAQMD Governing Board determining that Proposed Amended Rule 1111 - Reduction of NOx Emissions From Natural-Gas-Fired, Fan-Type Central Furnaces is exempt from the requirements of the California Environmental Quality Act (CEQA).

A Resolution of the South Coast Air Quality Management District (SCAQMD) Governing Board amending Rule 1111 - Reduction of NOx Emissions From Natural-Gas-Fired, Fan-Type Central Furnaces.

WHEREAS, the SCAQMD Governing Board finds and determines that Proposed Amended Rule 1111 is considered a “project” pursuant to CEQA per CEQA Guidelines Section 15002(k) – General Concepts, the three-step process for deciding which document to prepare for a project subject to CEQA; and

WHEREAS, the SCAQMD has had its regulatory program certified pursuant to Public Resources Code Section 21080.5 and CEQA Guidelines Section 15251(l), and has conducted a CEQA review and analysis of Proposed Amended Rule 1111 pursuant to such program (SCAQMD Rule 110); and

WHEREAS, the SCAQMD Governing Board finds and determines after conducting a review of the proposed project in accordance with CEQA Guidelines Section 15002(k) – General Concepts, the three-step process for deciding which document to prepare for a project subject to CEQA, and CEQA Guidelines Section 15061 – Review for Exemption, procedures for determining if a project is exempt from CEQA, that Proposed Amended Rule 1111 is exempt from CEQA; and

WHEREAS, the SCAQMD Governing Board finds and determines that it can be seen with certainty that there is no possibility that Proposed Amended Rule 1111 may have any significant adverse effects on the environment, and is therefore, exempt from CEQA pursuant to CEQA Guidelines Section 15061(b)(3) – Activities Covered by General Rule; and

WHEREAS, the SCAQMD staff has prepared a Notice of Exemption for Proposed Amended Rule 1111, that is completed in compliance with CEQA Guidelines Section 15062 – Notice of Exemption; and

WHEREAS, Proposed Amended Rule 1111 and supporting documentation, including but not limited to, the Notice of Exemption, the Final Staff Report, and the Socioeconomic Impact Assessment section of the Final Staff Report, were presented to the SCAQMD Governing Board and the SCAQMD Governing Board has reviewed and considered the entirety of this information, and has taken and considered staff testimony and public comment prior to approving the project; and

WHEREAS, modifications have been made to Proposed Amended Rule 1111 since notice of public hearing was published such that the Consumer Notification Requirement must now only appear on distributed or published Informative Materials, defined as consumer brochures, technical specification sheets, and the manufacturer's website for each furnace using the alternate compliance option, while no longer proposing to add this information to the furnace label and its shipping container; and

WHEREAS, the SCAQMD Governing Board finds and determines, taking into consideration the factors in Section (d)(4)(D) of the Governing Board Procedures (Section 30.5(4)(D)(i) of the Administrative Code), that the modifications made to Proposed Amended Rule 1111 since the notice of public hearing was published are not so substantial as to significantly affect the meaning of the Proposed Amended Rule within the meaning of Health and Safety Code Section 40726 because: (a) the changes do not impact emission reductions, (b) the changes do not affect the number or type of sources regulated by the rule, (c) the changes are consistent with, and accomplish the purpose of, the information but lessened requirements contained in the notice of public hearing, and (d) the consideration of the range of CEQA alternatives is not applicable because Proposed Amended Rule 1111 is exempt from CEQA; and

WHEREAS, California Health and Safety Code Section 40727 requires that prior to adopting, amending, or repealing a rule or regulation, the SCAQMD Governing Board shall make findings of necessity, authority, clarity, consistency, non-duplication, and reference based on relevant information presented at the public hearing and in the Final Staff Report; and

WHEREAS, the SCAQMD Governing Board has determined that a need exists to amend Rule 1111 to require manufacturers to inform consumers about the mitigation fee for non-compliant furnaces and the availability of a rebate program for compliant units; and

WHEREAS, the SCAQMD Governing Board obtains its authority to adopt, amend, or repeal rules and regulations from Sections 39002, 40000, 40001, 40440, 40441, 40702, 40725 through 40728, 41508, and 41700 of the California Health and Safety Code; and

WHEREAS, the SCAQMD Governing Board has determined that Proposed Amended Rule 1111 is written or displayed so that its meaning can be easily understood by the persons directly affected by it; and

WHEREAS, the SCAQMD Governing Board has determined that Proposed Amended Rule 1111 is in harmony with, and not in conflict with or contradictory to, existing federal or state statutes, court decisions, or regulations; and

WHEREAS, the SCAQMD Governing Board has determined that Proposed Amended Rule 1111 does not impose the same requirements as any existing state or federal regulation and the proposed amended rule is necessary and proper to execute the powers and duties granted to, and imposed upon, the District; and

WHEREAS, the SCAQMD Governing Board has determined that Proposed Amended Rule 1111 references the following statutes which the SCAQMD hereby implements, interprets or makes specific: Health and Safety Code Sections 40001(a) (rules to meet air quality standards); 40440(a) (rules to carry out the plan); and 40702 (adoption of rules and regulations); and

WHEREAS, the SCAQMD Governing Board has determined that Proposed Amended Rule 1111 does not make an existing emission limit or standard more stringent, and therefore the requirements of Health and Safety Code Section 40727.2 are satisfied; and

WHEREAS, the SCAQMD Governing Board has determined that the Socioeconomic Impact Assessment section of the Final Staff Report of Proposed Amended Rule 1111, is consistent with the March 17, 1989, Governing Board Socioeconomic Resolution for rule adoption; and

WHEREAS, the SCAQMD Governing Board has determined that Proposed Amended Rule 1111 will not result in increased costs to the affected industries, as set forth in the Socioeconomic Impact Assessment section of the Final Staff Report; and

WHEREAS, a public hearing has been properly noticed in accordance with the provisions of Health and Safety Code Section 40725; and

WHEREAS, the SCAQMD Governing Board has held a public hearing in accordance with all provisions of law; and

WHEREAS, the SCAQMD Governing Board specifies the Manager of Proposed Amended Rule 1111 as the custodian of the documents or other materials which constitute the record of proceedings upon which the adoption of this proposed project is based, which are located at the South Coast Air Quality Management District, 21865 Copley Drive, Diamond Bar, California; and

