

BOARD MEETING DATE: September 5, 2025

AGENDA NO. 30

**PROPOSAL:** Determine That Proposed Amended Rule 445 – Wood-Burning Devices, Is Exempt from CEQA; Amend Rule 445; and Submit Rule 445 Into State Implementation Plan

**SYNOPSIS:** Proposed Amended Rule 445 (PAR 445) will address federal Clean Air Act requirements for Most Stringent Measures and implement BCM-18: Further Emission Reductions from Wood-Burning Fireplaces and Wood Stoves of the South Coast Air Basin Attainment Plan for the 2012 Annual PM<sub>2.5</sub> National Ambient Air Quality Standard. The PM<sub>2.5</sub> curtailment threshold for calling a No-Burn day will be lowered and the exemption of low-income households from a No-Burn day will be removed. A new provision is added to address wood-burning fireplace replacements due to wildfires.

**COMMITTEE:** Stationary Source, June 20, 2025, Reviewed

**RECOMMENDED ACTIONS:**

Adopt the attached Resolution:

1. Determining that Proposed Amended Rule 445 – Wood-Burning Devices, is exempt from the requirements of the CEQA;
2. Amending Rule 445 – Wood-Burning Devices; and
3. Directing staff to submit Proposed Amended Rule 445 for inclusion into the State Implementation Plan.

Wayne Natri  
Executive Officer

SR:MK:KC:NF:AD

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**Background**

Rule 445 – Wood-Burning Devices was adopted in 2008 to regulate and reduce PM<sub>2.5</sub> emissions from residential wood combustion by prohibiting the burning of products not intended for use as fuel, prohibiting the sale of unseasoned wood, and mandating the curtailment of wood burning on “No-Burn” days when ambient PM<sub>2.5</sub> concentration is forecast to exceed a threshold limit during the wood-burning season (beginning of

November through the end of February). Residential wood-burning is a significant source of fine particulate matter (PM<sub>2.5</sub>, particulate matter less than or equal to 2.5 microns in diameter). Rule provisions apply to manufacturers, vendors, commercial firewood sellers, and any individuals owning or operating a wood-burning device.

The South Coast Air Basin is a “serious” nonattainment area for the 2012 PM<sub>2.5</sub> National Ambient Air Quality Standard (NAAQS). The 2024 Attainment Plan for the 2012 Annual PM<sub>2.5</sub> NAAQS (2024 PM<sub>2.5</sub> Plan) was adopted in June 2024 and included a request to extend the PM<sub>2.5</sub> attainment date. Under federal Clean Air Act requirements, areas seeking an attainment date extension must demonstrate existing control programs are at least as stringent as similar programs in other areas. The 2024 PM<sub>2.5</sub> Plan conducted a Most Stringent Measures analysis that identified more stringent wood-burning regulations in other air districts. Accordingly, the 2024 PM<sub>2.5</sub> Plan included control measure BCM-18 (Further Emissions Reductions from Wood-Burning Fireplaces and Stoves) to further reduce PM<sub>2.5</sub> emissions. Proposed Amended Rule 445 – Wood-Burning Devices (PAR 445) implements the 2024 PM<sub>2.5</sub> Plan and addresses federal Clean Air Act requirements for Most Stringent Measures.

### **Proposed Amendments**

PAR 445 will lower the curtailment threshold during the wood-burning season (November through February). Beginning the upcoming wood-burning season starting November 1, 2025, PAR 445 will lower contingency measure thresholds for PM<sub>2.5</sub> from 29 to 25 µg/m<sup>3</sup> and will remove the low-income exemption that exempts low-income households from the mandatory curtailment (No-Burn day). However, the sole source of heat exemption will remain, allowing property owners or tenants to use the wood-burning device during a No-Burn day if it is the sole source of heat. In addition, effective at the time of rule adoption, PAR 445 will add a provision to allow the replacement of wood-burning devices damaged or destroyed due to a natural disaster declared as a State of Emergency defined under Rule 118, such as the 2025 Eaton and Palisades fires. PAR 445 also includes other administrative amendments and removes outdated rule language.

### **Public Process**

PAR 445 was developed through a public process. Two working group meetings were held on December 17, 2024 and April 2, 2025. The Working Group Meetings included a variety of stakeholders such as affected households, representatives from businesses, environmental and community groups, public agencies, and other interested parties. A Public Workshop was held on May 20, 2025 to present the preliminary draft rule language for PAR 445 and receive public comments. As part of this rule development process, staff met individually with stakeholders.

**Key Issues**

Staff has worked with stakeholders to address concerns and is not aware of any remaining key issues.

**Emission Reductions**

PAR 445 is expected to reduce PM<sub>2.5</sub> emissions by approximately 0.25 ton per day by the end of 2026, which would result in an approximate 10 additional No-Burn days on average during the wood-burning season, when the curtailment threshold is reduced from 29 to 25 µg/m<sup>3</sup>. Emission reductions for the removal of the low-income exemption cannot be accurately quantified at this time due to high levels of uncertainty. The replacement of a previously standing or existing wood-burning device that has been destroyed or damaged due to a natural disaster declared as a state of emergency is not expected to produce additional PM<sub>2.5</sub> emissions nor emission reductions.

**California Environmental Quality Act (CEQA)**

Pursuant to CEQA Guidelines Sections 15002(k) and 15061, the proposed project (PAR 445) is exempt from CEQA pursuant to CEQA Guidelines Sections 15061(b)(3) and 15308. Further, there is no substantial evidence indicating that the exceptions set forth in CEQA Guidelines Section 15300.2 apply to the proposed project. A Notice of Exemption has been prepared pursuant to CEQA Guidelines Section 15062, and is included as Attachment H to this Board Letter. 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, and with the State Clearinghouse of the Governor's Office of Land Use and Climate Innovation.

**Socioeconomic Impact Assessment**

PAR 445 would potentially affect commercial firewood sellers and the general public who use wood-burning fireplaces and other wood-burning devices by restricting the burning of firewood in these devices during a No-Burn day. The cost impacts of Basin-wide curtailment on firewood sellers are expected to be minimal because PAR 445 only restricts the burning of firewood without restricting the sale of firewood during curtailment events and the increased number of No-Burn days is expected to be small (about 10 days) during the wood-burning season. The cost impacts on the general public are also expected to be minimal as wood burning in the jurisdiction of South Coast AQMD is mainly for aesthetic and ambiance purposes and there are more cost-effective alternatives to wood burning for heating. Also, the removal of the low-income exemption is not expected to result in any cost impacts because there are other more cost-effective alternatives to burning wood for heating regardless of whether a No-Burn day has been issued. Lastly, for residential or commercial properties where a wood-burning device is the sole source of heat, PAR 445 does not propose any changes to the existing exemption. The details of the Final Socioeconomic Impact Assessment can be found within the Final Staff Report (Attachment G of this Board Letter).

**AQMP and Legal Mandates**

PAR 445 will implement Control Measure BCM-18: Further Emission Reductions from Wood-Burning Fireplaces and Wood Stoves of the 2024 PM2.5 Plan by reducing PM2.5 emissions from residential wood-burning. PAR 445 also implements Sections 172 and 188(e) of the federal Clean Air Act.

**Implementation and Resource Impact**

Existing staff resources are adequate to implement PAR 445.

**Attachments**

- A. Summary of Proposal
- B. Key Issues and Responses
- C. Rule Development Process
- D. Key Contacts List
- E. Resolution
- F. Proposed Amended Rule 445
- G. Final Staff Report, including the Final Socioeconomic Impact Assessment
- H. Notice of Exemption from CEQA
- I. Board Presentation

## ATTACHMENT A

### SUMMARY OF PROPOSAL

#### Proposed Amended Rule 445 – Wood-Burning Devices

##### Applicability

- Applies to property owners or tenants who operate a residential wood-burning device

##### Requirements

- Reduce the wood-burning curtailment threshold from 30  $\mu\text{g}/\text{m}^3$  to 25  $\mu\text{g}/\text{m}^3$

##### Contingency Measures

- Reduce the wood-burning curtailment threshold for contingency measures:
  - 29  $\mu\text{g}/\text{m}^3$  to 23  $\mu\text{g}/\text{m}^3$ , upon a final determination of a failure to comply with any of the provisions in paragraph (f)(1)
  - 28  $\mu\text{g}/\text{m}^3$  to 21  $\mu\text{g}/\text{m}^3$ , upon a final determination of a failure to comply with any two or more of the provisions in paragraph (f)(1)

##### Exemptions

- Remove the exemption for low-income households from curtailment requirements
- Add the exemption for replacement of wood-burning devices from damages due to natural disasters

**ATTACHMENT B**  
**KEY ISSUES AND RESPONSES**

Proposed Amended Rule 445 – Wood-Burning Devices
Through the rulemaking process staff has worked with stakeholders to address a variety of issues. Staff is not aware of any remaining key issues.

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**ATTACHMENT C**  
**RULE DEVELOPMENT PROCESS**

**Proposed Amended Rule 445 – Wood-Burning Devices**



**Thirteen (13) months spent in rule development**  
**One (1) Public Workshop**  
**Two (2) Working Group Meetings**  
**One (1) Stationary Source Committee Meeting**

**ATTACHMENT D**  
**KEY CONTACTS LIST**

Proposed Amended Rule 445 – Wood-Burning Devices (*listed alphabetically*)

- Hearth, Patio and BBQ Association Pacific
- Kurt Berchtold



## **ATTACHMENT E**

### **RESOLUTION NO. 25-\_\_\_\_**

**A Resolution of the Governing Board of the South Coast Air Quality Management District (South Coast AQMD) determining that Proposed Amended Rule 445 – Wood-Burning Devices, is exempt from the requirements of the California Environmental Quality Act (CEQA).**

**A Resolution of the South Coast AQMD Governing Board amending Rule 445 – Wood-Burning Devices.**

**A Resolution of the South Coast AQMD Governing Board directing staff to submit Proposed Amended Rule 445 – Wood-Burning Devices for inclusion into the State Implementation Plan.**

**WHEREAS**, the South Coast AQMD Governing Board finds and determines that Proposed Amended Rule 445 is considered a “project” as defined by CEQA; and

**WHEREAS**, the South Coast AQMD 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 the proposed project pursuant to such program (South Coast AQMD Rule 110); and

**WHEREAS**, the South Coast AQMD Governing Board finds and determines that 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 445 is exempt from CEQA; and

**WHEREAS**, the South Coast AQMD Governing Board finds and determines that since lowering the curtailment threshold and removing the low-income exemption to comply with the federal Clean Air Act Most Stringent Measure requirements for the 2012 PM<sub>2.5</sub> NAAQS and Control Measure BCM-18 of the PM<sub>2.5</sub> Plan will not result in physical modifications, it can be seen with certainty that there is no possibility that the proposed project may have a significant adverse effect on the environment. Therefore, the proposed project is exempt from CEQA pursuant to CEQA Guidelines Section 15061(b)(3) – Common Sense Exemption; and

**WHEREAS**, the South Coast AQMD Governing Board finds and determines that the proposed project is also categorically exempt from CEQA pursuant to CEQA Guidelines Section 15308 – Actions by Regulatory Agencies for Protection of the Environment, because PAR 445 is intended to further protect or enhance the environment

## ATTACHMENT E

by improving public health and air quality through anticipated reductions in PM<sub>2.5</sub>, other criteria pollutants, and hazardous air pollutants; and

**WHEREAS**, the South Coast AQMD Governing Board has determined that there is no substantial evidence indicating that any of the exceptions set forth in CEQA Guidelines Section 15300.2 – Exceptions, apply to the proposed project; and

**WHEREAS**, the South Coast AQMD staff has prepared a Notice of Exemption for the proposed project that is completed in compliance with CEQA Guidelines Section 15062 – Notice of Exemption; and

**WHEREAS**, the South Coast AQMD Governing Board has determined that the Final Socioeconomic Impact Assessment, as presented in the Final Staff Report for Proposed Amended Rule 445, is consistent with the March 17, 1989 Governing Board Socioeconomic Resolution for rule amendment; and

**WHEREAS**, the South Coast AQMD Governing Board has determined that the Final Socioeconomic Impact Assessment, as presented in the Final Staff Report for Proposed Amended Rule 445, is consistent with the provisions of Health and Safety Code Sections 40440.8, and 40728.5; and

**WHEREAS**, the South Coast AQMD Governing Board has determined that Proposed Amended Rule 445 does not include new Best Available Retrofit Control Technology (BARCT) requirements or a feasible measure pursuant to Health and Safety Code Section 40914; therefore, the requirement to conduct an analysis of cost-effectiveness and incremental cost-effectiveness as set forth in Health and Safety Code Section 40920.6, is not applicable; and

**WHEREAS**, the South Coast AQMD Governing Board has determined Proposed Amended Rule 445 will result in minimal cost impacts within the South Coast AQMD jurisdiction and such costs are considered to be reasonable, as specified in the Final Socioeconomic Impact Assessment, as presented in the Final Staff Report for Proposed Amended Rule 445; and

**WHEREAS**, the South Coast AQMD Governing Board has actively considered the Final Socioeconomic Impact Assessment, as presented in the Final Staff Report for Proposed Amended Rule 445, and has made a good faith effort to minimize such adverse impacts; and

**WHEREAS**, the South Coast AQMD staff conducted a Public Workshop meeting on May 20, 2025 regarding Proposed Amended Rule 445; and

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**WHEREAS**, Proposed Amended Rule 445 and supporting documentation, including but not limited to, the Notice of Exemption and the Final Staff Report, which includes the Final Socioeconomic Impact Assessment, were presented to the South Coast AQMD Governing Board and the South Coast AQMD Governing Board has reviewed and considered this information, as well as has taken and considered staff testimony and public comment prior to approving the project; and

**WHEREAS**, the South Coast AQMD Governing Board finds and determines, taking into consideration the factors in Section (d)(4)(D) of the Governing Board Procedures (codified as Section 30.5(4)(D)(i) of the Administrative Code), that the modifications to Proposed Amended Rule 445, since the Notice of Public Hearing was published include the following: correcting punctuation and conjunctions for clarity throughout; deleting “any device” for grammar correction in paragraph (c)(11); and adding “for wood heater as” to improve clarity in paragraph (c)(21). These revisions meet the same air quality objective and 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 the information contained in the Notice of Public Hearing, and (d) the consideration of the range of CEQA alternatives is not applicable because the proposed project is exempt from CEQA; and

**WHEREAS**, Proposed Amended Rule 445 will be submitted to California Air Resources Board and United States Environmental Protection Agency for inclusion into the State Implementation Plan; and

**WHEREAS**, Health and Safety Code Section 40727 requires that prior to adopting, amending or repealing a rule or regulation, the South Coast AQMD 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 South Coast AQMD Governing Board has determined that a need exists to amend Rule 445 to satisfy Most Stringent Measures requirements for PM2.5 nonattainment areas classified as “serious” or above in the federal Clean Air Act Section 188 to further protect public health and implement Control Measure BCM-18 of the 2024 PM2.5 Attainment Plan; and

**WHEREAS**, the South Coast AQMD Governing Board has determined, pursuant to Health and Safety Code Section 40001(c), that there is a problem that Proposed Amended Rule 445 will alleviate, namely the failure to attain national ambient air quality

## ATTACHMENT E

standards for PM<sub>2.5</sub>, PM<sub>2.5</sub> emissions from residential wood-burning devices, and that the rule amendment will promote the attainment of state and federal ambient air quality standards; and

**WHEREAS**, the South Coast AQMD Governing Board obtains its authority to adopt, amend or repeal rules and regulations from Health and Safety Code Sections 39002, 40000, 40001, 40440, 40702, 40716, 40725 through 40728, and 41508; and

**WHEREAS**, the South Coast AQMD Governing Board has determined that Proposed Amended Rule 445 is written and displayed so that its meaning can be easily understood by the persons directly affected by it; and

**WHEREAS**, the South Coast AQMD Governing Board has determined that Proposed Amended Rule 445 is in harmony with, and not in conflict with or contradictory to, existing statutes, court decisions, or state or federal regulations; and

**WHEREAS**, the South Coast AQMD Governing Board has determined that Proposed Amended Rule 445 does not impose the same requirements as any existing state or federal regulations, and the proposed amended rule is necessary and proper to execute the powers and duties granted to, and imposed upon, South Coast AQMD; and

**WHEREAS**, the South Coast AQMD Governing Board, in amending Proposed Amended Rule 445, references the following statutes which the South Coast AQMD hereby implements, interprets, or makes specific: Health and Safety Code Sections 39002, 40001, 41508, and 41700 and federal Clean Air Act Section 188(e); and

**WHEREAS**, Health and Safety Code Section 40727.2 requires the South Coast AQMD to prepare a written analysis of existing federal air pollution control requirements applicable to the same source type being regulated whenever it adopts, or amends a rule, and the South Coast AQMD's comparative analysis of Proposed Amended Rule 445 is included in the Final Staff Report; and

**WHEREAS**, the Public Hearing has been properly noticed in accordance with all provisions of Health and Safety Code Sections 40725 and 40440.5; and

**WHEREAS**, the South Coast AQMD Governing Board has held a Public Hearing in accordance with all applicable provisions of law; and

**WHEREAS**, the South Coast AQMD specifies that the Planning, Rule Development, and Implementation Manager overseeing the rule development of Proposed Amended Rule 445 as the custodian of the documents or other materials which constitute

## ATTACHMENT E

the record of proceedings upon which the adoption of the proposed amended rule is based, which are located at the South Coast Air Quality Management District, 21865 Copley Drive, Diamond Bar, California; and

**NOW, THEREFORE BE IT RESOLVED**, that the South Coast AQMD Governing Board does hereby determine, pursuant to the authority granted by law, that the proposed project is exempt from CEQA pursuant to CEQA Guidelines Section 15061(b)(3) – Common Sense Exemption. The South Coast AQMD Governing Board does also hereby determine, pursuant to the authority granted by law, that the proposed project is categorically exempt from CEQA pursuant to CEQA Guidelines Section 15308 – Actions by Regulatory Agencies for Protection of the Environment. No exceptions to the application of the categorical exemption as set forth in CEQA Guidelines Section 15300.2 – Exceptions, apply to the proposed project. This information was presented to the South Coast AQMD Governing Board, whose members exercised their independent judgment and reviewed, considered, and approved the information therein prior to acting on Proposed Amended Rule 445; and

**BE IT FURTHER RESOLVED**, that the South Coast AQMD Governing Board does hereby adopt, pursuant to the authority granted by law, Proposed Amended Rule 445 as set forth in the attached, and incorporated herein by reference; and

**BE IT FURTHER RESOLVED**, that the South Coast AQMD Governing Board requests that Proposed Amended Rule 445 be submitted for inclusion in 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 445 and supporting documentation to the California Air Resources Board for approval and subsequent submittal to the United States Environmental Protection Agency for inclusion into the State Implementation Plan.

