SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

Draft Staff Report
Proposed Amended Rule 218.2 – Continuous Emission Monitoring System: General Provisions
Proposed Amended Rule 218.3 – Continuous Emission Monitoring System: Performance Specifications

July 2022

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BACKGROUND

Adopted in March 2021, South Coast Air Quality Management District (South Coast AQMD) Rules 218.2 and 218.3 provide specifications for continuous emission monitoring system (CEMS). A 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. Rules 218.2 and 218.3 provide specifications for CEMS operated at former Regional Clean Air Incentives Market (RECLAIM) facilities that were previously certified according to the RECLAIM program but have exited RECLAIM, as well as specifications for CEMS operated at non-RECLAIM facilities that were previously certified or would have been certified according to Rules 218 and 218.1. An implementation schedule is specified under Rules 218.2 and 218.3 to define the compliance date of each system. Prior to the compliance date, CEMS at RECLAIM facilities would continue to be subject to their current monitoring provisions under RECLAIM (i.e., Rule 2012 for NOx CEMS), and non-RECLAIM CEMS would continue to be subject to Rules 218 and 218.1.

Since the adoption of Rules 218.2 and 218.3, staff has been monitoring the implementation through discussions with facilities applying for CEMS certification, meetings with CEMS vendors regarding their progress on software adjustment and customer feedback, and monitoring landing rule amendments and proposals related to CEMS. As a result, certain concerns were identified.

First, both rules were developed to address compliance with command-and-control concentration-based emission limits; however, since their adoption, several command-and-control rules with CEMS requirements have been adopted or amended to include mass emission limits. Due to those recent rule changes, staff recognizes guidance and specifications, including calculations and a data substitution procedure, are needed for owners or operators of CEMS complying with mass emission limits. Next, the U.S. Environmental Protection Agency (U.S. EPA) recommended that staff include more specific requirements related to Executive Officer discretion in CEMS monitoring rules. Stakeholders subject to the rules also asked staff to address potential emission overestimation from dual range analyzers. Resolution of these concerns requires rule amendments.

REGULATORY HISTORY FOR RULES 218.2 and 218.3

The 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. Since January 1976, the South Coast AQMD has established CEMS monitoring rules to provide guidance and specifications for the CEMS installation and operation to ensure accuracy and precision of the CEMS. For facilities that are under a command-and-control regulatory structure and are not in the RECLAIM, CEMS provisions are specified in Rule 218 – Continuous Emissions Monitoring and Rule 218.1 – Continuous Emissions Monitoring Performance Specifications. For RECLAIM facilities, CEMS provisions are specified in Rule 2011 – Requirements for Monitoring, Reporting, and Recordkeeping for SOx Emissions and Rule 2012 – Requirements for Monitoring, Reporting, and Recordkeeping for NOx Emissions.

Rule 218.2 – Continuous Emission Monitoring System: General Provision and Rule 218.3 – Continuous Emission Monitoring System: Performance Specification will eventually replace Rules 218, 218.1, and 2012. It should be noted that at this time, SOx RECLAIM is not transitioning to a command-and-control regulatory structure. Consequently, CEMS in SOx RECLAIM will continue to be subject to the requirements in Rule 2011.

Rules 218.2 and 218.3 were developed to include the requirements contained in Rules 218 and 218.1 as well as some of the requirements contained in Rule 2012. Rules 218.2 and 218.3 were adopted on March 5, 2021. The primary objectives of these rules are to:

- Develop one set of requirements that will apply to both non-RECLAIM and former RECLAIM facilities;
- Align CEMS requirements for RECLAIM facilities as they transition to command and control rules;
- Streamline requirements and provide more clarity to existing CEMS provisions; and
- Codify existing practices to provide more transparency.

PUBLIC PROCESS

The development of Proposed Amended Rules 218.2 and 218.3 (PAR 218.2 and PAR 218.3) has been conducted through a public process. Two Working Group meetings were held on January 27, 2022, and February 24, 2022, and a Public Consultation Meeting was held June 8, 2022. The Working Group and Public Consultation Meeting included a wide variety of stakeholders such as affected facilities, consultants, environmental and community groups, and other agencies. The objective of the meetings is to build consensus and resolve key issues with the stakeholders.

A Public Workshop was held on March 30, 2022. The purpose of the Public Workshop was to present the proposed rule language to the public and stakeholders to solicit comments. Staff also has had individual meetings with stakeholders and the U.S. EPA for issues related to the PAR 218.2 and PAR 218.3.

SUMMARY OF PROPOSAL

PAR 218.2 proposes minor revisions to include more specificity to the rule language on recertification requirements and an exemption related to Executive Officer discretion, extend the recordkeeping period to align with the California Code of Civil Procedure, and provides more time to submit the relative accuracy test audit (RATA) report.

