

Title: Adopt Amendments to Rule 414 - Water Heaters, Boilers and Process Heaters Rated Less Than 1,000,000 BTU Per Hour and Rule 419 - NOx from Miscellaneous Combustion Units and Rule 419 - NOx from Miscellaneous Combustion Units and Rule 41 - NOx from Miscellaneous Combustion Units

Recommendation:

Conduct a public hearing and: 1) determine that the adoption of amendments to Rule 414 - Water Heaters, Boilers, and Process Heaters Rated Less Than 1,000,000 Btu per hour and Rule 419 - NOx from Miscellaneous Combustion Units is exempt from the California Environmental Quality Act (CEQA); 2) adopt resolutions approving amendments to Rules 414 and 419, and 3) direct Staff to forward Rules 414 and 419 and all necessary supporting documents to the California Air Resources Board (CARB) for submittal to the U.S. Environmental Protection Agency (EPA).

Rationale for Recommendation:

In 2015, the District's Board of Directors committed to adopt a control measure to achieve nitrogen oxides (NOx) emission reductions from miscellaneous combustion units (i.e., combustion equipment that is not regulated under other District rules). On July 26, 2018, the Board adopted Rule 419, which established emission standards for such units at major stationary sources of NOx. Staff is now proposing to amend Rule 419 to expand the applicability of the rule to include miscellaneous combustion units at all stationary sources. The amendments will achieve additional NOx emission reductions and meet California Clean Air Act requirements.

Rule 414 allows only water heaters that are certified to meet emission standards to be sold or installed in the District. Staff recently found uncertified hot water pressure washers operating in the District. Staff is recommending exempting hot water pressure washers from Rule 414 because currently there are no commercially available certified hot water pressure washers. This exemption is consistent with other air districts.

Contact: Kevin J. Williams, Ph.D., Program Supervisor, 916-874-4851

Presentation: Yes

ATTACHMENTS:

- Attachment 1: Resolution for Rule 414
- Attachment 2: Exhibit A – Proposed Rule 414
- Attachment 3: Resolution for Rule 419
- Attachment 4: Exhibit B – Proposed Rule 419
- Attachment 5: Proposed Rule 414, Underline/Strikeout Version
- Attachment 6: Proposed Rule 419, Underline/Strikeout Version
- Attachment 7: Statement of Reasons
- Attachment 8: Evidence of Public Notice
- Attachment 9: Presentation

Approvals/Acknowledgements

Executive Director or Designee: Alberto Ayala, Report Approved 10/16/2018

District Counsel or Designee: Kathrine Pittard, Approved as to Form 10/15/2018

Discussion / Justification:

The District is currently designated as a nonattainment area for both the state and federal ozone standards. The California Health and Safety Code (CHSC) requires districts designated "serious" nonattainment for ozone to adopt Best Available Retrofit Control Technology (BARCT) for all existing permitted sources. BARCT means an emission limitation that is based on the maximum degree of reduction achievable, taking into account environmental, energy, and economic impacts by each class or category of sources. The CHSC also requires a district to adopt "all feasible measures" if it is unable to achieve at least a 5% annual reduction in district wide emissions. On March 28, 2015, the Board of Directors approved the Triennial Report and Air Quality Plan Revision that included a commitment to achieve NOx emission reductions from miscellaneous combustion units and meet the BARCT and

“all feasible measures” requirements.

The version of Rule 419 that the Board adopted on July 26, 2018, established emission standards for miscellaneous combustion units at major stationary sources of NOx and only partially satisfied the plan commitment. Staff is now proposing the amendments to Rule 419 that will fulfill the plan commitment and meet the state BARCT and “all feasible measures” requirements.

The amendments to Rule 414 provide regulatory relief to owners and operators of hot water pressure washers, consistent with other districts. These units were not identified in the original adoption of Rule 414 and compliant equipment is not commercially available.

If approved by the Board, Staff will forward Rules 414 and 419 to CARB for submittal to EPA as a revision to the State Implementation Plan.

Summary of Plan / Rule / Amendment:

In June 2018, Staff held a public workshop and presented a version of Rule 419 that applied to all stationary sources, consistent with the amended rule proposed today. However, in order to meet EPA timelines, Staff separated the adoption of Rule 419 into two parts. In July 2018, the Board adopted a version of Rule 419 that applies only to miscellaneous combustion units with a total rated heat input capacity of 2 million Btu per hour or greater that are located at a major stationary source of NOx.