DATE: \_\_\_\_\_

\_\_\_\_\_  
CLERK OF THE BOARDS

**South Coast Air Quality Management District**

(Adopted March 7, 2008)(Amended May 3, 2013)(Amended June 5, 2020)  
(Amended October 27, 2020) (Amended TBD)

**RULE 445. WOOD-BURNING DEVICES**

(a) Purpose

The purpose of this rule is to reduce the emission of particulate matter from Wood-Burning Delices and establish contingency measures for applicable ozone standards for the reduction of volatile organic compounds.

(b) Applicability

The provisions of this rule shall apply to specified persons or businesses within the South Coast Air Basin portion of the South Coast Air Quality Management District:

- (1) Any person that manufacturers, sells, offers for sale, or installs a Wood-Burning Delice;
- (2) Any Commercial Wood-Based Fuel Seller that sells, offers for sale, or supplies wood or other Wood-Based Fuels intended for burning in a Wood-Burning- Delice or Portable Outdoor Wood-Burning Delice; and
- (3) Any property owner or tenant that operates a Wood-Burning Delice or Portable Outdoor Wood-Burning Delice.

(c) Definitions

- (1) COMMERCIAL WOOD-BASED FUEL SELLER means any operation that has a business license that sells, or offers for sale, or supplies packaged, bundled or bulk firewood, Manufactured Firelogs, or wood pellets.
- (2) COOKSTOVE means any wood or Wood-Based Fuel-fired device that is designed and used for cooking food and has the following characteristics as defined in Title 40 of the Code of Federal Regulations Section 60.531, March 16, 2015, or any subsequent revision:
  - (A) An oven, with a volume of 0.028 cubic meters (1 cubic foot) or greater, and an oven rack;
  - (B) A device for measuring oven temperatures;
  - (C) A flame path that is routed around the oven;
  - (D) A shaker grate;
  - (E) An ash pan;
  - (F) An ash clean-out door below the oven; and
  - (G) The absence of a fan or heat channels to dissipate heat from

the appliance.

- (3) DAILY MAXIMUM 8-HOUR OZONE AIR QUALITY FORECAST means the maximum predicted ambient average ozone concentration, during any rolling eight (8) hour time period for the entire consecutive 24-hour period, beginning at midnight of the current day and ending upon the subsequent midnight.
- (4) DAILY PM<sub>2.5</sub> AIR QUALITY FORECAST means the predicted ambient average PM<sub>2.5</sub> concentration, for the entire consecutive 24-hour period, beginning at midnight of the current day and ending upon the subsequent midnight.
- (5) DEDICATED GASEOUS-FUELED FIREPLACE means any indoor or outdoor ~~F~~fireplace, including, but not limited to, a gas log ~~F~~fireplace, either constructed on- site, or factory built, fueled exclusively with a gaseous fuel such that the burner pan and associated equipment are affixed to the masonry or metal base of the ~~F~~fireplace.
- (6) FIREPLACE means any ~~p~~Permanently ~~i~~nstalled indoor or outdoor masonry or factory-built device that can be used for aesthetic or space-heating purposes and designed to operate with an air-to-fuel ratio greater than or equal to 35-to-1.
- ~~(7) LOW INCOME HOUSEHOLD means any household that receives financial assistance through reduced electric or gas bills from an electric or natural gas utility based on household income levels.~~
- ~~(8)~~(7) MANUFACTURED FIRELOG means a commercial product expressly manufactured for use to simulate a wood-burning fire in a ~~W~~wood-~~B~~urning ~~D~~device.
- ~~(9)~~(8) MASONRY HEATER means any ~~P~~permanently ~~i~~nstalled device that meets the definition of a ~~M~~masonry ~~H~~heater in ASTM E 1602-03.
- ~~(10)~~(9) NEW DEVELOPMENT means residential or commercial, single or multi-building unit, which begins construction on or after March 9, 2009. For the purposes of this definition, construction has begun when the building permit has been approved or when the foundation for the structure is started, whichever occurs first.
- ~~(11)~~(10) PELLET-FUELED WOOD-BURNING HEATER means any ~~W~~wood-~~b~~Burning ~~H~~heater that is operated on any pellet fuel, and is either U.S. EPA Phase II-certified or exempted under U.S. EPA requirements as defined in Title 40 Code of Federal Regulations, Part 60, Subpart AAA, March 16, 2015, or any subsequent revision.
- ~~(12)~~(11) PERMANENTLY INSTALLED means ~~any device~~ built or installed in such a manner that the device is attached to the ground, floor, or wall, and is not readily moveable. A free standing stove that is attached to an exhaust system that is built into or through a wall is considered ~~P~~permanently ~~I~~nstalled.

- ~~(13)~~(12) PM2.5 means particulate matter with an aerodynamic diameter less than or equal to 2.5 microns.
- ~~(14)~~(13) PORTABLE OUTDOOR WOOD-BURNING DEVICE means any portable outdoor device burning any ~~W~~wood-~~B~~ased ~~F~~fuel for aesthetic or space heating purposes including, but not limited to, ~~F~~fireplaces, burn bowls, and chimineas located on property zoned for residential uses.
- ~~(15)~~(14) SEASONED WOOD means wood of any species that has been sufficiently dried so as to contain 20 percent or less moisture content by weight as determined by
- (A) ASTM Test Method D 4442-92, Standard Test Method for Use and Calibration of Hand-Held Moisture Meters; or
  - (B) A hand-held moisture meter operated in accordance with ASTM Test Method D 4444-92, Standard Test Methods for Use and Calibration of Hand-Held Moisture Meters; or
  - (C) An alternative method approved by the Executive Officer, the California Air Resources Board, and the U.S. Environmental Protection Agency.
- ~~(16)~~(15) SOLE SOURCE OF HEAT means the only permanent source of heat that is capable of meeting the space heating needs of a household. This includes loss of a permanent source of heat due to a temporary service outage, for the duration of the service outage, as determined by the gas or electrical utility service.
- ~~(17)~~ SOURCE RECEPTOR AREA (SRA) ~~means any of the numbered areas in the Basin as shown on the map in Attachment 1.~~
- ~~(18)~~(16) SOUTH COAST AIR BASIN means the non-desert portions of Los Angeles, Riverside, and San Bernardino counties and all of Orange County as defined in California Code of Regulations, Title 17, Section 60104.
- ~~(19)~~(17) TREATED WOOD means wood of any species that has been chemically impregnated, painted, coated or similarly modified to improve resistance to insects, wood rot and decay, or weathering.
- ~~(20)~~(18) U.S. EPA CERTIFIED WOOD-BURNING HEATER means any device certified by the U.S. EPA to meet the performance and emission standards as defined in Title 40 Code of Federal Regulations, Part 60, Subpart AAA, March 16, 2015, or any subsequent revision.
- ~~(21)~~(19) WOOD-BASED FUEL means any wood, wood-based product, or non-gaseous or non-liquid fuel, including but not limited to ~~M~~manufactured ~~F~~firelogs, wood or pellet products. For the purpose of this rule, charcoal is not considered a ~~w~~Wood-~~B~~ased ~~F~~fuel when used in a Wood-Fired Cooking Device.
- ~~(22)~~(20) WOOD-BURNING DEVICE means any ~~F~~fireplace, ~~W~~wood-~~B~~urning ~~H~~heater, ~~P~~pellet-~~F~~-fueled ~~W~~wood-~~B~~urning ~~H~~heater, or any similarly open or



enclosed, ~~P~~ermanently ~~i~~nstalled, indoor or outdoor device burning any ~~W~~ood-~~B~~ased ~~F~~uel for aesthetic purposes, which has a heat input of less than one million British thermal units- per hour (Btu/hr).

~~(23)~~(21) WOOD-BURNING HEATER means an enclosed, ~~W~~ood-~~B~~urning ~~D~~evice capable of space heating that meets all the criteria for wood heater as defined in Title 40 Code of Federal Regulations Section 60.531, March 16, 2015, or any subsequent revision including, but not limited to, wood stoves and wood-burning ~~F~~ireplace inserts.

~~(24)~~(22) WOOD-BURNING SEASON means for:

- (A) PM2.5, the consecutive entire four (4) months of November, December, January, and February.
- (B) Ozone, upon triggering any one of the ozone contingency provisions in subparagraph (g), the consecutive entire eight (8) months of September, October, November, December, January, February, March and April.

~~(25)~~(23) WOOD-FIRED COOKING DEVICE means any ~~C~~ookstove, wood-fired oven or grill, or any device ~~designed for burning any ~~W~~ood-~~B~~ased ~~F~~uel for cooking purposes.~~ A Wood-Burning Device is not considered a Wood-Fired Cooking Device.

(d) Requirements

- (1) No person shall permanently install a ~~W~~ood-~~B~~urning ~~D~~evice into any ~~N~~ew ~~D~~evelopment.
- (2) ~~Notwithstanding the requirements of paragraph (d)(1), n~~No person shall sell, offer for sale, supply, or install, a new or used ~~P~~ermanently ~~i~~nstalled indoor or outdoor ~~W~~ood-~~B~~urning ~~D~~evice or gaseous-fueled device unless it is one of the following:
  - (A) A U.S. EPA Certified ~~W~~ood-~~B~~urning ~~H~~heater; or
  - (B) A ~~P~~ellet-~~F~~fueled ~~W~~ood-~~B~~urning ~~H~~heater; or
  - (C) A ~~M~~masonry ~~H~~heater; or
  - (D) A ~~D~~edicated ~~G~~aseous-~~F~~fueled ~~F~~ireplace.
- (3) No person shall burn any product not intended for use as fuel in a ~~W~~ood-~~B~~urning ~~D~~evice including, but not limited to, garbage, ~~T~~reated ~~W~~ood, particle board, plastic products, rubber products, waste petroleum products, paints, coatings or solvents, or coal.
- (4) A Commercial Wood-Based Fuel Seller ~~commercial firewood seller~~ shall only sell Seasoned ~~w~~Wood from July 1 through the end of February the following year. Any Commercial Wood-Based Fuel Seller ~~commercial firewood seller~~ may sell seasoned as well as non-seasoned wood during the remaining months.

(5) Labeling and Sell-Through Provision

No ~~Commercial Wood-Based Fuel Seller~~ ~~commercial firewood seller~~ shall sell, offer for sale, or supply ~~W~~wood-~~B~~ased ~~F~~uel without first attaching a permanently affixed indelible label to each package or providing written notice to each buyer at the time of purchase of bulk firewood that at a minimum ~~that~~ states the following:

Use of this and other solid fuel products may be restricted at times by law. Please check (1-877-4NO-BURN) or (www.8774NOBURN.org) before burning.

- (A) Alternative language, toll-free telephone number or web address for the information specified in subdivision (j) may be used, subject to Executive Officer approval.
- (B) The Executive Officer shall specify guidelines for the aforementioned labeling requirements.

(e) Wood-Burning Season PM2.5 Mandatory Burning Curtailment (No-Burn day)

No person shall operate an indoor or outdoor ~~W~~wood-~~B~~urning ~~D~~evice, ~~P~~ortable ~~O~~utdoor ~~W~~wood-~~B~~urning ~~D~~evice, or ~~W~~wood-~~F~~ired ~~C~~ooking ~~D~~evice on a calendar day during the wood-burning season for PM2.5 so declared to the public by the Executive Officer to be a mandatory wood-burning curtailment (No-Burn) day based on the specified geographic area below 3,000 feet above mean sea level and applicable ~~D~~aily PM2.5 ~~A~~ir ~~Q~~uality ~~F~~orecast as follows:

- (1) Basin-wide if the ~~D~~aily PM2.5 ~~A~~ir ~~Q~~uality ~~F~~orecast for any ~~source-receptor area~~ ~~area~~ of the South Coast Air Basin exceeds ~~2530~~  $\mu\text{g}/\text{m}^3$ , or
- (2) subsequent to a determination by U.S. EPA, pursuant to 40 CFR § 51.1014(a) of a failure to comply with either a referenced PM2.5 standard or reporting requirement~~;~~, the applicable ~~D~~aily PM2.5 ~~A~~ir ~~Q~~uality ~~F~~orecast as set forth in subdivision (f) PM2.5 Contingency Measures.

(f) PM2.5 Contingency Measures

- (1) Upon the issuance of a final determination by U.S. EPA, pursuant to 40 CFR § 51.1014(a), that the South Coast Air Basin has failed to comply with the following requirements by the applicable date to:
  - (A) meet any Reasonable Further Progress (RFP) requirement in an attainment plan approved in accordance with § 51.1012;
  - (B) meet any quantitative milestone in an attainment plan approved in accordance with § 51.1013;
  - (C) submit a quantitative milestone report required under § 51.1013(b); or,

- (D) attain the applicable PM<sub>2.5</sub> National Ambient Air Quality Standards (NAAQS) by the applicable attainment date, the contingency measure(s) specified in paragraph (f)(2) shall be implemented, sequentially and in the order of stringency.
- (2) A Basin-wide, mandatory wood-burning curtailment during the Wood-Burning Sseason if the Daily PM<sub>2.5</sub> Air Quality Forecast for any SRA-area of the South Coast Air Basin exceeds:
- (A) ~~29-23~~ 23  $\mu\text{g}/\text{m}^3$ , upon a final determination of a failure to comply with any of the provisions of paragraph (f)(1); and
- (B) ~~28-21~~ 21  $\mu\text{g}/\text{m}^3$ , upon a final determination of a failure to comply with ~~any~~ two or more of the provisions in paragraph (f)(1);
- ~~(C) 27  $\mu\text{g}/\text{m}^3$ , upon a final determination of a failure to comply with any three of the provisions in paragraph (f)(1); and~~
- ~~(D) 26  $\mu\text{g}/\text{m}^3$ , upon a final determination of a failure to comply with any four of the provisions in paragraph (f)(1).~~
- (g) Ozone Contingency Measures
- (1) Upon the issuance of a final determination by U.S. EPA, that the South Coast Air Basin has failed to comply with the following requirements by the applicable date to:
- (A) meet a Reasonable Further Progress (RFP) requirement in an approved attainment plan for an applicable ozone NAAQS; or
- (B) attain an applicable ozone NAAQS by the applicable attainment date, the applicable contingency measure(s) specified in paragraph (g)(2) shall be implemented, sequentially and in the order of stringency.
- (2) Basin-wide, below 3,000 feet above mean sea level, no person shall operate an indoor or outdoor ~~w~~Wood-Burning Device, Portable Outdoor Wood-bBurning Device, or Wood-Fired Cooking Device on a calendar day during the Wood-Burning Sseason for ozone, so declared by Executive Officer to be a curtailment (No-Burn) day due to forecasted ambient ozone concentration levels, if the Daily Maximum 8- hour Ozone Air Quality Forecast for any SRA-area of the South Coast Air Basin exceeds:
- (A) 80 ppb, upon a final determination of a first failure to comply with any of the provisions of paragraph (g)(1);
- (B) 75 ppb, upon a final determination of a second failure to comply with any of the provisions of paragraph (g)(1); and
- (C) 70 ppb, upon a final determination of a third failure to comply with any

of the provisions of paragraph (g)(1).

