

BOARD MEETING DATE: September 5, 2025

AGENDA NO. 32

PROPOSAL: Determine That Proposed Amended Rule 1138 – Control of Emissions From Restaurant Operations, Is Exempt From CEQA; Amend Rule 1138; and Submit Rule 1138 Into State Implementation Plan

SYNOPSIS: Proposed Amended Rule 1138 will address federal Clean Air Act requirements for Most Stringent Measures and partially implement a control measure from the South Coast Air Basin Attainment Plan for the 2012 Annual PM_{2.5} Standard. To align with similar but more stringent rules adopted by other air districts, the proposed amendments will lower the current low-use exemption threshold for chain-driven charbroilers used in restaurant operations and add an alternative exemption option for low-use equipment with seasonal activity peaks.

COMMITTEE: Stationary Source, June 20, 2025, Reviewed

RECOMMENDED ACTIONS:

Adopt the attached Resolution:

1. Determining that Proposed Amended Rule 1138 – Control of Emissions from Restaurant Operations, is exempt from the requirements of the CEQA;
2. Amending Rule 1138 – Control of Emissions from Restaurant Operations; and
3. Directing staff to submit Proposed Amended Rule 1138 for inclusion into the State Implementation Plan.

Wayne Natri
Executive Officer

Background

Rule 1138 – Control of Emissions from Restaurant Operations (Rule 1138) was adopted on November 14, 1997. Rule 1138 establishes requirements to implement emissions control technologies for chain-driven charbroilers used in restaurant operations. These control technologies must have a minimum control efficiency of PM and VOCs of at least 83 percent.

The South Coast Air Basin is a “serious” nonattainment area for the 2012 PM_{2.5} National Ambient Air Quality Standard (NAAQS). The 2024 South Coast Air Basin Attainment Plan for the 2012 Annual PM_{2.5} Standard (2024 PM_{2.5} Plan) was developed and subsequently adopted in June 2024 and included a request to extend the PM_{2.5} 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_{2.5} Plan includes a commitment to adopting Most Stringent Measures (MSMs), which will demonstrate that South Coast AQMD rules are at least as stringent as other similar regulations across the nation. Adopting the MSMs will allow South Coast AQMD to request a five-year extension to the attainment date of the 2012 Annual PM_{2.5} standard from December 31, 2025, to December 31, 2030, as allowed under the federal Clean Air Act.

Through an MSM analysis conducted in the 2024 PM_{2.5} Plan, Rule 1138 was identified as one of four regulations that could be made more stringent by aligning the rule requirements with those already adopted elsewhere in the nation. Proposed Amended Rule 1138 (PAR 1138) will partially implement Control Measure BCM-12 – Further Emission Reductions from Commercial Cooking included in the 2024 PM_{2.5} Plan, which includes strategy beyond MSM.

Proposed Amendments

The primary amendment proposed for Rule 1138 is to lower the existing low-use exemption threshold for chain-driven charbroilers. PAR 1138 also includes administrative changes to remove legacy language for requirements with now defunct implementation dates.

Current exemption thresholds for Rule 1138 state that a chain-driven charbroiler owner or operator does not need to implement control technologies on their chain-driven charbroiler if the unit cooks less than 875 pounds of meat per week. PAR 1138 will lower the exemption threshold to 400 pounds of meat cooked per week. PAR 1138 will also add an alternative threshold of 10,800 pounds of meat cooked in a continuous 12-month period while maintaining less than 875 pounds of meat cooked per week to account for low-use operations with seasonal peaks. PAR 1138 will meet the MSM requirements by aligning its revised exemption thresholds with similar but more stringent thresholds found in San Joaquin Valley Air Pollution Control District Rule 4692 and Bay Area Air District Regulation 6 Rule 2.

PAR 1138 additionally includes a 12-month extension of the existing Rule 1138 exemption threshold of less than 875 pounds of meat cooked per week. The provided grace period allows owners or operators of chain-driven charbroilers additional time to procure compliant equipment as well as submitting update(s) to existing Rule 222 filing(s) to reflect the revised exemption threshold of PAR 1138, if necessary.

Public Process

PAR 1138 was developed through a public process which included two Working Group meetings on March 5, 2025, and April 17, 2025. A Public Workshop for PAR 1138 was held on July 2, 2025. Through the rulemaking process, staff met with equipment manufacturers and operators, as well as industry and labor groups, and the California Restaurant Association (CRA). Outreach flyers were distributed to approximately 35,000 restaurants within the Basin.

Key Issues

Staff collaborated with stakeholders to discuss and clarify the proposed rule amendment. Staff is not aware of any key issues.

Emission Reductions

PAR 1138 is expected to reduce emissions of PM by up to 0.05 tons per day, with a co-benefit of approximately 0.02 tons per day of VOC emission reductions, beginning September 2026. Emission reductions could potentially be lower than estimated due to the prevalence in the market of chain-driven charbroilers certified to the South Coast AQMD protocol. Chain-driven charbroilers purchased after 1997 could potentially be already equipped with compliant control devices.

California Environmental Quality Act (CEQA)

Pursuant to the California Environmental Quality Act (CEQA) Guidelines Sections 15002(k) and 15061, the proposed project (PAR 1138) 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

The Socioeconomic Impact Assessment analyzed the cost impacts on approximately 143 facilities, which have been identified as having chain-driven charbroilers that would be subject to PAR 1138 requirements and may possibly need retrofitting with emission control devices. The majority of the potentially affected facilities are small businesses

classified under the sector of Accommodation and Food Services per the North American Industrial Classification System (NAICS 72). The analysis also assumed that all affected facilities would be expected to incur capital costs without net recurring costs. The total present value of the compliance costs of PAR 1138 over the 2026-2035 period is estimated to be \$269,010 to \$261,250 at a 1% to 4% discount rate, respectively. The annual total aggregate cost of implementing PAR 1138 for all affected facilities is estimated to be \$28,403 to \$32,210 at a 1% to 4% real interest rate, respectively. It is important to note that due to the prevalence of certified chain-driven charbroilers purchased after 1997 being equipped with emission control devices that would satisfy PAR 1138 requirements, it is unlikely that all 143 facilities would need to retrofit their equipment; thus, the analysis likely overestimates the potential socioeconomic impacts of PAR 1138. The Final Socioeconomic Impact Assessment is included in Chapter 3 of the Final Staff Report, included as Attachment G to this Board Letter.

AQMP and Legal Mandates

Pursuant to Health and Safety Code Section 40460(a), South Coast AQMD is required to adopt an AQMP demonstrating compliance with all federal regulations and standards. South Coast AQMD is also required to adopt rules and regulations that carry out the objectives of the AQMP. As part of the 2024 PM2.5 Plan, South Coast committed to implementing Control Measure BCM-12 as well as implementation of the identified MSMs that are already adopted in other California air districts. The South Coast AQMD is required by the federal Clean Air Act and Health and Safety Code Section 40914 to adopt all feasible measures to attain air quality standards.

Implementation and Resource Impacts

Existing staff resources are adequate to implement the proposed amended rule. Some owners and operators of existing chain-driven charbroilers would potentially need to resubmit equipment filings under Rule 222 to reflect amended exemption thresholds in PAR 1138. Staff anticipates a temporary increase in Rule 222 filing submittals due to the proposed amendments during the first year of implementation.

Attachments

- A. Summary of Proposal
- B. Key Issues and Responses
- C. Rule Development Process
- D. Key Contacts List
- E. Resolution
- F. Proposed Amended Rule 1138
- G. Final Staff Report, with the Final Socioeconomic Impact Assessment
- H. Notice of Exemption from CEQA
- I. Board Presentation

ATTACHMENT A
SUMMARY OF PROPOSAL

Proposed Amended Rule 1138 – Control of Emissions from Restaurant Operations

Definitions

- Remove the definitions for “Existing Chain-Driven Charbroiler” and “New Chain-Driven Charbroiler” since the language where there is a relevant distinction between these two definitions is no longer applicable.

Requirements

- Remove distinction between “New” and “Existing” chain-driven charbroiler requirements by:
 - Removing existing paragraphs which contain requirements for “existing chain driven charbroilers;” and
 - Amending a paragraph originally applying to “New” chain-driven charbroilers to now apply to all chain-driven charbroilers as defined in the rule.
- Provide clarity for existing equipment filing requirements by adding a new paragraph stating that owners or operators of chain-driven charbroilers used in restaurant operations are required to submit equipment filings pursuant to Rule 222 – Filing Requirements for Specific Emissions Sources Not Requiring a Written Permit Pursuant to Regulation II.

Exemptions

- Amend the existing low-use exemption threshold of less than 875 pounds of meat cooked per week with two new low-use exemption pathways:
 - Less than 400 pounds of meat cooked weekly; or
 - 10,800 pounds of meat cooked in any continuous 12-month period and less than 875 pounds of meat cooked weekly
- Add a temporary grace period for current Rule 1138 low-use exemption threshold of less than 875 pounds per week expiring 12 months after rule amendment

Evaluations

- South Coast AQMD staff presented the required evaluation at the May 14, 1999 Board meeting; therefore; the subdivision is no longer applicable and will be removed.

ATTACHMENT B
KEY ISSUES AND RESPONSES

Proposed Amended Rule 1138 – Control of Emissions from Restaurant Operations
Throughout the rule development process, staff has collaborated with stakeholders to discuss and clarify the proposed rule amendment. Staff is not aware of any key issues.

ATTACHMENT C
RULE DEVELOPMENT PROCESS

Proposed Amended Rule 1138 – Control of Emissions from Restaurant Operations

Ten (10) months spent in rule development
Two (2) Working Group Meetings
One (1) Stationary Source Committee Meeting
One (1) Public Workshop

ATTACHMENT D

KEY CONTACTS LIST

Proposed Amended Rule 1138 – Control of Emissions from Restaurant Operations

Associations or Entities

- Burger King
- California Restaurant Association
- Carls Jr.
- Dairy Queen
- Disneyland Resort
- Duke Manufacturing
- Nieco, LLC
- Red Robin
- Service Employees International Union
- The Habit
- UNITE HERE
- Universal Studios Hollywood

Government Agencies

- Bay Area Air District
- California Air Resources Board
- San Diego Air Pollution Control District
- San Joaquin Valley Air Pollution Control District
- U.S. Environmental Protection Agency
- Ventura County Air Pollution Control District

ATTACHMENT E

RESOLUTION NO. 25-_____

A Resolution of the South Coast Air Quality Management District (South Coast AQMD) Governing Board determining that Proposed Amended Rule 1138 – Control of Emissions from Restaurant Operations, is exempt from the requirements of the California Environmental Quality Act (CEQA).

A Resolution of the South Coast AQMD Governing Board amending Rule 1138 – Control of Emissions from Restaurant Operations.

A Resolution of the South Coast AQMD Governing Board directing staff to submit Proposed Amended Rule 1138 – Control of Emissions from Restaurant Operations, for inclusion into the State Implementation Plan.