PAR 218.3 proposes an option to validate and accept data that would fall in a monitoring gap for a dual range analyzer, adds specifications for mass emission calculations and data substitution procedures, and provides clarity on the method for linearity error checks. PAR 218.3 also proposes the same revision as PAR 218.2 to the exemption provision with regard to the specificity related to Executive Officer discretion.

PROPOSED AMENDMENT TO RULE 218.2

CEMS certification/recertification requires case-by-case evaluations. Executive Officer's discretion may be required for some unique cases. EPA advised staff to include more specificity to provisions that allow for Executive Officer's discretion.

Revise Certification Requirement Related to Executive Officer discretion – Subparagraph (f)(1)(B)

While paragraph (f)(1) defines situations when a CEMS shall be certified or recertified, subparagraph (f)(1)(B) allows an opportunity for the Executive Officer to identify unique modifications that would not require a recertification. Staff is proposing the following revision, specifying the basis of the determination on impact of data accuracy.

(f) Certification Requirements

(1) The owner or operator of a CEMS shall certify or recertify any CEMS that is:

(A) Installed after [Date of Adoption];

(B) Modified for any component that is either listed on the certification letter, Technical Guidance Document R-002, or Quality Assurance/Quality Control Plan, unless the Executive Officer determines that such modification would not impact data accuracy and certification or recertification is not necessary; or

(C) Determined by the Executive Officer that a CEMS recertification is required because the QA/QC or performance requirements for the CEMS cannot be achieved in accordance with Rule 218.3 subdivision (g).

Revise Exemption Provision Related to Executive Officer discretion – Subdivision (k)

Source specific rules or permits may have CEMS requirements that differ from the requirements in Rule 218.2. The CEMS requirements in a rule or permit are expected to be specific to the equipment or process and likely more stringent. Therefore, the exemption in subparagraph (k) allows rule or permit CEMS requirements to supersede Rule 218.2 requirements unless otherwise notified by the Executive Officer. Staff is proposing to clarify that the exemption does not apply if the rule or permit specified CEMS requirements are less stringent and the Executive Office will provide the facility written notice to inform them that they must comply with the requirements of Rule 218.2. Staff is proposing the following revision, specifying the basis of the Executive Officer discretion and correcting the typo from "218.3" to "218.2".

(k) Exemption

(1) If a rule or permit specify CEMS requirements that are different than requirements specified in Rule 218.~~3~~2, the owner or operator shall adhere to CEMS requirements in the rule or permit, unless ~~otherwise notified by~~ the Executive Officer provides written notice to the owner or operator that the rule or permit specified CEMS requirements are less stringent than Rule 218.2.

Extend the recordkeeping period – Paragraph (h)(3)

Paragraph (h)(3) currently requires records to be maintained for a minimum of two years. However, California Code of Civil Procedure, section 338(k), states the time for commencing actions other than for the recovery of real property is within three years for an action commenced under Division 26 (commencing with Section 39000) of the Health and Safety Code. Staff is proposing to align Rule 218.2 with the California Code of Civil Procedure and extend the recordkeeping period from a minimum period of two years to three years. It should be noted that this is a minimum period for maintaining records. Pursuant to a proposed amendment in Rule 218.3, subparagraph (i)(13)(C), in order to utilize certain substitute data procedures, records may be required to be kept longer.

Provide more time to submit the relative accuracy test audit report – Paragraph (i)(5)

Rule 218.2 paragraph (i)(5) currently requires a RATA report to be submitted within 60 days upon completion of the test. In response to stakeholders' request for aligning it with Rule 2012 Chapter 2 (B)(22) for RECLAIM RATA report submittal requirement, staff is proposing to extend the RATA report due date from 60 days upon completion of the test to on or before the end of the quarter following the date of a required test.

PROPOSED AMENDMENTS TO RULE 218.3

The proposed amendments to Rule 218.3 will address a concern raised for current requirements on dual range analyzers and include specifications for mass emission calculations and a missing data procedure. Those proposed amendments are all under subdivision (i) for data handling. In addition, staff recognizes the need to revise subparagraph (f)(4)(F) to clarify the linearity error check method.

Clarify the Linearity Error Check Method – Subparagraph (f)(4)(F)

The method for linearity error check under this subparagraph remains the same. The revision is intended to provide more detailed instruction on the test sequence and the number of data points required when conducting the linearity error check procedure.

Revise Data Handling for Data Below 10 Percent of the Upper Span Value – Subparagraph (i)(1)(C); and Data Above 95 Percent of the Upper Span Value – Subparagraph (i)(2)(B)

For a dual range span analyzer, when 95 percent of the upper span value of the lower span range does not overlap with 10 percent of the upper span value of the higher span range, an unintended monitoring gap results. (See Figure 1 below.) Rule 218.3 paragraph (i)(1) requires data measured in monitoring gap to be reported as 10 percent of the upper span value of the higher span, which may overestimate the emissions. Stakeholders raised a concern that this could place the equipment out of compliance.