- (h) Prohibitions on Permissive Burn Days as described in Rule 444(c)(25)(C) or restrictions on Marginal Burn Days as described in Rule 444 (c)(21)(D) shall be in effect only if a No-Burn day is declared during any of the consecutive months of November, December, January or February.
- (i) Exemptions
  - (1) The provisions of this rule shall not apply to ~~W~~wood-~~F~~ired ~~C~~ooking ~~D~~evices designed and used for commercial purposes.
  - (2) The provisions of paragraph (d)(1) shall not apply to ~~N~~ew ~~D~~evelopments where there is no existing infrastructure for natural gas service within 150 feet of the property line or those 3,000 or more feet above mean sea level.
  - (3) The provisions of paragraph (d)(2) shall not apply to an indoor or outdoor wood-burning device that is ~~P~~ermanently ~~I~~nstalled and included in the sale or transfer of any existing development.
  - (4) The provisions of paragraph (d)(1) or (d)(2) shall not apply to a Wood-Burning Device that is replacing a previously installed Wood-Burning Device at a property damaged or destroyed by a natural disaster declared as a State of Emergency, as defined in Rule 118 - Emergencies.
  - (5) The provisions of (d)(2) shall not apply to properties that are registered as a historical site, or are contributing structures located in a Historic Preservation Overlay Zone, as determined by the applicable, federal, State, or local agency. Contributing structures are those buildings which are examples of the predominate styles of the area, built during the time period when the bulk of the structures were built in the Historic Preservation Overlay Zone.
  - (6) The provisions of (d)(3) shall not apply to ~~M~~anufactured ~~F~~ire ~~L~~ogs.
  - (7) The provisions of (d)(5) shall not apply to ~~W~~ood-~~B~~ased ~~F~~uel intended for the cooking, smoking, or flavoring of food.
  - (8) The provisions of subdivisions (e), (f), and (g), shall not apply under the following circumstances:
    - (A) Residential or commercial properties where a ~~W~~ood-~~B~~urning ~~D~~evice is the ~~S~~ole ~~S~~ource ~~O~~f ~~H~~eat; or
    - ~~(B)~~ ~~A low income household; or~~
    - ~~(C)~~(B) Residential or commercial properties where there is no existing infrastructure for natural gas service within 150 feet of the property line; or
    - ~~(D)~~(C) Residential or commercial properties located 3,000 or more feet above

mean sea level; or

~~(E)(D)~~ Ceremonial fires exempted under Rule 444 - Open Burning.

(j) Administrative Requirements

The Executive Officer will provide public notice of a mandatory wood-burning curtailment through one or more of the following methods:

- (1) A recorded telephone message;
- (2) Messages posted on the South Coast Air Quality Management District web site;
- (3) Electronic mail messages to persons or entities that have requested such notice;
- (4) Notifying broadcast and print media operating within the boundaries of the South Coast Air Basin; and
- (5) Any additional method that the Executive Officer determines is appropriate.

~~(k)~~ Penalties

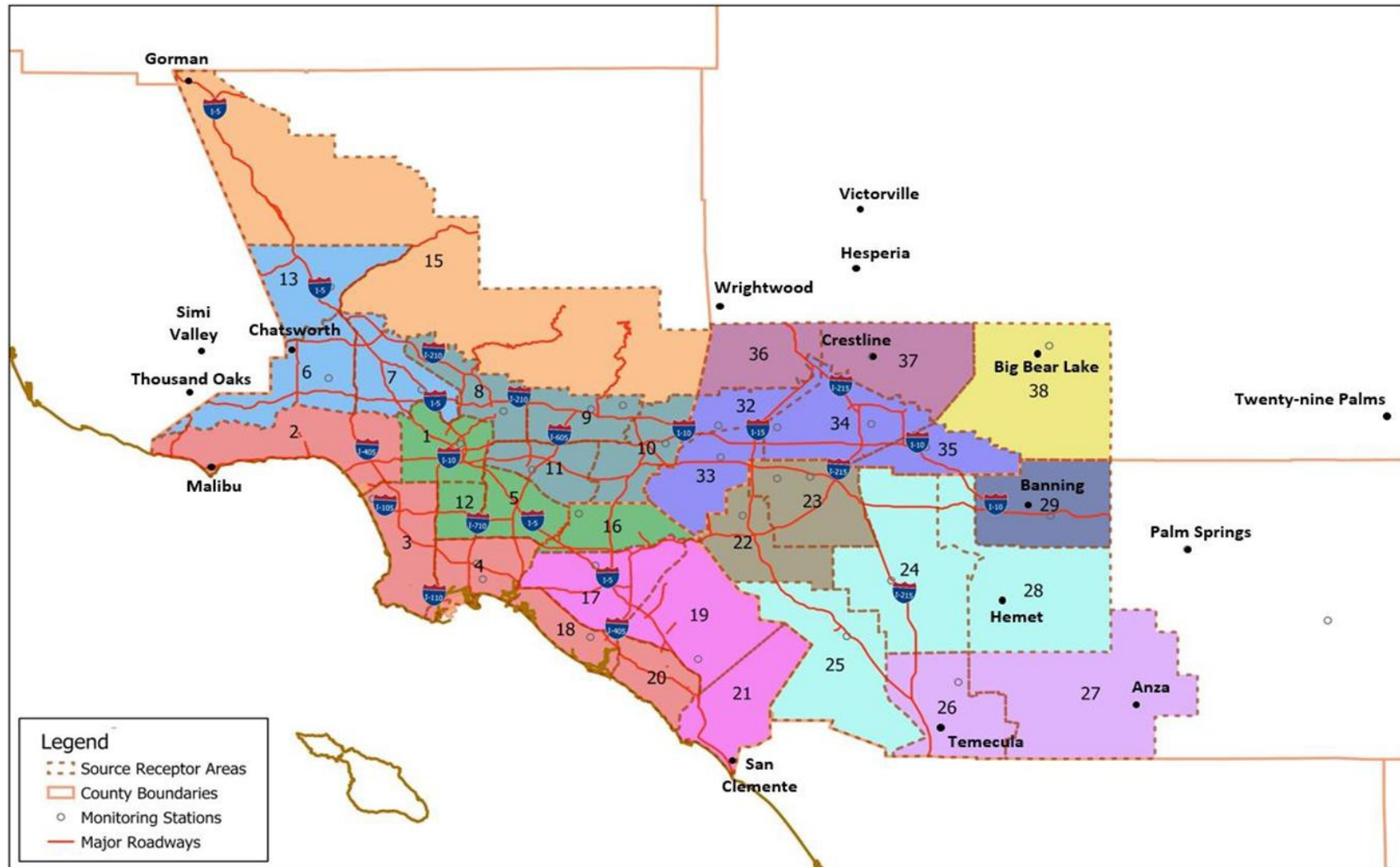
~~Any person that violates the provisions of subdivision (e) is subject to the following:~~

- ~~(1) For first time violators during each wood burning season, completion of a wood smoke awareness course that has been approved by the Executive Officer or payment of a penalty of \$50;~~
- ~~(2) For second time violators during each wood burning season, payment of penalty of \$150 or submission of proof of installation of a dedicated gaseous fueled fireplace within 90 days after receiving the Notice of Violation; and~~
- ~~(3) For third time violators during each wood burning season, payment of a penalty of \$500 or implementation of an environmentally beneficial project as derived through the mutual settlement process.~~


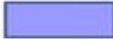

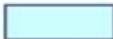


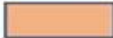





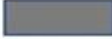
~~(k)~~ Severability

If any provision of this rule is held by judicial order to be invalid, or invalid or inapplicable to any person or circumstance, such order shall not affect the validity of the remainder of this rule, or the validity or applicability of such provision to other persons or circumstances.

**Attachment 1—Source Receptor Areas (SRAs) in the South Coast Air Basin (unshaded areas are outside the Basin)**



**Source Receptor Area (SRA) Map Index**

	<b>Coastal</b>			<b>San Bernardino Valley</b>	
	Northwest Los Angeles County Coastal	2		Northwest San Bernardino Valley	32
	Southwest Los Angeles County Coastal	3		Southwest San Bernardino Valley	33
	South Los Angeles County Coastal	4		Central San Bernardino Valley	34
	North Orange County Coastal	18		East San Bernardino Valley	35
	Central Orange County Coastal	20			
	<b>Metropolitan</b>			<b>Hemet/Elsinore Area</b>	
	Central Los Angeles County	1		Perris Valley	24
	Southeast Los Angeles County	5		Lake Elsinore	25
	South Central Los Angeles County	12		Hemet-San Jacinto Valley	28
	Northern Orange County	16			
	<b>San Fernando Valley</b>			<b>Temecula/Anza Area</b>	
	West San Fernando Valley	6		Temecula Valley	26
	East San Fernando Valley	7		Anza Area	27
	Santa Clarita Valley	13		<b>San Gabriel Mountain</b>	
				San Gabriel Mountains	15
	<b>San Gabriel Valley</b>			<b>San Bernardino Mountain</b>	
	West San Gabriel Valley	8		West San Bernardino Mountains	36
	East San Gabriel Valley	9		Central San Bernardino Mountains	37
	Pomona-Walnut Valley	10			
	South San Gabriel Valley	11		<b>Big Bear Lake</b>	
	<b>Inland Orange County</b>			Big Bear Lake	38
	Central Orange County	17		<b>Banning Pass Area</b>	
	Saddleback Valley	19		Banning Pass Area	29
	Capistrano Valley	21			
	<b>Riverside Valley</b>				
	Corona-Norco Area	22			
	Metropolitan Riverside	23			

## SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

### **Final Draft Staff Report**

### **Proposed Amended Rule 445 – Wood-Burning Devices**

### **SeptemberAugust 2025**

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**ATTACHMENT G**  
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**GOVERNING BOARD**

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Senator (Ret.)  
Senate Rules Committee Appointee

Vice Chair: MICHAEL A. CACCIOTTI  
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Cities of Los Angeles County/Eastern Region

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CARLOS RODRIGUEZ  
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Governor's Appointee

**EXECUTIVE OFFICER:**

WAYNE NASTRI

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## EXECUTIVE SUMMARY

PM2.5 (particulate matter less than or equal to 2.5 microns in aerodynamic diameter) is an air pollutant that is either directly emitted into the atmosphere or formed in the atmosphere through chemical reactions. PM2.5 is the main cause of reduced visibility and can penetrate deep into lung tissues. Wood smoke and biomass burning contains harmful air pollutants, including PM2.5, that can cause a variety of adverse health effects even with short-term exposure. Residential wood-burning is a significant source of PM2.5 emissions.

South Coast Air Quality Management District (South Coast AQMD or District) Rule 445 – Wood-Burning Devices (Rule 445) was first adopted in March 2008 to reduce PM2.5 emissions from residential wood combustion. Rule 445 prohibits burning of products not intended for use as fuel, prohibits sale of unseasoned wood, and mandates curtailment of wood-burning on “No-Burn” days during the wood-burning season. The wood-burning season begins from the beginning of November through the end of February. Wood-burning curtailment is mandatory on No-Burn days where the ambient PM2.5 concentration is forecast to exceed a threshold limit, currently set at 29 micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ). If ozone contingency measure provisions specified in subdivision (g) of the current rule are triggered, the curtailment program will be expanded to include the months of September, October, March, and April when the daily maximum 8-hour ozone levels are forecasted to be higher than 80 parts per billion.

Although the South Coast Air Basin (Basin) is in attainment of the 1997 PM2.5 National Ambient Air Quality Standard (NAAQS) and meets the 2006 PM2.5 NAAQS, it is a “serious” nonattainment area for the 2012 PM2.5 NAAQS. Proposed Amended Rule 445 (PAR 445) focuses on reducing PM2.5 emissions from residential wood-burning to comply with the federal Clean Air Act Most Stringent Measure (MSM) requirements for the 2012 PM2.5 NAAQS. PAR 445 implements control measure BCM-18: Further Emission Reductions from Wood-Burning Fireplaces and Wood Stoves, from the 2024 PM2.5 Attainment Plan by lowering the mandatory PM2.5 curtailment thresholds and removing the existing low-income exemption that allows operation of a wood-burning device during an active No-Burn day. Due to a large number of residential properties in the Basin that have been destroyed due to large scale natural disasters, including wildfires and earthquakes, the addition of a narrow, limited exemption allows for previously installed, lawful wood-burning devices to be replaced during instances of damage or destruction due to natural disasters declared as a State of Emergency under Rule 118. Minor editorial changes and removal of obsolete information are made to improve rule clarity and conform with District practice. PAR 445 is anticipated to have minimal cost impacts associated with the lowering of the curtailment threshold and the removal of the low-income exemption as wood-burning in the Basin is mainly for aesthetic and ambiance purposes. As the rule does not propose any new requirements resulting in changes to wood-burning devices, no new costs are anticipated. Emission reductions from the removal of the low-income exemption are not quantified due to high level of uncertainty. It is estimated that lowering the curtailment threshold will reduce PM2.5 emissions by 0.25 tons per day.

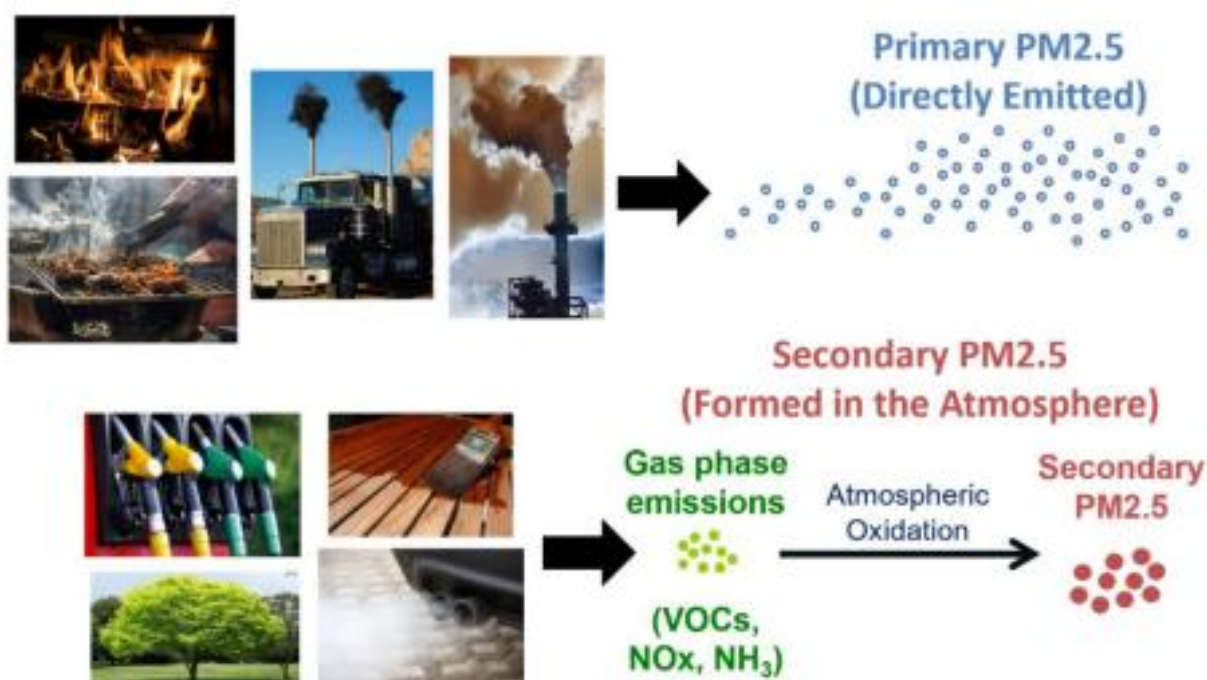
Two public comments regarding PAR 445 were raised and South Coast AQMD staff responded to the comments in the Final ~~Draft~~ Staff Report.