WHEREAS, the SCAQMD Governing Board has determined that Proposed Amended Rule 1111 should be adopted for the reasons contained in the Final Staff Report; and

NOW, THEREFORE, BE IT RESOLVED, that the SCAQMD Governing Board does hereby determine, pursuant to the authority granted by law, that Proposed Amended Rule 1111 is exempt from CEQA pursuant to CEQA Guidelines Section 15061(b)(3) – Activities Covered by General Rule. This information was presented to the SCAQMD Governing Board, whose members reviewed, considered and approved the information therein prior to acting on Proposed Amended Rule 1111; and

BE IT FURTHER RESOLVED, that the SCAQMD Governing Board requests that Proposed Amended Rule 1111 be submitted into the State Implementation Plan; and

BE IT FURTHER RESOLVED, that the Executive Officer is hereby directed to forward a copy of this Resolution and Proposed Amended Rule 1111 to the California Air Resources Board for approval and subsequent submittal to the U.S. Environmental Protection Agency for inclusion into the State Implementation Plan; and

BE IT FURTHER RESOLVED, that the SCAQMD Governing Board does hereby adopt, pursuant to the authority granted by law, Proposed Amended Rule 1111, as set forth in the Attachment F and incorporated herein by reference.

Dated: _____

Clerk of the Boards

ATTACHMENT F

(Adopted December 1, 1978)(Amended July 8, 1983)(Amended November 6, 2009)
(Amended September 5, 2014)(Amended March 2, 2018) (Proposed Amended Rule 1111
July 2018)

PROPOSED AMENDED RULE 1111. **REDUCTION OF NO_x EMISSIONS
FROM NATURAL-GAS- FIRED, FAN-
TYPE CENTRAL FURNACES**

(a) Purpose and Applicability

The purpose of this rule is to reduce NO_x emissions from fan-type central furnaces, 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) 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.
- (3) CONDENSING FURNACE means a high-efficiency 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.
- (4) 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.
- (5) HEAT INPUT means the higher heating value of the fuel to the furnace measured as BTU per hour.
- (6) NO_x EMISSIONS means the sum of nitrogen oxide and nitrogen dioxide (oxides of nitrogen) in the flue gas, collectively expressed as nitrogen dioxide.

- (7) RATED HEAT INPUT CAPACITY means the gross HEAT INPUT of the combustion device.
 - (8) 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.
 - (9) 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.
 - (10) USEFUL HEAT DELIVERED TO THE HEATED SPACE is the AFUE (expressed as a fraction) multiplied by the heat input.
 - (11) 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.
 - (12) WEATHERIZED means designed for installation outside of a building, equipped with a protective jacket and integral venting, and labeled for outdoor installation.
- (c) Requirements
- (1) A manufacturer shall not, after January 1, 1984, manufacture or supply for sale or use in the South Coast Air Quality Management District 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 Air Quality Management District fan-type central furnaces unless such furnaces meet the requirements of paragraph (c)(3).
 - (3) Fan-type central furnaces shall:
 - (A) not emit more than 40 nanograms of oxides of nitrogen (calculated as NO₂) per joule of useful heat delivered to the heated space; and
 - (B) be certified in accordance with subdivision (d) of this rule.
 - (4) On or after October 1, 2012, a person shall not manufacture, supply, sell, offer for sale, or install, for use in the South Coast Air Quality Management District, fan-type central furnaces subject to this rule, unless such furnace

complies with the applicable emission limit and compliance date set forth in Table 1 and is certified in accordance with subdivision (d) of this rule.

Table 1 – Furnace NOx Limits and Compliance Schedule

Compliance Date	Equipment Category	NOx Emission Limit (nanograms/Joule *)
October 1, 2012	Mobile Home Furnace	40
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

* Nanograms of oxides of nitrogen (calculated as NO₂) per joule of useful heat delivered to the heated space

- (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 SCAQMD, 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

Furnace		Phase One Mitigation Fee		Phase Two Mitigation Fee		Phase Two Mitigation Fee Option End Date
Size Range	Furnace Category	Phase One Mitigation Fee Start Date	Phase One Mitigation Fee (\$/Unit)	Phase Two Mitigation Fee Start Date	Phase Two Mitigation Fee (\$/Unit)	
≤ 60,000 BTU/hr	Condensing	May 1, 2018	\$275	October 1, 2018	\$350	September 30, 2019
	Non-condensing	October 1, 2018	\$225	April 1, 2019	\$300	September 30, 2019
	Weatherized	October 1, 2018	\$225	April 1, 2019	\$300	September 30, 2020
	Mobile Home	October 1, 2018	\$150	April 1, 2019	\$150	September 30, 2021
> 60,000 Btu/hr and ≤ 90,000 BTU/hr	Condensing	May 1, 2018	\$300	October 1, 2018	\$400	September 30, 2019
	Non-condensing	October 1, 2018	\$250	April 1, 2019	\$350	September 30, 2019
	Weatherized	October 1, 2018	\$250	April 1, 2019	\$350	September 30, 2020
	Mobile Home	October 1, 2018	\$150	April 1, 2019	\$150	September 30, 2021
> 90,000 BTU/hr	Condensing	May 1, 2018	\$325	October 1, 2018	\$450	September 30, 2019
	Non-condensing	October 1, 2018	\$275	April 1, 2019	\$400	September 30, 2019
	Weatherized	October 1, 2018	\$275	April 1, 2019	\$400	September 30, 2020
	Mobile Home	October 1, 2018	\$150	April 1, 2019	\$150	September 30, 2021

- (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 SCAQMD 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 SCAQMD during the alternate compliance period, which estimate shall be based on total distribution and sales records or invoices of condensing, non-condensing, weatherized or mobile home fan-type central furnaces that were distributed or sold into the SCAQMD during the 12 month period of July 1 to June 30 prior to the applicable compliance date, along with supporting documentation;
 - (iii) a completed SCAQMD 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, section (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 SCAQMD 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 SCAQMD during the alternate compliance period. The report and the payment of mitigation fees must be submitted to the SCAQMD 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 SCAQMD 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 SCAQMD and a check for payment of mitigation fees to the SCAQMD no later than October 30, 2019.

