



PAR 445

Wood-Burning Devices

WORKING GROUP MEETING #2

Date: April 02, 2025

Time: 01:30 pm – 03:30 pm

Dial In: +1 669 900 6833

Meeting ID: 957 6907 2739

Zoom Link: <https://scaqmd.zoom.us/j/95769072739>

Agenda

 Previous Working Group Meeting Summary

 Response to Comments

 Proposed Amendments





 Lowering Curtailment Threshold

 Removing Low-Income Exemption

 Preliminary Impact Assessment

 Next Steps

Meeting Information

- Working group meetings will be held remotely via videoconference and teleconference (through Zoom)
- Although it is a different format, staff will take the time to listen to all stakeholder comments
 - Please use the “raise hand” feature to speak:
 -  Click on the  button
 -  Dial *9
- When it is your turn to speak, your name will be announced
 - If you are a panelist, use the “unmute” feature to speak:
 -  Click on the  button
 -  Dial *6
 - If you are not a panelist, the meeting host will unmute you
- In addition to working group meetings, staff is available for individual meetings



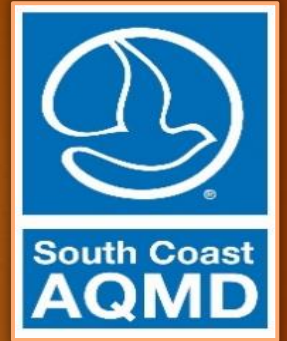
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Previous Working Group Meeting Summary

Working Group Meeting #1 Recap



- Introduced South Coast AQMD
- Presented an overview of key information pertaining to:
 - PM_{2.5} and its impacts on human health
 - U.S. EPA set National Ambient Air Quality Standards
 - South Coast Air Basin's nonattainment status
- Rule 445
 - No Burn Days
 - Existing exemptions
- Need for proposed amendments for Rule 445
 - Deficiencies identified by U.S. EPA staff





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Response to Comments

Stakeholder Comments (Working Group Meeting #1)



Comment #1

- What are the outreach activities for No Burn Days and are they bilingual?

Comment #2

- How are No Burn Days enforced?

Comment #3

- What is the status of the Wood Stove & Fireplace Changeout Incentive Program?

Comment #1: What are the outreach activities for No Burn Days and are they bilingual?



- No Burn Days refer to the prohibition of burning wood:
 - During wood-burning season from beginning of November – end of February
 - When daily PM_{2.5} air quality is forecasted to reach high PM_{2.5} levels due to air emissions and stagnant weather conditions
- No Burn Days are applicable to anyone owning or operating indoor and outdoor wood-burning devices, wood-burning heaters, and wood-fired cooking devices
- Outreach is made in the following languages:
 - English
 - Spanish



Comment #2: How are No Burn Days Enforced?