## **CHAPTER 1 – BACKGROUND**

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## INTRODUCTION

PM<sub>2.5</sub> (particulate matter less than or equal to 2.5 microns in aerodynamic diameter) is an air pollutant that is either directly emitted into the atmosphere (primary particles) or formed in the atmosphere through chemical reactions (secondary particles). Primary PM<sub>2.5</sub> includes road dust, diesel soot, combustion products, and other sources of fine particles. Secondary PM<sub>2.5</sub> products, such as sulfates, nitrates, and complex organic compounds, are formed from reactions with oxides of sulfur (SO<sub>x</sub>), oxides of nitrogen (NO<sub>x</sub>), volatile organic compounds (VOC), and ammonia (see Figure 1-1). PM<sub>2.5</sub> is the main cause of reduced visibility. Numerous studies have linked high levels of particulate air pollution with detrimental health effects such as respiratory and cardiovascular disease and premature death as smaller particles in the PM<sub>2.5</sub> range can penetrate and deposit deep in lung tissues. The South Coast Air Basin (Basin) is among the most polluted PM<sub>2.5</sub> regions in the United States.



**Figure 1-1: PM<sub>2.5</sub> Formation Mechanisms**

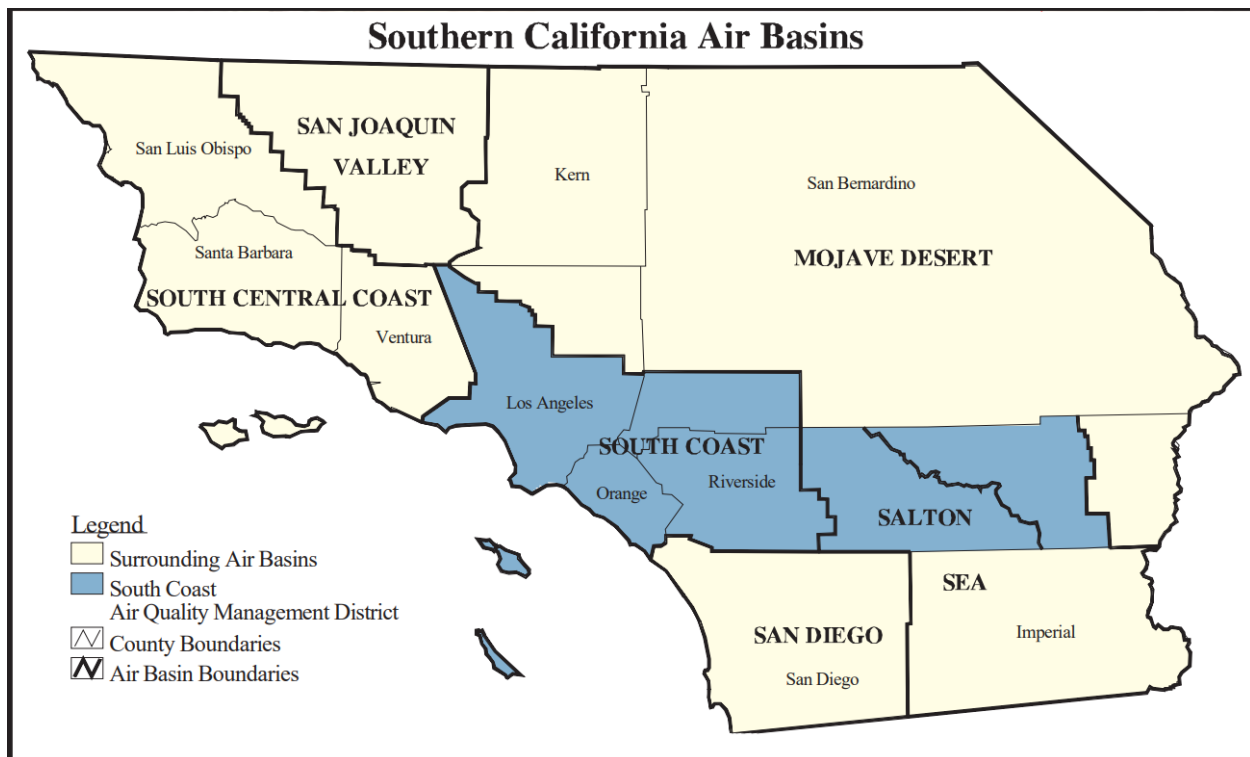
Emissions from residential wood-burning devices are caused primarily by incomplete combustion and include PM, CO, NO<sub>x</sub>, SO<sub>x</sub>, and VOC. Residential wood-burning is a significant source of PM emissions. Studies indicate that the vast majority of particulate emissions from residential wood combustion is PM<sub>2.5</sub>.<sup>1</sup> The type of devices used to burn wood in a typical residential household are fireplaces and wood stoves. Fireplaces and any similar permanently installed indoor or outdoor wood-burning devices are very inefficient heat sources. Given the temperate climate in the Basin, fireplaces and comparable wood-burning devices are used primarily for aesthetic and

<sup>1</sup> South Coast Air Basin Attainment Plan for the 2012 Annual PM<sub>2.5</sub> Standard. APPENDIX IV-A South Coast AQMD's Stationary and Mobile Source Measures. <https://www.aqmd.gov/docs/default-source/clean-air-plans/pm2.5-plans/final-pm2.5-plan/appendix-iv-a-control-measures.pdf>

ambiance purposes. The Basin includes densely populated areas where residential chimneys could be affixed near neighboring properties. The close proximity of neighboring chimneys increases the likelihood that individuals may inhale harmful smoke from nearby wood-burning.

Multiple Air Toxics Exposure Study V (MATES V) is a monitoring and evaluation study conducted in the Basin. Monitoring data collected as part of MATES V were used to provide information on the levels and risks associated with air toxics. Particulate species, including levoglucosan, were measured during sampling for MATES V. Levoglucosan is a widely used tracer of biomass burning contributions to atmospheric particulate loading. Levoglucosan has been historically shown to be present at very high concentrations in PM<sub>2.5</sub> emissions from both residential wood combustion and wildland biomass combustion, making it a robust indicator for key biomass burning processes in the Basin. Monitoring data from MATES V showed the highest levels of wood smoke during the wintertime, from November through February.<sup>2</sup>

## CLEAN AIR ACT REQUIREMENTS



**Figure 1-2: Map of South Coast AQMD Jurisdiction**

The federal Clean Air Act requires areas that do not meet a National Ambient Air Quality Standard (NAAQS) to develop and implement strategies to reduce emissions so that healthy levels of air quality can be achieved in a timely manner. The Basin's region, highlighted as the "South Coast" portion, in Figure 1-2 above, is in nonattainment of the 2012 annual PM<sub>2.5</sub> NAAQS. The strategy or attainment plan, along with other supporting elements, must be submitted to the United States Environmental Protection Agency (U.S. EPA) for its review and approval into the State

<sup>2</sup> South Coast AQMD. Appendix XII *mates-MATES V Final Report Biomass Burning Contribution to PM<sub>2.5</sub> (Levoglucosan Data Analysis)*.-- MATES V Final Report. [http://www.aqmd.gov/docs/default-source/planning/mates-v/appendixxii\\_final.pdf](http://www.aqmd.gov/docs/default-source/planning/mates-v/appendixxii_final.pdf)

Implementation Plan (SIP). Regions must develop SIPs to attain a NAAQS by specific dates or face the possibility of sanctions by the federal government and other consequences under the federal Clean Air Act. California also has air quality standards for PM<sub>2.5</sub> and under state law, the region is required to attain those standards as expeditiously as practicable.

In 1997, the U.S. EPA promulgated the NAAQS for PM<sub>2.5</sub> by setting an annual standard at 15 micrograms per cubic meter (µg/m<sup>3</sup>) and a 24-hour standard at 65 µg/m<sup>3</sup>. In 2006, the U.S. EPA strengthened the 24-hour PM<sub>2.5</sub> NAAQS from 65 µg/m<sup>3</sup> to 35 µg/m<sup>3</sup>. In 2012, the U.S. EPA revised the annual PM<sub>2.5</sub> NAAQS, lowering it to 12 µg/m<sup>3</sup> and further to 9 µg/m<sup>3</sup> in 2024.

As of May 2025, the Basin is in attainment with both the 24-hour and annual 1997 PM<sub>2.5</sub> NAAQS of 65 µg/m<sup>3</sup> and 15 µg/m<sup>3</sup>, respectively. In addition, the Basin meets the 24-hour 2006 PM<sub>2.5</sub> NAAQS based on monitoring data collected over the past several years. For the 2012 annual PM<sub>2.5</sub> NAAQS, the Basin is designated as a “serious” nonattainment area, with an attainment date of 2025.

Clean Air Act section 172(c)(9) requires contingency measures in the event that an area fails to meet reasonable further progress milestones or to attain the NAAQS by the specified attainment deadline. U.S. EPA, implementing regulations for particulate matter (40 CFR § 51.1014(a)), requires that these contingency measures take effect with minimal further action following a determination by the U.S. EPA that the area has failed: (1) to meet any approved reasonable further progress requirement, (2) to meet any approved quantitative milestone, (3) to submit a required quantitative milestone report, or (4) to attain the standard by the applicable attainment date.

Areas classified as “serious” nonattainment where an extension was requested for the area are required to demonstrate that the attainment plan includes the Most Stringent Measure (MSM) requirements under Clean Air Act section 188(e). MSM is defined as<sup>3</sup>:

*“The maximum degree of emission reduction that has been required or achieved from a source or source category in any other attainment plans or in practice in any other states and that can feasibly be implemented in the area seeking the extension.”*

### **SOUTH COAST AIR BASIN ATTAINMENT PLAN FOR 2012 ANNUAL PM<sub>2.5</sub> STANDARD (2024 PM<sub>2.5</sub> PLAN)**

Effective April 15, 2015, the U.S. EPA designated the Basin as a “moderate” nonattainment area for the 2012 annual PM<sub>2.5</sub> NAAQS with an attainment date of December 31, 2021.<sup>4</sup> In response, South Coast AQMD adopted the 2016 Air Quality Management Plan (AQMP) which concluded that meeting the 2021 deadline was impractical, and included a plan to attain the 2012 PM<sub>2.5</sub> NAAQS by 2025 as a “serious” nonattainment area. The 2016 AQMP was submitted to U.S. EPA in 2017, but U.S. EPA delayed acting on the plan. Meanwhile, near-road air quality monitoring data became eligible for inclusion in attainment demonstrations and the “serious” area plan was withdrawn in 2023 to account for this new data and to satisfy other planning requirements. Since adopting the 2016 AQMP, South Coast AQMD has implemented control measures and achieved emission reductions. However, due to unforeseen challenges, including unfavorable meteorology,

<sup>3</sup> Fine Particulate Matter National Ambient Air Quality Standards: State Implementation Plan Requirements, Federal Register, <https://www.federalregister.gov/d/2016-18768/p-1655-81> Fed. Reg. 58,010, 58,095 (Aug. 24, 2016), available at <https://www.federalregister.gov/d/2016-18768/p-1046>.

<sup>4</sup> Air Quality Designations for the 2012 Primary Annual Fine Particle (PM<sub>2.5</sub>) National Ambient Air Quality Standards (NAAQS), 80 Fed. Reg. 2206 (Jan. 15, 2015).

wildfires, increases in emissions in the goods movement sector during the COVID-19 pandemic, and the addition of the near-road monitors, the South Coast AQMD requested an extension of the attainment date under Clean Air Act section 188(e).

The federal Clean Air Act requires areas designated as being in nonattainment with the NAAQS to develop and implement an emissions reduction strategy that will bring the area into attainment at the soonest practicable time. For the South Coast AQMD, the strategies and underlying technical analysis for how the Basin will meet the 2012 annual PM<sub>2.5</sub> NAAQS as expeditiously as practicable is set forth in the South Coast Air Basin Attainment Plan for the 2012 Annual PM<sub>2.5</sub> NAAQS (2024 PM<sub>2.5</sub> Plan) since the Basin has been redesignated as a “serious” PM<sub>2.5</sub> nonattainment area for the 2012 annual PM<sub>2.5</sub> NAAQS and has not yet met attainment. The 2024 PM<sub>2.5</sub> Plan included:

- An attainment date extension request until 2030 for the 2012 annual PM<sub>2.5</sub> NAAQS;
- A demonstration of the proposed control strategy for implementation of the MSM that meets requirements of the federal Clean Air Act; and
- The anticipated annual emission reductions for certain proposed control strategies.<sup>5</sup>

The South Coast AQMD Governing Board adopted the 2024 PM<sub>2.5</sub> Plan in June 2024 to demonstrate how the Basin will meet the 2012 annual PM<sub>2.5</sub> NAAQS as expeditiously as practicable, but no later than December 31, 2030.

### **CONTROL MEASURE BCM-18: FURTHER EMISSION REDUCTIONS FROM WOOD-BURNING FIREPLACES AND WOOD STOVES**

Appendix IV-A of the 2024 PM<sub>2.5</sub> Plan<sup>6</sup> identifies the South Coast AQMD’s stationary source attainment strategy through source-specific control measures. Control measure BCM-18: Further Emission Reductions from Wood-Burning Fireplaces and Wood Stoves (BCM-18), identified in the 2024 PM<sub>2.5</sub> Plan, describes the strategy to seek further PM<sub>2.5</sub> emissions reductions from residential wood-burning activities. The control strategy is based on the 2024 PM<sub>2.5</sub> Plan MSM analysis that identified California air districts with wood-burning regulations that include more stringent measures than Rule 445. Table 1-2 includes a general comparison of California air district PM<sub>2.5</sub> wood-burning curtailment thresholds and exemptions to the respective rules. As noted in the table, other air districts such as San Joaquin Valley APCD Rule 4901 have more stringent measures than South Coast AQMD Rule 445 (lower PM<sub>2.5</sub> curtailment thresholds resulting in higher amounts of emission reductions). Therefore, Rule 445 is required to be amended to lower the PM<sub>2.5</sub> curtailment thresholds to be as stringent as other adopted regulations to meet federal Clean Air Act requirements to adopt the MSM.

In addition to lowering the Rule 445 PM<sub>2.5</sub> curtailment threshold, control measure BCM-18 proposes to remove the low-income exemption in Rule 445. A low-income household is identified as any household that receives financial assistance through reduced electric or gas bills from an electric or natural gas utility based on household income levels. Rule 445 currently allows low-income households to be exempt from the Basin-wide mandatory PM<sub>2.5</sub> curtailment. This would

<sup>5</sup> South Coast Air Basin Attainment Plan for the 2012 Annual PM<sub>2.5</sub> Standard. APPENDIX III South Coast AQMD’s Stationary and Mobile Source BACM/MSM. [https://www.aqmd.gov/docs/default-source/clean-air-plans/pm2.5-plans/final-pm2.5-plan/appendix-iii---bacm\\_msm.pdf](https://www.aqmd.gov/docs/default-source/clean-air-plans/pm2.5-plans/final-pm2.5-plan/appendix-iii---bacm_msm.pdf)

<sup>6</sup> South Coast Air Basin Attainment Plan for the 2012 Annual PM<sub>2.5</sub> Standard. APPENDIX IV-A South Coast AQMD’s Stationary and Mobile Source Measures. <https://www.aqmd.gov/docs/default-source/clean-air-plans/pm2.5-plans/final-pm2.5-plan/appendix-iv-a-control-measures.pdf>



allow an exempted household to operate a wood-burning device during an active No-Burn day. The removal of the low-income exemption in Rule 445 does not affect the other remaining exemptions. Households with no other source of heating than wood-burning are exempt from Rule 445 under the ‘sole source of heat’ exemption (located in subparagraph (i)(7)(A)).

**Table 1-1: Comparison of Most Stringent Measures**

Agency/ Rule	Applicability	Curtailment Threshold	Exemptions
South Coast AQMD <b>445</b>	All counties and wood-burning device types	29 $\mu\text{g}/\text{m}^3$	<ul style="list-style-type: none"> <li>• Ceremonial Fires Exempt Under South Coast AQMD Rule 444</li> <li>• Geographical Location <math>\geq 3,000</math> ft Above Mean Sea Level</li> <li>• No Natural Gas Service Within 150 ft</li> <li>• Sole Source of Heat</li> <li>• Low-Income Household</li> </ul>
San Joaquin Valley APCD <b>4901</b>	Counties of Madera, Fresno, and Kern Level 1 for all wood-burning device types except registered devices; Level 2 for all wood-burning device types	Level 1: 12 $\mu\text{g}/\text{m}^3$ Level 2: 35 $\mu\text{g}/\text{m}^3$	<ul style="list-style-type: none"> <li>• Cook stoves <del>Described</del> Defined in Title 40 of Code of Federal Regulations Sections 60.531</li> <li>• Exclusively Gaseous-Fueled Devices</li> <li>• Open Burning on the Ground Under San Joaquin Valley APCD Rule 4103</li> <li>• Sole Source of Heat</li> </ul>
	Counties of San Joaquin, Stanislaus, Merced, Kings, and Tulare Level 1 for all wood-burning device types except registered devices; Level 2 for all wood-burning device types	Level 1: 20 $\mu\text{g}/\text{m}^3$ Level 2: 65 $\mu\text{g}/\text{m}^3$	
Bay Area AQMD <b>Reg. 6 Rule 3</b>	All counties and wood-burning device types	35 $\mu\text{g}/\text{m}^3$	<ul style="list-style-type: none"> <li>• Non-functional, permanently installed heater</li> <li>• Loss of natural gas and/or electric power</li> <li>• Sole Source of Heat</li> </ul>

## REGULATORY HISTORY

### *Rule 445 – Wood-Burning Devices*

Rule 445 – Wood-Burning Devices was first adopted in March 2008 to implement BCM-03 of the 2007 AQMP. Rule 445 aimed to reduce PM<sub>2.5</sub> emissions from residential wood combustion. Rule provisions apply to manufacturers, vendors, commercial firewood sellers, and any persons owning or operating a wood-burning device.