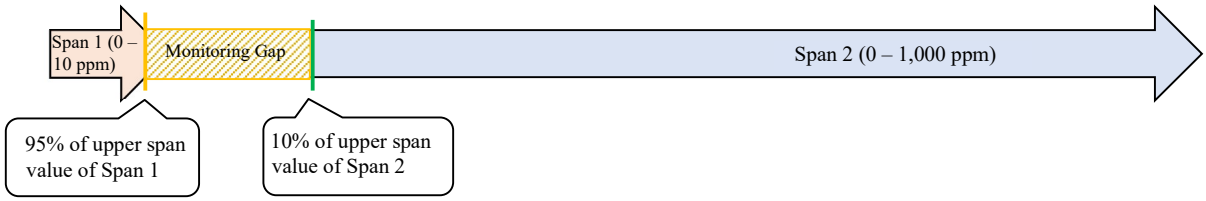


Figure 1: Dual Range Analyzer Monitoring Gap

Subparagraph (i)(1)(C) provides an option to validate data points that fall below 10 percent of the upper span value of the span range and report the data point at the actual measured value, but that is only applicable to the lowest vendor guaranteed span range for that CEMS analyzer. To utilize this option the owner or operator for the CEMS is required to conduct the validation tests specified in Rule 218.3 Attachment A: Supplemental and Alternative Performance Requirements.

To address the dual range analyzer monitoring gap concern, staff is proposing to extend a low level data validation option to any span range, provided the owner or operator conducts an additional procedure included in Attachment A to ensure data linearity. The additional procedure includes a three-point calibration at the lower level, in lieu of the current spike recovery procedure. The low-level calibration procedure provides a data validation procedure to ensure the accuracy of any data collected in the monitoring gap. This proposal would require revisions to both subparagraphs (i)(2)(B) and (i)(1)(C).

For a span range other than the lowest vendor guaranteed span range, the owner or operator for the CEMS are allowed to choose a lowest non-zero value to set the low end of the data range to be validated. The lowest non-zero value selected will depend on the analyzer's sensitivity. For example, for a dual range analyzer with a lower span range at 0-10 ppmv and a higher span range at 0-1000 ppmv, by current requirement the monitoring gap would be 9.5-100 ppmv. If a measurement fell within that monitoring gap, the owner or operator would have to replace the measured value with 10 percent of the upper span value, which is 100 ppmv in the above example. In the proposed amendment, the owner or operator may choose a lowest non-zero value in the monitoring gap to demonstration data linearity for data validation. If the owner or operator chooses a low point at 20 ppmv, a three-point calibration would include a low-point of 20 ppmv, a mid-point of 20 and 100 ppmv (e.g., 40 ppmv), and a high-point of 100 ppmv to validate data in the range of 20-100 ppmv. Even with the new procedure, there may still be a small data gap if the lowest non-zero value selected is not low enough to bridge the gap. For the above example the data gap will be from 9.5 ppmv to 20 ppmv. If a value is measured in the data gap, the owner or operator would have to replace the measured value with the lowest non-zero value in the three-point calibration, which is 20 ppmv in the above example instead of 100 ppmv as would be required under the current data gap procedure.

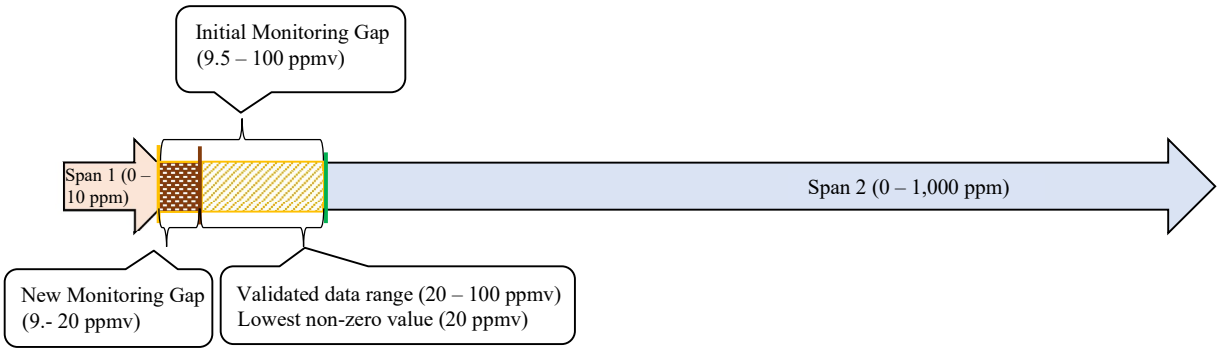


Figure 2: Proposed Dual Range Analyzer Monitoring Gap

Add Mass Emission Calculation Methodology – Paragraph (i)(10)

Rules 218.2 and 218.3 were developed for compliance with command-and-control rules, which typically establish concentration-based emission limits instead of a mass-based emission limit. As a result, the rules do not currently address a mass emission calculation. However, as some command-and-control rules are including mass emission limit compliance options, there is a need to specify data handling for mass emissions.