WHEREAS, the South Coast AQMD Governing Board finds and determines that Proposed Amended Rule 1138 is considered a "project" as defined by CEQA; and

WHEREAS, 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 1138 is exempt from CEQA; and

WHEREAS, the South Coast AQMD Governing Board finds and determines that, since Proposed Amended Rule 1138 is expected to affect a limited number of restaurants which have existing chain-driven charbroilers that are already equipped or can be retrofitted with commercially available air pollution control devices via the use of hand tools, it can be seen with certainty that implementation of the proposed project will not cause 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 Proposed Amended Rule 1138 is designed to further protect or enhance the environment by improving public health

and air quality through reduced exposure to harmful air pollutants from chain-driven charbroilers used in restaurant operations; and

WHEREAS, the South Coast AQMD Governing Board has determined that there is no substantial evidence indicating that any of the exceptions to the categorical exemption as 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 of Proposed Amended Rule 1138, as presented in the Final Staff Report, 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 of Proposed Amended Rule 1138, as presented in the Final Staff Report, 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 1138 will result in increased costs to the affected industries, yet such costs are considered to be reasonable, with a total annualized cost as specified in the Final Socioeconomic Impact Assessment, as presented in the Final Staff Report; and

WHEREAS, the South Coast AQMD Governing Board has actively considered the Final Socioeconomic Impact Assessment for Proposed Amended Rule 1138, as presented in the Final Staff Report, and has made a good faith effort to minimize such adverse impacts; and

WHEREAS, the South Coast AQMD staff conducted a Public Workshop regarding Proposed Amended Rule 1138 on July 2, 2025; and

WHEREAS, Proposed Amended Rule 1138 and supporting documentation, including but not limited to, the Notice of Exemption and 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 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 there were no modifications to Proposed Amended Rule 1138 since the Notice of Public Hearing was published that are so substantial as to significantly affect the meaning of Proposed

Amended Rule 1138 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 1138 will be submitted to California Air Resources Board (CARB) and the United States Environmental Protection Agency (U.S. EPA) for inclusion in 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, in the rulemaking record, and in the Final Staff Report; and

WHEREAS, the South Coast AQMD Governing Board has determined that Proposed Amended Rule 1138 is needed to address federal Clean Air Act requirements for Most Stringent Measures and reduce PM_{2.5} emissions by partially implementing control measure BCM-12: Further Emission Reductions from Commercial Cooking from the 2024 South Coast Air Basin PM_{2.5} Attainment Plan for the 2012 Annual PM 2.5 Standard; and

WHEREAS, the South Coast AQMD Governing Board has determined that there is a problem that Proposed Amended Rule 1138 will help alleviate, (i.e., the South Coast Air Basin does not meet state or federal standards for PM_{2.5}) and the proposed amendment will promote the attainment or maintenance of such 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, 40441, 40702, 40725 through 40728.5, and 41508; and

WHEREAS, the South Coast AQMD Governing Board has determined that Proposed Amended Rule 1138 is written or 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 1138 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 1138 does not impose the same requirements as any existing state or federal regulations, and Proposed Amended Rule 1138 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 1138, references the following statutes which South Coast AQMD hereby implements, interprets, or makes specific: Health and Safety Code Sections

39002, 40000, 40001, 40440(a), 40725 through 40728.5, 41508 and federal Clean Air Act Section 188(e); and

WHEREAS, the South Coast AQMD Governing Board finds that no comparative analysis pursuant to Health and Safety Code Section 40727.2 is required because Proposed Amended Rule 1138 does not have any analogous federal regulation for the same source category; 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 provisions of state and federal law; and

WHEREAS, the South Coast AQMD Governing Board specifies the Planning, Rule Development, and Implementation Manager overseeing the rule development for Proposed Amended Rule 1138 as the custodian of the documents or other materials which constitute the record of proceedings upon which the adoption of Proposed Amended Rule 1138 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 Proposed Amended Rule 1138 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 judgement and reviewed, considered, and approved the information therein prior to acting on Proposed Amended Rule 1138; 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 1138 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 1138 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, Proposed Amended Rule 1138, and supporting documentation to CARB for approval and subsequent submittal to U.S. EPA for inclusion into the State Implementation Plan.

DATE: _____

CLERK OF THE BOARDS

ATTACHMENT F

(Adopted November 14, 1997)(Amended *[DATE OF RULE AMENDMENT]*)

[RULE INDEX TO BE ADDED AFTER RULE AMENDMENT]

PROPOSED AMENDED RULE 1138 CONTROL OF EMISSIONS FROM RESTAURANT OPERATIONS

(a) Applicability

This rule applies to owners and operators of commercial cooking operations, preparing food for human consumption. The rule requirements currently apply to chain-driven charbroilers used to cook meat. All other commercial restaurant cooking equipment including, but not limited to, under-fired charbroilers, may be subject to future rule provisions.

(b) Definitions

- (1) CATALYTIC OXIDIZER means a control device which burns or oxidizes smoke and gases from the cooking process to carbon dioxide and water, using an infrastructure coated with a noble metal alloy.
- (2) CHAIN-DRIVEN CHARBROILER is a semi-enclosed cooking device with a mechanical chain which automatically moves food through the device and consists of three main components: a grill, a high temperature radiant surface, and a heat source.
- (3) CHARBROILER means a cooking device composed of the following three major components: a grated grill, a high-temperature radiant surface and a heat source. The heat source heats the high-temperature radiant surface, which provides the heat to cook the food resting on the grated grill. This includes, but is not limited to broilers: grill charbroilers, flamebroilers and direct-fired barbecues.
- (4) ~~EXISTING CHAIN DRIVEN CHARBROILER means any chain driven charbroiler operating on or before November 14, 1997.~~
- (45) MEAT, for the purposes of this rule, includes beef, lamb, pork, poultry, ~~fish~~, and seafood.
- (6) ~~NEW CHAIN DRIVEN CHARBROILER means any chain driven charbroiler initially installed and operated after November 14, 1997.~~
- (57) RESTAURANT means any stationary commercial cooking establishment which prepares food for human consumption.

(68) UNDER-FIRED CHARBROILER means a cooking device which has a grill, a high temperature radiant surface, and a heat source which is located below the food.

(79) WEEKLY means a consecutive seven-day period.

(c) Requirements

(1) ~~No person shall operate an existing chain driven charbroiler on and after November 14, 1999 unless it is equipped and operated with a catalytic oxidizer control device, and the combination charbroiler/catalyst has been tested in accordance with the test method specified in subdivision (g) and certified by the Executive Officer. Other control devices or methods may be used, if found, in accordance with the test method specified in subdivision (g), to be as or more effective than the catalytic oxidizer in reducing particulate matter (PM) and volatile organic compounds (VOC) (as defined in Rule 102) emissions and certified by the Executive Officer.~~

(2) ~~Notwithstanding provisions of paragraph (c)(1) of this rule, persons operating an existing chain driven charbroiler with permitted control equipment may elect to maintain that equipment for the duration of its functional life not to exceed 10 years from November 14, 1997. At such time, such persons may elect to either replace the existing control equipment with a catalytic oxidizer control device which in combination with the chain driven charbroiler has been tested in accordance with the test method specified in subdivision (g) and certified by the Executive Officer, or other control device or method found to be as or more effective than the catalytic oxidizer in reducing PM and VOC emissions in accordance with the test method specified in subdivision (g) and certified by the Executive Officer.~~

(13) No person shall operate a new chain-driven charbroiler after November 14, 1997 unless it is equipped and operated with a catalytic oxidizer control device, and this combination charbroiler/catalyst has been tested in accordance with the test method specified in subdivision (fg) and certified by the Executive Officer, or other control device or method if found to be as or more effective than the catalytic oxidizer in reducing emissions of particulate matter (PM) and volatile organic compounds (VOCs) ~~emissions~~ in accordance with the test protocol specified in subdivision (fg) and certified by the Executive Officer.

(24) Catalytic oxidizers or other control devices shall be maintained in good working order to minimize visible emissions to the atmosphere, and operated, cleaned,

and maintained in accordance with the manufacturer's specifications in a maintenance manual or other written materials supplied by the manufacturer or distributor of the catalyst or other control device, or chain-driven charbroiler.

- (3) Owners or operators of chain-driven charbroilers shall submit equipment filings, including any applicable exemptions specified in subparagraph (e)(1)(A) or paragraph (e)(2), pursuant to Rule 222 – Filing Requirements for Specific Emission Sources Not Requiring a Written Permit Pursuant to Regulation II.

(d) Recordkeeping

- (1) Owners and operators of chain-driven charbroilers equipped with control equipment shall, at the time of occurrences listed in subparagraphs (d)(1)(A) and (B), record such actions and retain the records for a period of not less than five years. These records shall be made available to a District representative upon request. Records shall consist of:
- (A) the date of installation or changing of any catalyst or, if applicable, other certified control device; and
- (B) the date and time of cleaning and maintenance performed for the catalyst or, if applicable, other certified control device.
- (2) Owners and operators of chain-driven charbroilers operating under an exemption from provisions of this rule pursuant to subdivision (e), shall maintain weekly records of the amount of meat cooked and monthly records of the amount of meat purchased. These records shall be retained on the restaurant premises for a period of not less than five years and made available to a District representative upon request.
- (3) Persons may request use of alternative recordkeeping, provided the Executive Officer and EPA have determined, in writing, that the alternative recordkeeping method provides equivalent compliance assurance as the records specified in paragraphs (d)(1) or (d)(2).

(e) Exemptions

- (1) An owner or operator of a chain-driven charbroiler may apply for an exemption is exempt from the provisions of paragraphs (c)(1), (c)(2), through (c)(4) and (d)(1) provided that either subparagraph (e)(1)(A) or (e)(1)(B) is met:
- (1) (A) ~~based on accepting a permit condition limiting t~~The amount of meat cooked on the chain-driven charbroiler is to less than: 875 pounds per week; or

- (i) 400 pounds weekly; or
 - (ii) 10,800 pounds in any continuous 12-month period and less than 875 pounds weekly.
 - (2) (B) ~~by~~ The owner or operator demonstrates, supplying evidence from testing pursuant to the test method specified in subdivision (fg), demonstrating that emissions from the chain-driven charbroiler are less than the one pound per day of any criteria air contaminant; and accepting permit conditions necessary to preclude an exceedance of that level of emissions.
- (2) Prior to [12 months after rule amendment date], an owner or operator of a chain-driven charbroiler is temporarily exempt from the provisions of paragraphs (c)(1), (c)(2), and (d)(1) provided that the amount of meat cooked on the chain-driven charbroiler is less than 875 pounds weekly. On or after [12 months after rule amendment date], only the exemptions in (e)(1) may apply.
- (f) Evaluations

~~The Executive Officer will evaluate Rule 1138 and report to the Governing Board, no later than 18 months from the date of its adoption, to assess the feasibility of emission reductions and whether cost-effective control devices or other methods are available for the control of emissions from under-fired charbroilers and potentially other commercial restaurant cooking equipment.~~
- (fg) Test Methods

The District's Protocol - Determination of Particulate and Volatile Organic Compound Emissions from Restaurant Operations shall be used to determine the pounds of PM and VOC per 1,000 pounds of meat cooked.

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

Final Staff Report

Proposed Amended Rule 1138 – Control of Emissions from Restaurant Operations

September 2025

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EXECUTIVE SUMMARY

The South Coast Air Basin Attainment Plan for the 2012 Annual PM_{2.5} Standard (2024 PM_{2.5} Plan) was adopted on June 7, 2024, to assist in meeting state and federal air quality standards for fine particulate matter (PM_{2.5}). Although the South Coast Air Basin (Basin) is in attainment with the 1997 and 2006 PM_{2.5} National Ambient Air Quality Standards (NAAQS), it is a “serious” nonattainment area for the 2012 PM_{2.5} NAAQS. Proposed Amended Rule 1138 – Control of Emissions from Restaurant Operations (PAR 1138) focuses on reducing PM_{2.5} from certain restaurant operations to comply with the federal Clean Air Act (CAA) Most Stringent Measures (MSM) requirements for the 2012 PM_{2.5} NAAQS.