(d) Certification

- (1) The manufacturer shall have each appliance model tested in accordance with the following:
- (A) Oxides of nitrogen measurements, test equipment, and other required test procedures shall be in accordance with SCAQMD Method 100.1.
- (B) Operation of the furnace shall be in accordance with the procedures specified in Section 4.0 of Code of Federal Regulations, Title 10, Part 430, Subpart B, Appendix N.
- (2) One of the two formulas shown below shall be used to determine the nanograms of oxides of nitrogen per joule of useful heat delivered to the heated space:

$$N = \frac{4.566 \times 10^4 \times P \times U}{H \times C \times E}, \quad N = \frac{3.655 \times 10^{10} \times P}{(20.9 - Y) \times Z \times E}$$

Where:

N = nanograms of emitted oxides of nitrogen per joule of useful heat.

P = concentration (ppm volume) of oxides of nitrogen in flue gas as tested.

U = volume percent CO₂ in water-free flue gas for stoichiometric combustion.

H = gross heating value of fuel, BTU/cu.ft. (60°F, 30-in. Hg).

C = measured volume percent of CO₂ in water-free flue gas, assuming complete combustion and no CO present.

E = AFUE, percent (calculated using Table 2).

Y = volume percent of O₂ in flue gas.

Z = heating value of gas, joules/cu. meter (0.0°C, 1 ATM).

- (3) Prior to the date a furnace model is first shipped to a location in the SCAQMD for use in the District, the manufacturer shall obtain Executive Officer's approval for the emission test protocol and emission test results verifying compliance with the applicable NO_x limit specified in Table 1, submitting the following:

- (A) A statement that the model is in compliance with subdivision (c). (The statement shall be signed by a responsible official and dated, and shall attest to the accuracy of all statements.)
- (B) General Information
 - (i) Name and address of manufacturer.
 - (ii) Brand name.
 - (iii) Model number, as it appears on the furnace rating plate.
- (C) A description of the furnace and specifications for each model being certified.

(e) Identification of Compliant Units

- (1) The manufacturer of the furnace complying with subdivisions (c) and (d) shall display the following on the shipping container label and rating plate of the furnace:
 - (A) Model number;
 - (B) Heat input capacity;
 - (C) Applicable NO_x emission limit in Table 1; and
 - (D) Date of manufacture or date code.
- (2) Any non-certified furnace shipped to a location in the South Coast Air Quality Management District for distribution or sale outside of the District shall have a label on the shipping container identifying the furnace as not certified for use in the District.
- (3) Consumer Notification Requirement
 - (A) For the purposes of subparagraph (e)(3)(B), "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 furnace.

(B) Effective October 1, 2018, for any furnace that is for distribution or sale inside of the South Coast Air Quality Management District 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: "~~For installation~~If installed in SCAQMD only: This furnace does not meet the SCAQMD Rule 1111 14 ng/J-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 (e)(3)(B), provided the alternative language is:

- (i) Similar to the language in subparagraph (e)(3)(B);
- (ii) Submitted to the Executive Officer by August 1, 2018; and
- (iii) Approved by the Executive Officer no later than August 31, 2018.

The manufacturer shall use the language in subparagraph (e)(3)(B) if the alternative language is not approved.

(f) Enforcement

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

(g) 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 Air Quality Management District 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 District, 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 SCAQMD 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% 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 District;
 - (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.
- (4) The manufacturer of any natural gas furnace that is not certified to meet 14 ng/J of NO_x emission and is to be installed with a propane conversion kit for propane firing only in the SCAQMD, is exempt from subdivisions (c) and (d), provided:
 - (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 SCAQMD 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 SCAQMD for the applicable compliance plan period;
 - (ii) The quantity of propane conversion kits for furnaces distributed or sold into the SCAQMD 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 section (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 SCAQMD without meeting above requirements shall be in violation of SCAQMD Rule 1111.

ATTACHMENT G

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

Final Staff Report

Proposed Amended Rule 1111 – Reduction of NO_x Emissions from Natural-Gas-Fired, Fan-Type Central Furnaces

July 2018

Deputy Executive Officer

Planning, Rule Development, and Area Sources
Philip Fine, Ph.D.

Assistant Deputy Executive Officer

Planning, Rule Development, and Area Sources
Susan Nakamura

Planning and Rules Manager

Planning, Rule Development, and Area Sources
Tracy A. Goss, P.E.

Author:

Yanrong Zhu – Air Quality Specialist

Contributor:

Anthony Oliver, Ph.D. – Air Quality Specialist
Ryan Banuelos – Air Quality Specialist

Reviewed by:

Gary Quinn, P.E. – Program Supervisor
Mary Reichert – Senior Deputy District Counsel

**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
GOVERNING BOARD**

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HILDA L. SOLIS
Supervisor, First District
County of Los Angeles

EXECUTIVE OFFICER:

WAYNE NASTRI

TABLE OF CONTENTS

EXECUTIVE SUMMARY

EXECUTIVE SUMMARY	ES-1
-------------------	------

CHAPTER 1: BACKGROUND

INTRODUCTION	1-1
REGULATORY HISTORY	1-1
EQUIPMENT AND PROCESS	1-3
REQUIREMENTS AND TESTS FOR NEW TECHNOLOGY	1-3
AFFECTED INDUSTRIES	1-4
PUBLIC PROCESS	1-4

CHAPTER 2: SUMMARY OF PROPOSED AMENDED RULE 1111

PROPOSED AMENDMENTS TO RULE REQUIREMENTS	2-1
--	-----

CHAPTER 3: IMPACT ASSESSMENT

EMISSION REDUCTIONS AND COST EFFECTIVENESS	3-1
CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA) ANALYSIS	3-1
SOCIOECONOMIC IMPACT ASSESSMENT	3-1
DRAFT FINDINGS UNDER CALIFORNIA HEALTH AND SAFETY CODE SECTION 40727	3-1
INCREMENTAL COST EFFECTIVENESS	3-2
COMPARATIVE ANALYSIS	3-2
CONCLUSION AND RECOMMENDATIONS	3-3

REFERENCES

RESPONSE TO COMMENTS	i
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EXECUTIVE SUMMARY

EXECUTIVE SUMMARY

Rule 1111 reduces emissions of nitrogen oxides (NO_x) from residential and commercial gas-fired fan-type space heating furnaces 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. The rule applies to manufacturers, distributors, sellers, and installers of such furnaces.