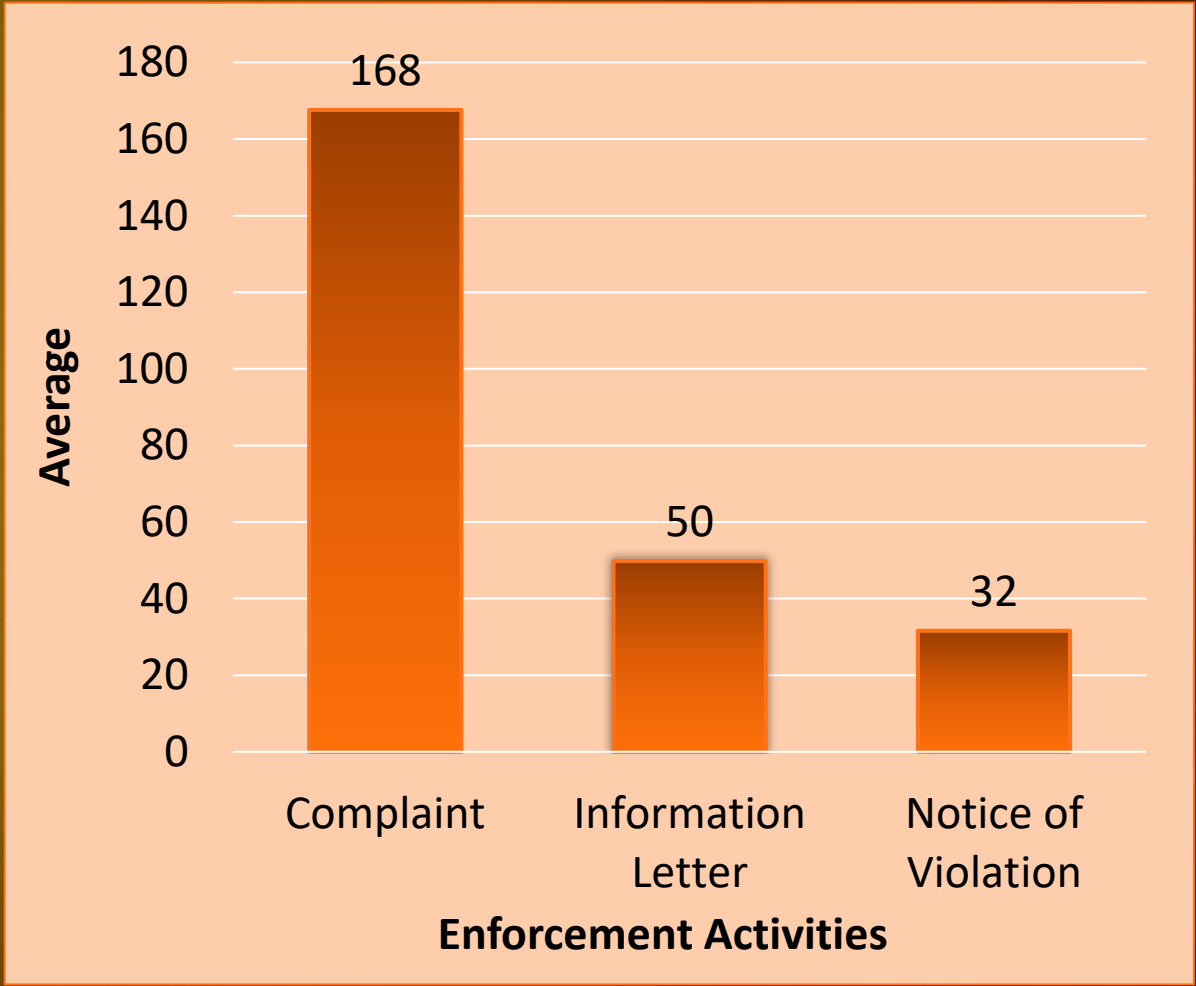
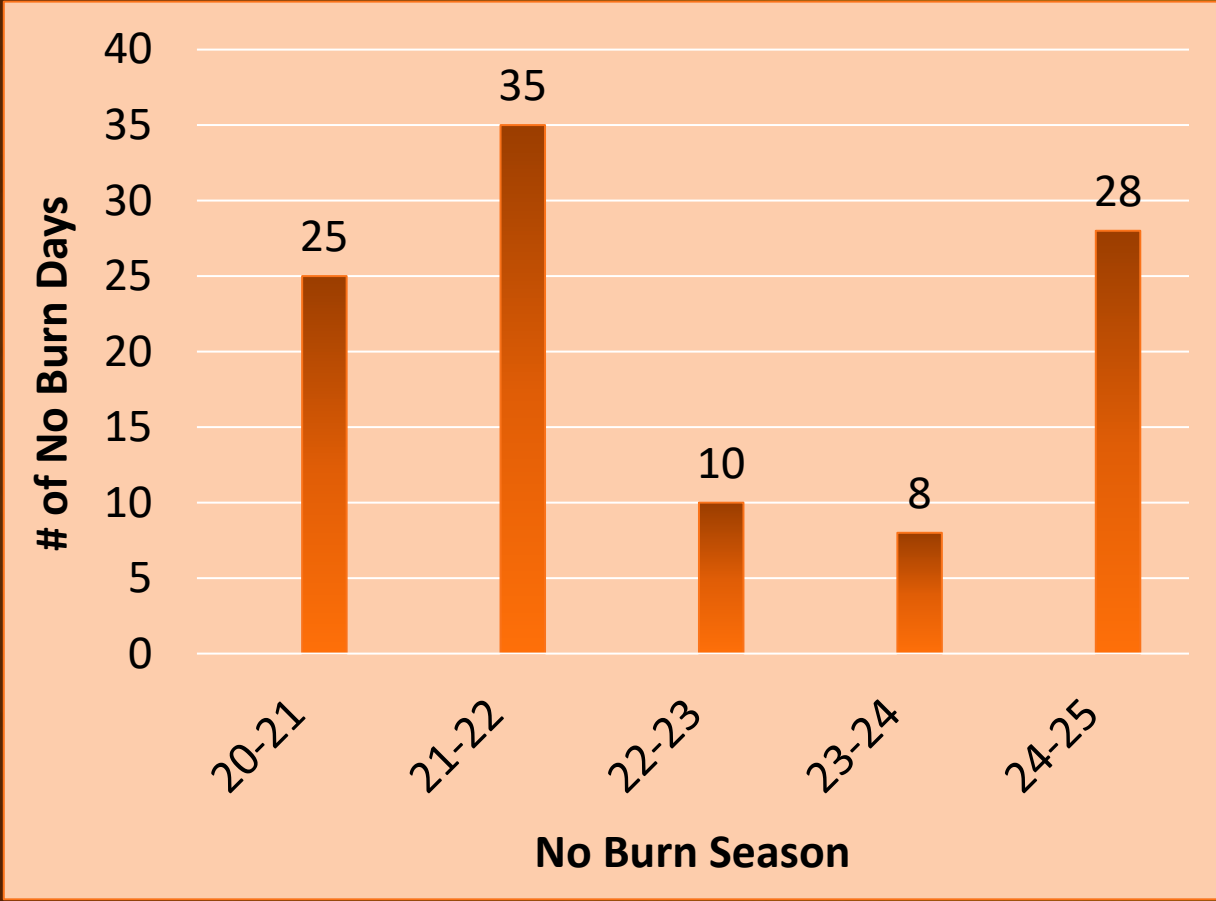
- During a No Burn Day, South Coast AQMD inspectors patrol designated areas and investigate received complaints
 - If an inspector confirms an address is noncompliant with Rule 445, evidence (videos and pictures) will be taken, and the address will be sent a Notice of Violation that may include penalties or completion of a wood smoke awareness course
 - If the inspector is unable to confirm Rule 445 noncompliance, an information letter will be sent to the respective areas
- The public can file a complaint by:
 - Calling 1-800-CUT-SMOG
 - Filing online at www.aqmd.gov/complaints
 - Using the South Coast AQMD Mobile App