Rule 1138 was adopted on November 14, 1997, to reduce emissions from chain-driven charbroilers in commercial cooking operations by establishing emissions control and recordkeeping requirements. Under the existing Rule, owners and operators of chain-driven charbroilers subject to Rule 1138 are required to operate chain-driven charbroilers equipped with control equipment certified by the South Coast AQMD or other control technology demonstrating combined PM and volatile organic compound (VOC) control efficiency of no less than 83% (as demonstrated by South Coast AQMD approved source testing protocol¹). Chain-driven charbroilers with a throughput of less than 875 pounds of meat cooked per week are exempt from the control technology requirements of Rule 1138.

As required by the federal CAA, PAR 1138 aligns South Coast AQMD requirements for chain-driven charbroilers with similar but more stringent regulations adopted elsewhere in the nation, specifically the MSMs including Bay Area Air District Regulation 6, Rule 2 – Commercial Cooking Equipment² and San Joaquin Valley Air Pollution Control District Rule 4692 – Commercial Charbroiling.³ PAR 1138 will lower the current exemption threshold from less than 875 pounds of meat cooked per week to less than 400 pounds of meat cooked per week, or alternatively, less than 10,800 pounds of meat cooked per month while maintaining a weekly throughput of less than 875 pounds of meat cooked. PAR 1138 also partially implements the 2024 PM_{2.5} Plan’s Control Measure BCM-12: Further Emission Reductions from Commercial Cooking. It is estimated that lowering the exemption threshold will reduce PM emissions by 0.05 ton per day.

¹ South Coast Air Quality Management District, Protocol – Determination of Particulate and Volatile Organic Compound Emissions from Restaurant Operations (1997): <https://www.aqmd.gov/docs/default-source/2021-pm-2.5-redesignation-request-maintenance-plan/protocol---determination-of-particulate-and-volatile-organic-compound-emissions-from-restaurant-operations.pdf>

² Bay Area Air District Regulation 6 Rule 2 – Commercial Cooking Equipment (2007): <https://www.baaqmd.gov/~media/dotgov/files/rules/reg-6-rule-2-commercial-cooking-equipment/documents/rg0602.pdf>

³ San Joaquin Valley Air Pollution Control District Rule 4692 – Commercial Charbroiling (2018): <https://ww2.valleyair.org/media/1ecbi4rm/r4692.pdf>

CHAPTER 1 : BACKGROUND

INTRODUCTION

FEDERAL CLEAN AIR ACT REQUIREMENTS

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AFFECTED INDUSTRY

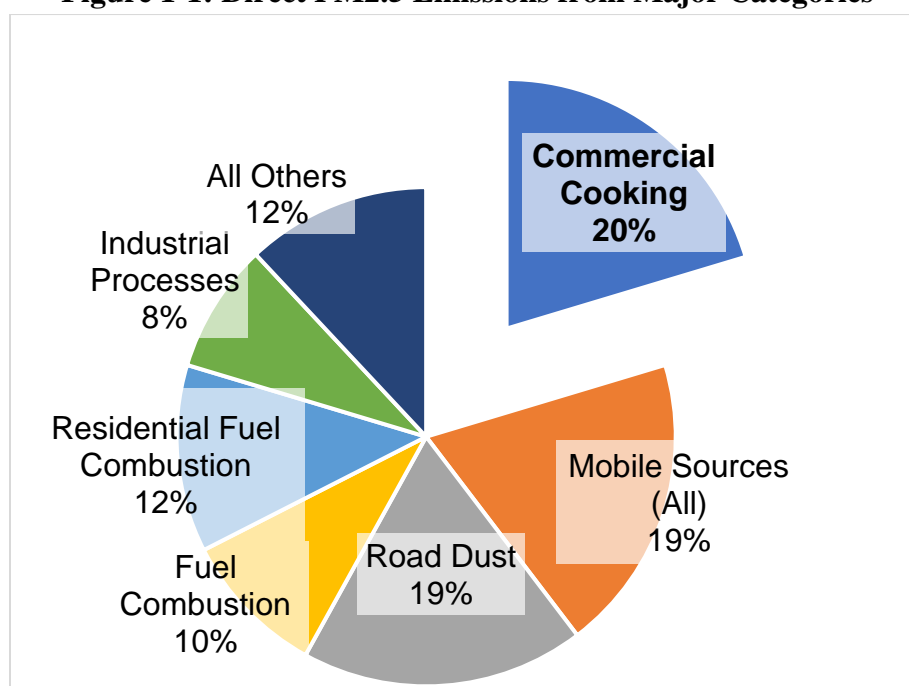
EQUIPMENT OVERVIEW

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INTRODUCTION

South Coast AQMD is the regulatory authority with jurisdiction over the South Coast Air Basin and Coachella Valley. The region has the worst levels of ground-level ozone (smog) and among the highest levels of fine particulate matter (PM_{2.5}) in the nation. PM_{2.5} 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_{2.5} includes road dust, diesel soot, combustion products, and other sources of fine particles. Secondary PM_{2.5} particles, such as sulfates, nitrates, and complex organic compounds, are formed from reactions with oxides of sulfur (SO_x), oxides of nitrogen (NO_x), volatile organic compounds (VOCs), and ammonia. Numerous studies have linked high levels of particulate air pollution with detrimental health effects such as respiratory and cardiovascular disease as smaller particles in the PM_{2.5} range can penetrate and deposit deep in lung tissue. PM_{2.5} can have adverse environmental outcomes such as reduced visibility, diminished water quality, and altered plant yield.⁴ Area sources are the top sources of directly emitted particulate matter (PM) and include commercial cooking, paved road dust, and residential fuel combustion (see Figure 1-1). Commercial cooking emissions alone account for around 20% of total direct PM_{2.5} emissions in the region.⁵

Figure 1-1: Direct PM_{2.5} Emissions from Major Categories



Rule 1138 – Control of Emissions from Restaurant Operations (Rule 1138), was adopted in November 1997 to reduce emissions from chain-driven charbroilers used in commercial cooking

⁴ California Air Resources Board, Inhalable Particulate Matter and Health (PM_{2.5} and PM₁₀), Accessed 07/24/2025, <https://ww2.arb.ca.gov/resources/inhalable-particulate-matter-and-health>

⁵South Coast Air Quality Management District, South Coast Air Basin Attainment Plan for the PM_{2.5} Standard, 2024, <https://www.aqmd.gov/docs/default-source/clean-air-plans/pm2.5-plans/final-pm2.5-plan/2012-annual-pm2.5-plan.pdf>

operations. Rule 1138 requires owners and operators of chain-driven charbroilers to install and operate emission control equipment certified by the South Coast AQMD. Certified emission control equipment must demonstrate control efficiency of 83% for PM and VOCs combined. Testing of control equipment must also adhere to South Coast AQMD-approved source test protocols.¹

FEDERAL CLEAN AIR ACT REQUIREMENTS

The South Coast Air Basin continues to exceed state and federal air quality standards for PM_{2.5}. The federal Clean Air Act (CAA) requires areas that do not meet National Ambient Air Quality Standards (NAAQS) to develop and implement strategies to reduce emissions so that healthful levels of air quality can be achieved in a timely manner. 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 Implementation Plan (SIP). Nonattainment areas must develop SIP(s) to attain NAAQS by specific dates or face the possibility of sanctions by the federal government and other consequences under the federal CAA. California also has air quality standards for PM_{2.5}, and, under state law, the regional nonattainment area is required to attain those standards as expeditiously as practicable. The 2012 PM_{2.5} NAAQS level is set at 12 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$). The South Coast Air Basin is classified as a “serious” PM_{2.5} non-attainment area for this standard, with an attainment date of December 31, 2025.

In March 2023, South Coast AQMD withdrew the previous plan addressing the standard to avoid potential disapproval of the plan by U.S. EPA. Staff subsequently developed the 2024 PM_{2.5} Plan⁶ that requests a five-year extension and demonstrates attainment of the standard by December 31, 2030.⁷ Under section 188(e) of the federal CAA, areas classified as serious non-attainment seeking an extension of the attainment date are required to demonstrate that the attainment plan includes MSM(s). U.S. EPA defines MSM⁸ as:

“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.”

On January 30, 2024, the U.S. EPA published its finding that California failed to submit a complete SIP by omitting certain required elements for the implementation of the 2012 NAAQS for PM_{2.5} in the South Coast Air Basin. Consistent with the federal CAA section 179(b), the U.S. EPA stated that emissions offset sanctions would apply if a complete SIP correcting the deficiencies was not submitted within 18 months. South Coast AQMD Governing Board adopted the 2024 PM_{2.5} Plan in June 2024. The plan was subsequently approved by CARB on June 27, 2024.

⁶ South Coast Air Quality Management District, Air Quality Management Plan Appendix IV-A: Stationary and Mobile Source Measures, 2024, <https://www.aqmd.gov/docs/default-source/clean-air-plans/pm2.5-plans/final-pm2.5-plan/appendix-iv-a-control-measures.pdf>

⁷ United States Environmental Protection Agency, Federal Register Vol. 85 No. 217, 2020, <https://www.govinfo.gov/content/pkg/FR-2020-11-09/pdf/2020-23033.pdf>

⁸ Fine Particulate Matter National Ambient Air Quality Standards: State Implementation Plan Requirements. Federal Register. <https://www.federalregister.gov/d/2016-18768/p-1046>

Subsequently, CARB sent a revised SIP addressing all the deficiencies identified by the U.S. EPA, which included a commitment to amend Rule 1138 as initiated in the 2024 PM2.5 Plan. On June 9, 2025, the U.S. EPA affirmatively found that the submitted revisions resulted in a complete SIP and terminated the federal sanction clock. This finding was made based on the commitment included in the revised SIP, including implementation of MSMs such as PAR 1138.

REGULATORY HISTORY

Control measures for emissions from the commercial cooking source category first appeared in the 1989 AQMP⁹ as #88-C-3 – Control of Emissions from Commercial Charbroiling (PM10, VOC). In the 1991 AQMP,¹⁰ emissions from this category appeared as A-C-4 – Control of Emissions from Deep-fat Frying (PM10, VOC). These control measures were combined in both the 1994¹¹ and 1997¹² AQMPs as PRC-03 – Control of Emissions from Restaurant Operations (PM10, VOC). PM is categorized as either PM10 or PM2.5 based on the size of the particles. PM10 are inhalable particles of 10 micrometers or less, of which PM2.5 is a subset with particle size of 2.5 micrometer or less.

In November 1997, the South Coast AQMD Governing Board adopted Rule 1138 to reduce emissions from chain-driven charbroilers used in restaurant operations by requiring installation of control equipment demonstrating combined PM and VOC control efficiency of 83%.

