

Proposed Amended Rule 1138 Control of Emissions from
Restaurant Operations
Public Workshop

from PC or Laptop

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July 2, 2025

AGENDA

Background

Federal Clean Air Act Requirements for PM2.5

Rule 1138 Background

Proposed Amended Rule (PAR) 1138

PAR 1138 Regulatory Impacts

Socioeconomic Impact Assessment and California Environmental Quality Act

Next Steps

Staff Contacts

BACKGROUND

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

- Regulatory agency responsible for improving air quality for the South Coast Air Basin and the Coachella Valley
 - 17 million residents (>40% of CA)
- Key responsibilities:
 - Regulate emissions from >28,000 stationary sources
 - Monitor air quality and comply with federal/state air quality standards
- □ South Coast Air Basin has among the worst fine particulate matter (PM2.5) and ozone pollution in the nation despite great strides
 - "Serious" nonattainment for PM2.5 standards
 - "Extreme" nonattainment for ozone standards







HEALTH EFFECTS OF PM

- □Particulate matter (PM) are small, inhalable particles found in the air
 - Linked to adverse cardiovascular and respiratory health effects including heart attacks, asthma, and lung cancer
- ■Sources of PM include:
 - Direct emissions smoke, dust, diesel soot
 - Secondary formation formed from reactions of precursor pollutants in the atmosphere

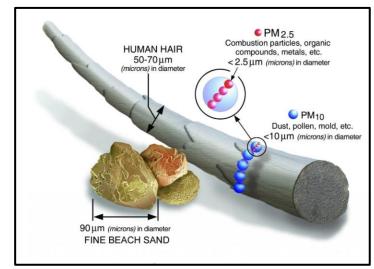
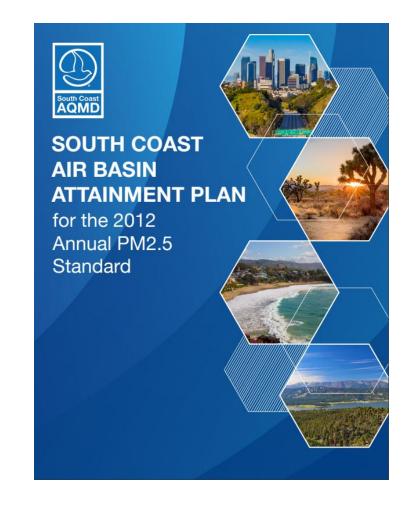


Image: www.epa.gov/pm-pollution/particulate-matter-pm-basics

FEDERAL CLEAN AIR ACT REQUIREMENTS FOR PM2.5

2024 PM2.5 PLAN

- □ South Coast Air Basin Attainment Plan for the 2012 Annual PM2.5 Standard was adopted June 7, 2024
 - Provides blueprint to attain the 2012 annual PM2.5
 Standard
 - Plan included a request to extend attainment from 2025 to 2030
 - Extension requires implementation of Most Stringent Measures (MSMs)
- □ South Coast AQMD rules can be no less stringent than the MSM from any other non-attainment or maintenance area in the nation



^{*}South Coast Air Basin Attainment Plan for 2012 Annual PM2.5 Standard Chapter 6 & App. III (June 7, 2024):

PM2.5 ATTAINMENT PLAN CONTROL MEASURES

■ 2024 PM2.5 Attainment 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

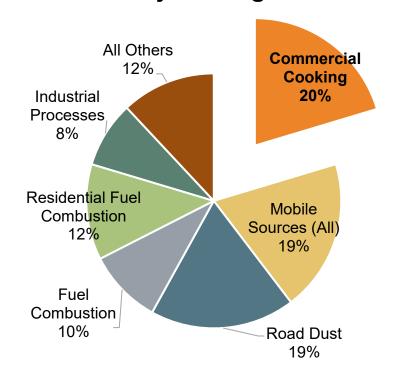
- Based on the previous U.S. EPA finding, the South Coast Air Basin had a sanction clock that was supposed to expire August 29, 2025
 - Sanctions may result in more stringent emission offset requirements for permitting new or modified equipment that have emission increases and the loss of federal highway 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 MSM requirement by September



SIGNIFICANT PM2.5 EMISSIONS FROM COMMERCIAL COOKING

- □ Emissions from commercial cooking make up ~20% of total direct PM2.5 emissions in the South Coast Air Basin
- □PAR 1138 focuses on limited amendments to be consistent with regulations in other geographic areas

Direct PM 2.5 Emissions – Major Categories**



^{* 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.agmd.gov/docs/default-source/clean-air-plans/pm2.5-plans/final-pm2.5-plan/2012-annual-pm2-5-plan.pdf

RULE 1138 BACKGROUND

WHAT ARE CHARBROILERS?