Comment #2: How are No Burn Days Enforced? (Cont'd)



Seasonal Average of Complaints and Enforcement Actions *

Amount of No Burn Days Over the Years



* Average taken from the past 4 and current No Burn Seasons 10

Comment #3: What is the status of the Wood Stove & Fireplace Changeout Incentive Program?



- Wood Stove & Fireplace Change Out Incentive Program is independent of Rule 445
 - Provides vouchers to eligible residents to changeout eligible wood-burning devices for natural gas or electric inserts
 - Funding per voucher varies depends on criteria and equipment type
 - General incentive is up to \$800, low-income incentive is up to \$1,600
 - Vouchers can be redeemed through participating retailer
- Current program limited to residents in five areas:
 - Boyle Heights area, Norco/Corona area, Chino/Ontario/Corona area, City of San Bernardino area, City of Riverside area
 - Funds are still available for applicants in the five areas and applications are still being accepted
- Potential expansion of the incentive program to other areas within the South Coast Air Basin may be assessed at a future date

Funds Available
WOOD STOVE & FIREPLACE CHANGE OUT INCENTIVE PROGRAM

If you're a resident, or a landlord of a rental property in the general area referred to as the Jurupa Valley and includes the communities in and around the cities of Riverside and San Bernardino, or the community of Boyle Heights, contact the South Coast Air Quality Management District to see if you qualify for a voucher to help fund the replacement of your polluting wood stove or traditional fireplace with less polluting devices.