After the adoption of Rule 222 – Filing Requirements for Specific Emission Sources Not Requiring a Written Permit Pursuant to Regulation II (Rule 222), at the September 11, 1998, Governing Board meeting, commercial charbroilers were included in the Rule 222 filing system. Inclusion into Rule 222 requires chain-driven charbroiler owners and operators to submit sufficient information to South Coast AQMD to estimate emissions from the source and determine if the chain-driven charbroiler is operating in compliance with ~~local, state, and federal~~ applicable regulations.¹³

In March 2002, San Joaquin Valley Air Pollution Control District (SJVAPCD) adopted Rule 4692 – Commercial Charbroiling (Rule 4692). This rule required catalytic oxidizers certified to reduce PM and VOC by at least 83% to be installed on all newly installed chain-driven charbroilers by June 21, 2002, as well as existing chain-driven charbroilers by March 21, 2003. In September 2009, SJVAPCD adopted an amendment to lower the exemption limit of Rule 4692 from 875 pounds per week of cooked meat to 400 pounds per week. To account for chain-driven charbroiler operators that may see seasonal activity peaks, the amendment added an alternative exemption

⁹ South Coast Air Quality Management District, Air Quality Management Plan Appendix IV-A: Stationary Source Control Measures, 1989

¹⁰ South Coast Air Quality Management District, Air Quality Management Plan Appendix IV-A: Stationary Source Control Measures, 1991

¹¹ South Coast Air Quality Management District, Air Quality Management Plan Appendix IV-A, Stationary Source Control Measures, 1994

¹² South Coast Air Quality Management District, Air Quality Management Plan Appendix IV-A: Stationary Source Control Measures, 1997, [https://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/1997-air-quality-management-plan/1997-aqmp-appendix-iv\(a\).pdf](https://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/1997-air-quality-management-plan/1997-aqmp-appendix-iv(a).pdf)

¹³ South Coast Air Quality Management District, Rule 222 – Filing Requirements for Specific Emission Sources not Requiring a Written Permit Pursuant to Regulation II, 2023, <https://www.aqmd.gov/docs/default-source/rule-book/reg-ii/rule-222.pdf>

limit of 10,400 pounds of cooked meat per 12-month period while maintaining less than 875 pounds per week. The last amendment for Rule 4692 was on June 21, 2018, to require registration as well as a one-time informational report submission from owners and operators of underfired charbroilers for commercial cooking operations.¹⁴

In October 2004, Ventura County Air Pollution Control District (VCAPCD) adopted Rule 74.25¹⁵ – Restaurant Cooking Operations. This rule required owners or operators of conveyORIZED charbroilers to reduce PM and VOC by at least 83% on all applicable equipment by October 12, 2005. ConveyORIZED charbroilers operating prior to October 12, 2005, with throughput of less than 875 pounds of meat cooked per week are exempt from the emission control requirements. All new conveyORIZED charbroilers are required to meet the control efficiency requirements regardless of throughput.

In November 2007, the Bay Area Air District (BAAD) adopted Regulation 6, Rule 2: Commercial Cooking Equipment. This rule applies to anyone who owns, operates, or installs a chain-driven (conveyORIZED) charbroiler within a restaurant that purchases 500 pounds of beef or more per week. Chain-driven charbroilers in BAAD must be equipped with a catalytic oxidizer that limits emissions of PM10 and VOCs to no more than 1.3 lbs and 0.32 lbs, respectively, per 1000 lbs of beef cooked. Alternatively, a different control device may be used if the operator can demonstrate that it will limit PM10 emissions to no more than 0.74 lbs per 1000 lbs of beef cooked. This rule also has an exemption threshold of 400 pounds of beef per week based on a survey of their restaurants and cost-effectiveness calculation.

San Diego Air Pollution Control District (SDAPCD) announced initiation of rule development for Proposed New Rule 67.26 – Commercial Charbroiling Operations in 2024 and released the final staff report in March 2025. Since this proposed rule currently has a comparatively higher exemption threshold of 415 pounds of meat cooked per week, staff does not consider this rule as an MSM.¹⁶

In 2020, the U.S. EPA concluded in its approval of SJVAPCD’s 2018 PM2.5 Plan for the 2006 PM2.5 NAAQS that the SJVAPCD Rule 4692 “implements the most stringent measures adopted or demonstrated to be technically and economically feasible for commercial chain-driven charbroilers.”¹⁷

¹⁴ San Joaquin Valley Air Pollution Control District, Final Draft Staff Report – Amendments to Rule 4692, 2018, https://archive.valleyair.org/workshops/postings/2018/06-21-18_r4692/R4692_FinalDraftStaffReport.pdf

¹⁵ Ventura County Air Pollution Control District, Rule 74.25, Adopted 10/12/2004: <https://www.vcapcd.org/wp-content/uploads/Rulebook/Reg4/RULE%2074.25.pdf>

¹⁶ San Diego Air Pollution Control District, Proposed New Rule 67.26 – Commercial Charbroiling Operations & Corresponding Amendments to Rule 11, 12, and 40, March 2025, <https://www.sdapcd.org/content/dam/sdapcd/documents/rules/rule-workshops/041025/Rule-67.26-Staff-Report.pdf>

¹⁷ United States Environmental Protection Agency. Technical Support Document: EPA Evaluation of BACM/MSM – San Joaquin Valley PM2.5 Plan for the 2006 PM2.5 NAAQS. <https://www.regulations.gov/document/EPA-R09-OAR-2019-0318-0005>.

THE NEED FOR PROPOSED AMENDED RULE 1138

The 2024 PM_{2.5} Plan identifies the South Coast AQMD's attainment strategy through source-specific control measures. Stationary Source Control Measure BCM-12: Further Emission Reductions from Commercial Cooking was initially included in the 2016 AQMP as BCM-01. The measure describes the strategy of seeking further direct reductions of PM_{2.5} emissions from commercial cooking facilities. In part, the control strategy is based on the 2024 PM_{2.5} Plan Most Stringent Measures analysis which is required to be conducted as part of the federal CAA for nonattainment regions when seeking an extension of the NAAQS attainment deadline.

Appendix III of the 2024 PM_{2.5} Plan outlines the methods that staff used to identify MSM by first looking for Potential Control Measures (PCMs) via analysis of Best Available Control Measure (BACM)/Best Available Control Technology (BACT). The demonstration generally involves an analysis of South Coast AQMD's control requirements as they compare to those in other jurisdictions. Other sources such as U.S. EPA guidance documents are also consulted. When South Coast AQMD's control requirements meet the BACM/BACT definition, no further analysis is required. When a regulation or control measure from another air basin or from U.S. EPA guidance is identified as more stringent than South Coast AQMD's regulation, the measure is analyzed for technological and economic feasibility.

From the list of identified PCMs based on the BACM/BACT analysis, staff applied the MSM criteria as specified in Appendix III of the 2024 PM_{2.5} Plan to identify potential MSMs. Some PCMs were rejected based on technological or economic infeasibility. Rule 1138 was one of the rules that passed both phases of this analysis with analogous rules in other air districts that can be seen in Table 1-1.

In line with existing regulations in other air districts, PAR 1138 seeks to implement MSM by lowering the exemption threshold for Rule 1138. As summarized in Table 1-1, regulations from BAAD Regulation 6, Rule 2 and SJVAPCD Rule 4692 were identified to have more stringent exemption thresholds than South Coast AQMD Rule 1138. To implement MSM, PAR 1138 will lower the existing threshold and provide two pathways for a chain-driven charbroiler to qualify for an exemption: 1) a throughput of less than 400 pounds of meat cooked per week; or 2) a throughput of less than 10,800 pounds of meat cooked per 12-month period and less than 875 pounds for any week within that 12-month period.

Table 1-1: Comparison of Regulations for Chain-Driven Charbroilers

Air District	Rule	Date Adopted/Last Amended	Exemption upper limit
South Coast AQMD	1138	11/14/1997	<875 pounds per week
Bay Area AD	Regulation 6 Rule 2	12/05/2007	<400 pounds per week (beef)
San Joaquin APCD	4692	06/21/2018	<400 pounds per week; or ≤10,800 pounds over 12 months and <875 pounds per week

AFFECTED INDUSTRY

To understand the universe of affected facilities under PAR 1138, staff obtained information on currently active restaurants and food service facilities from the health departments of four counties that are wholly or partly within South Coast AQMD's jurisdiction (Los Angeles, San Bernardino, Riverside and Orange County).¹⁸ Staff refined the received data by filtering out restaurants which do not contribute to cooking emissions (e.g. juice bars, prepackaged food stands) as well as those outside of the South Coast AQMD jurisdiction. As a result, staff were able to estimate that 33,360 commercial cooking facilities operate within the South Coast AQMD jurisdiction. Utilizing a Pacific Environmental Services, Inc. (PES) study,¹⁹ staff engaged in a top-down approach to estimate the total number of chain-driven charbroilers affected by PAR 1138. The PES estimated that, on average, 3.73% of all commercial cooking facilities within South Coast AQMD utilize a chain-driven charbroiler. Additionally, it is estimated that, on average, there is one chain-driven charbroiler unit per commercial cooking facility that operates chain-driven charbroilers. By multiplying 33,360 with 3.73%, staff estimated a total of 1,244 chain-driven charbroilers are in operation within South Coast AQMD which would be subject to Rule 1138.

As additional research, staff analyzed submitted throughput data from charbroiler filings required by Rule 222 to better understand how many chain-driven charbroilers are exempt from Rule 1138 emission control requirements. From this analysis, 14.6% of all chain-driven charbroilers are currently exempt from Rule 1138. 3.05% of all chain-driven charbroilers will continue to be exempt if PAR 1138 is adopted.

EQUIPMENT OVERVIEW

While this rule targets restaurant operations generally, the only equipment subject to emissions control requirements are chain-driven charbroilers. Charbroilers are cooking devices that generally consist of a heating source, a high-temperature radiant surface, and a slotted grill. There are two major types of charbroilers. Underfired charbroilers are the most common type of charbroiler (e.g., grill charbroilers, flamebroilers, and direct-fired charbroilers); these units hold the meat on a slotted grill with the heat source (usually natural gas) underneath in a fixed position. Underfired charbroilers are distinct from chain-driven charbroilers, which have conveyor belts carry meat through the heating area. Typically, chain-driven charbroilers broil the meat with simultaneous flames from above and below—producing lower PM and VOC emissions than under-fired charbroilers.

At the time of Rule 1138's initial adoption in 1997, under-fired charbroilers were found to be the primary contributor of emissions from restaurants; however, chain-driven charbroilers were the best candidates for emission reductions due to a lack of cost-effective emission controls for the under-fired category. As a result, Rule 1138 only applies to chain-driven charbroilers. Independent of Rule 1138 requirements, both chain-driven as well as underfired charbroilers are subject to

¹⁸ South Coast Air Quality Management District, Jurisdiction, Accessed 07/24/2025: <https://www.aqmd.gov/nav/about/jurisdiction>

¹⁹ Pacific Environmental Services, A Detailed Survey of Restaurant Operations in the South Coast Air Basin, Contract No. 98089, 1999

filing requirements under Rule 222. Catalytic oxidizers for chain-driven charbroilers have since been added to the BACT guidelines²⁰.

Staff contacted representatives for manufacturers of chain-driven charbroilers and their control devices who, combined, make up the majority of the market share. Manufacturers were able to confirm that the industry's standard emissions control technology for chain-driven charbroilers are catalytic oxidizers. According to manufacturers, catalytic oxidizers are unique to the manufacturer for a chain-driven charbroiler but not particular models. In other words, all chain-driven charbroiler units made by the same manufacturer can use the same catalyst regardless of year of manufacture. Due to this, all chain-driven charbroiler units are anticipated to be retrofittable. The catalytic oxidizer beds sit directly on top of the charbroiler units enclosed in a stainless-steel frame. They do not need utility hookups since exhaustive heat directs PM emissions through the oxidizer. Maintenance across manufacturers only involves rinsing off the catalyst with water and (if the manufacturer recommends) soap, though the frequency of maintenance for a catalytic oxidizer may vary per manufacturer recommendation from nightly to monthly. Manufacturers state that, with proper maintenance, catalytic oxidizers should last the entire useful life of a chain-driven charbroiler unit. According to one manufacturer, a catalytic oxidizer is estimated to cost around \$1,900 in 2025.

