

Proposed Amended Rule 401 – Visible Emissions

Public Workshop
October 28, 2026



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Agenda



Background

Proposed Amended Rule 401 (PAR 401)

Impact Assessments

Next Steps

Rule 401 Background

- Rule 401 was adopted in February 1977 to regulate visible emissions from any source
- Limits visible emissions discharged into the atmosphere at a specified opacity level for a limited time
- Rule 401 was last amended in June 2026 to add an exemption for air curtain incinerators and prescribed fire vehicles subject to Rule 444.1 – Particulate Matter Emission Reductions from Forestry and Agricultural Waste

(Adopted Feb. 4, 1977)(Amended Apr. 1, 1977)(Amended Aug. 4, 1978)
(Amended Sept. 7, 1979)(Amended Feb. 1, 1980)(Amended July 11, 1980)
(Amended Oct. 15, 1982)(Amended Mar. 2, 1984)(Amended Feb. 5, 1988)
(Amended April 7, 1989)(Amended September 11, 1998)
(Amended November 9, 2001)(Amended June 5, 2026)

RULE 401. VISIBLE EMISSIONS

(a) Definitions

For the purpose of this rule, the following definitions shall apply:

- (1) KEROSENE FUEL is petroleum distillate fuel meeting diesel grade 1-D per ASTM D975-78, fuel oil grade No. 1 per ASTM D396-79, or kerosene by conventional commercial specifications.
- (2) AN APPROVED SMOKE-REDUCING FUEL ADDITIVE is as approved by the Executive Officer.
- (3) A SYNTHETIC ENGINE LUBRICATING OIL is as approved by the Executive Officer.

(b) Requirements

- (1) A person shall not discharge into the atmosphere from any single source of emission whatsoever any air contaminant for a period or periods aggregating more than three minutes in any one hour which is:
 - (A) As dark or darker in shade as that designated No. 1 on the Ringelmann Chart, as published by the United States Bureau of Mines; or
 - (B) Of such opacity as to obscure an observer's view to a degree equal to or greater than does smoke described in subparagraph (b)(1)(A) of this rule.
- (2) Notwithstanding the provisions of paragraph (b)(1) of this rule, a person shall not discharge into the atmosphere from a commercial charbroiler, excluding those operating with control equipment and those which are chain-driven, or equipment for melting, heating, or holding asphalt or coal tar pitch for on-site roof construction or repair; any air contaminant for a period or periods aggregating more than three minutes in any one hour which is:
 - (A) As dark or darker in shade as that designated No. 2 on the Ringelmann Chart, as published by the United States Bureau of Mines; or

Visible Emissions from Smoke Tests



- Smoke tests are a qualitative test where visible smoke is generated to test equipment for leaks or demonstrate capture efficiency of an emission control device
- Facilities that conduct smoke tests include chrome-plating, metal melting, and metal cutting
- Smoke matches, smoke cartridges, smoke bulbs, or handheld smoke machines are used to conduct smoke tests
- Smoke tests may cause visible emissions which exceed the opacity/time limitations in Rule 401

Need for PAR 401



- Smoke tests are considered a best-practice diagnostic test to detect leaks and determine capture efficiency of emission control systems
- PAR 401 will:
 - Exempt smoke tests required by South Coast AQMD from visible emissions requirements
 - Establish specific requirements for smoke tests conducted at petroleum refineries and facilities with related operations



Proposed Amended Rule 401



Amendments to Rule 401

Paragraph (b)(4)

- Requires smoke tests conducted on external combustion equipment and their associated air pollution control equipment, located at a petroleum refinery or facility with related operations to:
 - Limit visible emissions to less than Ringelmann No. 2 shade or 40% opacity for a period of no more than 30 minutes in any one hour
 - Ensure smoke test is conducted during turnarounds
 - Notify the Executive Officer at least 72 hours prior to conducting a smoke test

Paragraph (c)(4)

- Exempts smoke tests required by South Coast AQMD from the requirements of PAR 401



Impact Assessments



Costs and Emission Impacts

Costs and Cost-Effectiveness

- PAR 401 will not require smoke tests and therefore is not expected to impose any additional costs
- Cost-effectiveness and incremental cost-effectiveness analysis are not required pursuant to HSC Section 40920.6 because PAR 401 does not include new Best Available Retrofit Control Technology requirements

Emission Impacts

- Smoke tests indirectly prevent or help minimize excess emissions by detecting leaks and/or demonstrating capture efficiency in equipment/emission control systems
- No emission reductions from PAR 401



Socioeconomic Impacts

Proposed amendments are administrative in nature and do not significantly affect air quality or emission limitations

No significant socioeconomic impacts expected

A socioeconomic impact assessment is not required under Health and Safety Code Sections 40440.8 and 40728.5

California Environmental Quality Act (CEQA)

PAR 401 contains administrative clarifications which qualify for an exemption from CEQA because:

- No physical modifications are required
- No adverse environment impacts are expected

A Notice of Exemption will be prepared



Next Steps



Next Steps



Written comments
requested by
November 11, 2026



Stationary Source
Committee on
November 20, 2026



Set Hearing on
December 4, 2026



Public Hearing on
January 8, 2027

Please note that under the California Public Records Act (Gov. Code Section 7920.000 et seq.) your written and oral comments, attachments, and associated contact information (e.g. your address, phone, email, etc.) become part of the public record and can be released to the public on request or posted on the South Coast AQMD website.

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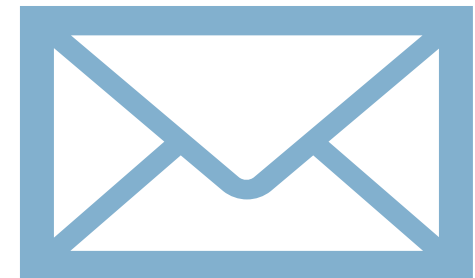
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