The amendments to Rule 419 will expand the applicability to include all stationary sources and will implement the requirements presented at the public workshop. The amendments to Rule 419 establish NOx and carbon monoxide (CO) emission limits for a variety of miscellaneous combustion units and cooking units, including those located at non-major stationary sources of NOx. Miscellaneous combustion units include asphalt plants, crematories, dehydrators, dryers, furnaces, heaters, incinerators, kilns, ovens, roasters and other combustion equipment.

The NOx and CO emission limits for miscellaneous combustion units are consistent with the limits in the South Coast AQMD, San Joaquin Valley Unified APCD, and Ventura County APCD. The rule also contains maintenance, source testing, and recordkeeping requirements to ensure that sources maintain compliance with the emission limits.

Rule 414 applies to any person who manufactures, distributes, offers for sale, sells, or installs any type of water heater, boiler or process heater, including hot water pressure washers, with a rated heat input capacity less than 1,000,000 British thermal units per hour (Btu/hr) for use in the District. Only units that are certified to the rule’s NOx emissions standards may be sold, purchased, or installed in the District. Although hot water pressure washers are subject to the requirements of Rule 414, these units were not considered when Rule 414 was adopted and subsequently amended. Hot water pressure washers are used to clean and degrease machinery, vehicles, work surfaces, and floors. There are currently no certified hot water pressure washers that meet the requirements of Rule 414. The amendments to Rule 414 will exempt hot water pressure washers from the rule.

Financial Considerations:

Rule 419 potentially affects 14 District sources with a total of 19 permitted miscellaneous combustion units/cooking units. The sources already have District permits for the applicable units that will become subject to the rule. As many as 12 of the units may not meet the proposed rule requirements.

The cost to the District consists of the additional Staff time needed to evaluate the applications for an Authority to Construct and a Permit to Operate for existing units that require modifications. Additional Staff time may be needed to observe and later evaluate periodic source tests for sources not already required to conduct source testing. Staff estimates the proposed amendments to Rule 419 may require 0.2 FTE of additional Staff time. Fees received from affected sources will support any additional work needed to issue permits, observe source tests, and review source tests reports.

No financial impacts are expected from amendments to Rule 414. The amendments provide regulatory relief to owners or operators of hot water pressure washers.

Emissions Impact:

The amendments to Rule 419 will subject 19 miscellaneous combustion units to the proposed emissions limits. The emission inventory of the units newly subject to Rule 419 is approximately 0.07 tons of NOx per summer day. Staff estimates potential emission reductions of 0.02 tons of NOx per summer day.

The amendments to Rule 414 add an exemption for hot water pressure washers. The exemption will forego a small amount of potential emission reductions associated with these units. Staff estimates emission reductions potentially forgone to be 0.002 tons of NOx per summer day.

Economic Impact:

There are 14 sources with a total of 19 units affected by the proposed amendments to Rule 419. Seven units are already compliant with the rule. Owners and operators of the remaining 12 units may choose to comply with the rule by retrofitting or replacing equipment. The number of units required to make changes may be lower if owners or operators of units with newer burners are able to demonstrate, through source testing, compliance with the emission standards. A few owners or operators may apply for the

low usage exemption and limit their fuel usage through a permit modification. The total annualized cost for compliance with the rule is approximately \$86,000 per year.

Eastern Research Group (ERG), under contract with the District, analyzed the potential economic impacts of the proposed amendments. The full analysis is included in Appendix D of the Statement of Reasons. First, ERG performed an economic impact screening analysis for the eight Sacramento County businesses (some with multiple units) that are expected to incur compliance costs if the amendments to Rule 419 are adopted. The ERG analysis estimated a cost-to-revenue ratio ranging from 0.007 to 0.41%. EPA, in developing regulations, considers impacts less than 1% to be negligible.

To analyze the impact to employment, ERG examined two impact scenarios, one where no costs were passed through to consumers and the other where all costs are passed through to consumers. ERG estimated that if businesses fully absorbed the costs, there would be a loss of 0.4 jobs in the regional economy and if businesses fully converted all costs to employment cuts, there would be a loss of 3.5 jobs. The upper bound of 3.5 jobs is very small compared to Sacramento County's total employment of 673,500 (0.0005% of all jobs in region).