Staff is proposing to include three calculation methods under Rule 218.3 paragraph (i)(10) for determining hourly mass emission rates depending on the parameters being monitored. Those methods are consistent with the methodology used in Rule 2012 for RECLAIM facilities and are expressed in three equations listed in Table 5. The first equation is based on stack gas concentration and volumetric flow rate. The second equation is based on stack gas concentration, heat input rate, and oxygen concentration, referenced as the oxygen F factor approach. The third equation is based on stack gas concentration, heat input rate, and carbon dioxide concentration, referenced as the carbon dioxide F factor approach. The oxygen F factor approach may not be used in cases where enriched oxygen is used, non-fuel sources of carbon dioxide are present (e.g. lime kilns and calciners), or the oxygen content of the stack gas is 19 percent or greater. The carbon dioxide F factor approach may not be used in cases where enriched oxygen is used or non-fuel sources of carbon dioxide are present (e.g. lime kilns and calciners).

In regard to the three equations, RECLAIM CEMS are allowed to conduct measurements at either 60°F or 68°F, and thus utilize NOx conversion factor of 1.214×10^{-7} or 1.195×10^{-7} lbs/ft^3 to determine mass emissions. Rule 218.3 will be consistent with Rule 102 – Definition of Terms for the definition of standard conditions, which required measurements be conducted at 60°F; therefore, the NOx conversion factor of 1.214×10^{-7} lbs/ft^3 will be utilized in the Table 5 equations.

For the mass emission calculation when the higher heating value is required, Rule 218.3 will allow a default higher heating value listed in Table 6 or a measured heating value of the fuel determined by a method approved by the Executive Officer (see footnote of Table 5). A heating value determined by gas bills would be considered as a measured heating value.

Add Data Substitution Procedure – Paragraph (i)(11)

Missing or invalid data periods may occur during CEMS maintenance, system malfunctioning, or failed QA/QC tests. Missing or invalid CEMS data would create data gaps for those time periods. When mass emission limits must be demonstrated for specific averaging periods (e.g., 24 hours or 365-day rolling average), data substitution would be required to fill the data gaps.

Staff is proposing to include data substitution procedure specifications in Rule 218.3 paragraph (i)(11). The procedure aligns with the data substitution procedure specified in Rule 1109.1 – Emissions of Oxides of Nitrogen from Petroleum Refineries and Related Operations (Rule 1109.1), except that the rule requires the substituted data to be from a "unit operation hour" which is defined as "a clock hour during which a unit combusts any fuel either for part of the hour or for the entire hour." This is to avoid zero emission data being utilized for data substitution. According to the proposed procedure, when the missing data period is at or less than eight hours, the owner or operator of the CEMS would substitute the data using the average of the recorded emission data for the unit operation hour immediately before the missing data period and the hour immediately after the missing data period. When the missing data period is more than eight hours, the owner or operator of the CEMS would substitute the data using the maximum hourly emission data recorded for the previous 30 days with unit operation, commencing on the day immediately prior to the day the missing data occurred. The proposed amendment also addresses a missing data period that results from conducting a spiking test specified in Attachment A when the calibration standard gas is injected to the sampling port. Use of this approach to average data for substitution would be limited to up to ten hours for each occurrence, and no more than 20 cumulative hours for each calendar year. Data substitution would be required for mass emissions calculations including the BARCT Equivalent Mass Cap Plan (B-Cap) and the interim facility-wide NOx emission limit of 0.03 pounds/MMBtu for process heaters and boilers greater than or equal to 40 MMBtu/hr in Rule 1109.1.

Subparagraph (i)(11)(A) specifies when missing data procedures must be applied, e.g., when there is any hour with missing pollutant data, an hour with missing stack flow, or an hour with both missing pollutant and stack flow data. Subparagraph (i)(11)(B) includes the missing data procedure which varies depending on how much data is missing, e.g., missing more or less than eight hours of data. This subparagraph also allows the option to use missing data substitution procedures specified in 40 CFR Part 75.

For the purpose of filling the data gaps for mass emission calculations, the substituted data are only enforceable for a compliance demonstration on mass emission limits, not concentration limits (e.g., ppmv).

Add the method to calculate mass emissions for a startup or shutdown period – Paragraph (i)(12)

Some South Coast AQMD permits or rules may require a mass emission limit with minute increments for a defined startup or shutdown period. For example, a facility has a permit condition with a mass emission limit of 111 pounds for a cold startup of 166 minutes. As the general mass

emission calculation specified in Rule 218.3 paragraph (i)(10) is for hourly data, there is a need to determine mass emissions on a per minute interval.