Health Effects
This area does not meet federal health standards for fine particulate matter. Wood smoke can be a significant source of fine particulate matter pollution, plus it contains toxic air contaminants. Health studies link wood smoke to serious health problems including decreased lung function, aggravated asthma, irregular heartbeat, and premature death in people with existing heart and lung disease, particularly the young and the elderly.

South Coast Air Quality Management District
21865 Copley Drive
Diamond Bar, CA 91765
www.scaqmd.gov
Cleaning the air that we breathe...

Current Fuel/Device	Device Options	General Incentive	Incentive for Low Income
Gas service available	Gas Logs	\$200	\$400
	Gas or Electric Stove/Insert	\$800	\$1,600
	Permanently Installed Alcohol Fuelled Device	\$300	\$600
	Gas Logs	\$200	\$400
No gas service available OR Wood (used as primary Source of Heat)	Gas or Electric Stove/Insert	\$800	\$1,600
	Certified Wood Stove (not including converted stove or insert)	\$700	\$1,200
	Permanently Alcohol Fuelled Device	\$300	\$600
	EPA Qualified Fireplace Insert	\$700	\$200

* Add \$200 to incentive amount for destruction of uncertified wood stove device

How to Apply for a Voucher

1. Make sure you are located in one of the eligible zip codes:
Boyle Heights area - 90022, 90023, 90033, and 90063
Chino/Ontario/Corona area - 91708, 91709, 91710, 91761, 91762, 91764
City of San Bernardino area - 92313, 92316, 92324, 92335, 92336, 92337, 92345, 92346, 92354, 92376, 92401 through 92415, 92416, 92423, 92424, 92427
City of Riverside area - 91752, 92501, 92503, 92504, 92505, 92506, 92507, 92508, 92509, 92518, 92521
Norco/Corona area - 92860, 92879, 92880, 92881, 92882
2. Get the Voucher Application Form from the SCAQMD.
Web Site: XXX
Call: (855) 396-3833
Fax: (909) 396-3811
E-mail: fireplacevoucher@aqmd.gov
3. Submit application and forms to the SCAQMD. The SCAQMD must verify the residence address and supporting documents for income if requesting low income incentives.
4. Select a new, less polluting device from a participating retailer and purchase it. The retailer will reduce the purchase price by the amount of the voucher and will notify the SCAQMD of the purchase. Please visit one of the participating retailers at least one week prior to the voucher's expiration date.
5. The retailer notifies the SCAQMD and submits appropriate documentation within 30 days of installation.

Visit: SCAQMD Offices, 21865 Copley Drive, Diamond Bar, CA 91765



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Proposed Amendments

Need for PAR 445



- Address the deficiencies identified to demonstrate “Most Stringent Measures” requirements for $PM_{2.5}$ set by the Clean Air Act and U.S. EPA
 - Most Stringent Measure is *“any permanent and enforceable control measure that achieves the most stringent emissions reductions in direct $PM_{2.5}$ emissions and/or emissions of $PM_{2.5}$ plan precursors from among those control measures which are either included in the SIP for any other NAAQS, or have been achieved in practice in any state, and that can feasibly be implemented in the relevant $PM_{2.5}$ NAAQS nonattainment area.”**
- Help reduce $PM_{2.5}$ emission from wood-burning devices to meet attainment of $PM_{2.5}$ National Ambient Air Quality Standards
- Other updates (e.g. clarifications,) as needed



* 81 FR 58151; 40 CFR Section 51.1000

U.S. EPA Identified Deficiencies



1. Curtailment Threshold

- U.S. EPA determined that the current residential wood-burning PM_{2.5} curtailment threshold is less stringent compared to similar programs in other districts
- Existing contingency measures thresholds to be lowered

2. Low-Income Exemption

- U.S. EPA determined that the low-income exemption is less stringent compared to similar programs in other districts

