

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

PUBLIC WORKSHOP

NOVEMBER 5, 2025

10:00 A.M.

Zoom meeting: <https://aqmd.zoomgov.com/j/1612087417>

Meeting ID: 161 208 7417

Conference Call: +1 669 254 5252

AGENDA

Rule 1111
Background

Public
Process

Staff
Proposal

RULE 1111 BACKGROUND

- ❑ Adopted in December 1978 and established a NO_x limit of 40 ng/J
- ❑ Applies to manufacturers, distributors, sellers, and installers of natural gas-fired central furnaces rated at less than 175,000 Btu/hour
- ❑ NO_x limit lowered to 14 ng/J in November 2009
 - Mitigation fee alternative compliance option allowed for a limited period
- ❑ Condensing, non-condensing, and weatherized furnaces have achieved compliance of 14 ng/J NO_x
- ❑ Mobile home furnace mitigation fee alternate compliance option ended on September 30, 2025
 - ❑ No manufacturers have developed 14 ng/J mobile home furnaces

Category	Final Compliance Date (14 ng/J NO _x)
Condensing/ Non-Condensing	September 30, 2019
Weatherized	September 30, 2021
Mobile Home	September 30, 2025

PREVIOUSLY PROPOSED ZERO-EMISSION MANUFACTURE SALES TARGETS

- ❑ In 2023 Q3, staff initiated the development of Proposed Amended Rule 1111, proposing:
 - Zero-NOx emission limits
 - Manufacturer alternate compliance option with targets for the sale of both zero-emission and NOx-emitting units with mitigation fee
 - Extending the mobile home mitigation fee alternative compliance option for existing mobile homes, with new mobile homes transitioning to zero-NOx emission space heating appliances
- ❑ At the Public Hearing on June 6, 2025, the Governing Board voted to reject the proposed amendment
 - Existing rule language was maintained, and mobile home mitigation fee option has now expired

NEED FOR PROPOSED AMENDMENT

- ❑ Mobile home mitigation fee option ended September 30, 2025
 - The 14 ng/J NO_x limit is now applicable
- ❑ There is limited availability of compliant units for mobile homes
 - Currently, no natural gas-fired units meet the limit
 - Zero-emission technologies available for mobile homes but have low market adoption
- ❑ Manufacturers need more time for development
- ❑ Staff is initiating rule-making process to extend the mitigation fee option



PUBLIC PROCESS

Information
Gathering,
Meeting with
Manufacturers

Public Workshop
– November 5,
2025

Stationary Source
Committee –
November 21, 2025

Public Hearing –
January 9, 2026

Public Process Throughout Rule Development

Public
comments and
Board action

MOBILE HOME FURNACE - IMPLEMENTATION STATUS

There are three manufacturers supplying mobile home furnaces in South Coast AQMD

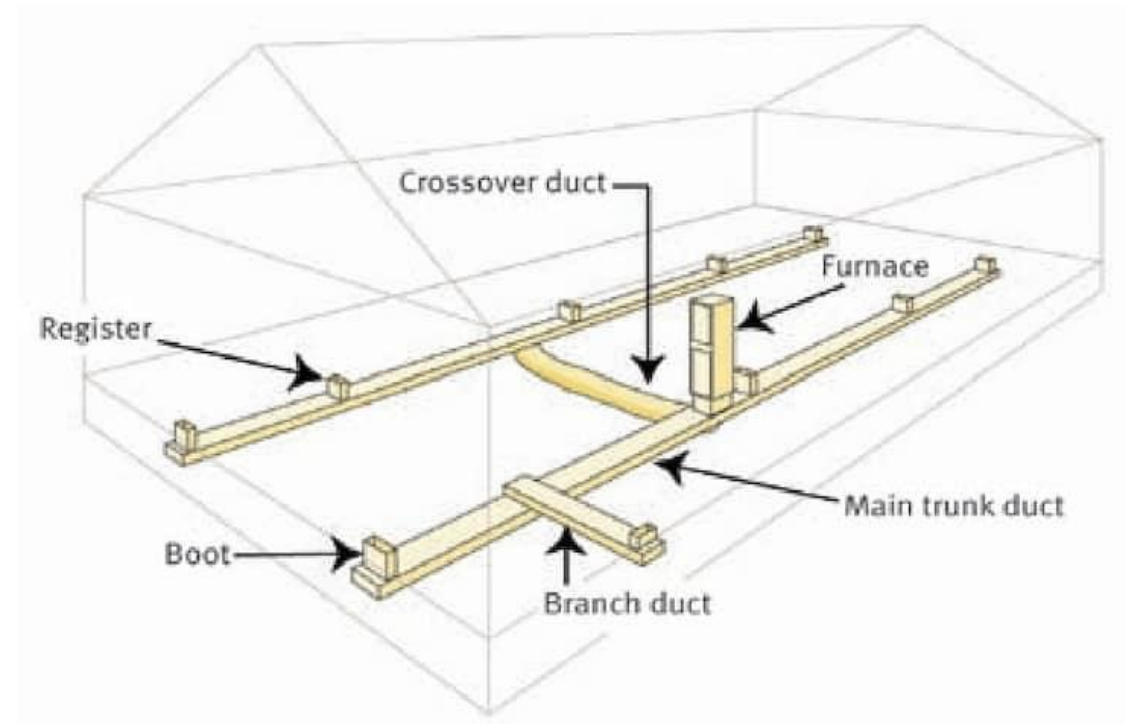
Currently, no manufacturer offers a natural gas mobile home furnace compliant with 14 ng/J