Staff is proposing to include the method for determining mass emissions for a permit or rule defined startup or shutdown period with minute increments in Rule 218.3 paragraph (i)(12). The owner and operator would calculate the mass emissions for each minute using the equations listed in Table 5, except that minute level should be used in the calculation rather than hourly parameters. The mass emissions for all minutes of the period would be totalized to demonstrate the compliance.

Add data substitution procedures for startup or shutdown missing minute data – Paragraph (i)(13)

This subparagraph is for the purpose of determining mass emissions for a startup or shutdown pursuant to paragraph (i)(12). When there is any minute with no valid data, data substitution would be conducted. Data evaluated for substitution for the missing minutes should have the same operation status, e.g., only startup emissions can be substituted with startup emissions, only shutdown emissions can be substituted with shutdown emissions.

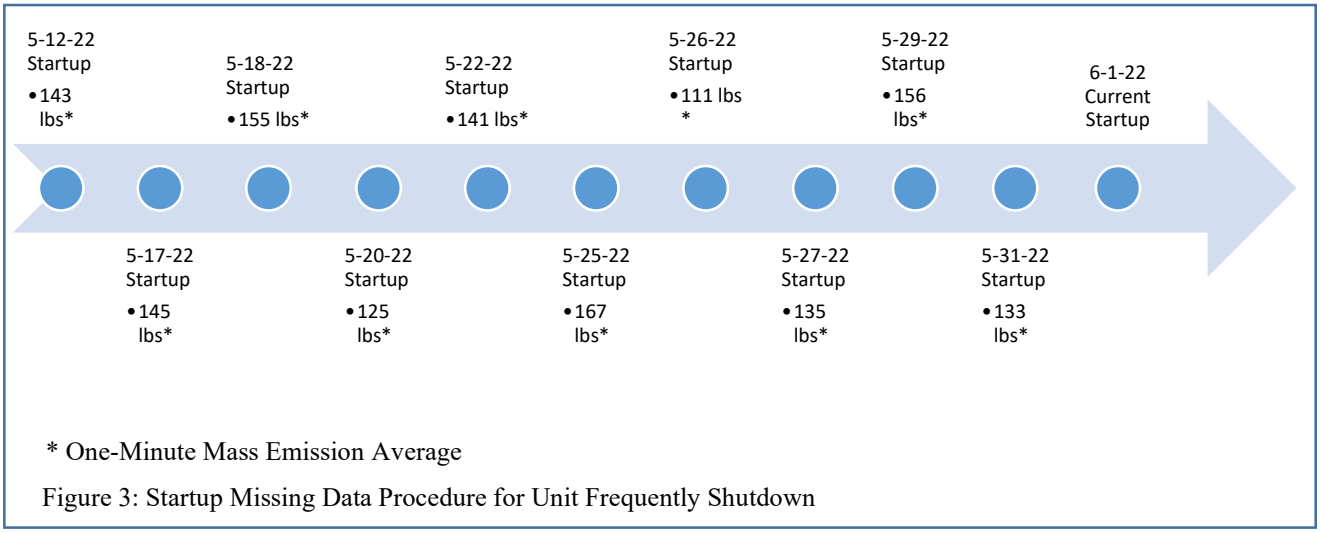
Staff is proposing to have the data substitution be dependent on the percent of missing data. If the sum of the minutes with no valid data is less than or equal to fifty percent of all the minutes for the period, the missing data minute(s) would be substituted with the average of all valid one-minute mass emission data for that startup or shutdown period. The following is an example of how this data substitution would work for a 15-minute startup period with two minutes of missing or invalid data:

MINUTE	NOx (lbs)	
1	15	
2	180	
3	190	
4	185	
5	invalid	
6	invalid	
7	170	
8	160	
9	154	
10	145	
11	134	
12	122	
13	72	
14	70	
15	71	
	1668	Sum of Valid Minutes (lbs)
	13	Number of Valid Minutes
	128.31	Valid One-Minute Mass Emissions (lbs) Average for this Startup
	1924.6	Mass Emissions (lbs) During 15-minte Startup

If the sum of the minutes with no valid data is more than fifty percent of all the minutes for the period, the missing data minutes would be substituted with the highest of the one-minute mass emission averages of the previous ten startups or shutdowns, or all startups of shutdowns during the 12 months period before the completion of last startup or shutdown, whichever is more recent. For this purpose, a one-minute mass emission average for each startup or shutdown is determined. In the example above, 128.31 lbs represents the one-minute mass emission average for that startup event. The operator would look back at the applicable previous startup events to determine if any startup event had a higher one-minute mass emission average.