PUBLIC PROCESS

South Coast AQMD conducted Working Group Meetings on March 5 and April 17, 2025, where staff presented background information as well as proposed amendments with rule language. Staff brought the proposed amended rule to the Stationary Source Committee on June 20, 2025. On July 2, 2025, a Public Workshop was held for PAR 1138. ~~Staff will bring the proposal to the South Coast AQMD Governing Board for consideration for adoption at the Public Hearing which is scheduled for September 5, 2025 (subject to change).~~ Besides public meetings, staff conducted outreach to the California Restaurant Association (CRA) to discuss rule considerations and receive feedback on how Proposed Amended Rule 1138 may affect the restaurant industry. Staff additionally discussed with manufacturers to better understand the costs of owning and operating chain-driven charbroilers and their associated control technologies. As an effort to coordinate site visits, staff reached out to CRA, Disneyland Resorts, Universal Studios Hollywood, and several prominent chain restaurants in South Coast AQMD jurisdiction known to have chain-driven charbroilers including Burger King, Carls Jr., Dairy Queen, The Habit, and Red Robin. Through these correspondences, staff was able to secure one site visit and observe multiple chain-driven charbroilers in operation, providing an opportunity to understand typical operation and maintenance. Staff also reached out to the Service Employees International Union (SEIU) and Hotel Employees and Restaurant Employees Union (UNITE HERE) to ensure that labor groups were aware of the proposed amended rule and to solicit feedback. No key issues have been brought to staff's attention during the public process to date.

²⁰ South Coast AQMD BACT Guidelines – Part D, February 2024, https://www.aqmd.gov/docs/default-source/bact/bact-guidelines/bact-guidelines-2024/part-d_bact-guidelines-for-non-major-polluting-facilities.pdf

CHAPTER 2 : SUMMARY OF PROPOSAL

Introduction

Overall Approach

INTRODUCTION

Rule 1138 reduces emissions from chain-driven charbroilers at restaurant operations by requiring owners and operators of chain-driven charbroilers to install and operate emission control equipment which meets minimum control efficiency as certified by South Coast AQMD. PAR 1138 is developed to address federal CAA requirements for MSM and partially implement control measure BCM-12 from the 2024 PM2.5 Plan by lowering the exemption threshold of Rule 1138 and adding an alternative exemption option to be consistent with similar but more stringent rules adopted by other air districts in California. Additional administrative amendments were included to remove legacy language for requirements with past-due implementation dates. PAR 1138 will also be submitted for inclusion into the SIP.

For this chapter, when referring to PAR 1138 specific terms that are defined in the rule language, the terminology will be capitalized.

OVERALL APPROACH

The rule title, applicability - subdivision (a), recordkeeping - subdivision (d), and test methods - subdivision (f), which is currently subdivision (g), remain unchanged from the current Rule 1138 language.

Definitions – Subdivision (b)

The following definitions are removed in PAR 1138:

- *Existing Chain-Driven Charbroiler* – any Chain-Driven Charbroiler operating on or before November 14, 1997
- *New Chain-Driven Charbroiler* – any Chain-Driven Charbroiler initially installed and operated after November 14, 1997

These terms are used in Rule 1138 to distinguish Chain-Driven Charbroilers initially installed and operated prior November 14, 1997. This distinction was made to establish a 10-year grace period from the Rule's requirements for Existing Chain-Driven Charbroilers. Since the grace period ended long ago, these definitions can be removed without affecting compliance.

The definition for Meat, found in paragraph (b)(4) of PAR 1138, has been revised to remove “fish” as a redundant term and to avoid confusion over the scope of “seafood.” The Merriam-Webster's dictionary defines “seafood” as “edible marine fish and shellfish.” The California Department of Public Health also lists the definition of “seafood” to include “all fish and fishery products intended for human consumption.” Seafood also includes freshwater derivatives. As defined in the California Food and Agriculture Code Section 58623, “seafood” is, in principal part, “shellfish and every other form of animal or plant life which is taken from fresh or salt water and used for human consumption...” Accordingly, the use of the term “seafood” adequately covers fish, and all other edible marine and aquatic life, for the purposes of this rule.

Requirements – Subdivision (c)

Similar to Subdivision (b), paragraphs (c)(1) and (c)(2) in Rule 1138 are removed from PAR 1138 due to their relationship to the now-defunct grace periods. Accordingly, paragraph (c)(1) of PAR 1138 clarifies the applicability of Rule 1138 from New Chain-Driven Charbroilers (a deleted definition in PAR 1138) to all Chain-Driven Charbroilers by removing references to grace period dates which are past due and no longer applicable as of the date of rule amendment. As such, the

administrative changes to rule language in paragraph (c)(1) do not alter the applicability of current Rule 1138.

Paragraph (c)(3) of PAR 1138 clarifies that owners and operators of Chain-Driven Charbroilers are required to submit equipment filings under Rule 222 and include applicable exemptions specified in subdivision (e).

Exemption – Subdivision (e)

Subparagraph (e)(1)(A) of PAR 1138 specifies the revised exemption thresholds. A Chain-Driven Charbroiler is exempt from paragraphs (c)(1), (c)(2), and (d)(1) of PAR 1138 if the unit has a throughput that is less than 400 pounds of meat cooked weekly, or alternatively, 10,800 pounds of meat cooked in any continuous 12-month period while maintaining less than 875 pounds of meat weekly; to account for chain-driven charbroiler operators that may see seasonal activity peaks.

Paragraph (e)(1)(B) of PAR 1138 is retained from the current Rule 1138 language and provides an alternative exemption option for owners and operators of Chain-Driven Charbroilers demonstrating less than one pound per day of any criteria pollutant with the test method specified in subdivision (f) and accepting permit conditions supporting such emissions limit.

Paragraph (e)(2) temporarily extends current exemption thresholds until 12 months after rule amendment date. The provided grace period allows owners or operators of chain-driven charbroilers additional time to procure compliant equipment as well as submitting update(s) to existing Rule 222 filing(s) to reflect the revised exemption threshold of PAR 1138, if necessary.

Evaluations – Previously Subdivision (f)

In Rule 1138, this subdivision requires the Executive Officer to evaluate Rule 1138 and provide a report to the Governing Board on its feasibility within 18 months of initial adoption. Given that staff presented the required evaluation at the May 14, 1999 Board meeting, this 18-month period expired over 20 years prior to the beginning of the PAR 1138 rule development process, this requirement has been met language is obsolete and has been removed.

CHAPTER 3 : Impact Assessment

EMISSIONS INVENTORY AND EMISSION REDUCTIONS

COST AND COST-EFFECTIVENESS

CALIFORNIA ENVIRONMENTAL QUALITY ACT

SOCIOECONOMIC IMPACT ASSESSMENT

DRAFT FINDINGS UNDER THE HEALTH AND SAFETY CODE

COMPARATIVE ANALYSIS

EMISSIONS INVENTORY AND EMISSION REDUCTIONS

The 1998 survey and a subsequent report conducted by PES estimated that 3.73% of all restaurants within South Coast AQMD jurisdiction contain at least one chain-driven charbroiler. Additionally, this survey suggests that facilities operating at least one chain-driven charbroiler have on average about one chain-driven charbroiler per facility.

Emission factors for PM and VOC as well as associated test methods for various combinations of appliances for cooking meat, including chain-driven charbroilers (with and without a catalytic oxidizer), were developed from a study conducted in 1995 by The UC Riverside Center for Environmental Research and Technology (CE-CERT)²¹ sponsored by the South Coast AQMD and the California Restaurant Association.

The emissions inventory of chain-driven charbroiler units within South Coast AQMD's jurisdiction was estimated by utilizing the emission factors from the CE-CERT study as well as the rates of chain-driven charbroiler prevalence calculated from the PES survey. To complete its estimation, staff collaborated with health departments at the county level to create a list of all permitted food service facilities within South Coast AQMD jurisdiction. From this list, staff created a filter to remove entries that were likely not associated with any sort of commercial cooking in line with justifications from the PES study. This methodology led staff to estimate that there are 1,244 chain-driven charbroilers in South Coast AQMD jurisdiction which, in 2023, were responsible for 99.78 tons per year (tpy) of PM and 30.61 (tpy) of VOC.

Emission reductions requirement from the control technology for Rule 1138 requires a combined reduction of 83% in total PM and VOC emissions. As such, staff found it reasonable to assume an 83% reduction in emissions from newly non-exempt chain-driven charbroiler units from PAR 1138. It was found that about 11.5% of chain-driven charbroiler filings under Rule 222 would be newly subject to PAR 1138. Combined with the estimate of 1,244 total chain-driven charbroilers in South Coast AQMD jurisdiction, 143 chain-driven charbroiler units are estimated to be newly non-exempt from this rule. Currently, staff assume that all newly non-exempt units do not have control technologies currently installed. This is a conservative approach as emissions control technology are widely accepted to be recommended or included with the purchase of a new chain-driven charbroiler unit. Emissions from affected chain-driven charbroilers are calculated based on the upper limits of Rule 1138's current exemption threshold of 875 lbs of meat cooked per week and assume that no newly non-exempt units will remain exempt under the alternative exemption pathway of 10,800 pounds per 12-month period while maintaining less than 875 pounds cooked per week. When combined with emission factors, from the 1995 CE-CERT Study, of 14.8 pounds of PM per ton of meat cooked and 4.54 pounds of VOC per ton of meat cooked, total emission reductions from the proposed amendment are expected to reduce PM emissions by 19.98 tpy, or about 0.05 tons per day (tpd), and additional VOC reductions of 6.13 tpy, or about 0.02 tpd, as a co-benefit.

²¹University of California, Riverside Bourns College of Engineering – Center for Environmental Research and Technology, Further Development of Emission Test Methods and Development of Emission Factors for Various Commercial Cooking Operations Final Report, 1997,
https://www3.epa.gov/ttnchie1/old/ap42/ch09/s133/related/rel01_c09s1303.pdf

COST AND COST-EFFECTIVENESS

Cost-effectiveness is the cost-benefit analysis comparing the relative costs of rule implementation to the outcomes. South Coast AQMD compares factors such as initial capital costs, operating and maintenance costs, and installation costs against the anticipated emission reductions across the South Coast Air Basin and calculates the cost of removing one ton of pollutant through the implementation of this regulation. There are two potential methods to calculate cost-effectiveness for emission reductions: discounted cash flow (DCF) method and levelized cash flow (LCF) method. The cost-effectiveness calculations were completed using the DCF approach. Staff believe this is the most appropriate method for this analysis based on the discussion of the two methods below.

Discounted Cash Flow (DCF) and Levelized Cash Flow (LCF) Approaches

The DCF method converts all costs, including capital investments and costs expected in the present and all future years of equipment useful life, to present value. Conceptually, it is akin to calculating the amount of funds that would be needed at the beginning of the initial year to finance the initial capital investments and to set aside funds to pay off the annual costs as they occur in the future. The funds that would be set aside are assumed to be invested, which in turn, would generate a rate of return at the discount rate chosen. Cost-effectiveness is derived by dividing the present value of all total costs by the total emissions reduced over the equipment's useful life.

