

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

Preliminary Draft Staff Report

Proposed Amended Rule 2011 – Requirements for Monitoring, Reporting, and Recordkeeping for Oxides of Sulfur (SO_x) Emissions

Proposed Amended Rule 2012 – Requirements for Monitoring, Reporting, and Recordkeeping for Oxides of Nitrogen (NO_x) Emissions

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BACKGROUND

A continuous emission monitoring system (CEMS) is the combination of equipment necessary for the determination of pollutant concentrations or emission rate on a continuous basis using analyzer measurements and a conversion equation, graph, or computer program to produce results in units of the applicable emission limitation or standard. The South Coast Air Quality Management District (South Coast AQMD) has various rules, regulations and permit conditions that require the installation and operation of CEMS to determine compliance with an emission limitation or standard. The South Coast AQMD has established CEMS monitoring rules to provide the guidance and specifications for the CEMS installation and operation and to ensure accuracy and precision of the CEMS. Regulation XX – REgional CLean Air Incentives Market (RECLAIM) contains two rules, Rule 2011 – Requirements for Monitoring, Reporting, and Recordkeeping for SO_x Emissions (Rule 2011) and Rule 2012 – Requirements for Monitoring, Reporting, and Recordkeeping for NO_x Emissions (Rule 2012), which establish specifications for the installation and operation of CEMS to ensure accuracy and precision of monitoring mass emissions for SO_x and NO_x, respectively, at RECLAIM facilities.

In March 2021 the Governing Board adopted Rule 218.2 – Continuous Emission Monitoring System: General Provisions (Rule 218.2) and Rule 218.3 – Continuous Emission Monitoring: Performance Specifications (Rule 218.3) to update CEMS requirements and to prepare for the transition of facilities in RECLAIM to a command-and-control regulatory program. Rule 218.2 applies to an Facility Permit holder of a CEMS, alternative continuous emission monitoring systems, or semi-continuous emission monitoring systems at former RECLAIM facilities as well as non-RECLAIM facilities after the implementation dates specified in Rule 218.2. Rule 218.2 contains paragraphs (e)(3) and (e)(4) to address requirements for CEMS under extended shutdowns (minimum of 168 consecutive hours) provided specific conditions are met. Amendments to Rule 2011 and Rule 2012 are necessary to provide the same monitoring relief to facilities that remain in the RECLAIM program until full implementation of Rule 218.2.

Proposed Amended Rule 2011 (PAR 2011) and Proposed Amended Rule 2012 (PAR 2012) will include provisions based on rule language in Rule 218.2 that mirror this monitoring relief. The proposed amendments allow the Facility Permit holder to shutdown the CEMS when the combustion source for which the CEMS is monitoring is scheduled to be offline for an extended period of time, provided specific conditions are met. The new provisions will provide monitoring relief for RECLAIM facilities during long-term unit shutdown scenarios.

REGULATORY HISTORY FOR RULES 2011 AND 2012

The adoption of the RECLAIM program in October 1993, included Rule 2011 and Rule 2012 which established the monitoring, reporting, and recordkeeping requirements for SO_x and NO_x emissions, respectively, under the RECLAIM program. For the largest sources, Rule 2011 and Rule 2012 require CEMS, which are state of the art monitoring systems that are critical for the RECLAIM program where compliance was based on overall mass emissions as compared to concentration limits under a command-and-control regulatory structure.

The most recent amendments to Rules 2011 and 2012 were made in May 2005. The previous amendments to Rule 2011 included requirements for Best Available Retrofit Control Technology (BARCT) for RECLAIM facilities as well as a clarification on monitoring and recordkeeping requirements for new RECLAIM sources subject to Rule 2005 – New Source Review for RECLAIM. The amendments to Rule 2012 included allowing a delay in the due date for the Relative Accuracy Test Audit (RATA) for a unit that is operated intermittently and specifying mass emissions reporting through the South Coast AQMD’s website. Rules 2011 and 2012 were last approved by the U.S. EPA on September 14, 2017 into the California State Implementation Plan (SIP).

PUBLIC PROCESS

The development of PAR 2011 and PAR 2012 will be conducted through a public process. A Public Workshop for PAR 2011 and PAR 2012 is scheduled to be held on August 29, 2023. The objective of the Public Workshop is to gain consensus and resolve key issues with the stakeholders.

PROPOSED AMENDMENTS TO RULES 2011 AND 2012

As RECLAIM facilities are replacing or modifying equipment to comply with RECLAIM landing rules, there is a need for a compliance pathway under extended CEMS shutdown scenarios. Without a compliance pathway, the South Coast AQMD Hearing Board may have an increased burden in the form of variance requests to allow for CEMS to be offline while equipment is shutdown for extended periods.

The rule language proposed for inclusion into PAR 2011 and PAR 2012 is based on similar existing provisions in Rule 218.2. The proposed rule language will not delay the transition of NO_x RECLAIM to a command-and-control regulatory structure, nor will it result in an increase in emissions. It is strictly a procedural amendment meant to provide RECLAIM facilities with a compliance option already adopted in Rule 218.2, which former RECLAIM facilities will be subject to. As the RECLAIM program is still active, current RECLAIM facilities are subject to Rule 2011 and Rule 2012. Both PAR 2011 and PAR 2012 include rule language changes to update references and provide clarity.

Staff is continuing to work on other amendments to Regulation related to the sunset of the NO_x RECLAIM program, which include an exit date for NO_x RECLAIM facilities. It should be noted that at this time, SO_x RECLAIM is not transitioning to a command-and-control regulatory structure. Consequently, CEMS in SO_x RECLAIM will continue to be subject to the requirements in Rule 2011.