Current Rule 445

Low-income household

Sole source of heat

No natural gas service within 150 ft

Geographical location ≥ 3,000 feet above mean sea level

Ceremonial fires exempt under Rule 444



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Lowering Curtailment Threshold

Curtailment Threshold



- A wood-burning curtailment mandates a No Burn Day
 - Wood-burning curtailments are based on daily $\text{PM}_{2.5}$ air quality forecasts
- When the daily air quality is forecasted to exceed the curtailment threshold, an active No Burn Day will be in effect
 - Current curtailment threshold is $29 \mu\text{g}/\text{m}^3$ of $\text{PM}_{2.5}$
- To meet the Most Stringent Measure requirements, recent $\text{PM}_{2.5}$ plan proposed BCM-18 to lower the basin-wide threshold to $25 \mu\text{g}/\text{m}^3$ *
 - Other districts or states provide different approaches to wood-burning curtailment, with different thresholds depending on factors such as hot spot counties, device types, or fuel types
 - South Coast AQMD's curtailment threshold applies basin-wide to all devices regardless of device type or location

* BCM-18 – Further Emission Reductions from Wood-Burning Fireplaces and Wood Stoves can be accessed from [https://www.aqmd.gov/home/air-quality/air-quality-management-plans/other-state-implementation-plan-\(sip\)-revisions/2012-annual-pm2-5-plan](https://www.aqmd.gov/home/air-quality/air-quality-management-plans/other-state-implementation-plan-(sip)-revisions/2012-annual-pm2-5-plan)

Most Stringent Measure Comparison



	South Coast AQMD	San Joaquin Valley APCD	Bay Area AQMD	Sacramento Metro AQMD
Curtailment Structure	Same for All Counties and Device Type	Dependent on County and Device Type	Same for All Counties and Device Type	Same for All Counties Dependent on Device Type
Curtailment Season	Nov – Feb	Nov – Feb	Year Round	Nov – Feb
PM _{2.5} Curtailment Threshold	29 µg/m ³	Level 1: 12 or 20 µg/m ³ * Level 2: 35 or 65 µg/m ³	35 µg/m ³	Voluntary: 25 µg/m ³ * Stage 1: 31 µg/m ³ Stage 2: 35 µg/m ³

* Level/Stage 1 episodic wood-burning curtailment establishes limitations for the operation of a wood-burning device while Level/Stage 2 prohibits any operation of a wood-burning device

Curtailment Comparison – South Coast AQMD vs. San Joaquin Valley APCD



	Curtailment Threshold	Geographical Coverage	Device Type
South Coast AQMD	29 $\mu\text{g}/\text{m}^3$	Basin-wide	Curtailment applies to all types of wood-burning devices
San Joaquin Valley APCD	Level 1: 12 or 20 $\mu\text{g}/\text{m}^3$ Level 2: 35 or 65 $\mu\text{g}/\text{m}^3$	County-specific	Level 1 curtailment applies to all types of wood-burning devices <i>except</i> registered devices Level 2 curtailment applies to all types of wood-burning devices

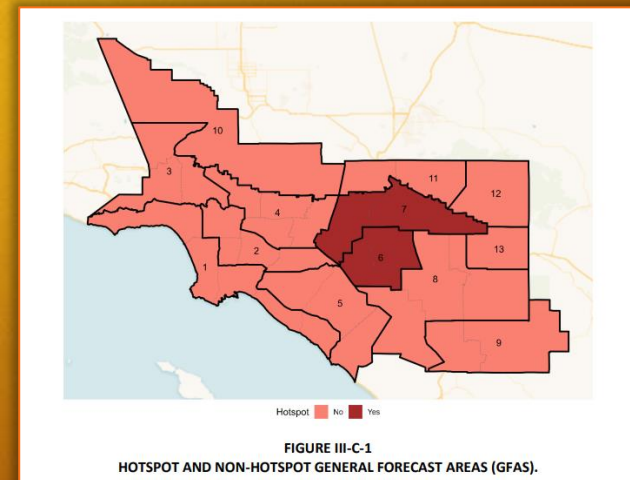
Emission Reduction Analysis Comparison w/ San Joaquin Valley APCD