By contrast, the LCF approach amortizes all costs, regardless of when they are incurred, into a yearly expenditure of equal amount over the project life. The LCF method assumes that the annual emission reductions are constant over time by comparing the annualized cost with the amount of annual emission reductions that can be potentially achieved. However, for projects that do not have linear or constant emission reductions, which is often the case for rule development projects with varying implementation schedules, the DCF method is better suited to address these variabilities when forecasting future costs.

Compliance Costs

One year after adoption, PAR 1138 would make chain-driven charbroilers that cook between 400 and 875 pounds of meat weekly subject to emissions control requirements. Compliance requires that these newly non-exempt units, if not already equipped with certified control device such catalytic oxidizers, achieve a reduction of at least 83% below baseline emissions for PM and VOC. Discussions with manufacturers revealed that the current cost of a catalytic oxidizer is approximately \$1,900. Manufacturers confirmed that no additional costs should be incurred from the installation process as the control technology can be installed with simple hand tools. Additionally, manufacturers stated that retrofits should be available for all existing chain-driven charbroiler units and that a completely new unit would not be necessary unless the unit itself is at the end of its useful life and needs replacement regardless of PAR 1138. Due to the prevalence in the market of chain-driven charbroilers certified to the South Coast AQMD protocol, chain-driven charbroilers purchased after 1997 could potentially be already equipped with compliant control device such that the facilities affected by the proposed amendments would possibly not need to take additional actions to comply with PAR 1138. Useful life of catalytic oxidizers, with proper maintenance, is anticipated to last for the entire lifetime of a chain-driven charbroiler unit. From discussions with manufacturers, typical maintenance of a catalytic oxidizer involves cleaning with water and/or soap in intervals that can range from daily to monthly. A previous cost-effectiveness analysis from the 1997 staff report for Rule 1138 assumes that chain-driven charbroilers have a

10-year useful lifespan, and therefore this number will be used in cost effectiveness calculations.²² Additionally from the 1997 staff report, exhaust stack cleaning is estimated to be completed four times annually for chain-driven charbroilers without a catalytic oxidizer while units equipped with catalytic oxidizers have their exhaust stack cleaned once annually resulting in a potential cost savings. As part of staff's conservative approach, cost savings from the reduction of exhaust stack cleaning are assumed to be balanced out by the costs incurred from the additional maintenance needs of a catalytic oxidizer.

Cost Effectiveness

To calculate cost-effectiveness, staff assumed that all newly subject units would have a throughput equivalent to the current exemption limit, 875 pounds per week. Due to the popularity of beef hamburgers as surveyed in the 1997 PES study,¹⁹⁺¹⁷ meat used in this assessment was assumed to be standard 25% fat 1/3 lb hamburgers with an emission factor of 14.8 lbs PM per ton of meat cooked in line with patties used in the 1997 CE-CERT study.²³

To calculate the present worth factor, a 4% per annum real interest rate is assumed per South Coast AQMD practice. Below is the calculation:

Equation 3-1: Present Worth Factor Multiplier After n Years

$$\begin{aligned} \text{Present Worth Factor after } n \text{ years} &= \sum_{i=1}^n \frac{1}{(1 + \text{real interest rate})^i} \\ &= \sum_{i=1}^{10} \frac{1}{(1.04)^i} \\ &= 8.1108 \end{aligned}$$

Step 1: Calculate the anticipated annual emissions for PM for one uncontrolled chain-driven charbroiler:

Equation 3-2: Annual PM Emissions per Chain-Driven Charbroiler

$$\begin{aligned} \text{PM Emissions} &= \text{lbs meat per week threshold} * \text{weeks per year} * \text{PM Emission Factor} \\ &= 875 \frac{\text{lbs meat}}{\text{week}} * 52 \frac{\text{week}}{\text{year}} * 14.8 \frac{\text{lbs PM}}{2000 \text{ lbs meat}} \\ &= 336.7 \frac{\text{lbs PM}}{\text{year}} \end{aligned}$$

²²South Coast Air Quality Management District, Staff Report for Proposed Rule 1138 – Control of Emissions from Restaurant Operations, October 1997

²³University of California, Riverside Bourns College of Engineering – Center for Environmental Research and Technology, Further Development of Emission Test Methods and Development of Emission Factors for Various Commercial Cooking Operations Final Report, 1997

$$= 0.168 \text{ tpy PM}$$

Step 2: Calculate the cost per unit for one chain-driven charbroiler:

Equation 3-3: Cost per Chain-Driven Charbroiler to Adopt Control Technology

$$\begin{aligned} \text{Unit Cost} &= \text{Initial Cost} + (\text{Present Worth Factor} * \text{Annual Maintenance Costs}) \\ &= \$1,900 + (8.1108 * \$0) \\ &= \$1,900 \end{aligned}$$

Finally, to calculate cost effectiveness, 83% reductions were assumed for PM since emissions control devices need to demonstrate a minimum 83% control efficiency of total PM + VOC emissions to become certified. Since a majority of chain-driven charbroiler units are greater than both the proposed 400 pounds per week and existing 875 pounds per week thresholds, the number of anticipated newly non-exempt chain-driven charbroilers can be quantified. This calculation was performed as shown in in the Emissions Inventory section of this Staff Report.

Equation 3-4: South Coast AQMD Cost-Effectiveness by Criteria Pollutant

$$\begin{aligned} \text{PM Cost Effectiveness} &= \frac{\text{Unit Cost}}{\text{Lifespan (years)} * \% \text{ Reductions} * \text{Annual PM Emissions}} \\ &= \frac{\$1,900}{10 \text{ years} * 0.83 * .168 \text{ tpy}} \\ &= \$1,362.59 \text{ per ton of PM reduced} \end{aligned}$$

Incremental Cost-effectiveness

Health and Safety Code Section 40920.6(a)(3) requires the calculation of incremental cost-effectiveness for potential control options, when the South Coast AQMD adopts rules to meet the requirements for best available retrofit control technology (BARCT) pursuant to Sections 40918, 40919, 40920, and 40920.5, or for a feasible measure pursuant to Section 40914. This Section does not apply to PM (Health and Safety Code Section 40910). PAR 1138 is not being adopted to meet BARCT requirements 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 (CEQA)

Pursuant to the California Environmental Quality Act (CEQA) Guidelines Sections 15002(k) and 15061, the proposed project (PAR 1138) 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 be~~ 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

On March 17, 1989, the South Coast AQMD Governing Board adopted a resolution which requires an analysis of the economic impacts associated with adopting and amending rules and regulations. In addition, Health and Safety Code Sections 40440.8 and 40728.5 require a socioeconomic impact assessment for proposed and amended rules resulting in significant impacts to air quality or emission limitations. This Socioeconomic Impact Assessment has been prepared in accordance with Health and Safety Code and South Coast AQMD Governing Board requirements. The type of industries or businesses affected, and the range of probable costs, are addressed in this section. Additional information and analysis on the cost-effectiveness, discussion of potential emission reductions, and the necessity of amending the rule are included elsewhere in this report.

Introduction

PAR 1138 is designed to comply with the federal CAA MSM requirements for the 2012 PM_{2.5} NAAQS and to reduce emissions from chain-driven charbroilers in commercial cooking operations. Specifically, PAR 1138 will establish more stringent thresholds regarding the amount of meat cooked that would qualify an owner or operator of a chain-driven charbroiler for an exemption from certain requirements in the rule by: 1) changing the existing threshold of less than 875 pounds per week to less than 400 pounds per week; and 2) adding a new alternative threshold of less than 10,800 pounds in any continuous 12-month period while maintaining a weekly rate of less than 875 pounds. Implementation of PAR 1138 is expected to reduce PM emissions from existing chain-driven charbroilers that would no longer qualify for the exemption by approximately 0.05 ton per day (tpd); a co-benefit of VOC emission reductions of 0.02 tpd is also expected.

The legal mandates directly related to the socioeconomic impact assessment of PAR 1138 include South Coast AQMD Governing Board resolutions and various sections of the Health and Safety Code.

Legislative Mandates

South Coast AQMD Governing Board Resolution

On March 17, 1989, the South Coast AQMD Governing Board adopted a resolution that requires an analysis of the economic impacts associated with adopting and amending rules and regulations that considers all of the following elements:

- Affected industries;
- Range of probable costs;
- Cost-effectiveness of control alternatives; and
- Public health benefits.

Health and Safety Code Requirements

The state legislature adopted legislation which reinforces and expands the South Coast AQMD Governing Board resolution requiring socioeconomic impact assessments for rule development projects. Health and Safety Code Section 40440.8, ~~which went into effect on January 1, 1991,~~ requires a socioeconomic impact assessment for any proposed rule, rule amendment, or rule repeal which "will significantly affect air quality or emissions limitations."

To satisfy the requirements in Health and Safety Code Section 40440.8, the scope of the socioeconomic impact assessment should include all of the following information:

- Type of affected industries;
- Impact on employment and the regional economy;
- Range of probable costs, including those to industry;
- Availability and cost-effectiveness of alternatives to the rule;
- Emission reduction potential; and
- Necessity of adopting, amending, or repealing the rule in order to attain state and federal ambient air quality standards.

However, job impact analyses are not conducted for projects with annual costs below one million U.S. dollars, as the modeling tool is unable to accurately assess macroeconomic effects of minimal-scale policy shocks.

Health and Safety Code Section 40728.5 requires the South Coast AQMD Governing Board to: 1) actively consider the socioeconomic impacts of regulations; 2) make a good faith effort to minimize adverse socioeconomic impacts; and 3) include small business impacts. To satisfy the requirements in Health and Safety Code Section 40728.5, the socioeconomic impact assessment should include the following information:

- Type of industries or business affected, including small businesses; and
- Range of probable costs, including costs to industry or business, including small business.

Finally, Health and Safety Code Section 40920.6 requires an incremental cost-effectiveness analysis for a proposed rule or amendment which imposes Best Available Retrofit Control Technology (BARCT) or "all feasible measures" requirements relating to emissions of ozone, CO, SO_x, NO_x, VOC, and their precursors. However, this section is not applicable to PAR 1138 because this is a rule which focuses on reducing PM emissions and PM is not subject to BARCT and "all feasible measures" requirements. For this reason, an incremental cost-effectiveness analysis for PAR 1138 was not conducted.

Affected Facilities and Industries

To assess the impact of PAR 1138, South Coast AQMD staff reviewed permit data provided by health departments in the four counties (Los Angeles, San Bernardino, Riverside, and Orange).²⁴ to identify potentially affected food service facilities. The majority of the facilities can be classified

²⁴ Specifically, Los Angeles County Department of Public Health, San Bernardino County Department of Public Health, Orange County Health Care Agency, and Riverside County Department of Public Health.

with a North American Industry Classification System (NAICS) of 72: Accommodation and Food Services sector. After excluding unrelated businesses (e.g., juice bars) and matching ZIP codes with those in South Coast AQMD jurisdiction, approximately 33,360 commercial cooking facilities were identified. In addition, the 1999 PES study estimated that approximately 3.73% of commercial cooking facilities use chain-driven charbroilers. By applying this percentage to the 33,360 commercial cooking facilities, approximately 1,244 facilities are currently subject to Rule 1138. In an analysis conducted by staff, it is estimated that about 11.5% of current chain-driven charbroiler filings under Rule 222 would be changing from exempt to non-exempt under PAR 1138. Similarly, by applying this percentage, approximately 143 out of 1,244 facilities using chain-driven charbroilers in South Coast AQMD jurisdiction will be newly subject to the Rule 1138 emission control requirements.