Regarding the applicable period staff is proposing to require the owner to consider for the data substitution, the proposal considers two different scenarios. Some units have frequent startups and shutdowns, so considering the past 10 startup or shutdown events should provide a suitable characterization of how the unit operates during the startup or shutdown period. Alternatively, some units are rarely shutdown. In those instances, staff is proposing to require the owner to consider the previous shutdown or startup, which might have taken place several years prior to the startup or shutdown with the missing data. For those instances, the rule will require the owner or operator to consider the most recent startup or shutdown and look back to the 12 months prior to that startup or shutdown to see if any additional startups or shutdowns occurred. In either instance, the highest one-minute mass emission average will be used for data substitution.

The example in Figure 3 shows a unit with frequent startups. The previous 10 startups from 5/12/2022 to 5/31/2022 would be considered for data substitution and the one-minute mass emission average of 167 lbs from 5-25-2022 would be used to substitute the missing data from 6/1/2022.

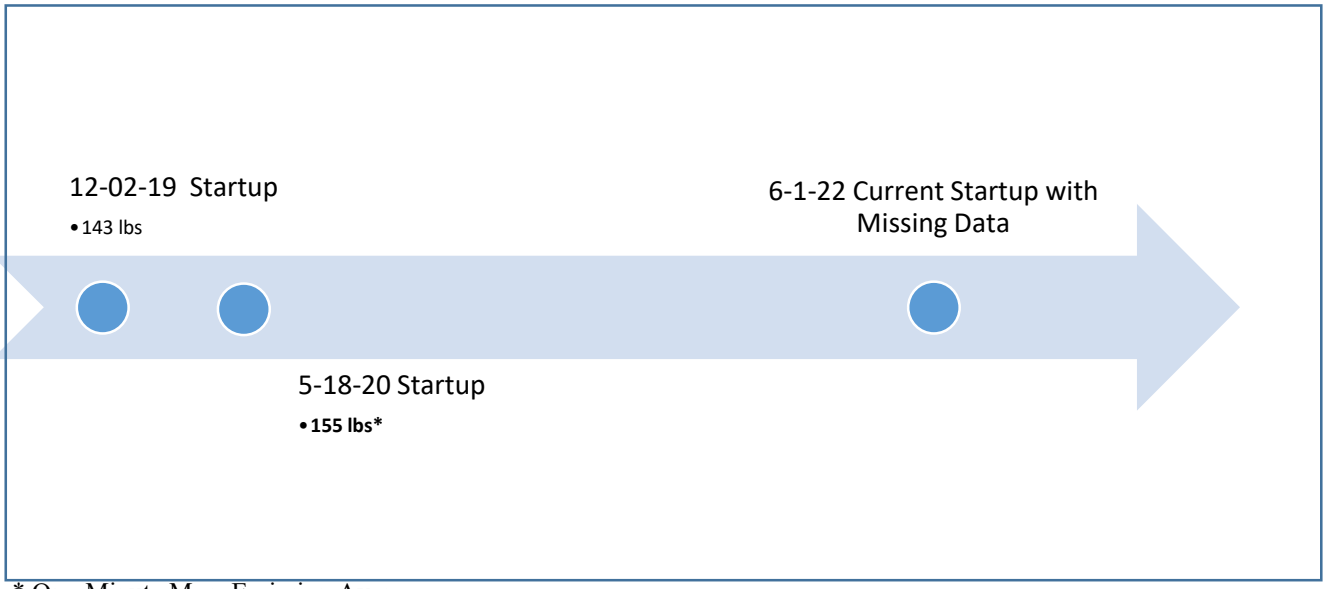


* One-Minute Mass Emission Average

Figure 3: Startup Missing Data Procedure for Unit Frequently Shutdown

The example in Figure 4 shows a unit with infrequent startup and shutdowns. The previous startup occurred over two years from the current startup. In that instance the owner or operator would consider the startup on 5-18-2020 and any startup that occurred in the 12 months prior, e.g., any startups from 5-18-2019 – 5-18-2020. The missing data in the example below will be determined from the highest one-minute mass emission average between the 12-2-2020 startup and the 5-18-

2020 startup. The one-minute mass emission average of 155 lbs from 5-18-2020 would be used to substitute the missing data from 6/1/2022.



* One-Minute Mass Emission Average

Figure 4: Startup Missing Data Procedure for Unit not Frequently Shutdown

Add recordkeeping requirements for data substitution procedures for startup or shutdown missing minute data – Subparagraph (i)(13)(C)

In order to ensure the records from previous startups or shutdowns are available for the proposed data substitution, staff is proposing to extend the recordkeeping requirement to include the 12-month period prior to the most recent startup or shutdown if this period is not covered by the Rule 218.2 paragraph (h)(3) recordkeeping requirement. For example, if a unit has been operating continuously for over three years, without a startup or shutdown, and there is a minimum three years recordkeeping requirement, no data would be available to substitute for the missing data. This provision would require the owner to maintain records beyond three years. The owner or operator would be required to retain records from the last startup or shutdown, and consider data from that startup or shutdown event and the 12 months that proceeded it. Failure to maintain appropriate records would not only be considered a potential rule violation, it would also preclude an owner or operator of the CEMS from utilizing this more favorable substitute data procedure.