The rule was first amended in May 2013 to implement control measures from the 2012 AQMP that would further reduce PM<sub>2.5</sub> emissions from wood-burning devices. The 2013 amendments expanded the wood-burning curtailment restrictions by lowering the curtailment threshold from

35 to 30  $\mu\text{g}/\text{m}^3$ , establishing criteria for Basin-wide curtailment, and setting labeling standards for commercially sold solid-fuel.

In 2020, South Coast AQMD amended Rule 445 twice to extend the No-Burn day requirement by mandating a Basin-wide curtailment in all cases where any source receptor area<sup>7</sup> exceeds a daily PM<sub>2.5</sub> air quality forecast of 30  $\mu\text{g}/\text{m}^3$ . Ozone and PM contingency measures were also added, including the establishment of new curtailment thresholds. Under the Rule 445 provisions, only gaseous-fueled hearth devices are allowed to be installed in new developments. For additions or modifications to existing developments, Rule 445 allows any gaseous-fueled device, but any wood-burning devices sold or installed must be U.S. EPA Phase II-certified or equivalent.

Rule 445 prohibits the burning of any product not intended for use as fuel (e.g., trash) in a wood-burning device and requires commercial firewood facilities to only sell seasoned (20 percent or less moisture content) firewood from July through February. Rule 445 also established a mandatory wood burning curtailment program extending from November 1 through the end of February each winter season. During a wood-burning curtailment period, the public is required to refrain from both indoor and outdoor solid fuel burning when PM<sub>2.5</sub> air quality is forecasted to exceed 30  $\mu\text{g}/\text{m}^3$ . The No-Burn provisions apply to the entire Basin whenever a PM<sub>2.5</sub> level of greater than 30  $\mu\text{g}/\text{m}^3$  is forecasted for any area of the Basin. In 2021, the No-Burn threshold was reduced to 29  $\mu\text{g}/\text{m}^3$ , when the first contingency measure in the rule was triggered due to a failure to attain the PM<sub>2.5</sub> 24-hour NAAQS by the due date. Lastly, Rule 445 requires commercial firewood or other wood-based fuel sellers to notify the public of the Check Before You Burn wood-burning curtailment program through a labeling requirement. Commercial firewood sellers are to attach a permanently affixed indelible label to each package of firewood advising consumers that there are times during the year when there may be a restriction on product usage (referring to No-Burn days during the wood-burning season).

To ensure that the public and other stakeholders are aware of the wood-burning curtailment requirements, extensive outreach is conducted each year through the following efforts:

- South Coast AQMD Check Before You Burn web page with program information including links, videos, and the Check Before You Burn map
- Advisories on No-Burn days
- text and email notifications
- toll-free number (866) 966-3293
- news pitches to local news desks
- press interviews
- official National Weather Service notifications
- social media (Facebook, X, and Instagram)

Households that qualify for one or more of the Rule 445 exemptions may operate a wood-burning device during an active No-Burn day. Exemptions are included for low-income households, where the wood-burning device is the sole source of heating or no natural gas service is available within 150 feet of the property line, geographic elevations 3,000 feet or higher above mean sea level, and for ceremonial fires that are defined in Rule 444 – Open-Burning.

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<sup>7</sup> Source Receptor Areas are geographical areas in the South Coast Air Basin used for forecasting air quality conditions.

## NEED FOR PROPOSED AMENDED RULE 445

As the South Coast Air Basin is in “serious” nonattainment for the 2012 annual PM<sub>2.5</sub> NAAQS and South Coast AQMD is seeking an extension of the attainment deadline, the Basin is required to meet the MSM requirement. Four source categories, including residential wood-burning, were identified in the 2024 PM<sub>2.5</sub> Plan where rule amendments are needed to meet MSM.<sup>8</sup> Control measure BCM-18 seeks additional emission reductions through reducing the Basin-wide curtailment threshold in Rule 445 from 29 µg/m<sup>3</sup> to 25 µg/m<sup>3</sup> on any day during the wood-burning season. To satisfy contingency measure requirements, South Coast AQMD proposes to further reduce the curtailment threshold to 23 µg/m<sup>3</sup> and 21 µg/m<sup>3</sup> upon any of the aforementioned applicable triggering events. Also as discussed earlier in this chapter, control measure BCM-18 proposes to remove the low-income exemption in Rule 445 due to a MSM analysis. The MSM analysis identified other air districts included more stringent measures than Rule 445 by achieving a greater emission reduction due to curtailment and not exempting low-income households.

## AFFECTED INDUSTRY

Rule 445 applies to any person that manufactures, sells, offers for sale, or supplies a wood-burning device; any commercial firewood seller that sells, offers for sale, or supplies wood or other wood-based fuels intended for burning in a wood-burning device; and any property owner or tenant that operates a wood-burning device. An estimated 1.4 million<sup>9</sup> wood-burning devices are subject to the provisions of Rule 445. While the number of affected sources is not anticipated to change greatly since wood-burning devices have lengthy useful lifetimes and since Rule 445 prohibits the installation of wood-burning devices in new developments, emission reductions will be achieved by decreasing the number of days that the devices can be operated. Households that are categorized as low-income and which are currently exempted from Rule 445 may be affected by the removal of the low-income exemption; however, some low-income households may qualify for a different exemption instead (e.g., the ‘sole source of heat’ exemption).

## PUBLIC PROCESS

The development of PAR 445 has been conducted through a public process. A PAR 445 Working Group was formed to allow the public and stakeholders to discuss details of the proposed rule amendment and provide South Coast AQMD staff with input during the rule development process. South Coast AQMD has held two Working Group Meetings via Zoom videoconference and teleconference. The meetings were held on December 17, 2024 and April 2, 2025. A Public Workshop was held on May 20, 2025, via Zoom to present the preliminary draft rule language for PAR 445 and receive public comment. A Stationary Source Committee meeting was held on June 20, 2025 to present an overview of the proposed rule amendments.

<sup>8</sup> South Coast Air Quality Management District, South Coast Air Basin Attainment Plan for the 2012 Annual PM<sub>2.5</sub> Standard, June 2024.

Available <https://www.aqmd.gov/docs/default-source/clean-air-plans/pm2.5-plans/final-pm2.5-plan/2012-annual-pm2.5-plan.pdf>

<sup>9</sup> James E. Houck and Brian N. Eagle, “Residential Wood Combustion Emission Inventory South Coast Air Basin and Coachella Valley Portion of Salton Sea Air Basin 2002 Base Year”. October 24, 2006. <http://www.omni-test.com/publications/SCAQMD-RWC4.pdf>

## **CHAPTER 2 - SUMMARY OF PROPOSED AMENDED RULE 445**

## OVERALL APPROACH

PAR 445 addresses the federal Clean Air Act’s MSM requirements by removing the low-income household exemption and lowering the mandatory wood-burning curtailment threshold and respective contingency measures. An exemption to address instances of damage or destruction from a natural disaster will be added. The sole source of heat definition will be clarified. For this chapter, when referring to PAR 445-specific terms that are defined in the rule language, the terminology will be capitalized.

The following is a summary for the proposed amendments to Rule 445.

### *Definitions – Subdivision (b)*

#### *Fireplace, Wood-Based Fuel, and Wood-Fired Cooking Device*

As discussed in the staff reports of prior amendments to Rule 445, charcoal, commonly used for cooking in the Basin, was intended to be excluded from No-Burn day requirements as emissions from a charcoal-based cooking fire are lower than those from wood-based cooking fire. This is due to charcoal being previously burned wood that has already been subject to the initial high emission wood burn rate.<sup>10, 11</sup> PAR 445 clarifies this intent by revising the definitions for Fireplace, Wood-Based Fuel, and Wood-Fired Cooking Device.

PAR 445 clarifies the definition of Fireplace by adding “can be” to the term “used for”. A Fireplace is primarily used for aesthetic or space-heating purposes, however, clarification is needed for when a Fireplace is being used for cooking purposes. The addition of “can be” removes the need for assessing the current activity of the device. The implementation and enforcement of No-Burn day requirements would remain the same, where observations of smoke or other indicators of operations of Fireplaces is evidence of a violation of a No-Burn day. A device that can be used for aesthetic or space-heating purposes would be considered a Fireplace regardless of the purpose of the operation.

PAR 445 clarifies the definition of Wood-Based Fuel by limiting the exclusion of charcoal as a Wood-Based Fuel to be when it is used in a Wood-Fired Cooking Device, such as an outdoor grill or Cookstove. If charcoal is used in other devices (e.g., Portable Outdoor Wood-Burning Device, Wood-Burning Device, Wood-Burning Heater), it would be considered a Wood-Based Fuel and the respective device would be subject to the requirements of this rule. For example, a Fireplace, which meets the definition as a Wood-Burning Device, would remain subject to No-Burn day requirements even if using charcoal for cooking.

The current Rule 445 language inadvertently prohibits use of charcoal in Wood-Fired Cooking Devices during No-Burn days. In the current Rule 445 definition, a Wood-Fired Cooking Device that is “designed for” burning Wood-Based Fuel for cooking purposes is subject to No-Burn day requirements. Thus, cooking devices “designed for” multiple types of fuel (e.g. wood, wood pellets or charcoal), are subject to No-Burn requirements even if only charcoal is being used. By deleting “designed for” in the definition of Wood-Fired Cooking Device, whether No-Burn day requirements apply depend on the type of fuel being used. A cooking device burning charcoal to

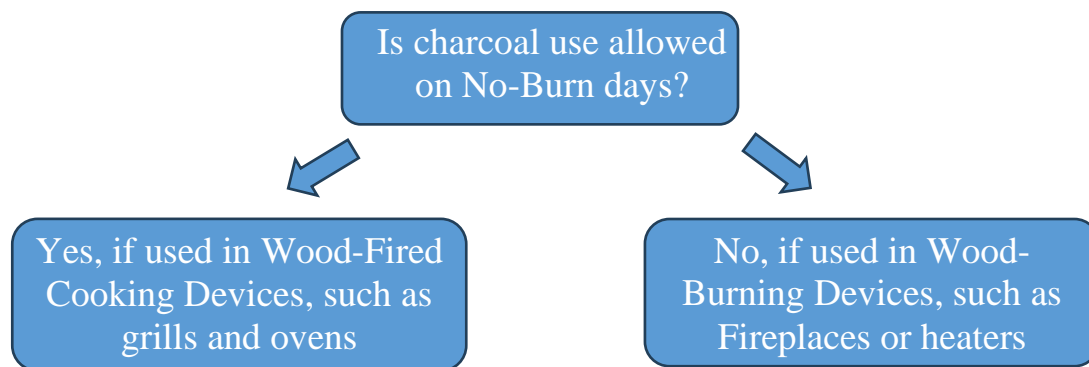
<sup>10</sup> South Coast Air Quality Management District, Final Staff Report Proposed Amended Rule 445 - Wood-Burning Devices Proposed Amended Rule 444 - Open Burning (May 2013) A-4-A-5 (2013).

<sup>11</sup> AP 42, Fifth Edition Compilation of Air Pollutant Emission Factors, Volume 1: Stationary Point and Area Sources. United States Environmental Protection Agency - Air Emissions Factors and Quantification. (n.d.). <https://www.epa.gov/sites/default/files/2020-10/documents/c10s07.pdf>

cook will not be subject to No-Burn day requirements even if it is designed to also burn firelogs, wood, or pellets (Wood-Based Fuel).

Additionally, PAR 445 specifies that Wood-Fired Cooking Device excludes Wood-Burning Devices, such as Fireplaces or heaters. The primary or typical purpose of a Wood-Burning Device is for aesthetics or heat, not cooking. In other words, for example, making smores in a Fireplace would not transform the Fireplace into a cooking device.

Considering the proposed exclusion of Wood-Burning Device from the definition of Wood-Fired Cooking Device alongside the proposed revisions to the definition of Wood-Based Fuel makes clear: charcoal is not considered a Wood-Based Fuel when used for cooking in a Wood-Fired Cooking Device; it is considered a Wood-Based Fuel when used in a Wood-Burning Device. Thus, a Wood-Burning Device, such as a Fireplace, using charcoal would be subject to No-Burn day requirements.



### ***Low-Income Household***

The definition of low-income household will be removed.

### ***PM2.5***

The definition of PM2.5 will be corrected to align with the definition of PM10 in other South Coast AQMD rules, i.e. Rule 1157 — ~~PM10 Emission Reductions from Aggregate and Related Operations~~, and other uses of the term PM2.5 in other regulatory publications. The correction will be made to include particulate matter that is not only less than 2.5 microns in diameter, but also equal to 2.5 microns in diameter.

### ***Sole Source of Heat***

PAR 445 will clarify the definition of a household that uses a wood-burning device as a sole source of heat. A wood-burning device that is used as a Sole Source Of Heat during the wood-burning season includes when the wood-burning device is used during temporary service outages as determined by the gas or electrical utility service. When a Notice of Violation is sent to a noncompliant residential household, the respondent may provide a screenshot, email, or copy of the temporary service outage from the gas or electrical utility provider as evidence of the Wood-Burning Device being used as a Sole Source Of Heat during the alleged noncompliant occurrence. ~~If the respondent is unable to provide such evidence themselves, the claimant investigator will request an inquiry ask the respective gas or electrical utility provider about past service outages from the respective gas or electrical utility provider.~~

***Source Receptor Area***

The definition of a source receptor area will be removed as No-Burn days are no longer called by source receptor areas and are basin-wide.

***Wood-Burning Season PM<sub>2.5</sub> Mandatory Burning Curtailment – Subdivision (e)***

Paragraph (e)(1) will lower the mandatory wood-burning curtailment threshold from 29  $\mu\text{g}/\text{m}^3$  to 25  $\mu\text{g}/\text{m}^3$ . As discussed in Chapter 1, this amendment is required to satisfy the MSM requirements and meet the NAAQS as expeditiously as practicable, but no later than December 31, 2030. Lowering the curtailment threshold will allow for additional emission reductions in the Basin, which are discussed in Chapter 3.

***PM<sub>2.5</sub> Contingency Measures – Subdivision (f)***

This subdivision establishes requirements for applicable households to comply with the Basin-wide, mandatory wood-burning curtailment contingency measures. Subparagraph (f)(2)(A) will lower the contingency curtailment threshold from 29  $\mu\text{g}/\text{m}^3$  to 23  $\mu\text{g}/\text{m}^3$ . Subparagraph (f)(2)(B) will lower the contingency curtailment threshold from 28  $\mu\text{g}/\text{m}^3$  to 21  $\mu\text{g}/\text{m}^3$ .

***Exemptions – Subdivision (i)***

The exemption from the mandatory PM<sub>2.5</sub> and ozone wood-burning curtailments applicable to low-income households in subparagraph (i)(8)(B) will be removed as it does not adhere to the MSM requirements. Although low-income households will no longer be eligible for an exemption from the mandatory curtailments, several other exemptions will remain in the rule. In particular, many households which would previously qualify for the low-income exemption may also qualify for the Sole Source Of Heat exemption.

A large number of residential properties in the Basin have been destroyed due to large scale natural disasters, including wildfires and earthquakes. To allow property owners a limited opportunity to replace a Wood-Burning Device that was initially installed consistent with Rule 445, but lost due to extraordinary circumstances beyond their control, paragraph (i)(4) will exempt a Wood-Burning Device from the provisions of paragraphs (d)(1) and (d)(2), provided the previously installed Wood-Burning Device at the property had been damaged or destroyed by a natural disaster declared as a State of Emergency as defined in Rule 118. Only Wood-Burning Devices that were lawfully built, including installation prior to Rule 445's New Development prohibition, prior to the occurrence of the natural disaster are eligible to be replaced.