Small Business Analysis

Because the exact universe of affected facilities is unknown, a small business analysis was not conducted for PAR 1138. Generally, chain-driven charbroilers are designed for high output and are common in larger business with consistent high meat throughput, such as Burger King and Carls Jr. However small businesses are expected to be most affected by the proposed changes to the exemption threshold in PAR 1138 due to lower throughput compared to larger businesses traditionally operating chain-driven charbroilers. While small businesses typically qualify for reduced permitting fees, this does not apply here, as chain-driven charbroilers are exempt from permitting requirements per Rule 219.

Compliance Costs

PAR 1138 would require each of the 143 newly affected facilities to make a one-time investment to purchase and install one catalytic oxidizer or 143 total. These catalytic oxidizers could potentially result in cost savings from maintenance due to reducing the frequency of maintenance on exhaust vents and savings from labor costs; however, as a conservative approach, those incremental cost savings will not be accounted for in this assessment.²⁵ Due to the prevalence of certified chain-driven charbroilers in the market, those affected facilities with chain-driven charbroilers purchased after 1997 would possibly not need to take additional actions to comply with PAR 1138 since these units are likely already equipped with compliant control device. However, to be conservative, staff assumes that all of the newly affected units will need to be retrofitted with control device to comply with PAR 1138. Additionally, charbroilers subject to Rule 1138 are generally exempt from permitting per Rule 219(d)(9)(E). While facilities do pay annual renewal fees for Rule 222 filings, that is not a result of PAR 1138 and will not be considered in this analysis. Compliance costs associated with PAR 1138 will be amortized over a 10-year period from 2026 through 2035, based on the expected 10-year useful life of the catalytic oxidizers. All costs presented in this Socioeconomic Impact Assessment are expressed in 2024 dollars. The cost assumptions for the cost estimation are outlined in the following section.

²⁵ More information about the maintenance costs can be found in the Compliance Cost section in Chapter 3 of this report

Catalytic Oxidizer

Currently, Rule 1138 requires owners and operators of each chain-driven charbroiler unit that grills more than, or equal to, 875 pounds of meat per week to comply with the control requirements specified in the rule. PAR 1138 will establish more stringent thresholds regarding the amount of meat cooked that would qualify an owner or operator of a chain-driven charbroiler for an exemption from certain requirements in the rule by: 1) changing the existing threshold of less than 875 pounds per week to less than 400 pounds per week; and 2) adding a new alternative threshold of less than 10,800 pounds in any continuous 12-month period while maintaining a weekly rate of less than 875 pounds. Under PAR 1138, approximately 143 existing facilities in South Coast AQMD jurisdiction will no longer be exempt from the rule which means that installations of catalytic oxidizers will be expected. According to a manufacturer's quote, one catalytic oxidizer is estimated to cost around \$1,900 and is expected to have a useful life of 10 years. The total capital cost for the one-time purchase and installation of 143 catalytic oxidizers at ~~each~~ the affected facilities is therefore estimated to be \$271,700.

Annual Average Compliance Cost

Over the period from 2026-2035, the total present value of the annualized compliance costs of PAR 1138 is estimated to be \$269,010 and \$261,250 at a 1% and 4% discount rate, respectively.²⁶ The average annual compliance costs of implementing PAR 1138 over the period is estimated to range from \$28,403 to \$32,210 or \$199 to \$225 per facility at a 1% to 4% real interest rate, respectively. Table 3-1 presents both the present value and annual average of the cost of implementing PAR 1138.

Table 3-1: Total Present Value and Average Annual Estimated Cost of PAR 1138

Cost Categories	Present Value (2025)		Annual Average Cost of PAR 1138 (2026-2035)	
	1% Discount Rate	4% Discount Rate	1% Real Interest Rate	4% Real Interest Rate
Capital Cost				
Catalytic Oxidizer	\$269,010	\$261,250	\$28,403	\$32,210
Recurring Costs				
-	-	-	-	-
Total	\$269,010	\$261,250	\$28,403	\$32,210

Note: The implementation will result in slight cost saving in maintenance, but staff did not account for the cost saving as a conservative approach. Additionally, no change in permitting fees will be involved because ~~permitting fees for charbroilers have been~~ are generally exempt from permitting requirements and renewal fees paid by facilities are a result of Rule 222 filings and not the implementation of PAR 1138. As such, there will be no recurring incremental costs due to the implementation of PAR 1138.

²⁶ Present value is calculated using discount rates of 1% and 4%, based on amortized costs using real interest rates of 1% and 4%, respectively.

Macroeconomic Impacts on the Regional Economy

Regional Economic Models, Inc. (REMI) developed the Policy Insight Plus Model (PI+ v3), which is a tool that South Coast AQMD typically uses to assess the impacts of rule development projects on the job market, prices, and other macroeconomic variables in the region when the average annual compliance cost is greater than or equal to one million current U.S. dollars.²⁷ However, when the average annual compliance cost of a project is less than one million dollars, the model cannot reliably determine the macroeconomic impacts, because resultant impacts from the project would be too small relative to the baseline economic forecast.

Since the average annual compliance cost of implementing PAR 1138 is estimated to be \$28,403 to \$32,210 at a 1% to 4% real interest rate, respectively, which is less than the \$1 million threshold, a macroeconomic impact analysis was not conducted for PAR 1138.

DRAFT FINDINGS UNDER THE HEALTH AND SAFETY CODE

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, nonduplication, and reference, as defined in that section, based on relevant information presented at the Public Hearing, this written analysis, and the rulemaking record.

Necessity

PAR 1138 is needed to address federal Clean Air Act requirements for Most Stringent Measures and reduce PM2.5 emissions by partially implementing control measure BCM-12: Further Emission Reductions from Commercial Cooking, and implementing Most Stringent Measure requirements from the 2024 South Coast Air Basin PM2.5 Attainment Plan for the 2012 Annual PM2.5 Standard.

Authority

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~~, 40725 through 40728, 5 and 41508.

Clarity

PAR 1138 is written and displayed so that the meaning can be easily understood by people directly affected by it.

Consistency

PAR 1138 is in harmony with, and not in conflict with or contradictory to, existing statutes, court decisions, federal or state regulations.

²⁷ Regional Economic Modeling Inc. (REMI). Policy Insight® for the South Coast Area (70-sector model). Version 3. 2023.

Non-duplication

PAR 1138 does not impose the same requirements as any existing state or federal regulation, and the proposed amended rule is necessary and proper to execute the powers and duties granted to, and imposed upon, the South Coast AQMD.

Reference

By adopting this proposed amended rule, the South Coast AQMD Governing Board will implement, interpret or make specific: Health and Safety Code Sections 40001 (rules to achieve ambient air quality standards) and 40440(a) (rules to carry out the AQMP).

COMPARATIVE ANALYSIS

Health and Safety Code Section 40727.2 requires a written analysis comparing the proposed amended rule with existing federal, state and South Coast AQMD regulations. This analysis must include averaging provisions, operating parameters, work practice requirements, and recordkeeping, monitoring, and reporting requirements associated with existing applicable rules and proposed regulations.

Federal and state regulations do not contain rules for the source category of chain-driven charbroilers. BAAD adopted Regulation 6, Rule 2: Commercial Cooking Equipment in December 2007 and SJVAPCD amended Rule 4692 – Commercial Charbroiling in June 2018. For informational purposes only, Table 3-1 compares staff's proposal with similar rules adopted by the Bay Area Air District, rule and the San Joaquin's Valley Air Pollution Control District, and the Ventura County Pollution Control District, respectively rule with staff's proposal.

Table 3-2: PAR 1138 Comparative Analysis

Rules	Rule Elements		
	Applicability	Requirements	Reporting, Notifications, Recordkeeping
PAR 1138 (South Coast AQMD)	Owners and operators of commercial cooking operations that have chain-driven charbroilers	Chain-driven charbroilers must be equipped with a catalytic oxidizer or other certified control device as certified by the Executive Officer and maintained in accordance with manufacturer specifications Exemption threshold: <ul style="list-style-type: none"> - Less than 400 pounds weekly meat cooked; or - 10,800 pounds in any continuous 12-month period and less than 875 pounds weekly meat cooked 	<ul style="list-style-type: none"> - If the unit has control equipment, installation and maintenance records for the control device for at least five years - If under exemption, weekly records of the meat cooked and monthly records of meat purchased kept for at least five years - Alternative recordkeeping can be requested should the Executive Officer and EPA deem it sufficient
Regulation 6 Rule 2 (BAAD)	Owners, installers, or operators of: <ul style="list-style-type: none"> - Underfired charbroilers that purchase >1,000 pounds of beef weekly - Chain-driven charbroilers that purchase > 400 pounds of beef weekly 	Beginning 1/1/2009, chain-driven charbroilers must operate with either: <ul style="list-style-type: none"> - A catalytic oxidizer limiting PM10 emissions to 1.3 pounds per 1000 pounds of beef cooked and VOC emissions to 0.32 pounds per 1000 pounds of beef cooked - Another control device limiting PM10 emissions to 0.74 pounds per 1000 pounds of beef cooked Exemption Threshold <ul style="list-style-type: none"> - Less than 400 pounds of beef per week 	For owners or operators of non-exempt chain-drive charbroilers: <ul style="list-style-type: none"> - Date of installation of any emission control device - Maintenance, work description, and date of maintenance These records shall be maintained for at least five years
Rule 4692 (SJVAPCD)	Charbroilers used to cook meat at commercial cooking operations	A catalytic oxidizer or other control device must be equipped to a chain-driven charbroiler to achieve at least 83% and 86% reductions for PM-10 and VOC emissions, respectively. Control devices must be maintained in line with manufacturer's instructions Chain-driven charbroilers are exempt from the above requirement if the unit cooks either less than 400 pounds of meat cooked per week or less than 10,800 pounds per rolling 12-month period while maintaining less than 875 pounds of meat cooked per week.	For exempt units, to be kept at least five years: <ul style="list-style-type: none"> - Weekly records of the meat cooked on a chain-driven charbroiler - Test results showing exemption eligibility For non-exempt units, to be kept at least five years: <ul style="list-style-type: none"> - Weekly records of the meat cooked on a chain-driven charbroiler
Rule 74.25 (Ventura County Air Pollution Control District) ¹⁵⁴⁵⁴⁴	Owners or operators of conveyORIZED charbroilers	Reactive organic compound emissions and PM emissions from a conveyORIZED charbroilers must be reduced by at least 83% using a South Coast AQMD certified emissions control device. ConveyORIZED charbroilers in service before 10/12/05 are exempt if they cook less than 875 pounds of meat per week	ConveyORIZED charbroilers equipped with an emissions control device must: <ul style="list-style-type: none"> - Maintain records for the date of installation and/or replacement of the control device - Maintain records of any maintenance performed on the emissions control device including date, time, and description of maintenance. - Keep records on file for at least two years Exempt units must maintain weekly records of the amounts of meat charbroiled and monthly records of meat purchased. Records must be kept on file for at least two years.