- Chain-driven charbroilers are equipped with mechanical chains that automatically moves food through the device as they cook
 - Subject to Rule 1138
- Underfired charbroilers heat food with the heating source located under the grated grill in a fixed position
 - Grill charbroilers, flamebroilers, and direct-fired barbecues are all considered underfired charbroilers
 - Not subject to either current or Proposed Amended Rule 1138 (PAR 1138)









CHARBROILER: CURRENT REQUIREMENTS & EXEMPTION

Rule 1138:

- Adopted in November 1997
- Requires chain-driven charbroilers to be equipped with a control device that meets emissions control requirements*
 - Exempting units with throughput < 875 pounds/week of meat cooked

Rule 222 - Filing Requirements for Specific Emission Sources Not Requiring a Written Permit Pursuant to Regulation II:

- Adopted September 1998
- Requires all charbroilers (underfired and chain-driven) to submit filing*
 - Required regardless of unit meat throughput

(Adopted November 14, 1997)

RULE 1138. CONTROL OF EMISSIONS FROM RESTAURANT

(a) Applicabili

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) Definition

- 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.
- EXISTING CHAIN-DRIVEN CHARBROILER means any chain-driven charbroiler operating on or before November 14, 1997.
- 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.
- RESTAURANT means any stationary commercial cooking establishment which prepares food for human consumption.

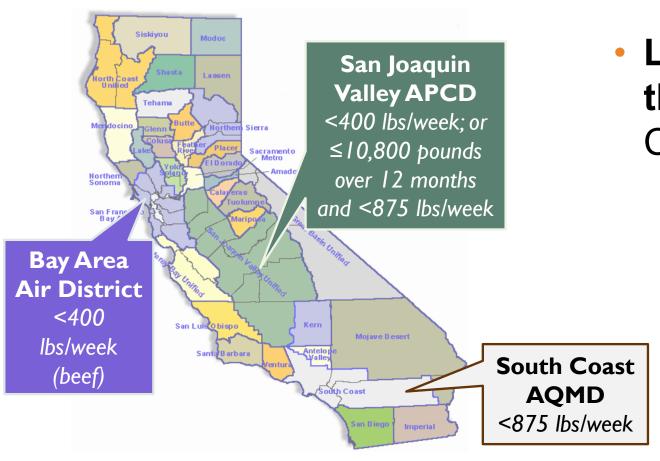
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⁺ South Coast AQMD Certified Charbroilers with Integrated Catalysts:

https://www.agmd.gov/docs/default-source/permitting/product-certification/charbroilerscatalysts.pdf

^{*} Rule 222 – Filing Requirements for Specific Emission Sources Not Requiring a Written Permit Pursuant to Regulation II: https://www.aqmd.gov/docs/default-source/rule-book/reg-ii/rule-222.pdf

MOST STRINGENT MEASURES (MSM) FOR CHAIN-DRIVEN CHARBROILERS



- Lower exemption thresholds in other California air districts
 - Identified in 2024 PM2.5 Plan
 - PAR1138 will implement identified MSMs to comply with federal Clean Air Act requirements

PROPOSED AMENDED RULE 1138

PROPOSED AMENDMENTS

Rule 1138

Subdivision (a) - Applicability

Subdivision (b) - Definition

Subdivision (c) - Requirements

Subdivision (d) - Recordkeeping

Subdivision (e) - Exemption

Subdivision (f) - Evaluations

Subdivision (g) – Test Methods

Focus of Proposed Amendments

PAR 1138

Subdivision (a) - Applicability

Subdivision (b) - Definition

Subdivision (c) - Requirements

Subdivision (d) - Recordkeeping

Subdivision (e) - Exemption

Subdivision (f) - Evaluations

Subdivision (g) – Test Methods

Proposed amendments to subdivisions (b), (c), and (f) are administrative in nature

Subdivision (e): Exemption

- ■Lower exemption threshold beginning 12 months after rule amendment
 - Alignment with MSMs identified in other CA air districts:
 - o 400 pounds per week, or
 - 10,800 pounds per 12-months and less than 875 pounds per week

(e) Exemption

- (1) An owner or operator of a chain-driven charbroiler may apply for an exemption is exempt from provisions of paragraphs (c)(1), (c)(2), through (c)(4) and (d)(1) provided that either (e)(1)(A) or (e)(1)(B) is met:
- (1) (A) based on accepting a permit condition limiting tThe amount of meat cooked on the chain-driven charbroiler is less than: 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; or
- (2) (B) by The owner or operator suppliesying 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 acceptsing permit conditions necessary to preclude an exceedance of that level of emissions.
- For a period of 12 months following rule amendment, 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. Thereafter, only the exemptions in (e)(1) may apply.

Subdivision (b): Definitions - Deletions

- (4) EXISTING CHAIN-DRIVEN CHARBROILER means any chain-driven charbroiler operating on or before November 14, 1997.
- (6) NEW CHAIN-DRIVEN CHARBROILER means any chain-driven charbroiler initially installed and operated after November 14, 1997.