Rule 1111 was adopted by the SCAQMD Governing Board in December 1978 and amended in 1983, 2009, 2014, and March 2018. The more significant changes included: (1) the 2009 amendment lowering the NO_x emissions from 40 to 14 nanograms per Joule (ng/J); (2) the 2014 amendment providing an alternate compliance option that allows the original equipment manufacturers (OEMs) to pay a per unit mitigation fee of \$200 for each condensing furnace and \$150 for each other type of furnace, in lieu of meeting the new lower NO_x emission limit of 14 ng/J, for up to 36 months past the applicable compliance date; and (3) the March 2018 amendment extending the mitigation fee alternate compliance option by 1.5 years for condensing furnaces and one year for non-condensing and weatherized furnaces, and increasing the mitigation fee to a range of \$300 to \$450, depending on the furnace type and heat input capacity, with no fee change for mobile home units.

In 2018, staff also established a rebate program to incentivize consumers to purchase and install compliant 14 ng/J furnaces in the SCAQMD instead of the 40 ng/J units that are subject to a mitigation fee. The SCAQMD executed the contract with Electric & Gas Industries Association (EGIA) on May 4, 2018, for the rebate program. EGIA is currently working with furnace manufacturers, distributors, and contractors on consumer outreach programs, which focus on consumer points of sale.

At the March 2018 Public Hearing for the Rule 1111 amendment, the Governing Board approved the proposed amendments and directed staff to return to the Board with a labeling requirement for units that are subject to the mitigation fee alternate compliance option. The objective is to better inform consumers that when they are purchasing a 40 ng/J furnace, that furnace is subject to the mitigation fee, while there are other compliant furnaces (14 ng/J) that are commercially available and eligible for a consumer rebate.

Based on feedback from manufacturers, distributors, and contractors, as well as additional direction from members of the Governing Board, staff proposes to add a Consumer Notification Requirement for all informative materials made available for any furnace that is utilizing the mitigation fee alternate compliance option, instead of including the information on a label on the furnace and/or shipping container. This requirement will notify consumers on all consumer brochures, technical specification sheets, and the manufacturer's website that the unit is subject to a mitigation fee and is not eligible for the Clean Air Furnace Rebate Program.

CHAPTER 1: BACKGROUND

INTRODUCTION

REGULATORY HISTORY

EQUIPMENT AND PROCESS

REQUIREMENTS AND TESTS FOR NEW TECHNOLOGY

AFFECTED INDUSTRIES

PUBLIC PROCESS

INTRODUCTION

The purpose of Rule 1111 – Reduction of NO_x Emissions from Natural-Gas-Fired, Fan-Type Central Furnaces is to reduce NO_x emissions from residential and commercial gas-fired fan-type space heating furnaces 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. The rule applies to manufacturers, distributors, sellers, and installers of such furnaces. It requires manufacturers to certify that each furnace model offered for sale in the SCAQMD complies with the emission limit using specific test methods approved by the SCAQMD and U.S. EPA. In lieu of meeting the lower emission limit, the current rule provides manufacturers an alternate compliance option of paying a per-unit mitigation fee for up to 3 to 4.5 years past the applicable compliance date, depending on the furnace type. Most single family homes, many multi-unit residences, and some small commercial buildings in the SCAQMD use this type of space heating equipment.

REGULATORY HISTORY

Rule 1111 was adopted by the SCAQMD Governing Board in December 1978, addressing all sizes of space heating furnaces. The original rule required all residential and commercial space heating furnaces to meet a NO_x emission limit of 40 nanograms per Joule (ng/J) of heat output (equivalent to 61 ppm at a reference level of 3% oxygen and 80% Annual Fuel Utilization Efficiency (AFUE)) beginning January 1, 1984. At the December 1978 rule adoption Hearing, a rule requirement that all space heating furnaces meet a 12 ng/J NO_x emission limit by 1995 was considered by the Governing Board but not adopted.

Rule 1111 was later amended in July 1983 in order to limit applicability based on a unit's size and to exempt larger commercial space heaters. The rule amendment limited applicability to furnaces with a heat input 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. The July 1983 amendment also exempted units manufactured for use in mobile homes (manufactured housing), revised the definition of efficiency, and clarified testing procedures.

In November 2009, Rule 1111 was amended to be consistent with the objectives of the 2007 Air Quality Management Plan (AQMP) Control Measure CMB-03. The 2009 amendment established a new lower NO_x emission limit of 14 ng/J (equivalent to 22 ppm at a reference level of 3% oxygen and 80% AFUE), and required the three major categories of residential furnace – condensing (high efficiency), non-condensing (standard), and weatherized – to meet the new limit by October 1, 2014, October 1, 2015, and October 1, 2016, respectively. Furthermore, new mobile home heating units, which were unregulated prior to the 2009 amendment, had to meet a NO_x limit of 40 ng/J by October 1, 2012, with a future limit of 14 ng/J on October 1, 2018. The new lower NO_x emission limit of 14 ng/J reflects a 65% reduction from the then current limit of 40 ng/J. To facilitate the depletion of existing inventories and to ensure a smooth transition to the new limits, Rule 1111 also provided a temporary 10-month exemption (a sell-through period) for units manufactured and delivered into the SCAQMD prior to the compliance date.

To encourage and accelerate technology development, the 2009 Rule 1111 amendment provided an incentive for early compliance with the 14 ng/J NO_x emission limit, and a \$3 million fund was approved for this purpose. Manufacturers that delivered 14 ng/J furnaces into the SCAQMD prior to the applicable compliance date were given the opportunity to receive a payment of \$75 for each standard efficiency furnace and \$90 for each high-efficiency unit sold and delivered into the SCAQMD 90 days prior to the applicable compliance date. However, to date, no manufacturer has applied for this incentive.

The 2009 Rule 1111 amendment also required a technology assessment and status report to the Governing Board. This technology assessment evaluated both the feasibility of the new lower NO_x emission limit and the rule implementation schedule. The SCAQMD Technology Advancement Office (TAO) initiated a Request for Proposals (RFP) to develop prototype residential furnaces that meet the new 14 ng/J NO_x limit. The technology development projects were initiated in 2010 and completed in 2013. The total cost of the four projects was \$1,447,737 with \$447,737 provided by The Gas Company and \$50,000 provided by the San Joaquin Valley Unified Air Pollution Control District. The prototype furnaces developed through these four projects demonstrated that the new lower Rule 1111 NO_x limit is achievable in all of the types of forced air residential heating furnaces produced for the United States market. However, additional time may have been needed to commercialize 14 ng/J furnaces. This technology assessment was presented at the Governing Board meeting on January 10, 2014.