- Other options such as weatherized furnaces, electric furnaces, and heat pumps are commercially available
- However, those options have very limited market adoption in this area

Manufacturers noted challenges and stated several years will be needed to develop mobile home furnaces that meet 14 ng/J

CHALLENGES - DESIGN CONSTRAINTS FOR MOBILE HOME FURNACE

- ❑ Mobile home furnaces are smaller than a typical furnace due to the size of mobile homes
- ❑ Compliant burners designed for residential furnaces need to be re-sized to fit this configuration
- ❑ Often use downflow configuration because ducting for a mobile home is in the floor
- ❑ Department of Housing and Urban Development requires mobile home furnaces be capable of using both natural gas and propane
- ❑ Department of Energy is proposing to require furnaces meet 95% annual fuel utilization efficiency by 2029



CHALLENGES FOR MOBILE HOME FURNACE MANUFACTURERS

- ❑ Low sales of mobile home furnaces
 - About 2,000 mobile home furnaces supplied each year by three manufacturers
 - Based on the mitigation fee alternate compliance reports
- ❑ Manufacturers consider 14 ng/J mobile home furnace development payback time too long to be viable at this time
- ❑ Manufacturers have zero-NOx emission furnaces available but there are specific challenges for mobile home
 - Some mobile home communities have limited electricity available
 - Upfront costs can be higher
 - South Coast AQMD's GO ZERO program can help offset higher costs



GO ZERO INCENTIVE PROGRAM

- ❑ Rebates for installing zero emission heat pumps
- ❑ Three rebate categories: Single Family, Multifamily, Small Business
- ❑ Between \$1,000 and \$4,000 per installation, depending on rebate type



PROPOSED AMENDED RULE 1111

❑ Postpone mitigation end date for mobile homes by three years for all size ranges.

- Manufacturers will continue to pay mitigation fees per unit sold
- Mitigation fee option extended to September 30, 2028

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, 2021
	Mobile Home	October 1, 2018	\$150	April 1, 2019	\$150	September 30, 2025 2028
> 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, 2021
	Mobile Home	October 1, 2018	\$150	April 1, 2019	\$150	September 30, 2025 2028
> 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, 2021
	Mobile Home	October 1, 2018	\$150	April 1, 2019	\$150	September 30, 2025 2028

OTHER ANALYSIS/ASSESSMENT

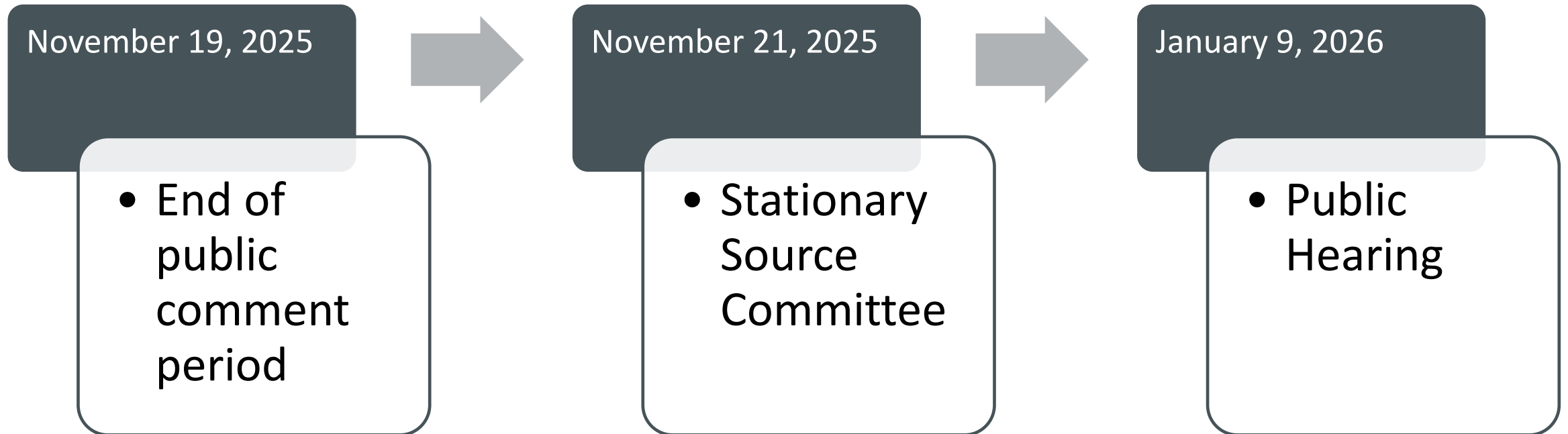
☐ California Environmental Quality Act (CEQA) Analysis