- San Joaquin Valley APCD's Rule 4901 establishes a tier system for emission curtailment
 - Curtailment thresholds are different for:
 - Hotspot/non-hotspot locations
 - Device types

SJVAPCD	Certified Devices		Uncertified Devices & Fireplaces	
	Non-Hotspot	Hotspot	Non-Hotspot	Hotspot
Level 1	N/A	N/A	20 $\mu\text{g}/\text{m}^3$	12 $\mu\text{g}/\text{m}^3$
Level 2	65 $\mu\text{g}/\text{m}^3$	35 $\mu\text{g}/\text{m}^3$	20 $\mu\text{g}/\text{m}^3$	12 $\mu\text{g}/\text{m}^3$

- In the 2024 PM_{2.5} Plan, staff evaluated emission reductions using the approach used in San Joaquin APCD





Emission Reduction Analysis Comparison (Cont'd)

1. Calculate residential wood-burning emissions without any curtailment

	January	February	November	December
Emissions (tons/month)	330.8	214.0	350.2	583.7

2. Determine the number of No Burn days exceeding varying thresholds

# of Curtailment Days in the South Coast Air Basin Based on Basin-Wide Thresholds												
Threshold (µg/m³)	12	20	21	22	23	24	25	26	27	28	29	30
Nov - Feb	100	56	51	49	45	40	36	33	31	28	26	23

3. Compare emission reductions based on San Joaquin Valley APCD's and South Coast AQMD's approaches

- 12 µg/m³ for hotspots and 20 µg/m³ for non-hotspots are equal to emission reductions of 458 tons/year
- Determine the threshold to achieve the same amount of emission reductions as San Joaquin Valley's curtailment program

Threshold (µg/m³)	21	22	23	24	25	26	27	28	29
Basin-wide Emission Reductions (tons/yr)	645	627	578	519	462	432	402	372	342

Impact of Lowering Curtailment Threshold



- Staff estimated the impact of lowering curtailment threshold on the number of No Burn Days and PM_{2.5} emission reductions

	Current Rule 445		PAR 445
Curtailment Threshold	29 µg/m ³	↓	25 µg/m ³
No Burn Days*	26 days	↑	approx. 36 days
Emission Reductions	342 tons/year	↑	462 tons/year

* Estimated number of No Burn Days that are the days that may be mandated-according to data from 2019 to 2023 within the 2024 PM_{2.5} Plan

Contingency Measures



- Contingency measures are control measures required to be implemented in the event of failure to attain U.S. EPA set standards or meet milestone emission reduction targets
- Rule 445 was amended in June 2020 to include multiple contingency measure triggers
- Nonattainment of 2006 24-hour $PM_{2.5}$ standard triggered a contingency measure to lower basin-wide threshold for wood-burning curtailment during the wood-burning season

- (2) A Basin-wide, mandatory wood-burning curtailment during the wood-burning season if the daily $PM_{2.5}$ air quality forecast for any SRA exceeds:
- (A) $29 \mu g/m^3$, upon a final determination of a failure to comply with any of the provisions of paragraph (f)(1);
 - (B) $28 \mu g/m^3$, upon a final determination of a failure to comply with any two of the provisions in paragraph (f)(1);
 - (C) $27 \mu g/m^3$, upon a final determination of a failure to comply with any three of the provisions in paragraph (f)(1); and
 - (D) $26 \mu g/m^3$, upon a final determination of a failure to comply with any four of the provisions in paragraph (f)(1).

Lower Triggers for Contingency Measures



- BCM-18 proposes to lower basin-wide contingency measures
 - Maintains stringency and ensures adequate emission reductions
- Staff identified new contingency measure curtailment thresholds based on amount of PM_{2.5} emission reductions needed to ensure one year's worth of air quality improvement
 - First trigger is 23 µg/m³
 - Second trigger is 21 µg/m³