Rule 1111 was later amended in September 2014 to delay the compliance date for condensing furnaces and provide an alternate compliance option. The alternate compliance option allows manufacturers subject to Rule 1111 to pay a per unit mitigation fee of \$200 for each condensing furnace and \$150 for each other type of furnace distributed or sold into the SCAQMD, in lieu of meeting the new lower NO_x emission limit. The mitigation fee alternate compliance option can be used for up to 36 months past the applicable compliance date. Depending on furnace type, the mitigation fee option had an end date, and the NO_x limit of 14 ng/J was phased in, over the period from April 1, 2018, to October 1, 2021. Industry endorsed the mitigation fee approach. The 2014 amendment was State Implementation Plan (SIP)-approved in March 2016, with the mitigation fee used to offset foregone emissions reductions.

Rule 1111 was last amended in March 2018. Based on considerations of technology development and implementation status, stakeholders' input, and the need to encourage development and sale of compliant products, the following amendments were made to Rule 1111: (1) increasing the mitigation fee in two phases to a range of \$300 to \$450, depending on the furnace type and heat input capacity; (2) extending the mitigation fee alternate compliance option by 1.5 years for condensing furnaces, and one year for non-condensing and weatherized furnaces; (3) providing an exemption from the mitigation fee increase for units encumbered in a contractual agreement by OEMs and distributors for new construction, if contracts were signed prior to January 1, 2018; (4) providing an exemption of rule applicability for natural gas furnaces to be installed with propane conversion kits for propane firing only, with a defined labeling requirement; and (5) removing the ~~120~~120-day lead time requirement for certification application submittal.

In March 2018, staff also proposed to establish a rebate program for consumers who purchase and install compliant furnaces in the SCAQMD to benefit consumers and incentivize the purchase of lower emitting compliant furnaces. The SCAQMD executed the contract with Electric & Gas Industries Association (EGIA) on May 4, 2018, to administer the rebate program. Current funding for this rebate program includes the previously authorized \$3 million and the incremental increase of Rule 1111 mitigation fees in the March 2018 amendment, specified as \$500 per furnace for the first 6000 rebates, and \$300 per condensing furnace and \$200 per each other type of furnace thereafter. The SCAQMD will be closely monitoring the program with a “real-time” dashboard, and may seek additional funds or make other adjustments based on program performance. EGIA is anticipated to start receiving application in June 2018 for this Clean Air Furnace Rebate Program.

At the March 2018 Public Hearing for the Rule 1111 amendment, the Governing Board expressed concern that consumers should be informed that they are paying a fee for non-compliant furnaces sold in the marketplace and that there are compliant units commercially available that are eligible for money back through the rebate program. The Board directed staff to return to the Board adding a labeling requirement to the rule to address these concerns. At the May 2018 Stationary Source Committee Meeting and the June 2018 Governing Board Meeting, members of the Governing Board requested that the rule not require the manufacturers to label the furnace. Instead the rule should require notification language on any written materials specifying information about or advertising furnaces being sold pursuant to the alternate compliance option.

EQUIPMENT AND PROCESS

Fan-type gas-fired furnaces heat a building by circulating air from inside the building (office, home, apartment, etc.) through the furnace. In a fan-type furnace, air is heated when it passes through a heat exchanger. Combustion gases heat up the inside of the heat exchanger, and air from the building that is moving past the outside of the heat exchanger removes heat from the outside surface. A blower (fan) pulls air through one or more intake ducts and pushes the air past the heat exchanger and through another set of ducts, which direct the heated air to different parts of the building. The heated air circulates through the building before it is again pulled into the intake ducts and re-heated. This process continues until a specific temperature is detected by a thermostat in the building, which then shuts off the furnace. When the temperature at the thermostat goes below a set point, the thermostat sends a signal for the furnace to turn on.

REQUIREMENTS AND TESTS FOR NEW TECHNOLOGY

Gas furnaces in the United States must meet the ANSI Z21.47/CSA 2.3 standard referred to as CSA certification, mainly to ensure safety. To be sold and installed in the SCAQMD jurisdiction, they must also be certified by the SCAQMD for Rule 1111 NO_x emission limit compliance by specific test methods approved by the SCAQMD and U.S. EPA. OEMs may also participate in AHRI certification program for verification testing of output heating capacity and annual fuel utilization efficiency. As gas furnaces should be installed according to building

heating, ventilation, and air conditioning (HVAC) requirements, manufacturers have training programs for installers.

AFFECTED INDUSTRIES

Proposed Amended Rule 1111 affects manufacturers (NAICS 333), distributors and wholesalers (NAICS 423), and retailers and dealers (NAICS 444) of residential furnaces. Because heating units regulated by the rule are used in most residential and many commercial settings for heating small buildings, construction and building contractors and installers (NAICS 238 and 811) related to residential furnaces are also affected by PAR 1111. The Air Conditioning Heating and Refrigeration Institute (AHRI), the major manufacturer's trade organization, indicates that there are no manufacturers of fan-type gas-fired residential furnaces in the SCAQMD. However, these companies do maintain regional sales offices and distribution centers in the SCAQMD and there are manufacturers of other types of heating furnaces in the SCAQMD.

PUBLIC PROCESS

The proposed labeling or labeling requirements were discussed at the March 28, 2018, Working Group meeting. The proposal was also discussed at the April 13, 2018, Public Consultation, and the April 20, 2018 and May 18, 2018, Stationary Source Committee (SSC) meetings, as well as the June 1, 2018, Governing Board meeting. The Public Hearing for PAR 1111 is scheduled for July 6, 2018.

CHAPTER 2: SUMMARY OF PROPOSED AMENDED RULE 1111

PROPOSED AMENDMENTS TO RULE REQUIREMENTS

PROPOSED AMENDMENTS TO RULE REQUIREMENTS

In lieu of meeting the 14 ng/J NO_x emission limit, paragraph (c)(5) provides furnace manufacturers that are subject to Rule 1111 an option to pay a per unit mitigation fee for up to 3 to 4.5 years past the Table 1 compliance date, depending on the type of furnace. The SCAQMD Clean Air Furnace Rebate Program provides consumers an incentive to purchase and install furnaces that are certified to meet the 14 ng/J NO_x emission limit. The incentive is \$500 per furnace for the first 6000 rebates, and thereafter \$300 per condensing furnace and \$200 per other types. The consumer notification requirements are intended to inform the consumer market that non-compliant furnaces are subject to the mitigation fee, while compliant furnaces are commercially available and eligible for a consumer rebate.