Add uncontrol emission factors for units with no available startup or shutdown data – Subparagraph (i)(13)(D)

For an extreme situation when there is no record of previous startups or shutdowns, an uncontrol emission factor and the equipment maximum capacity would be used to determine the emissions of the missing startup or shutdown data. This situation would not occur if the owner or operator complies with the proposed recordkeeping requirement in subparagraph (i)(13)(C). However, if the owner or operator fails to maintain records accordingly, this provision could be utilized to determine the emissions.

Add a provision that allows for the owner or operator to report valid zero emission data when the base unit is not operating– Paragraph (i)(14)

Paragraph (i)(14) allows the owner or operator to report valid zero emissions data while the unit (emitting source such as a boiler or heater) is not operating and no emissions are generated. Staff is proposing to allow the owner or operator to report valid zero emission for those hours without requiring data substitution if the base unit non-operation is demonstrated in accordance with Rule 218.2 paragraph (e)(4). The provision requires the facility to maintain records for a minimum of three years .

Revise Exemption Provision Related to Executive Officer discretion – Subdivision (l)

Rule 218.3 subdivision (l) is identical to Rule 218.2 subdivision (k). Staff is proposing the same revision. See discussion on the revision for Rule 218.2 subdivision (k) for details.

AFFECTED FACILITIES

Based on the RECLAIM compliance year 2017 audit data, there are 83 RECLAIM facilities that in total operate 500 units with NOx emissions monitored by CEMS. It should be noted that one CEMS may monitor emissions for several units, which is common in petroleum refining facilities.

Based on the South Coast AQMD's database for non-RECLAIM CEMS applications, there are 126 non-RECLAIM facilities that previously installed one or more CEMS, with an estimate of approximately 250 units monitored by these CEMS. Since records do not indicate the current status of the CEMS, some of non-RECLAIM CEMS may no longer be active. The CEMS universe may change when some landing rules are adopted or amended and become applicable to RECLAIM facilities.

EMISSION REDUCTIONS

PAR 218.2 and PAR 218.3 are administrative rules that provide technical guidelines for installation and operation of CEMS required by South Coast AQMD rules or permit conditions. PAR 218.2 and PAR 218.3 do not directly regulate sources for emissions control; therefore, there are no emission reductions that will result from this rule development.

COST EFFECTIVENESS

While a source-specific rule determines when a CEMS would be required for emission monitoring, PAR 218.2 and PAR 218.3 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 from which the CEMS is required.

CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)

Pursuant to the California Environmental Quality Act (CEQA) Guidelines Sections 15002(k) and 15061, the proposed project (PAR 218.2 and PAR 218.3) is exempt from CEQA pursuant to CEQA Guidelines Section 15061(b)(3). A Notice of Exemption has been prepared pursuant to CEQA Guidelines Section 15062 and is included as Attachment F to the Board Letter. 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, and with the State Clearinghouse of the Governor's Office of Planning and Research.

SOCIOECONOMIC ANALYSIS

PAR 218.2 and PAR 218.3 provide clarification and data handing method to comply with permit or rule limits, and is expected to have no socioeconomic impacts.

DRAFT FINDINGS UNDER CALIFORNIA HEALTH AND SAFETY CODE SECTION 40727

California 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 to propose Amended Rules 218.2 and 218.3 to provide administrative and technical specifications to continuous emission monitoring systems.

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 218.2 and PAR 218.3 have been written or displayed so that their meaning can be easily understood by the persons affected by the rule.

Consistency: PAR 218.2 and PAR 218.3 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 218.2 and PAR 218.3 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 statues: Health and Safety Code Sections 39002, 40001, 40702, 40440(a), 41511, and 40725 through 40728.5.

COMPARATIVE ANALYSIS

Health and Safety Code Section 40727.2(g) provides for a comparative analysis and is applicable when the 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 amendments do not impose such requirements.

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, SOx, NOx, and their precursors. PAR 218.2 and PAR 218.3 are not Best Available Retrofit Control Technology (BARCT) rules or emission reduction strategies; therefore, this provision is not applicable.

APPENDIX: RESPONSE TO PUBLIC COMMENTS

South Coast AQMD held a Public Workshop on March 30, 2022, and a Public Consultation Meeting on June 8, 2022, both via Zoom video conference. Comments were received during the Public Workshop and Public Consultation Meeting. Three comment letters were received during the comment period that ended on April 13, 2022, and one comment letter was received beyond the comment period.