As the size of the Wood-Burning Device increases, the emission potential increases due to an increased throughput potential. However, if the Wood-Burning Device replaces a previously installed device, the emission potential is not expected to increase. These developments would still be subject to other requirements of Rule 445, including but not limited to, a mandatory wood-burning curtailment being called.

***Penalties – Subdivision (k)***

This subdivision establishes requirements for violators of subdivision (e) who violate the mandatory wood-burning curtailment. This subdivision regarding penalties for violating the rule will be removed to allow South Coast AQMD to resolve each violation of subdivision (e) on a

case-by-case basis, which is consistent with how violations of other South Coast AQMD rules are resolved.



## **CHAPTER 3 - IMPACT ASSESSMENT**

## EMISSIONS AND EMISSION REDUCTIONS

According to the 2016 AQMP, emissions were 4.9 tons per annual average day from this source category. Since 69% of emissions occurred during the wood-burning season, emissions during that period were estimated at 12.99 tons per wood-burning season day. Annual average day is a term that refers to the number of wood-burning days occurring within 365 days (e.g., within the entire calendar year). Wood-burning season day is a term which refers to the number of wood-burning days occurring within the 120-day wood-burning season. Following the adoption of the 2016 AQMP, the 2020 amendments to Rule 445 led to further emission reductions of 0.07 and 0.13 tons per annual average day. As such, the baseline emissions relied upon for this analysis are 4.7 tons per annual average day.

### *Lower Curtailment Threshold*

A detailed methodology<sup>12</sup> based on a statistical analysis of relevant historical daily PM<sub>2.5</sub> concentrations in the Basin is used to estimate PM<sub>2.5</sub> emission reductions from the proposed rule amendment. The emissions from the 2020 rule amendments were used as a baseline for PAR 445. The methodology evaluates the PM<sub>2.5</sub> emission reductions associated with the increased number of No-Burn days when the curtailment threshold is lowered. Table 3-1 shows the additional emission reductions that would occur if the curtailment threshold is reduced to 25 µg/m<sup>3</sup> and for each of the subsequent proposed reductions in the curtailment threshold. Under the proposed amendments, the curtailment will be implemented Basin-wide when the daily PM<sub>2.5</sub> air quality forecast for any area of the Basin exceeds 25 µg/m<sup>3</sup>.

**Table 3-1: Expected PM<sub>2.5</sub> Emission Reductions Due to Lower Curtailment Threshold**

Category	Curtailment Threshold (µg/m <sup>3</sup> )	Curtailed Emissions (tons per year)	Estimated Emission Reductions (tons per year)	Estimated Emission Reductions With 75% Rule Effectiveness	
				(tons per annual average day)	(tons per wood-burning season day)
Current Rule	29	342.0	-	-	-
PAR 445	25	462.0	120.0	0.25	0.75
	23	578.1	236.1	0.49	1.48
	21	645.2	303.2	0.62	1.90

Based on historical data from 2019 to 2023, lowering the existing Rule 445 curtailment threshold from 29 µg/m<sup>3</sup> to 25 µg/m<sup>3</sup> could result in an approximate 38% increase in the number of No-Burn days (approximately 10 additional days)<sup>13</sup> during the wood-burning season. Lowering the mandatory Basin-wide curtailment threshold to 25 µg/m<sup>3</sup> could reduce Basin-wide ambient PM<sub>2.5</sub> emissions by about 0.25 tons per annual average day, assuming a 75% rule effectiveness, which is consistent with prior Rule 445 amendments. When the first contingency measure is triggered, the curtailment threshold will automatically decrease from 25 to 23 µg/m<sup>3</sup> resulting in an estimated

<sup>12</sup> South Coast Air Basin Attainment Plan for the 2012 Annual PM<sub>2.5</sub> Standard. APPENDIX III South Coast AQMD's Stationary and Mobile Source BACM/MSM. [https://www.aqmd.gov/docs/default-source/clean-air-plans/pm2.5-plans/final-pm2.5-plan/appendix-iii---bacm\\_msm.pdf](https://www.aqmd.gov/docs/default-source/clean-air-plans/pm2.5-plans/final-pm2.5-plan/appendix-iii---bacm_msm.pdf)

<sup>13</sup> South Coast Air Basin Attainment Plan for the 2012 Annual PM<sub>2.5</sub> Standard. APPENDIX III South Coast AQMD's Stationary and Mobile Source BACM/MSM. [https://www.aqmd.gov/docs/default-source/clean-air-plans/pm2.5-plans/final-pm2.5-plan/appendix-iii---bacm\\_msm.pdf](https://www.aqmd.gov/docs/default-source/clean-air-plans/pm2.5-plans/final-pm2.5-plan/appendix-iii---bacm_msm.pdf)

additional emission reduction of 0.24 ton per annual average day and approximately 9 additional No-Burn days. While it is not anticipated that any additional contingency measures will be triggered, if that occurs, additional emission reductions are anticipated as the curtailment threshold is lowered, as shown in Table 3-1. It should be noted that while limiting residential wood-burning activities is primarily intended to reduce PM<sub>2.5</sub> emissions, there is an added co-benefit of reducing emissions of CO, VOC, NO<sub>x</sub>, SO<sub>x</sub>, and hazardous air pollutants and further reducing ambient levels of ozone.

### ***Removal of Low-Income Exemption***

Among approximately 17 million<sup>14</sup> residents in the Basin, approximately 1.3 million<sup>15</sup> households in the Basin participate in a program that considers household income levels, such as CARE or FERA, to receive financial assistance through reduced electric or gas bills from an electric or natural gas utility. However, the number of households in the Basin that actually utilize the low-income exemption during an episodic No-Burn day is unknown. Due to the high levels of uncertainty, emission reductions for the removal of the low-income exemption cannot be accurately quantified at this time and will be ~~updated~~reflected in future emission inventories.

### ***Addition of Natural Disaster Exemption***

The replacement of a previously standing or existing wood-burning device that has been destroyed or damaged due to a natural disaster declared as a state of emergency is not expected to produce additional PM<sub>2.5</sub> emissions nor emission reductions. Only properties that previously had an existing wood-burning device prior to the event of the natural disaster would be eligible for this exemption. As the new Wood-Burning Device ~~is~~ replaces a previously installed device, the emission potential is not expected to increase. In addition, these Wood-Burning Devices are still subject to No-Burn days, thus, it would not affect the emission reductions achieved by other proposed amendments.

## **COST AND COST EFFECTIVENESS**

### ***Compliance Costs***

The proposed amendments to Rule 445 would increase the number of No-Burn days in the Basin and could potentially result in the loss of sales by affected firewood sellers. ~~The majority of commercial firewood sellers are expected to be small businesses.~~ A lack of data on the number of employees and gross annual sales of the affected commercial firewood sellers precludes staff from determining their small business status. However, the increase in number of No-Burn days is expected to be very small (approximately 10 days) and is anticipated to decrease as PM<sub>2.5</sub> air quality improves. As a result, the cost impacts of curtailment on firewood sellers are expected to be minimal. No additional cost impacts to the general public are expected to be incurred as residential wood-burning in the Basin is done mainly for ambiance and aesthetic purposes. Additionally, there are cost-effective alternatives to wood-burning for space heating purposes. Eligible residents could use incentives provided by the South Coast AQMD and switch existing wood-burning devices to less polluting, cost-effective alternatives such as gaseous-fueled or electrical heating devices. Incentives through South Coast AQMD's Wood Stove and Fireplace

<sup>14</sup> 2023: ACS 1-year Estimates Subject Table. United States Census Bureau.  
<https://data.census.gov/table/ACSST1Y2023.S0101?g=050XX00US06037,06059,06065,06071&y=2023>

<sup>15</sup> Annual Report of Southern California Gas Company (U 904 G) on Low Income Assistance Programs for 2022. Energy Savings Assistance Program and California Alternate Rates for Energy Program Annual Report. <https://liob.cpuc.ca.gov/wp-content/uploads/sites/14/2023/06/SoCalGas-PY2022-Low-Income-Annual-Report.pdf>

Changeout Incentive Program are available for eligible residents residing in the Boyle Heights area, Norco/Corona area, Chino/Ontario/Corona area, City of San Bernardino area, and City of Riverside area. Wood-burning devices that are the sole source of heat for a dwelling or structure are specifically exempted from the No-Burn mandate.

### ***Cost Effectiveness***

Cost-effectiveness is the cost to benefit analysis comparing the relative cost to the outcomes. The cost effectiveness of PAR 445 has not been determined. Increasing the number of Rule 445 curtailment days would result in relatively minimal cost impacts to the affected communities as there are cost-effective alternatives to burning wood such as gaseous-fueled or electrical heating devices. Additionally, the proposed amendments do not change existing mandatory curtailment exemptions provided for households that utilize the wood-burning device as a sole source of heat.

### ***Incremental Cost Effectiveness***

Health and Safety Code Section 40920.6(a)(3) requires the South Coast AQMD to perform an incremental cost effectiveness analysis prior to adopting rules to meet the requirements for a Best Available Retrofit Control Technology (BARCT) rule, or to implement feasible measures pursuant to use of an alternative emission reduction strategy under Health and Safety Code Section 40914. This Section does not apply to particulate matter. (Health and Safety Code Section 40910.) PAR 445 is not being adopted to meet a BARCT requirement nor is it being adopted as a feasible measure pursuant to an alternative reduction strategy under Health and Safety Code Section 40914. Therefore, an incremental cost-effectiveness analysis is not needed.

## **CALIFORNIA ENVIRONMENTAL QUALITY ACT**

Pursuant to the California Environmental Quality Act (CEQA) Guidelines Sections 15002(k) and 15061, the proposed project (PAR 445) is exempt from CEQA pursuant to CEQA Guidelines Sections 15061(b)(3) and 15308. Further, there is no substantial evidence indicating that the exceptions set forth in CEQA Guidelines Section 15300.2 apply to the proposed project. A Notice of Exemption ~~will~~ has been prepared pursuant to CEQA Guidelines Section 15062, and 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, and with the State Clearinghouse of the Governor's Office of Land Use and Climate Innovation.

## **SOCIOECONOMIC IMPACT ASSESSMENT**

PAR 445 would lower the curtailment threshold of 29  $\mu\text{g}/\text{m}^3$  to 25  $\mu\text{g}/\text{m}^3$ , which is expected to reduce PM<sub>2.5</sub> emissions by 0.25 ton per annual average day. PAR 445 would potentially affect commercial firewood sellers in the Basin and the general public who use wood-burning fireplaces and other wood-burning devices by restricting the burning of firewood in these devices during a mandatory wood-burning curtailment (No-Burn) day. The additional number of No-Burn days that may occur as a result of making the curtailment threshold in PAR 445 more stringent is expected to be relatively small (about 10 days) during the wood-burning season.

The cost impacts of Basin-wide curtailment on commercial firewood sellers are expected to be minimal because PAR 445 only restricts the burning of firewood without restricting the sale of firewood during curtailment events. Commercial firewood sellers belong to the industry of fuel dealers with a North American Industry Classification System (NAICS) 454319. ~~While the majority of commercial firewood sellers are expected to be small businesses, Since~~ However,

data on the number of employees and gross annual sales of commercial firewood sellers is not available; thus, the small business status of the affected commercial firewood sellers cannot be determined. -

Cost impacts to the general public as a result of PAR 445 are also expected to be minimal because wood-burning in the South Coast AQMD jurisdiction is done mainly for aesthetic purposes. Also, the removal of the low-income exemption is not expected to result in any cost impacts because there are other, more cost-effective alternatives to burning wood for heating regardless of whether a No-Burn day has been issued. Lastly, for residential or commercial properties where a wood-burning device is the sole source of heat, PAR 445 does not propose any changes to the existing exemption.

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

### ***Requirements to Make Findings***

Health and Safety Code Section 40727 requires that prior to adopting, amending, or repealing a rule or regulation, the South Coast AQMD 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.

### ***Necessity***

PAR 445 is needed to reduce PM2.5 emissions by implementing control measure BCM-18: Further Emission Reductions from Wood-Burning Fireplaces and Wood Stoves from the 2024 South Coast Air Basin PM2.5 Attainment Plan for the 2012 Annual PM2.5 Standard, implementing the Most Stringent Measures for PM2.5 to comply with the federal Clean Air Act, and adopting PM2.5 contingency measure provisions.

### ***Authority***

The South Coast AQMD Governing Board has authority to adopt PAR 445 pursuant to the Health and Safety Code Sections 39002, 40000, 40001, 40440, 40702, 40725 through 40728, and 41508.

### ***Clarity***

PAR 445 is written or displayed so that its meaning can be easily understood by the persons directly affected by it.

### ***Consistency***

PAR 445 is in harmony with and not in conflict with or contradictory to, existing statutes, court decisions, or state or federal regulations.

### ***Non-Duplication***

PAR 445 will not impose the same requirements as any existing state or federal regulations. The proposed amended rule is necessary and proper to execute the powers and duties granted to, and imposed upon, South Coast AQMD.

***Reference***

By adopting PAR 445, the South Coast AQMD Governing Board will be implementing, interpreting, and making specific provisions of the Health and Safety Code Section 40001 (rules to achieve ambient air quality standards) and 40440(a) (rules to carry out the AQMP), and federal Clean Air Act Sections 188(e) for Most Stringent Measures and 172(c)(9) for contingency measure requirements for PM<sub>2.5</sub>.

**COMPARATIVE ANALYSIS**

Under Health and Safety Code Section 40727.2, South Coast AQMD is required to perform a comparative written analysis when adopting, amending, or repealing a rule or regulation. The comparative analysis is relative to existing federal requirements, existing or proposed South Coast AQMD rules and air pollution control requirements and guidelines which are applicable to wood-burning devices. The proposed amendments to Rule 445 would not conflict or overlap with existing federal requirements for PM<sub>2.5</sub> for wood-burning devices in U.S. EPA's New Source Performance Standards, 40 CFR Part 60, Subpart AAA. The only other South Coast AQMD rule pertaining to burning, Rule 444, regulates open burning and does not conflict with or have any overlapping requirements with the proposed amendments to Rule 445. See Table 3-2 for the comparative analysis by rule element.

**Table 3-2: PAR 445 Comparative Analysis**

<b>Rule Element</b>	<b>PAR 445</b>	<b>U.S. EPA NSPS 40 CFR Part 60, Subpart AAA</b>
<b>Purpose</b>	To reduce the emission of particulate matter from wood-burning devices.	To establish the best system of emission reduction for new residential wood heaters.
<b>Applicability</b>	Manufacturers, sellers, installers of wood-burning devices; commercial firewood sellers; owners or operators of wood-burning devices.	Manufacturers, sellers, testers, owners, installers and operators of wood heaters.
<b>New Installations</b>	Prohibits permanent installation of wood-burning devices into any new development.	None
<b>Proposed Changes</b>	<p>Lowers the curtailment threshold; Removes the low-income exemption; Exempts wood-burning devices replaced due to damages from a natural disaster declared as a State of Emergency as defined in Rule 118.</p>	None
<b>Wood-Burning Devices Offered For Sale / Manufactured / Installed</b>	<p>Prohibits sale, offer, supply, or offer to install indoor or outdoor wood-burning device unless:</p> <ul style="list-style-type: none"> <li>• A U.S. EPA Certified wood-burning heater; or</li> <li>• A pellet-fueled woodburning heater; or</li> <li>• A masonry heater; or</li> <li>• A dedicated gaseous fueled fireplace.</li> </ul>	Establishes manufacturer certification; requires certified manufacture in some instances.

<b>Prohibited Fuel</b>	<p>Prohibits burning any product not intended for use as fuel in a wood-burning device including, but not limited to:</p> <ul style="list-style-type: none"> <li>• garbage</li> <li>• treated wood</li> <li>• particle board</li> <li>• plastic products</li> <li>• rubber products</li> <li>• waste petroleum products</li> <li>• paints coatings or solvents</li> <li>• coal</li> </ul>	<p>Prohibits burning in an affected wood heater:</p> <ul style="list-style-type: none"> <li>• Residential or commercial garbage;</li> <li>• Lawn clippings or yard waste;</li> <li>• Materials containing rubber, including tires;</li> <li>• Materials containing plastic;</li> <li>• Waste petroleum products, paints or paint thinners, or asphalt products;</li> <li>• Materials containing asbestos;</li> <li>• Construction or demolition debris;</li> <li>• Paper products, cardboard, plywood, or particleboard. The prohibition against burning these materials does not prohibit the use of fire starters made from paper, cardboard, sawdust, wax and similar substances for the purpose of starting a fire in an affected wood heater;</li> <li>• Railroad ties, pressure treated wood or pallets;</li> <li>• Manure or animal remains;</li> <li>• Salt water driftwood or other previously salt water saturated materials;</li> <li>• Unseasoned wood;</li> <li>• Any materials that are not included in the warranty and owner's manual for the subject wood heater; or</li> <li>• Any materials that were not included in the certification tests for the subject wood heater.</li> </ul>
<b>Operating Parameters</b>	Wood-burning devices may not be used when a No-Burn day is declared.	The user of an affected residential wood heater must operate in a manner consistent with the owner's manual. The owner's manual must clearly specify that operation in a manner inconsistent with the owner's manual would avoid the warranty.
<b>Monitoring, Reporting, Recordkeeping</b>	None	None



## **CHAPTER 4 – COMMENTS AND RESPONSE TO COMMENTS**

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**PUBLIC COMMENTS AND RESPONSES**

A PAR 445 public workshop was held on May 20, 2025. In addition to the oral comments at the meeting, staff received written comments for PAR 445 during a comment period that closed on June 3, 2025. The following are responses to these written comments, followed by South Coast AQMD responses.