- (2) A Basin-wide, mandatory wood-burning curtailment during the wood-burning season if the daily PM_{2.5} air quality forecast for any SRA exceeds:
- (A) ~~29 µg/m³~~, upon a final determination of a failure to comply with any of the provisions of paragraph (f)(1);
 - (B) ~~28 µg/m³~~, upon a final determination of a failure to comply with any two of the provisions in paragraph (f)(1);
 - (C) ~~27 µg/m³, upon a final determination of a failure to comply with any three of the provisions in paragraph (f)(1), and~~
 - (D) ~~26 µg/m³, upon a final determination of a failure to comply with any four of the provisions in paragraph (f)(1).~~

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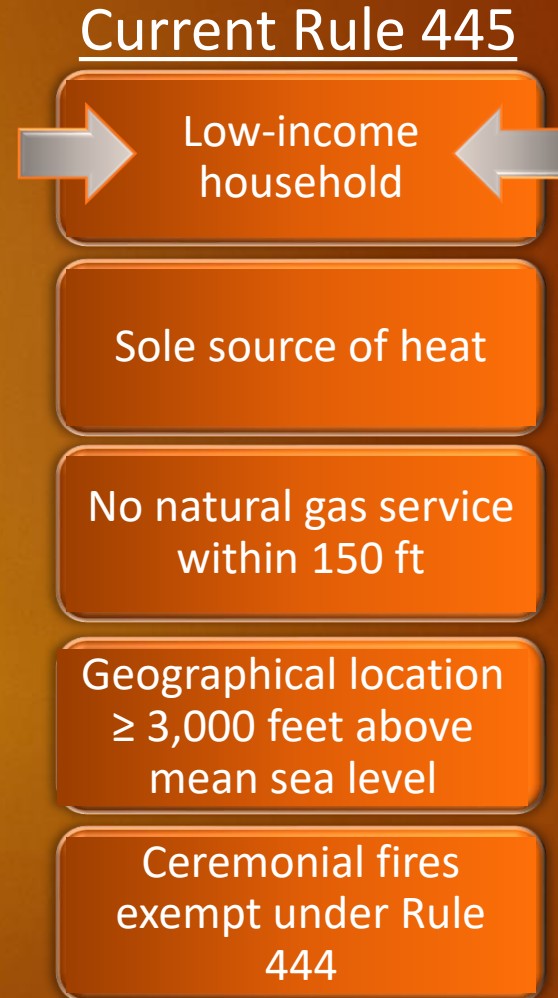
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Removing Low-Income Exemption

How the Low-Income Exemption Works



- Rule 445 includes five exemptions for No Burn Days
 - The exempted household can still burn wood in a wood-burning device during an active No Burn Day
 - Considering clarification of the sole source of heat exemption including instances when there is temporary loss of service from a public utility service (e.g., electricity or gas)
- A low-income household is any household that receives financial assistance through reduced electric or gas bills from an electric or natural gas utility based on household income levels
 - Typically qualify for CARE or FERA program



Wood-Burning Curtailment Exemptions/Exclusions Comparison



	South Coast AQMD Rule 445	San Joaquin Valley APCD Rule 4901	Bay Area AQMD Reg 6-3	Sacramento Metro AQMD Rules 417 and 421
Exemptions/Exclusions from Wood-Burning Curtailment	<ol style="list-style-type: none"> 1. Ceremonial Fires Exempt Under South Coast AQMD Rule 444 2. Geographical Location $\geq 3,000$ ft Above Mean Sea Level 3. No Natural Gas Service Within 150 ft 4. Low-Income Household 5. Sole Source of Heat 	<ol style="list-style-type: none"> 1. Cookstoves Described in Code of Federal Regulations 60.531 2. Exclusively Gaseous-Fueled Devices 3. Open Burning on the Ground Under San Joaquin Valley APCD Rule 4103 4. Sole Source of Heat 	<ol style="list-style-type: none"> 1. Non-functional, permanently installed heater 2. Loss of natural gas and/or electric power 3. Sole Source of Heat 	<ol style="list-style-type: none"> 1. Religious Activity 2. Cookstoves 3. Exclusively Gaseous-Fueled Devices 4. Certified Wood Heaters and Pellet Stoves 5. Economic Hardship 6. Sole Source of Heat