Consumer Notification Requirements

At the March 2018 Board meeting to adopt amendments to extend and increase the mitigation fee option, the Board directed staff to add a labeling requirement to the Rule that would inform the consumers when they are purchasing a furnace that is subject to a mitigation fee. During the rule development process for the proposed amendments, manufacturers suggested that consumers could be more effectively informed of the mitigation fee and rebate program by including information in brochures and on their websites as most consumers do not see the unit prior to purchase, or even after installation (e.g., attic furnaces).

On this basis, staff proposes to add new paragraph (e)(3) to require, no later than October 1, 2018, that the manufacturer of any furnace that is using the alternate compliance option and paying a mitigation fee, because the unit is not certified to meet the 14 ng/J certification limit, include approved language in the consumer brochure and technical specification sheet for that furnace, as well as on the manufacturer's website. The notification language must read: "~~For installation~~If installed in SCAQMD only: This furnace does not meet the SCAQMD Rule 1111 14 ng/J-NO_x 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." In lieu of the specified language, however, manufacturers may use alternative language that is approved by the SCAQMD Executive Officer no later than August 31, 2018. This alternative language must be submitted to the Executive Officer no later than August 1, 2018. If the alternative language is not approved, the manufacturer would be required to use the specified language.

In addition, the portion of the SCAQMD website detailing the Clean Air Furnace Rebate Program will include a public outreach program. EGIA, which is administering the rebate program, is also working with furnace manufacturers, distributors, and contractors on plans to target consumers at points of sale. Consumer awareness of the incentive and mitigation fee will be enhanced by these rebate program outreach activities.

CHAPTER 3: IMPACT ASSESSMENT

EMISSION REDUCTIONS AND COST EFFECTIVENESS

CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA) ANALYSIS

SOCIOECONOMIC IMPACT ASSESSMENT

**DRAFT FINDINGS UNDER CALIFORNIA HEALTH AND SAFETY
CODE SECTION 40727**

INCREMENTAL COST-EFFECTIVENESS

COMPARATIVE ANALYSIS

CONCLUSION AND RECOMMENDATIONS

EMISSION REDUCTIONS AND COST EFFECTIVENESS

The proposed amendments do not result in any significant effect on air quality and do not result in any changes on emissions. As a result, a cost effectiveness analysis is not required. Implementation of PAR 1111 may better inform consumers so that they will select a 14 ng/J unit instead of a 40 ng/J unit that is subject to a mitigation fee, thereby increasing the quantity of compliant units purchased.

CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA) ANALYSIS

Pursuant to the California Environmental Quality Act (CEQA) and SCAQMD Rule 110, the SCAQMD, as lead agency for the proposed project, has reviewed the proposed amendments to Rule 1111 pursuant to: 1) CEQA Guidelines Section 15002(k) – General Concepts, the three-step process for deciding which document to prepare for a project subject to CEQA; and 2) CEQA Guidelines Section 15061 – Review for Exemption, procedures for determining if a project is exempt from CEQA. SCAQMD staff has determined that it can be seen with certainty that there is no possibility that the proposed amendments to Rule 1111 may have a significant adverse effect on the environment. Therefore, the project is considered to be exempt from CEQA pursuant to CEQA Guidelines Section 15061(b)(3) – Activities Covered by General Rule. A Notice of Exemption will be prepared pursuant to CEQA Guidelines Section 15062 – Notice of Exemption. If the proposed project is approved, the Notice of Exemption will be filed with the county clerks of Los Angeles, Orange, Riverside, and San Bernardino counties.

SOCIOECONOMIC IMPACT ASSESSMENT

The proposed amendments to Rule 1111 add consumer notification requirements for informational materials, including marketing brochures, technical specification sheets, and manufacturers' websites, for furnaces that are not certified to meet the 14 ng/J NO_x limit and are participating in the alternate compliance option. The proposed amendments are administrative in nature and cost impacts to manufacturers are expected to be minimal; as such there are no significant adverse socioeconomic impacts. The proposed amendments do not require that the manufacturers generate additional brochures or specification sheets. Instead, the requirement is to add information to brochures, technical specification sheets, and their website, which they already create, maintain, and distribute. In addition, the proposed amendments do not significantly affect air quality and emission limitations, and therefore, no Socioeconomic Impact Assessment is required under California Health and Safety Codes sections 40440.8 and 40728.5.

DRAFT FINDINGS UNDER CALIFORNIA HEALTH AND SAFETY CODE SECTION 40727

California Health and Safety Code Section 40727 requires that prior to adopting, amending, or repealing a rule or regulation, the SCAQMD Governing Board shall make findings of necessity, authority, clarity, consistency, non-duplication, and reference based on relevant information presented at the public hearing and in the staff report. In order to determine compliance with

~~Sections 40727, 40727.2 requires~~ a written analysis comparing the proposed amended rule with existing regulations, if the rule meets certain requirements.

The following provides the draft findings.

Necessity: A need exists to amend Rule 1111 to provide consumer notification requirements for any furnace that is utilizing the mitigation fee alternate compliance option to better inform the consumer that a unit is subject to a mitigation fee and that there are other units that are eligible for a consumer rebate.

Authority: The SCAQMD obtains its authority to adopt, amend, or repeal rules and regulations from California Health and Safety Code Sections 39002, 40000, 40001, 40440, ~~40440.1, 40441,~~ 40702, 40725 through 40728, 41508, and 41700.

Clarity: PAR 1111 has been written or displayed so that its meaning can be easily understood by the persons affected by the rule.

Consistency: PAR 1111 is in harmony with, and not in conflict with or contradictory to, existing federal or state statutes, court decisions, or federal regulations.

Non-Duplication: PAR 1111 does not impose the same requirement as any existing state or federal regulation, and is necessary and proper to execute the powers and duties granted to, and imposed upon, the SCAQMD.

Reference: In amending this rule, the SCAQMD hereby implements, interprets, or makes specific reference to the following statutes: Health and Safety Code sections 39002, 40001, 40702, 40440(a), and 40725 through 40728.5.