Based on the analysis conducted by ERG, staff does not anticipate a significant impact on the economy or employment of the Sacramento region.

The cost effectiveness of the rule amendment is approximately \$7.66 per pound of NO_x reduced. Staff used cost data from the staff reports for similar rules in other air districts (South Coast and San Joaquin Valley). The estimated costs for compliance include the costs for replacement burners and installation costs, source testing costs, District source test observation fees, and permit modification fees. Annualized costs vary depending on the size of the unit and range from approximately \$3,500 to \$8,300 for non-asphalt manufacturing units, and approximately \$46,000 for asphalt units. To put these costs into perspective, it is useful to compare the cost effectiveness value from other District rules. Previously adopted District NO_x rules have cost effectiveness ranging from \$10.52 to \$16.95 per pound of NO_x reduced in year 2017 dollars.

No economic impacts are expected from amendments to Rule 414. The amendments provide regulatory relief to owners or operators of hot water pressure washers.

Public Outreach/Comments:

Staff held a public workshop on June 5, 2018. A public notice was published in the Sacramento Bee, emailed to interested parties (including the affected sources) and posted on the District website. Staff also contacted by telephone each potentially affected source that would become subject to proposed Rule 419. The draft rules and Statement of Reasons were made available for public review at that time.

At the workshop, Staff presented a proposal for Rule 419 that applied to miscellaneous combustion units at all sources, not just those at major stationary sources of NO_x, and to a greater number of equipment types. Today's proposal includes standards nearly identical to those presented at the workshop. A proposal to amend Rule 414 – Water Heaters, Boilers and Process Heaters Rated Less Than 1,000,000 BTU Per Hour, was also included in the workshop. Today's proposal to amend Rule 414 is unchanged from that presented at the workshop.

Staff received comments on the Rule 419 proposal that raised technical issues with some of the equipment located at smaller sources, and additional time was needed to address those comments. The responses to oral and written comments received during the public comment period are included in Appendix C of the Statement of Reasons. The following changes were made in response to comments received:

- Removed the CO emissions limit for soybean roasters. The unique process of soybean roasting, in which the flame is in direct contact with the soybean, results in incomplete combustion and CO emissions that are inherently higher than for other types of units.
- Added an exemption from periodic source testing for temporarily inactive units. Any unit that does not operate at all in a year when source testing would otherwise be required may delay source testing until the unit resumes operation.

The noticing for today's hearing included:

- A public notice in the Sacramento Bee on September 24, 2018.
- A notice posted on the District website with links to the proposed rules and Statement of Reasons.
- Email notices to:
 - CARB and EPA;
 - Interested parties and potentially affected sources; and
 - All persons who have requested rulemaking notices.

No comments from members of the public have been received subsequent to the notice for today's hearing. Staff at EPA Region 9 noted that the sell-through provision in Section 302 of Rule 414 expired on July 1, 2013, and recommended that Section 302 be removed from the rule. Staff agreed and removed Section 302 from the version of Rule 414 that was posted with the notice for the public hearing. The removal of the expired provision is nonsubstantive.

Staff will notify the Board if additional comments are received between October 5 and the public hearing.

Environmental Review:

California Public Resources Code Section 21159 requires an environmental analysis of the reasonably foreseeable methods of compliance. Amendments to Rule 414 provide regulatory relief to owners and operators of hot water pressure washers. No emissions reductions from hot water pressure washers were considered from the 2010 amendments to Rule 414. Emission reductions from proposed Rule 419 will offset any reductions that may be have been lost by exempting hot water pressure washers from Rule 414.

Staff identified 19 units that will be subject to the proposed rule. Compliance with the proposed amended Rule 419 for miscellaneous combustion units is expected to be achieved by replacing existing burners with low-NOx burners or replacing existing units with low-NOx units.

Proposed amended Rule 419 will reduce operational NOx emissions from this source category and will have minimal secondary emissions impacts during construction activities when sources replace existing equipment with low-NOx equipment. Staff has concluded that there will be no significant environmental impacts from compliance with the proposed rules.

Staff finds that the proposed rules are exempt from the California Environmental Quality Act (CEQA) as an action by a regulatory agency for protection of the environment (Class 8 Categorical Exemption, §15308 State CEQA Guidelines) and because it can be seen with certainty that there is no possibility that the activity in question may have a significant adverse effect on the environment (§15061(b)(3), State CEQA Guidelines).