APPENDIX A : RESPONSE TO PUBLIC COMMENTS

PUBLIC WORKSHOP COMMENTS

PUBLIC WORKSHOP COMMENTS

Staff held a Public Workshop on July 2, 2025 via teleconference to provide a summary of PAR 1138. The following is a summary of comments received on PAR 1138 and staff responses.

Comment #1:

Anonymous attendee asked in the teleconference Questions and Answers (Q&A) box for more information regarding how to access the recording for the Public Workshop.

Staff Response to Comment #1:

South Coast AQMD invites any interested members of the public to contact staff if they would like the July 2, 2025 Public Workshop recording. Alternatively, the recording can be requested through a California Public Records Act (CPRA) request. Additional information on how to submit a CPRA request can be found here: <https://www.aqmd.gov/nav/online-services/public-records>.

Comment #2

Anonymous attendee asked in the teleconference Q&A box for clarification on when this rule would take effect if adopted.

Staff Response to Commentor #2:

The South Coast AQMD Governing Board is scheduled to hold the public hearing for PAR 1138 on September 5, 2025. Should the Board vote to adopt PAR 1138, the proposed amended rule language will become effective immediately and changes in the exemption threshold will become effective 12 months after the date of rule adoption. Please see Chapter 2 of this staff report for additional details on the implementation schedule of PAR 1138.

ATTACHMENT H



**South Coast
Air Quality Management District**

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

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

**PROJECT TITLE: PROPOSED AMENDED RULE 1138 – CONTROL OF EMISSIONS
FROM RESTAURANT OPERATIONS**

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.lci.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)**

To: 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

From: South Coast Air Quality Management District
21865 Copley Drive
Diamond Bar, CA 91765

Project Title: Proposed Amended Rule 1138 – Control of Emissions from Restaurant Operations

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.

Description of Nature, Purpose, and Beneficiaries of Project: Rule 1138 contains requirements to reduce emissions of particulate matter (PM), which includes PM with particle size of 2.5 micrometers or less (PM_{2.5}), and volatile organic compounds (VOC) from chain-driven charbroilers used in commercial cooking operations. Proposed Amended Rule 1138 (PAR 1138) partially implements Control Measure BCM-12: Further Emission Reductions from Commercial Cooking, of the South Coast Air Basin Attainment Plan for the 2012 Annual PM_{2.5} Standard, by establishing more stringent thresholds regarding the amount of meat cooked that would qualify an owner or operator of a chain-driven charbroiler for an exemption from certain requirements in the rule by: 1) changing the existing threshold of less than 875 pounds per week to less than 400 pounds per week; and 2) adding a new alternative threshold of less than 10,800 pounds in any continuous 12-month period while maintaining a weekly rate of less than 875 pounds. PAR 1138 also removes outdated provisions. Implementation of PAR 1138 is expected to reduce PM emissions from existing chain-driven charbroilers that would no longer qualify for the exemption by approximately 0.05 ton per day(tpd); a co-benefit of 0.02 tpd of VOC emission reductions is also expected. By contributing to the region's attainment of state and federal PM_{2.5} emission standards, implementation of PAR 1138 will benefit the public and nearby communities through improved air quality and reduced exposure to harmful air pollutants from chain-driven charbroilers.

Public Agency Approving Project:
South Coast Air Quality Management District

Agency Carrying Out Project:
South Coast Air Quality Management District

Exempt Status:

CEQA Guidelines Section 15061(b)(3) – Common Sense Exemption

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

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 PAR 1138 is expected to affect a limited number of facilities which have existing chain-driven charbroilers that are already equipped or can be retrofitted with commercially available air pollution control devices via the use of hand tools, it can be seen with certainty that implementation of the proposed project will not cause 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 1138 is intended to further protect or enhance the environment by improving public health and air quality through reduced exposure to harmful air pollutants from chain-driven charbroilers. 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.

NOTICE OF EXEMPTION FROM CEQA (concluded)

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

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

CEQA Contact Person:

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Date Received for Filing: _____ **Signature:** (Signed and Dated Upon Board Approval)
Kevin Ni
Program Supervisor, CEQA
Planning, Rule Development, and
Implementation

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

**GOVERNING BOARD MEETING
SEPTEMBER 5, 2025**



Background

The South Coast Air Basin is classified as “serious” nonattainment for the 2012 annual PM_{2.5} National Ambient Air Quality Standard (12 µg/m³)

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

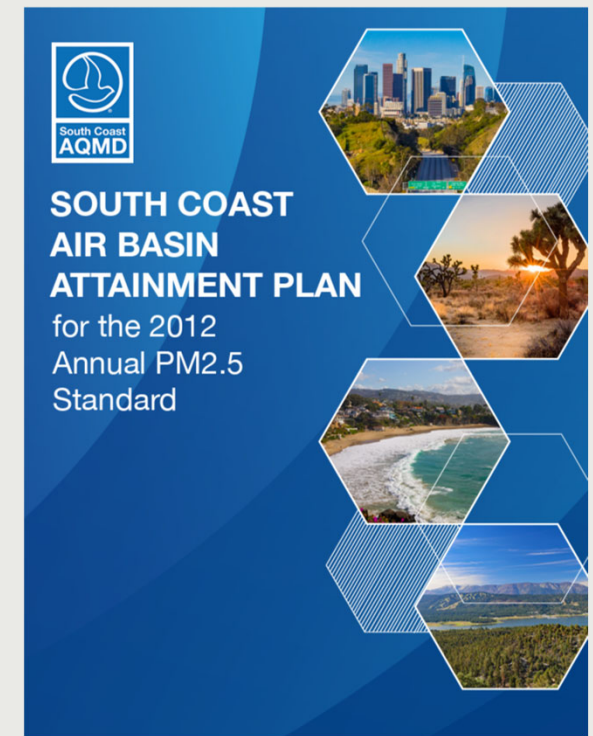
A finding of
failure to submit
an attainment
plan started a
sanction clock

June 2024

Governing Board
approved the
PM_{2.5} 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

- 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

- 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

- 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

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 PM2.5 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 PM2.5 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)

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

- 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_{2.5} 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

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

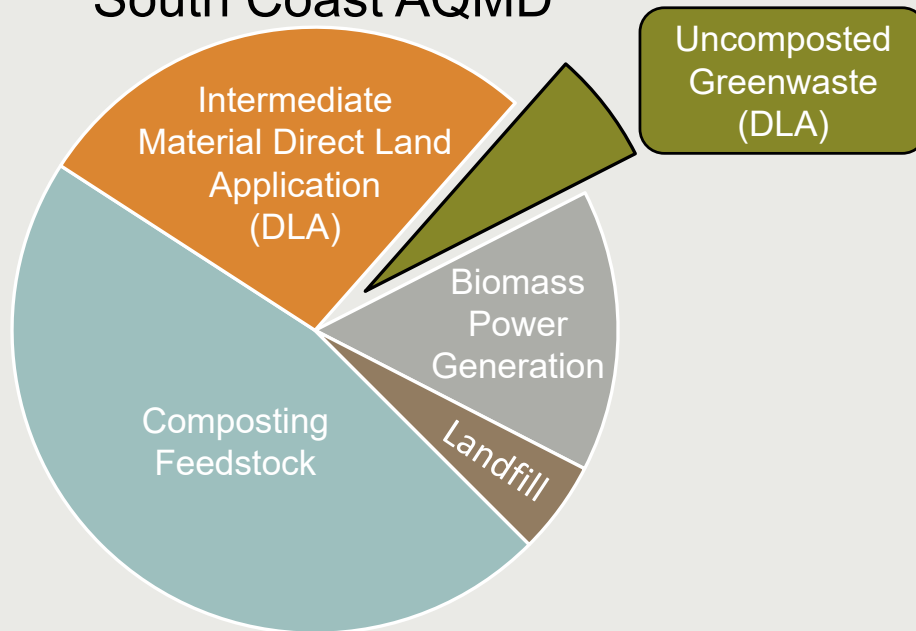
PAR 1133.1: Chipping and Grinding Operations

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
Overall Reductions	2.34	0.19	\$230	\$2,900

Impact Assessment

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

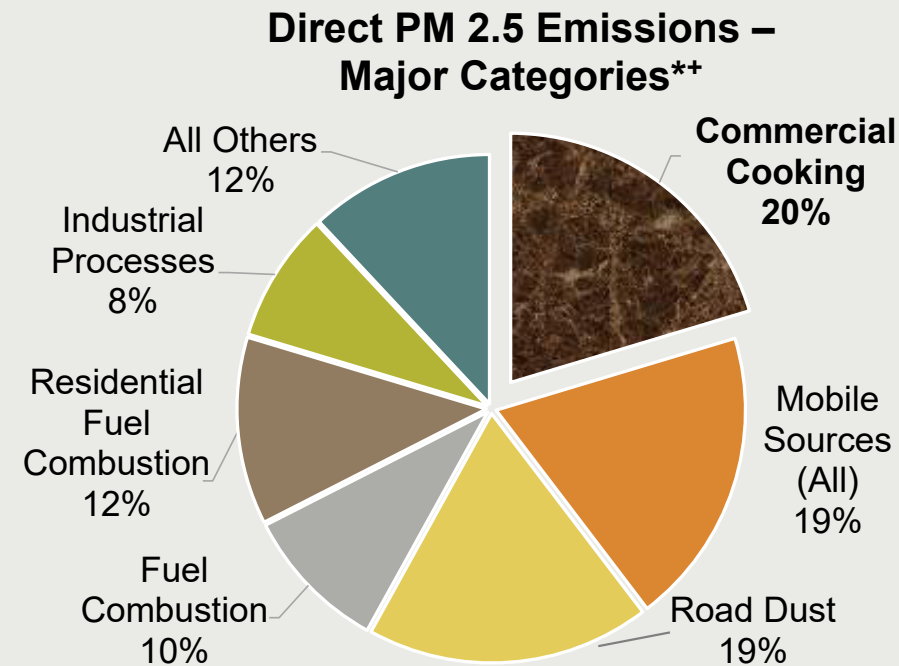
California Environmental Quality Act (CEQA)

- 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_{2.5} 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_{2.5} emissions contribute about one third of total ambient PM_{2.5}, with the rest coming from reactions with SO_x, NO_x, 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



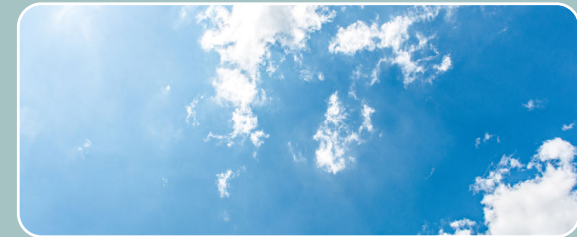
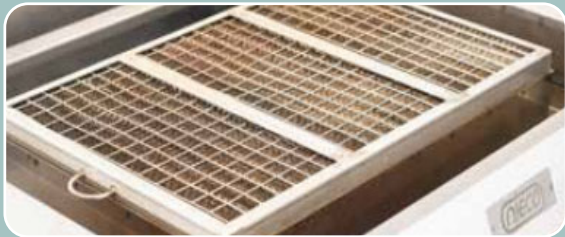
- *Equipped with mechanical chains moving food through as they cook*
- *Most often seen at high-volume chain restaurants and fast-food franchises*

Proposed Amendments

	Current Rule 1138	PAR 1138
Exemption Thresholds for Meat Cooked	<875 pounds per week	<u>One Year After Rule Adoption</u> <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