INCREMENTAL COST-EFFECTIVENESS

Health and Safety Code section 40920.6 requires an incremental cost-effectiveness analysis for Best Available Retrofit Control Technology (BARCT) rules or emission reduction strategies when there is more than one control option that would achieve the emission reduction objective of the proposed amendments, relative to ozone, CO, SOx, NOx, and their precursors. The proposed amendment does not include new BARCT requirements; therefore this provision does not apply to the proposed amendment.

COMPARATIVE ANALYSIS

~~Health & Safety~~ Code section 40727.2(g) for comparative analysis is applicable when the proposed amended rules or regulations impose, or have the potential to impose, a new emissions limit or standard, or ~~other air pollution control requirements~~ increased monitoring, recordkeeping, or reporting requirements. In this case, a comparative analysis is not required because the amendments do not impose such requirements.

CONCLUSION AND RECOMMENDATIONS

The proposed amendments are needed to inform consumers that noncompliant furnaces are subject to the mitigation fee, while compliant furnaces are commercially available and eligible for a consumer rebate, and thus steer the consumer choice toward the compliant furnaces for much needed NOx emission reduction.

REFERENCES

REFERENCES

SCAQMD, 2009. *Staff Report: Proposed Amended Rule 1111 – NOx Emissions from Natural-Gas-Fired, Fan-Type Central Furnaces*. South Coast Air Quality Management District, November 2009.

SCAQMD, 2014. *Rule 1111 Technology Assessment for Residential Furnaces*. South Coast Air Quality Management District, January 2014.

SCAQMD, 2014. *Staff Report: Proposed Amended Rule 1111 – NOx Emissions from Natural-Gas-Fired, Fan-Type Central Furnaces*. South Coast Air Quality Management District, September 2014.

SCAQMD, 2017. *Final 2016 Air Quality Management Plan*. South Coast Air Quality Management District, March 2017.

SCAQMD, March 2018. *Staff Report: Proposed Amended Rule 1111 – NOx Emissions from Natural-Gas-Fired, Fan-Type Central Furnaces*. South Coast Air Quality Management District, September 2014.

SCAQMD, March 2018. *Board letter: Execute Contract to Implement Consumer Rebate Program for Rule 1111 Compliant Natural Gas-Fired, Fan-Type Central Furnaces*

RESPONSE TO COMMENTS

RESPONSE TO COMMENTS

SCAQMD staff held a public consultation meeting on April 13, 2018, at the SCAQMD Diamond Bar headquarters. There were no comment letters or emails received by the comment end date of April 24, 2018. However, stakeholders did offer comments at the March 28, 2018, Working Group meeting, April 13, 2018, public consultation meeting, the April 20 and May 18, 2018, Stationary Source Committee meetings, and other time during the rulemaking process. The comments and staff's responses are summarized below:

Mitigation Fee Increase

- 1. Comment:** Labeling both the shipping box and furnace is burdensome to the manufacturers.

Response: The Proposed Rule language has been modified to eliminate the requirement to label the shipping box and furnace.
- 2. Comment:** The label on the furnace may not inform consumers.

Response: The Proposed Rule language has been modified to eliminate the requirement to label the shipping box and furnace.
- 3. Comment:** Consumers could be more effectively informed by websites and manufacturer and contractor literature.

Response: Staff is recommending the consumer notification language be required on informational materials, including consumer brochures, technical specification sheets, and manufacturers' websites promoting products. The SCAQMD website will also provide information on the rebate program and mitigation fee.
- 4. Comment:** The proposed amendment to Rule 1111 is an over-regulatory approach.

Response: The proposed amendment to Rule 1111 is an appropriate level of regulation. To effectuate the intent of promoting greater public awareness, the current proposal is based on stakeholders' recommendations.

ATTACHMENT H



South Coast Air Quality Management District

21865 Copley Drive, Diamond Bar, CA 91765-4178
(909) 396-2000 • www.aqmd.gov

SUBJECT: NOTICE OF EXEMPTION FROM THE CALIFORNIA ENVIRONMENTAL QUALITY ACT

PROJECT TITLE: PROPOSED AMENDED RULE 1111 – REDUCTION OF NOX EMISSIONS FROM NATURAL-GAS-FIRED, FAN-TYPE CENTRAL FURNACES

Pursuant to the California Environmental Quality Act (CEQA) Guidelines, the South Coast Air Quality Management District (SCAQMD) is the Lead Agency and has prepared a Notice of Exemption for the project identified above.

SCAQMD staff has reviewed the proposed project to amend Rule 1111 - Reduction of NOx Emissions from Natural-Gas-Fired, Fan-Type Central Furnaces pursuant to: 1) CEQA Guidelines Section 15002(k) - General Concepts, the three-step process for deciding which document to prepare for a project subject to CEQA; and 2) CEQA Guidelines Section 15061 - Review for Exemption, procedures for determining if a project is exempt from CEQA.

The project proposes to amend Rule 1111 to add a new consumer notification requirement, effective October 1, 2018, that will be applicable to any furnace that is made available for distribution or sale inside of the SCAQMD pursuant to an alternate compliance option in lieu of meeting the NOx emission limit of 14 nanograms per Joule (ng/J). The proposed amendments to Rule 1111 would require a manufacturer that distributes or publishes "Informative Materials," including the consumer brochure, technical specification sheet for the furnace, and the manufacturer's website promoting the furnace, to clearly display the following language: *"If installed in SCAQMD only: This furnace does not meet the SCAQMD 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."* Alternately, a manufacturer may use other language to comply with the proposed requirement provided that it is submitted to the Executive Officer by August 1, 2018 and approved by the Executive Officer no later than August 31, 2018.

SCAQMD staff has determined that it can be seen with certainty that there is no possibility that the proposed amendments to Rule 1111 may have a significant adverse effect on the environment. Therefore, the project is considered to be exempt from CEQA pursuant to CEQA Guidelines Section 15061(b)(3) – Activities Covered by General Rule. A Notice of Exemption has been prepared pursuant to CEQA Guidelines Section 15062 – Notice of Exemption. If the project is approved, the Notice of Exemption will be filed with the county clerks of Los Angeles, Orange, Riverside and San Bernardino counties.

Any questions regarding this Notice of Exemption should be sent to Ryan Bañuelos (c/o Planning, Rule Development and Area Sources) at the above address. Mr. Bañuelos can also be reached at (909) 396-3479. Ms. Yanrong Zhu is also available at (909) 396-2457 to answer any questions regarding the proposed amended rule.