## **TABLE OF CONTENTS**

1. Hearth, Patio and BBQ Association, Pacific Affiliate Comment Email (5/28/2025)
2. Kurt Burchtold Comment Email (6/2/2025)

Hello Ms. Dang,

I am writing on behalf of the Hearth, Patio and BBQ Association, Pacific Affiliate.

We have appreciated being part of your Rule 445 workshops over the last several weeks.

On the last workshop, you had indicated that those who had been affected by the recent wildfires were able to put the exact same fireplace/unit that they previously had in their home when rebuilding. I want to make sure we heard that correctly. Do you have a document that speaks to this? We would like to share this information with our members.

1-1

Thank you,

Kaity

Kaity Van Amersfort, Executive Director

HPBA Pacific

Serving California, Nevada, & Hawaii

231 E. Alessandro Blvd. #A650

Riverside, CA 92508

626-510-4085 Cell

[www.hpbapacific.org](http://www.hpbapacific.org)

*HPBA Pacific is working hard on member value and creating positive outcomes!*

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***Response to Hearth, Patio and BBQ Association, Pacific Affiliate Comment Email, submitted May 28, 2025***

- 1-1 Response: The Draft Rule Language and Draft Staff Report can be found on the proposed rule page (<https://www.aqmd.gov/home/rules-compliance/rules/scaqmd-rule-book/proposed-rules/rule--445>). The documents include the proposed exemption that would allow the replacement of wood-burning device damaged or destroyed due to a natural disaster declared as a State of Emergency defined in South Coast AQMD Rule 118.

June 2, 2025

Ashley Dang, Air Quality Specialist

South Coast Air Quality Management District

[adang@aqmd.gov](mailto:adang@aqmd.gov)

#### COMMENTS ON PAR 445

Ms. Deng,

Thank you for the opportunity to provide comments on Proposed Amendment of Rule (PAR) 445. These comments are in follow-up to my oral comments at the Public Workshop held on May 20, 2025. I appreciate the efforts of South Coast Air Quality Management District (SCAQMD) to propose amendments to this rule to help to address our serious air quality issues with PM<sub>2.5</sub>. As a former Executive Officer of the Santa Ana Regional Water Quality Control Board, I recognize both the importance and challenges of this work. I have the following comments on the current draft amendment of Rule 445:

1. **“No burn day” curtailments should be imposed year-round based on appropriate air quality triggers.** As noted in the staff presentation at the Public Workshop, wood burning in the South Coast Basin is “primarily for aesthetic and ambiance purposes.” As such, burning of wood is not dependent on weather conditions and is not limited to the wood-burning season as currently defined. While air quality data suggest that wood burning is more common in the winter months, it is clear that wood burning also occurs at other times of the year. Speakers at the Public Workshop described the negative health and air quality impacts of wood burning that occurs frequently throughout the year. Thus, there would be air quality benefits to curtailing wood burning any time air quality conditions warrant, regardless of time of year. There would also not be any significant adverse impacts to additional curtailments throughout the year. I noted that the Bay Area AQMD currently imposes curtailments year-round. While there are climatic differences between the two basins, as noted above wood burning is not directly related to weather conditions and therefore should be reduced year-round.
2. **SCAQMD should consider additional regulatory measures to reduce PM<sub>2.5</sub> emissions due to wood burning.** The South Coast Basin currently suffers from some of the worst PM<sub>2.5</sub> air quality in the country and is in serious non-attainment for PM<sub>2.5</sub>. It is clear that aggressive actions will be needed to address our problem with PM<sub>2.5</sub>, meet air quality standards, and protect the health of our residents. Burning of wood in the South Coast Basin is a non-essential activity. The aesthetic and ambiance benefits provided by the burning of wood can be achieved via the use of gaseous-fueled devices or these devices can be eliminated entirely. Given this, SCAQMD should consider further restrictions on existing (pre-2009) wood-burning devices, possibly including full prohibition of those devices. In particular, existing, outdoor wood-burning devices are a

2-1

2-2

category that should be prohibited entirely. These devices are more likely to be used year-round (since it is clear they are used solely for aesthetic and ambiance purposes), may be installed closer to property lines, and may have lower chimney heights, creating significant adverse air quality and health impacts on neighboring residents and properties. While fire prevention is not SCAQMD's jurisdiction, I am also concerned about fire risks associated with this category of wood-burning devices. There are no significant adverse impacts associated with prohibiting these outdoor devices. I am familiar with an outdoor wood-burning device in my neighborhood that is in frequent use (approximately three times per week) for at least nine months of the year. I believe that similar use of outdoor wood-burning devices is likely common throughout the South Coast Basin. Given our serious air quality problems with PM<sub>2.5</sub>, the known adverse health effects of PM<sub>2.5</sub>, and the challenges in meeting air quality standards, emissions from this category of device are entirely unjustified and must be eliminated.

2-2

Thank you for considering these comments and for your work on this important amendment. Please contact me if you have any questions.

Kurt Berchtold  
5584 Inner Circle Dr.  
Riverside, CA 92506  
951-346-6028  
[kberchto@msn.com](mailto:kberchto@msn.com)

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### Response to *Kurt Berchtold Comment Email, submitted June 2, 2025*

- 2-1 Response: The South Coast Air Basin is in “serious” nonattainment for the 2012 annual PM<sub>2.5</sub> National Ambient Air Quality Standard. As South Coast AQMD is seeking an extension of the attainment deadline, PAR 445 must incorporate the Most Stringent Measures as required by the federal Clean Air Act. The curtailment program in each air district is unique and expanding the No-Burn Season was not identified as a Most Stringent Measure in the 2024 PM<sub>2.5</sub> Plan for the 2012 annual PM<sub>2.5</sub> standard. While it is acknowledged that emissions from wood burning occur outside of the winter months, the curtailment program is currently set for the period (November through February) when historically high levels of PM<sub>2.5</sub> were observed in the South Coast Air Basin.

As discussed in Chapter 1, Bay Area AQMD Reg. 6 Rule 3's curtailment program is active throughout the year but has a curtailment threshold set at 35 µg/m<sup>3</sup>. Rule 445 has a more stringent curtailment threshold of 29 µg/m<sup>3</sup>. PAR 445 is proposing to lower the curtailment threshold to 25 µg/m<sup>3</sup>, which will be 10 µg/m<sup>3</sup> lower than the curtailment threshold in the Bay Area AQMD Reg. 6 Rule 3.

2-2 Response: As discussed in Chapter 1, the health effects of public exposure to PM<sub>2.5</sub> are well documented. South Coast AQMD is proposing to amend four different rules to incorporate the Most Stringent Measures to reduce PM<sub>2.5</sub> levels across the Basin for the 2012 annual PM<sub>2.5</sub> National Ambient Air Quality Standard, which includes PAR 445. The more stringent restrictions identified by the commenter were not identified as Most Stringent Measures in the 2024 PM<sub>2.5</sub> Plan for the 2012 annual PM<sub>2.5</sub> standard, and are not considered for PAR 445 as PAR 445 is intended to satisfy the Most Stringent Measures required by the Clean Air Act.

PAR 445 addresses Basin-wide PM<sub>2.5</sub> emissions from residential wood-burning by prohibiting wood-burning when PM<sub>2.5</sub> levels are forecasted to exceed the curtailment thresholds during the No-Burn season and by removing the low-income exemption. The No-Burn season is from the beginning of November through the end of February, when historically high levels of PM<sub>2.5</sub> were observed in the South Coast Air Basin. Local PM<sub>2.5</sub> levels may be higher than what is forecasted in the Basin due to residential wood-burning. Other existing South Coast AQMD rules address local air pollution issues by prohibiting the release of air contaminants that cause a nuisance to the public throughout the year.

As acknowledged by the commenter, fire prevention is outside South Coast AQMD's jurisdiction.

ATTACHMENT H



**South Coast  
Air Quality Management District**

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

**SUBJECT: NOTICE OF EXEMPTION FROM THE CALIFORNIA  
ENVIRONMENTAL QUALITY ACT**

**PROJECT TITLE: PROPOSED AMENDED RULE 445 – WOOD-BURNING DEVICES**

Pursuant to the California Environmental Quality Act (CEQA) Guidelines, the South Coast Air Quality Management District (South Coast AQMD), as Lead Agency, has prepared a Notice of Exemption pursuant to CEQA Guidelines Section 15062 – Notice of Exemption for the project identified above.

If the proposed project is approved, the Notice of Exemption will be filed for posting with the county clerks of Los Angeles, Orange, Riverside, and San Bernardino Counties. The Notice of Exemption will also be electronically filed with the State Clearinghouse of the Governor's Office of Land Use and Climate Innovation for posting on their CEQAnet Web Portal which may be accessed via the following weblink: <https://ceqanet.opr.ca.gov/search/recent>. In addition, the Notice of Exemption will be electronically posted on the South Coast AQMD's webpage which can be accessed via the following weblink: <http://www.aqmd.gov/nav/about/public-notices/ceqa-notices/notices-of-exemption/noe---year-2025>.



**NOTICE OF EXEMPTION FROM THE  
CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)**

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<b>To:</b> County Clerks for the Counties of Los Angeles, Orange, Riverside, and San Bernardino; and Governor's Office of Land Use and Climate Innovation – State Clearinghouse	<b>From:</b> South Coast Air Quality Management District 21865 Copley Drive Diamond Bar, CA 91765
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**Project Title:** Proposed Amended Rule 445 – Wood-Burning Devices

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**Project Location:** The proposed project is located within the South Coast Air Quality Management District's (South Coast AQMD) jurisdiction, which includes 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 portion of the Salton Sea Air Basin and the non-Palo Verde, Riverside County portion of the Mojave Desert Air Basin.

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**Description of Nature, Purpose, and Beneficiaries of Project:** Rule 445 limits particulate matter with an aerodynamic diameter less than 2.5 microns (PM<sub>2.5</sub>) emissions from residential wood combustion by prohibiting the burning of products not intended for use as fuel, prohibiting the sale of unseasoned wood, and mandating the curtailment of wood burning on "No-Burn" days when ambient PM<sub>2.5</sub> concentration is forecast to exceed a threshold limit during the wood-burning season (beginning of November through the end of February). The primary objective of Proposed Amended Rule 445 (PAR 445) is to comply with the federal Clean Air Act Most Stringent Measure (MSM) requirements for the 2012 PM<sub>2.5</sub> National Ambient Air Quality Standard (NAAQS) and to implement Control Measure BCM-18: Further Emissions Reductions from Wood-Burning Fireplaces and Wood Stoves, of the South Coast Air Basin Attainment Plan for the 2012 Annual PM<sub>2.5</sub> Standard (PM<sub>2.5</sub> Plan). PAR 445 will lower the mandatory wood-burning curtailment threshold from 29 micrograms per cubic meter (µg/m<sup>3</sup>) to 25 µg/m<sup>3</sup>. The proposal will also remove the existing low-income exemption and include other updates such as removing outdated provisions, allowing reconstruction of wood-burning devices damaged or destroyed due to a natural disaster, aligning enforcement practices consistent with other South Coast AQMD rules, correcting references, and improving clarity. Implementation of PAR 445 is anticipated to benefit public health and ambient air quality by reducing PM<sub>2.5</sub> emissions by 0.25 ton per annual average day as well as reducing emissions of other criteria pollutants and hazardous air pollutants.

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**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) – Common Sense Exemption

CEQA Guidelines Section 15308 – Actions by Regulatory Agencies for Protection of the Environment

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**Reasons Why Project Is Exempt:** South Coast AQMD, as Lead Agency, has reviewed the proposed project 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. Since lowering the curtailment threshold and removing the low-income exemption to comply with the federal Clean Air Act MSM requirements for the 2012 PM<sub>2.5</sub> NAAQS and Control Measure BCM-18 of the PM<sub>2.5</sub> Plan will not result in physical modifications, it can be seen with certainty that there is no possibility that the proposed project may have a significant adverse effect on the environment. Therefore, the proposed project is exempt from CEQA pursuant to CEQA Guidelines Section 15061(b)(3) – Common Sense Exemption. The proposed project is also categorically exempt from CEQA pursuant to CEQA Guidelines Section 15308 – Actions by Regulatory Agencies for Protection of the Environment, because PAR 445 is intended to further protect or enhance the environment by improving public health and air quality through anticipated reductions in PM<sub>2.5</sub>, other criteria pollutants, and hazardous air pollutants. Further, there is no substantial evidence indicating that any of the exceptions to the categorical exemption set forth in CEQA Guidelines Section 15300.2 – Exceptions, apply to the proposed project.

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**NOTICE OF EXEMPTION FROM CEQA (concluded)**

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

South Coast AQMD Governing Board Public Hearing: September 5, 2025

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**CEQA Contact Person:**

Sina Taghvaei, Ph.D.

**Phone Number:**

(909) 396-2192

**Email:**

[staghvaei@aqmd.gov](mailto:staghvaei@aqmd.gov)

---

**PAR 445 Contact Person:**

Ashley Dang

**Phone Number:**

(909) 396-3328

**Email:**

[adang@aqmd.gov](mailto:adang@aqmd.gov)

---

**Date Received for Filing:** \_\_\_\_\_

**Signature:** \_\_\_\_\_ *(Signed and Dated Upon Board Approval)*

Kevin Ni

Program Supervisor, CEQA

Planning, Rule Development, and

Implementation



**ATTACHMENT I**

**Proposed Amended Rule 223 – Requirements for Confined Animal Facilities**

**Proposed Amended Rule 445 – Wood-Burning Devices**

**Proposed Amended Rule 1133 Series**

PAR 1133 – Emission Reductions from Direct Land Application

PAR 1133.1 – Chipping and Grinding Operations

PAR 1133.2 – Emission Reductions from Co-Composting Operations

PAR 1133.3 – Emission Reductions from Composting Operations

**Proposed Amended Rule 1138 – Control of Emissions from Restaurant Operations**

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**GOVERNING BOARD MEETING  
SEPTEMBER 5, 2025**

# Background

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The South Coast Air Basin is classified as “serious” nonattainment for the 2012 annual PM<sub>2.5</sub> National Ambient Air Quality Standard (12 µg/m<sup>3</sup>)

**2017**

Attainment plan  
submitted to  
U.S. EPA

**2020**

U.S. EPA  
requested  
supplemental  
attainment  
demonstration  
based on new  
near-road data

**2023**

Submitted plan  
withdrawn to  
avoid potential  
disapproval

**Early 2024**

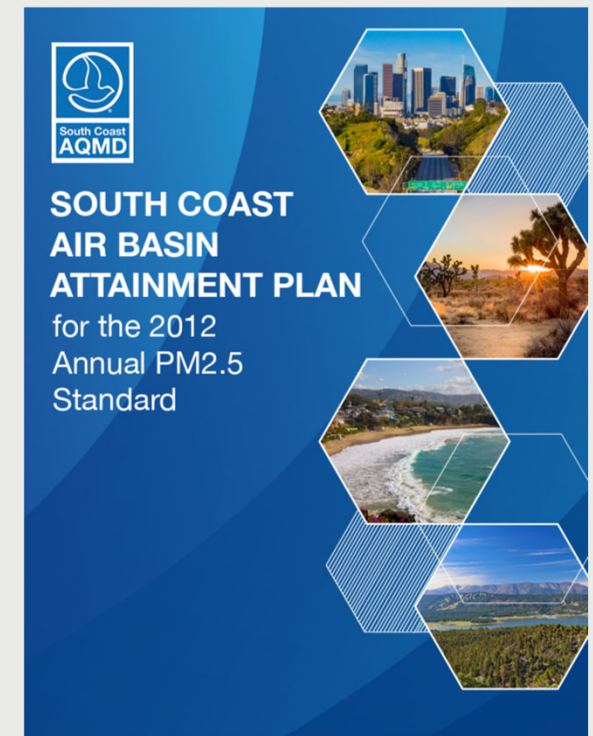
A finding of  
failure to submit  
an attainment  
plan started a  
sanction clock