Definitions in paragraphs (b)(4) and (b)(6) are no longer applicable in PAR 1138

Subdivision (c): Requirements- Deletions

- Paragraph (c)(1) provided a grace period for compliance after the date of rule adoption and no longer applies
- Paragraph (c)(2) provided alternative compliance options for existing chaindriven charbroilers at the time of rule adoption, which expired in 2007
- (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.
- 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.

Subdivision (c): Requirements-Additions

- Owners or operators of chain-driven charbroilers shall submit equipment filings pursuant to Rule 222 Filing Requirements for Specific Emission Sources Not Requiring a Written Permit Pursuant to Regulation II and include any applicable exemptions specified in subparagraphs (e)(1) or (e)(2).
- □ The requirement to submit equipment filings for chain-driven charboilers is already part of Rule 222
 - Addition in PAR 1138 provides additional clarity
- ☐ The filing requirement of Rule 222 is not a permit requirement

Subdivision (f): Evaluations – Deletions

(f) Evaluations

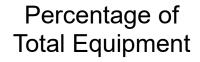
The Executive Officer will evaluate Rule 1138 and report to the Governing Board, no later than 18 months from the date of its adoption, to assess the feasibility of emission reductions and whether cost-effective control devices or other methods are available for the control of emissions from under-fired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

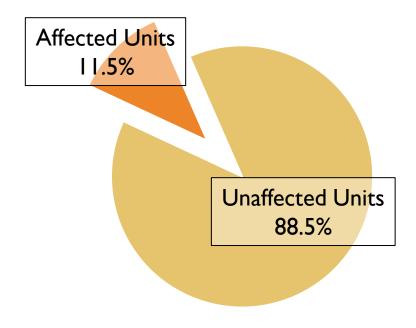
- Subdivision (f) provided a follow up commitment for evaluation of control technologies for underfired charbroilers
 - Staff fulfilled this commitment in August, 2000

PAR 1138 REGULATORY IMPACTS

IMPACTED EQUIPMENT

- ■Staff estimates 1,240 chain-driven charbroilers operating within South Coast AQMD jurisdiction
- Proposed amendment impacts an estimated 140 chain-driven charbroilers*
 - Estimated 11.5% of total chain-driven charbroilers





EMISSIONS INVENTORY AND

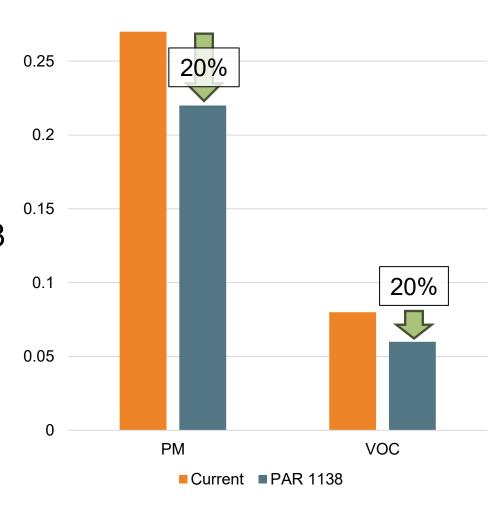
REDUCTIONS

Total emissions from all chain-driven charbroilers within South Coast AQMD in 2023 is estimated to be:

- 0.27 tpd PM; and
- 0.08 tpd VOC
- Estimated emission reductions of PAR 1138 will be:
 - ~0.05 tpd PM; and
 - ~0.02 tpd VOC (co-benefit)
- □ PAR 1138 will reduce total PM and VOC emissions from affected chain-driven charbroilers by ~20%*



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COST IMPACT SUMMARY

- □ Compliance cost estimated to be ~\$1,900/Unit (one time cost)
- ■No additional annual recurring costs
 - Additional annual maintenance cost of catalyst are balanced out by potential cost savings from reduced maintenance intervals
- Cost-effectiveness:
 - \$1,363 per ton of PM reduced

SOCIOECONOMIC IMPACT ASSESSMENT AND CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)

SOCIOECONOMIC IMPACT ASSESSMENT

- ■Socioeconomic analysis will consider:
 - Types of affected industries, including small businesses
 - Potential actions to be taken to comply with PAR 1138 requirements
 - Range of probable costs, including costs to industry or business
- Socioeconomic Impact Assessment will be made available in the Draft Staff Report at least 30 days prior to the Public Hearing on September 5, 2025 (subject to change)

CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)

- □PAR 1138 is a project subject to CEQA
- South Coast AQMD, as lead agency, is reviewing PAR 1138 to determine if it will result in any potential adverse environmental impacts
- Appropriate CEQA documentation will be prepared based on analysis

NEXT STEPS

End of Public Comment Period

• July 16, 2025

Set Hearing

• August 1, 2025

Public Hearing

• September 5, 2025

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Sign up for the mailing list at: https://www.aqmd.gov/sign-up (select "Rule 1138 – Control of Emissions from Restaurant Operations")

For more information, visit the <u>Proposed Amended Rule 1138 webpage</u>