Low-Income Exemption Removal



- U.S. EPA determined that South Coast AQMD's low-income exemption is less stringent compared to similar programs in other districts
- As wood-burning is used primarily for aesthetic and ambiance purposes in the South Coast Air Basin, removing the low-income exemption will:
 - Have minimal impact on applicable Rule 445 communities
 - Not affecting those that qualify for any of the four other exemptions, including use of a wood-burning device as a sole source of heat
 - Not affecting eligibility for the Fireplace Changeout Incentive Program
 - Demonstrate compliance with Clean Air Act requirement for Most Stringent Measures



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Preliminary Impact Assessment

2025 Impact Summary



1. Lower Curtailment Threshold from 29 $\mu\text{g}/\text{m}^3$ to 25 $\mu\text{g}/\text{m}^3$

- About 10 more curtailment days
 - Based on historic data (2019-2023)
- No cost impact is anticipated
 - Assuming wood burning is mostly for aesthetic purposes for non-exempted households
 - Assuming no changeout of wood-burning devices

2. Removal of Low-Income Exemption

- No cost impact is anticipated
 - Assuming wood burning is mostly for aesthetic purposes for non-exempted households
 - Assuming no changeout of wood-burning devices

Emission Reductions from Lowering the Curtailment Threshold



Lowering curtailment threshold from $29 \mu\text{g}/\text{m}^3$ to $25 \mu\text{g}/\text{m}^3$

- 2025 baseline emissions: 4.6 tons per day
 - Wood burning season emissions: 9.65 tons/winter day
- Impacts:
 - Approximately 10 additional curtailment days
 - $\text{PM}_{2.5}$ emission reductions estimated at 0.25 tons per day

Emission Reductions from Removing Low-Income Exemption



Removing Low-Income Exemption

- Number of households that utilize the low-income exemption is highly uncertain
- Some low-income households may qualify for other exemptions (e.g. no natural gas infrastructure, sole source of heat or located 3,000 ft or above) and remain exempt from curtailment
 - Limited data on number of households that qualify for the sole source of heat exemption
- Emission reductions will be reflected in the future through emission inventory updates



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Next Steps

Next Steps



Working group and stakeholder meetings continue throughout process

**Information
Gathering and
Analysis**

**Preliminary
Draft Rule and
Staff Report**

**Public
Workshop**

**Draft Rule
and Staff
Report**

**Public
Hearing**

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Check Before You Burn



www.aqmd.gov/cbyb

Check Before You Burn



Información en español

November marks the start of South Coast AQMD's annual Check Before You Burn season. From **November through the end of February**, residents are asked to check before burning wood in their fireplaces to limit emissions of fine particulate matter (PM2.5).

A No-Burn day is a 24-hour ban on wood-burning in residential fireplaces, stoves or outdoor fire pits in the South Coast Air Basin. South Coast AQMD forecasters call for residential No-Burn Days when PM2.5 is expected to reach Unhealthy levels due to air emissions and stagnant weather conditions.

South Coast AQMD's No-Burn Day alerts do not apply to mountain communities above 3,000 feet in elevation, the Coachella Valley or High Desert, homes that rely on wood as a sole source of heat, low income households and those without natural gas service. Gas fireplaces are also exempt.

South Coast AQMD is providing several resources to the public to make following No-Burn Days as convenient as possible:

- **E-Mail Notification Program**

Sign up to receive [Air Alerts](#) on air quality and to be notified when a mandatory No-Burn alert has been issued for your neighborhood.

- **Check Before You Burn Map**

Visit the [Check Before You Burn map](#) on our website for daily forecast information.

- **Toll-Free Phone Number**

Call 866-966-3293 for daily Check Before You Burn information.

- **Mobile App**

Download the [South Coast AQMD app](#) to check local air quality and receive notifications when No-Burn Days are called.

- **Social Media**

Follow South Coast AQMD's social media accounts on [Facebook](#), [Twitter](#) and [Instagram](#).

The South Coast AQMD also encourages you to take the [pledge](#) to Check Before You Burn.


PAR 445 Staff Contacts



Please contact staff with any questions or comments

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