- PAR 1111 would result in a delay of NOx emission reductions by approximately 0.008 ton per day (equivalent to 16 pounds per day) which is less than the South Coast AQMD air quality significance threshold for NOx
- PAR 1111 qualifies for an exemption from CEQA
- A Notice of Exemption will be prepared

☐ Socioeconomic Impact Assessment

- PAR 1111 does not significantly affect air quality or emission limitations; therefore, no socioeconomic impact assessment is required pursuant to Health and Safety Code Sections 40440.8 and 40728.5
- No adverse socioeconomic impacts are expected

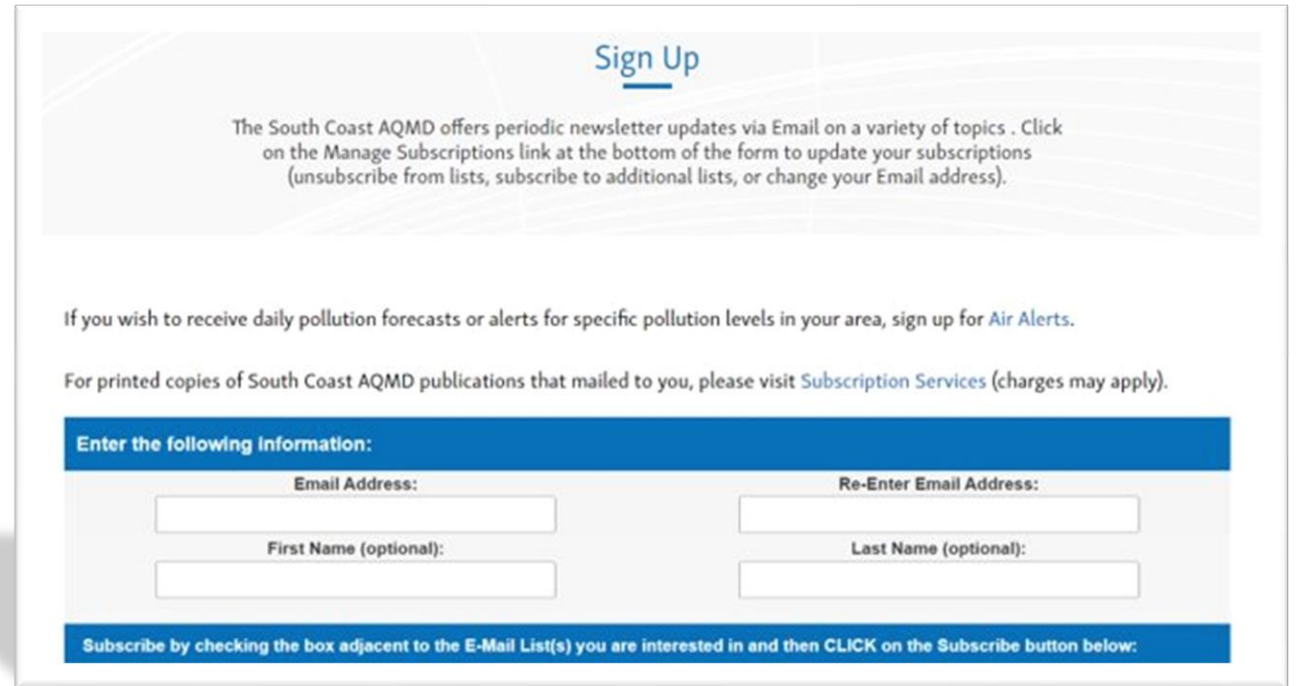
NEXT STEPS



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