**June 2024**

Governing Board  
approved the  
PM<sub>2.5</sub> Attainment  
Plan that includes  
an attainment  
date extension  
request

# PM2.5 Attainment Plan Control Measures

- As a “serious” nonattainment area, South Coast Air Basin’s attainment date is 2025
- 2024 PM2.5 Plan included an attainment date extension request (5-year extension from 2025 to 2030)
- Clean Air Act requires an area seeking an attainment date extension to demonstrate that its rules are at least as stringent as those in any other air districts or states (i.e., Most Stringent Measures)



# Amending Rules to Incorporate MSM

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- 2024 PM2.5 Plan relies on emissions reductions from previous AQMPs and committed to amending four rule amendments as MSMs



Rule 223 – Requirements for Confined Animal Facilities



Rule 445 – Wood-Burning Devices



Rule 1133 Series – Composting and Related Operations



Rule 1138 – Control of Emissions From Restaurant Operations

# Clean Air Act Requirements

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- Based on the previous U.S. EPA finding, the South Coast Air Basin had a sanction clock that was supposed to expire August 29, 2025
  - Sanctions may result in more stringent emission offset requirements for permitting new or modified equipment that have emission increases and the loss of federal highway funding
  - Current emission offset ratio of 1.2 to 1 may increase to 2 to 1 (i.e. two pounds of emission offsets would be required for every one pound of emission increase)
- Sanction clock is tied to adoption of the four rules to address Most Stringent Measures (MSM)
  - Must be adopted by September 2025



# **Proposed Amended Rule 223: Requirements for Confined Animal Facilities**



# Rule 223 Background

- Rule 223 requires Large Confined Animal Facilities (LCAF) to obtain a permit and implement mitigation measures
  - Facilities choose from a menu of mitigation measures
- Most Stringent Measures requires that South Coast AQMD rules to be at least as stringent as those adopted by other air districts or states
  - 2024 PM2.5 Plan identified other air districts (San Joaquin Valley and Imperial County) with more stringent applicability thresholds



# Proposed Rule 223 Amendments

- PAR 223 will lower applicability thresholds of a large confined animal facility for dairy, chicken, and duck farms
- By January 1, 2027, a large confined animal facility shall either:
  - Submit permit application and emission mitigation plan; **or**
  - Submit notice of intent to cease operations or be below the threshold by 2029
- By January 1, 2029, a large confined animal facility shall have a permit to operate and implement mitigation measures

Livestock category	Existing Threshold	Proposed Threshold
Dairy	1,000	500
Chicken	650,000	400,000*
Duck	650,000	400,000*

\* No impacted poultry farms identified by lowering applicability thresholds

# Emission Reductions and Cost-Effectiveness

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- PAR 223 will impact up to 12 dairy farms
  - Seven dairy farms in San Bernardino County and five dairy farms in Riverside County
  - No chicken or duck facilities impacted
- Emission reductions of 0.17 ton per day of ammonia by 2029
- Minimal costs as many facilities are currently implementing mitigation measures
  - Costs per facility include an initial permit fee and plan submittal fee (\$3,500) and annual renewal (\$550)
    - For small businesses, 50% reduction in initial fees apply
- Cost effectiveness of \$170 per ton of ammonia reduced

# Socioeconomic Impact Assessment and CEQA

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## Socioeconomic Impact Assessment

- For the 12 affected dairy farms in total, estimated annual PAR 223 compliance cost from 2026 to 2035 ranges from \$11,450 to \$12,166\*

## California Environmental Quality Act (CEQA)

- No significant adverse environmental impacts are expected
- A Notice of Exemption has been prepared

*\*Using a real interest rate of 1% and 4%, respectively*

# **Proposed Amended Rule 445: Wood-Burning Devices**

# Rule 445 Background

- Rule 445 reduces PM<sub>2.5</sub> emissions by establishing requirements for residential wood burning
- Existing key requirements include:
  - Prohibition of wood burning on No-Burn days during wood-burning season (beginning of November to end of February) and when daily PM<sub>2.5</sub> air quality is forecasted to reach high levels
  - Prohibition of wood-burning device installation in developments built after March 9, 2009



# Proposed Amendments

## Lowering the curtailment threshold

- Other air districts have lower curtailment thresholds
- Propose to lower PM2.5 curtailment threshold from 29 to 25  $\mu\text{g}/\text{m}^3$  (micrograms per cubic meter)
  - Would increase No-Burn days ~10 days per year

## Removal of low-income exemption

- Other air districts do not exempt low-income households from curtailment requirements
- Propose to remove low-income exemption
  - Would not affect qualification for other exemptions

## Current Curtailment Exemptions

Ceremonial fires  
exempt under Rule 444

Geographical location  
 $\geq 3,000$  feet above  
mean sea level

No natural gas service  
within 150 feet

Sole Source of Heat



Low-Income  
Household

# Proposed Amendments (con't)

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## Limited allowance of device replacement

- Existing rule prohibits installations of wood-burning devices in new developments
- Propose to provide limited allowance for devices destroyed or damaged from natural disasters
  - Replacement allowed only for existing wood-burning devices
  - Natural disasters defined in Rule 118
  - Still subject to curtailment events





# Emission Reductions and Cost-Effectiveness

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- Lowering the curtailment threshold from 29 to 25  $\mu\text{g}/\text{m}^3$  will result in an estimated 0.25 ton per day of PM<sub>2.5</sub> emission reductions
- No emission reductions are quantified for removal of low-income exemption due to uncertainty
- There are minimal to no cost impacts anticipated because:
  - Wood burning is mostly for ambiance and aesthetic purposes for non-exempted households
  - No change-out requirements for wood-burning devices

# Socioeconomic Impact Assessment and CEQA

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## Socioeconomic Impact Assessment

- Minimal socioeconomic impacts expected because:
  - No restriction on sale of firewood during curtailment events
  - More cost-effective alternatives to burning wood for heating are available regardless of whether a No-Burn day has been issued

## California Environmental Quality Act (CEQA)

- No significant adverse environmental impacts are expected
- A Notice of Exemption has been prepared

# Proposed Amended Rule 1133 Series

PAR 1133: Emission Reductions from Direct Land Application

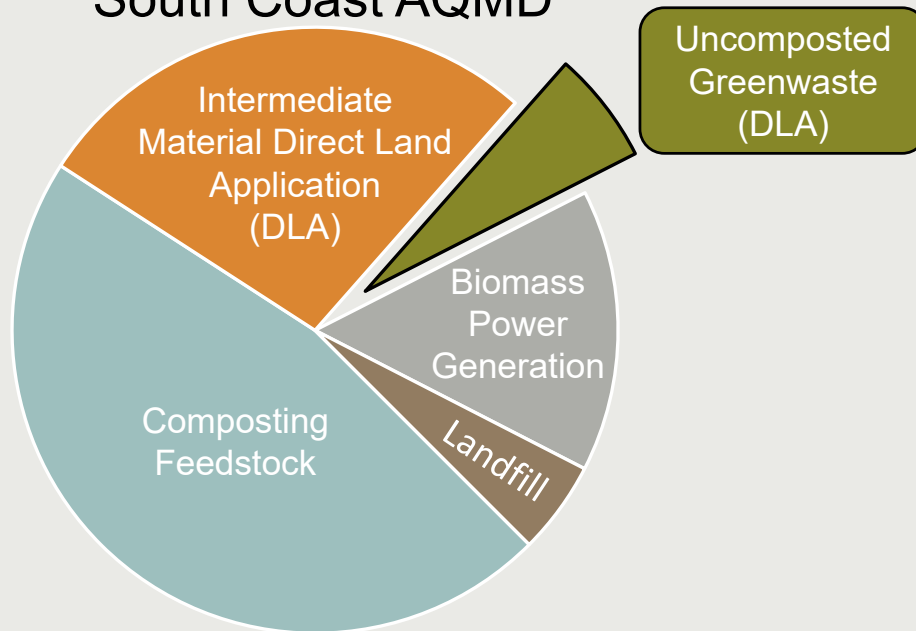
PAR 1133.1: Chipping and Grinding Operations

PAR 1133.2: Emission Reductions from Co-Composting  
Operations

PAR 1133.3: Emission Reductions from Composting Operations

# PAR 1133 Series Background

Distribution of Greenwaste in South Coast AQMD



**2,460,000 tons greenwaste produced annually**

- Greenwaste is tree, plant, and lawn trimmings from gardening or agriculture
  - Source of VOC and ammonia emissions
- Rule series applies to 98 facilities conducting greenwaste chipping and grinding, co-composting, and composting
- 147,700 tons, or 6% of total green waste, is uncomposted and direct land applied (DLA) for agriculture

# MSM Amendment (PAR 1133)

## Requirement

### Direct Land Application Restriction

- Requires *suppliers* of uncomposted greenwaste for DLA to restrict supply to only agricultural operations that either:
  - **Option 1:** Till, inject, or plow 6" deep
  - **Option 2:** Cover with 6" finished compost
- Applies to estimated 86 supplying facilities

## Enforcement Mechanism

### Recordkeeping

- Documentation kept onsite of supplier for 3 years

## Applications Exempt from Direct Land Application Restriction

Composting Operations

Co-composting Operations

Anaerobic Digestion

Biomass Power Generation

Application Outside of South Coast AQMD

# Other Key Amendments

## Best Management Practices (BMPs)



- One small co-composter operating since 2003 currently exempt from BMPs
- PAR 1133.2 requires BMPs of finished compost cover and piles sufficiently wet for all co-composting operations

## Administrative Changes



- Eliminates registration process and fees
- Simplifies and moves reporting process to operation-specific rules

## Rule Language Changes



- Clarifies and harmonizes definitions across rules
- Improves readability with updated rule titles, purposes, and applicability, and reorganization

# Emission Reductions and Cost-Effectiveness



	Tons/day		Cost-Effectiveness	
	VOC	Ammonia	(cost per ton VOC)	(cost per ton ammonia)
Baseline Emissions	3.65	0.45	N/A	N/A
Reductions from DLA Restrictions	2.31	0.16	\$160	\$2,400
Reductions from BMPs	0.03	0.03	\$4,900	\$5,900
<b>Overall Reductions</b>	<b>2.34</b>	<b>0.19</b>	<b>\$230</b>	<b>\$2,900</b>

# Impact Assessment

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## Socioeconomic Impact Assessment

- 86 facilities subject to recordkeeping requirements in PAR 1133
  - Annual cost estimated to be \$130,000
- One facility subject to composting BMPs
  - Annual cost estimated to be \$60,000
- No costs expected for PAR 1133.1 and PAR 1133.3

## California Environmental Quality Act (CEQA)

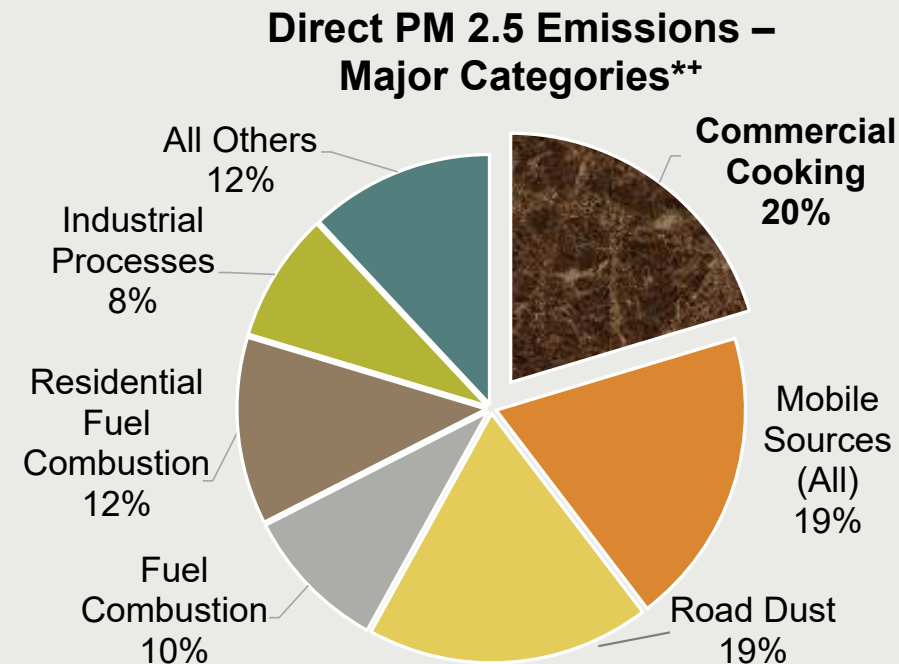
- No physical modifications or significant adverse environmental impacts are expected
- A Notice of Exemption has been prepared



# **Proposed Amended Rule 1138: Control of Emissions from Restaurant Operations**

# PAR 1138 Background

- Commercial cooking accounts for 20% of directly emitted PM<sub>2.5</sub> in South Coast Air Basin
- Rule 1138 was adopted in November 1997 to reduce emissions from chain-driven charbroilers
- PAR 1138 focuses on limited amendments to be consistent with regulations in other geographic areas



\* 2024 PM 2.5 Plan, Table 3-3: Summary of Emissions by Major Source Category: 2018 Base Year in PM 2.5 Plan, Pg 61:  
<https://www.aqmd.gov/docs/default-source/clean-air-plans/pm2.5-plans/final-pm2.5-plan/2012-annual-pm2-5-plan.pdf>

+ Direct PM<sub>2.5</sub> emissions contribute about one third of total ambient PM<sub>2.5</sub>, with the rest coming from reactions with SO<sub>x</sub>, NO<sub>x</sub>, VOC, and ammonia

# Existing Rule 1138 Requirements

- Requires **chain-driven charbroilers** to operate with certified emissions control device
  - ~1,240 units subject to Rule 1138\*
- Exempts units with <875 pounds of meat cooked per week
- Does not apply to other commercial cooking equipment

## Chain-Driven Charbroilers



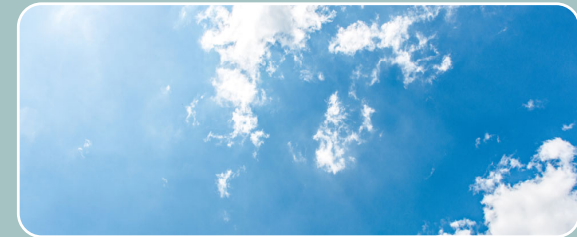
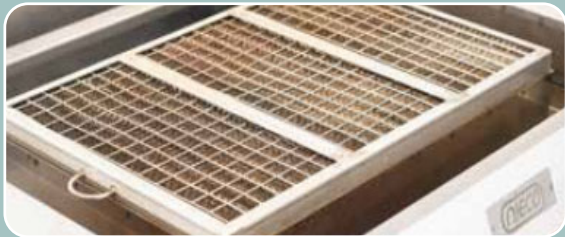
- *Equipped with mechanical chains moving food through as they cook*
- *Most often seen at high-volume chain restaurants and fast-food franchises*

# Proposed Amendments

	Current Rule 1138	PAR 1138
Exemption Thresholds for Meat Cooked	<875 pounds per week	<b><u>One Year After Rule Adoption</u></b> <400 pounds per week OR <10,800 pounds per 12-months with <875 pounds per week

- One-year grace period to file updated information per separate Rule 222 requirements
- Other minor administrative amendments removing outdated language

# Cost-Effectiveness & Emission Reductions



## Cost and Cost-Effectiveness

- ~\$1,900 per charbroiler\*
- Nominal O&M costs
- Cost-effectiveness of \$1,363 per ton of PM reduced

*\*Units purchased after 1997 are likely already in compliance*

## Emission Reductions

- ~0.05 tpd PM
- ~0.02 tpd VOC

# Impact Assessment

## Socioeconomic Impact Assessment

- Average annual cost from 2026-2035 estimated to be \$28,403–\$32,210 in 2024 dollars using a real interest rate of 1% and 4%, respectively
  - Up to 143 affected facilities
  - Since annual cost is less than \$1M, an analysis of job impacts was not conducted

## California Environmental Quality Act (CEQA)

- No significant adverse environmental impacts are expected
- A Notice of Exemption has been prepared

# Staff Recommendation

PAR 223

PAR 445

PAR 1133

PAR 1133.1

PAR 1133.2

PAR 1133.3

PAR 1138

## Adopt the Resolution:

- ☐ Determining the rules are exempt from requirements of CEQA
- ☐ Amending the rules
- ☐ Directing staff to submit the rules for inclusion in the State Implementation Plan