Date: June 20, 2018

Signature:

A handwritten signature in black ink, appearing to read "Barbara Radlein".

Barbara Radlein
Program Supervisor, CEQA Section
Planning, Rules, and Area Sources

Reference: California Code of Regulations, Title 14

NOTICE OF EXEMPTION

To: County Clerks Counties of Los Angeles, Orange, Riverside, and San Bernardino	From: South Coast Air Quality Management District 21865 Copley Drive Diamond Bar, CA 91765
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Project Title: Proposed Amended Rule 1111 – Reduction of NOx Emissions From Natural-Gas-Fired, Fan-Type Central Furnaces

Project Location: The SCAQMD has jurisdiction over the four-county South Coast Air Basin (all of Orange County and the non-desert portions of Los Angeles, Riverside and San Bernardino counties), and the Riverside County portions of the Salton Sea Air Basin (SSAB) and Mojave Desert Air Basin (MDAB). The SCAQMD's jurisdiction includes the federal nonattainment area known as the Coachella Valley Planning Area, which is a sub-region of Riverside County and the SSAB.

Description of Nature, Purpose, and Beneficiaries of Project: The project proposes to amend Rule 1111 to add a new consumer notification requirement, effective October 1, 2018, that will be applicable to any furnace that is made available for distribution or sale inside of the SCAQMD pursuant to an alternate compliance option in lieu of meeting the NOx emission limit of 14 nanograms per Joule (ng/J). The proposed amendments to Rule 1111 would require a manufacturer that distributes or publishes "Informative Materials," including the consumer brochure, technical specification sheet for the furnace, and the manufacturer's website promoting the furnace, to clearly display the following language: "*If installed in SCAQMD only: This furnace does not meet the SCAQMD 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.*" Alternately, a manufacturer may use other language to comply with the proposed requirement provided that it is submitted to the Executive Officer by August 1, 2018 and approved by the Executive Officer no later than August 31, 2018.

Public Agency Approving Project: South Coast Air Quality Management District	Agency Carrying Out Project: South Coast Air Quality Management District
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Exempt Status: CEQA Guidelines Section 15061(b)(3) – Activities Covered by General Rule

Reasons why project is exempt: SCAQMD staff has reviewed the proposed amendments to Rule 1111 pursuant to: 1) CEQA Guidelines Section 15002(k) - General Concepts, the three-step process for deciding which document to prepare for a project subject to CEQA; and 2) CEQA Guidelines Section 15061 - Review for Exemption, procedures for determining if a project is exempt from CEQA. To comply with the proposed amendments to Rule 1111, original equipment manufacturers (OEMs) would be required to distribute or publish "Informative Materials" that include the above prescribed language or other language approved by the Executive Officer, for each furnace that qualifies for the alternate compliance option and does not meet the 14 ng/J NOx emission limit but is made available for sale or distribution inside of the SCAQMD. The proposed project is administrative in nature such that there would be no construction or operational activities that would create emissions impacts in order for OEMs to comply with the new requirements contained in the proposed amendments to Rule 1111. Therefore, SCAQMD staff has determined that it can be seen with certainty that there is no possibility that the proposed amendments to Rule 1111 may have a significant adverse effect on the environment. Therefore, the project is considered to be exempt from CEQA pursuant to CEQA Guidelines Section 15061(b)(3) – Activities Covered by General Rule.

Date When Project Will Be Considered for Approval (subject to change):

SCAQMD Governing Board Hearing: July 6, 2018; SCAQMD Headquarters

CEQA Contact Person: Mr. Ryan Bañuelos	Phone Number: (909) 396-3479	Email: rbañuelos@aqmd.gov	Fax: (909) 396-3982
Rule Contact Person: Ms. Yanrong Zhu	Phone Number: (909) 396-3289	Email: yzhu1@aqmd.gov	Fax: (909) 396-3324

Date Received for Filing: _____

Signature: _____

(Signed Upon Board Approval)

Barbara Radlein
Program Supervisor, CEQA Section
Planning, Rule Development & Area
Sources

Proposed Amended Rule (PAR) 1111

NOx Emissions from Natural-Gas-Fired, Fan-Type Central Furnaces

Governing Board Meeting

July 6, 2018

Rule 1111 Background

- Applies to residential and commercial natural gas-fired fan-type central furnaces
- Regulates manufacturers, distributors, sellers, and installers
- March 2, 2018 amendment extended and increased mitigation fee option for units not meeting 14 ng/J limit
- In addition, Board directed staff to add labeling on units to inform consumers that:
 - Unit is subject to mitigation fee; and
 - Other units are eligible for a rebate

Working With Stakeholders

Initial Consideration:

Label the applicable furnace and its shipping container

Stakeholders Comments:

- Consumers will not see label on furnace or shipping container
- Website and brochures more effective to reach consumer

New Approach:

No changes to label on unit or shipping container; inform consumer using:

- Manufacturers' websites
- Brochures
- Technical specification sheets

Staff Proposal

Customer Notification Requirement Provision

(Effective 10/1/18)

- Manufacturer using the mitigation fee option in lieu of meeting 14 ng/J must inform the consumer that the furnace:
 - Is subject to a mitigation fee; and
 - Is not eligible for the rebate program

Where the Notification is Displayed

- Consumer brochures;
- Technical specification sheets; and
- Manufacturer's website promoting the furnace

Notification Language*

- "If installed in SCAQMD only: This furnace does not meet the SCAQMD 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."

* PAR 1111 allows alternative language as approved by the Executive Officer

Clean Air Furnace Rebate Program



- Established to incentivize consumers to purchase and install 14 ng/J furnaces in the SCAQMD instead of the 40 ng/J units that are subject to a mitigation fee
- \$500 per furnace for the first 6000 rebates (or more if additional fund being approved), \$300 per condensing furnace and \$200 per each other type of furnace thereafter
- Contract with Electric & Gas Industries Association (EGIA) for program implementation
- Program website: www.CleanAirFurnaceRebate.com
- Program launched: June 20, 2018

Staff Recommendations

■ Adopt Resolution

- Determining that the proposed amendments to Rule 1111 – Reduction of NOx Emissions from Natural-Gas-Fired, Fan-Type Central Furnaces, are exempt from the requirements of the California Environmental Quality Act
- Amending Rule 1111 – Reduction of NOx Emissions from Natural-Gas-Fired, Fan-Type Central Furnaces