Proposed Amended Rule 2011

Paragraphs (e)(9) and (e)(10) will be added to provide compliance options for facilities to shutdown CEMS when the combustion source for which the CEMS monitors is offline for an extended period (minimum 168 consecutive hours).

While paragraph (e)(9) explains the conditions under which Facility Permit holders are not subject to the operating and reporting conditions for CEMS in subparagraphs (c)(2)(A), (c)(2)(B), and (c)(3)(A). Paragraph (e)(9) also validates emission hours under extended shutdowns pursuant to paragraph (g)(9) and classifies those hours as zero value data points to make the Missing Data Procedure in Appendix A chapter 2, subdivision E not applicable to those data points. Paragraph (e)(10) outlines the requirements for a CEMS to be considered non-operational and subject to paragraph (e)(9).

For any unit with a shutdown period shorter than 168 consecutive hours, the Facility Permit holder of the CEMS would not be permitted to use this provision for monitoring relief.

Proposed Amended Rule 2012

Requirements for PAR 2012 are structured in a similar fashion to PAR 2011. The proposed amendments are contained in paragraphs (g)(9) and (g)(10) which mirrors the proposed language in paragraphs (e)(9) and (e)(10) in PAR 2011, respectively.

AFFECTED FACILITIES

Based on the RECLAIM compliance year 2017 audit data, there are 83 RECLAIM facilities with a total of 500 NOx-emitting units that are monitored by CEMS. It should be noted that one CEMS may monitor emissions for several units. In addition, the proposed amendments are administrative in nature and therefore no modifications or new equipment are expected.

EMISSION REDUCTIONS

PAR 2011 and PAR 2012 are administrative rules that provide technical guidelines for the installation and operation of CEMS required by South Coast AQMD rules or permit conditions. PAR 2011 and PAR 2012 do not directly regulate sources for emissions control and do not contain emission limits; therefore, there are no emission reductions that will result from this rule development.

COSTS AND COST-EFFECTIVENESS

While a source-specific rule determines when a CEMS would be required for emission monitoring, PAR 2011 and PAR 2012 provide administrative and technical guidelines on how to properly operate the CEMS. The cost-effectiveness of operating any CEMS is included in the related source-specific rule for which the CEMS is required as such there are no costs associated with the proposed amendments.

INCREMENTAL COST EFFECTIVENESS

Health and Safety Code Section 40920.6 requires an incremental cost-effectiveness analysis for Best Available Retrofit Control Technology (BARCT) rules or emission reduction strategies when there is more than one control option that would achieve the emission reduction objective of the

proposed amendments, relative to ozone, CO, SO_x, NO_x, and their precursors. PAR 2011 and PAR 2012 are not BARCT rules or emission reduction strategies; therefore, this provision is not applicable.

SOCIOECONOMIC ANALYSIS

The proposed amendments to Rule 2011 and Rule 2012 are administrative in nature and do not affect air quality or emissions limitations. Therefore, no socioeconomic analysis is required under California Health and Safety Code Sections 40440.8 and 40728.5.

CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)

Pursuant to the California Environmental Quality Act (CEQA) and South Coast AQMD's certified regulatory program (Public Resources Code Section 21080.5, CEQA Guidelines Section 15251(l) and South Coast AQMD Rule 110), the South Coast AQMD, as lead agency, is currently reviewing the proposed project (PAR 2011 and PAR 2012) to determine if it will result in any potential adverse environmental impacts. Appropriate CEQA documentation will be prepared based on the analysis.

DRAFT FINDINGS UNDER HEALTH AND SAFETY CODE SECTION 40727

Health and Safety Code Section 40727 requires that prior to adopting, amending, or repealing a rule or regulation, the South Coast AQMD Governing Board shall make findings of necessity, authority, clarity, consistency, non-duplication, and reference based on relevant information presented at the public hearing and in the staff report. The following provides the draft findings.

Necessity: A need exists for PAR 2011 and PAR 2012 to provide a compliance pathway under extended CEMS shutdown scenarios, as RECLAIM facilities are replacing or modifying equipment to comply with RECLAIM landing rules.

Authority: The South Coast AQMD obtains its authority to adopt, amend, or repeal rules and regulations from Health and Safety Code Sections 39002, 39616, 40000, 40001, 40440, 40440.1, 40441, 40702, 40725 through 40728, and 41511.

Clarity: PAR 2011 and PAR 2012 have been written or displayed so that their meaning can be easily understood by the persons affected by the rule.

Consistency: PAR 2011 and PAR 2012 are in harmony with, and not in conflict with or contradictory to, existing federal or state statutes, court decisions, or federal regulations.

Non-Duplication: PAR 2011 and PAR 2012 do not impose the same requirement as any existing state or federal regulation and is necessary and proper to execute the powers and duties granted to, and imposed upon, the South Coast AQMD.

Reference: In amending this rule, the South Coast AQMD hereby implements, interprets, or makes specific reference to the following statutes: Health and Safety Code sections 39002, 39616, 40001, 40702, 40440(a), 41511, and 40725 through 40728.5.

COMPARATIVE ANALYSIS

Health and Safety Code Section 40727.2(g) for comparative analysis is applicable when proposed amended rules or regulations impose, or have the potential to impose, a new emissions limit or standard, or increased monitoring, recordkeeping, or reporting requirements. In this case, a comparative analysis is not required because the proposed amendments do not impose such requirements and instead merely provide a compliance pathway under extended CEMS shutdowns.