The following responses summarize the key comments received during the Public Workshop and Public Consultation:

Comment WS-1: For a higher span range that is not often used, are tests such as linearity check and relative accuracy test audit (RATA) still required?

Response WS-1: Linearity check is required at the certification/recertification and it should be conducted for all spans. Linearity check is not required pursuant to Rule 218.3 clause (g)(2)(B)(i) for ongoing Quality Assurance and Quality Control (QA/QC).

RATA test is required at the certification/recertification and ongoing QA/QC. This test is conducted in the as-found unit operating condition, not depending on how often a span range is utilized.

Comment WS-2: Is low level spike recovery in Attachment A necessary? Suggest to allow CEMS down time for this determination.

Response WS-2: Low level spike recovery will be required if the owner or operator of the CEMS elects to validate the lowest vendor guaranteed range. This test is not required if the owner or operator elects to report 10 percent of the span range.

Rule 218.2 paragraph (e)(2) allows CEMS down time for up to 96 hours for each occurrence of maintenance pursuant to the QA/QC Program, and an additional 96 hours if the unit is not operating and no emissions are generated. As low level spike recovery test is part of the QA/is proposing to incorporate stakeholder's suggestion of aligning with the RECLAIM requirement and extend the RATA report due date from 60 days upon completion of the test to 90 days.

Comment WS-5: For the hours when the base unit is not operating and emission data are missing, data substitution should not be required.

Response WS-5: Staff agrees with the commentor and proposes to add a provision under subdivision (i) to allow the owner or operator to report valid zero emissions data while the base unit (emitting source) is not operating and no emissions

are generated. The non-operation should be demonstrated in accordance with Rule 218.2 paragraph (e)(4). Recordkeeping would also be required.

Comment WS-6: The required information and reporting method for semi-annual report are general, not specific enough.

Response WS-6: Staff understands the concern. Staff is developing a streamlined electronic reporting form and a guidance document to specify the required information in the report.

Comment WS-7: How long should the records, especially one-minute CEMS data, be maintained?

Response WS-7: Rule 218.2 subparagraph (h)(3)(A) currently specifies that records shall be maintained for a minimum period of two years or a period specified in any rule or permit condition, whichever is longer. Staff proposes to align with the California Code of Civil Procedure, section 338(k), and extend the recordkeeping period from a minimum period of two years to three years.

For a unit that has a permit or rule required mass emission limit with minute increments for a defined startup or shutdown period, records of one-minute CEMS data are needed to demonstrate compliance. For a missing data period, records of previous startups or shutdowns (one-minute data) are required for data substation, which may extend beyond previous three years if the unit rarely has a startup or shutdown. To comply with this provision, the owner or operator only needs to keep the minute records from startup or shutdown events.

Therefore, the recordkeeping is for a minimum period of three years, or a period required to demonstrate compliance with a permit or rule which often is source specific or relative to facility's operation plan.

Comment Letter #1

Hi Yanrong,

Thanks for including the revised paragraph (f)(1)(B) language in the proposed amended version of Rule 218.2. In looking through Rule 218.2 and 218.3, I think there is just one additional paragraph that is of possible concern with regard to director's discretion:

- Rule 218.2, paragraph (k)(1) and Rule 218.3, paragraph (l)(1), which consist of the language below:

  (1) If a rule or permit specify CEMS requirements that are different than requirements specified in Rule 218.3, the owner or operator shall adhere to CEMS requirements in the rule or permit, unless otherwise notified by the Executive Officer.

1-1

As with paragraph (f)(1)(B), I would recommend additional language that establishes some criteria by with the Executive Officer would determine that such notification is warranted. I'm not sure if data accuracy would be appropriate since the issues related to this provision could be different than with paragraph (f)(1)(B), but perhaps stringency could be an appropriate basis if the underlying purpose here is to streamline overlapping requirements. In addition, the term 'different' is of some concern since it is vague enough that it might be interpreted to allow less accurate or stringent requirements to take precedent over rule requirements. I would suggest the addition of language that narrows or clarifies the scope of 'different.' Alternately, if retaining that term is important to preserving some flexibility for the District, perhaps the inclusion of language to indicate that while these CEMS requirements in another rule or permit are different than Rule 218.3 requirements, they shall still assure compliance (or must be equivalent?) with Rule 218.3 requirements. Please call or email to discuss further if necessary.

Thanks,
Eugene

Eugene Chen
US EPA, Region 9
Air Division, Rules Office
75 Hawthorne Street (AIR-3-2)
San Francisco, CA 94105
(415) 947-4304

Response to Comment Letter #1

Response 1-1: Staff agrees that more specificity is needed to clarify the purpose. The rule or permit specified CEMS requirements are generally more stringent, in which case the owner or operator will adhere to CEMS requirements in the rule or permit instead of the equivalent requirements in Rules 218.2 and 218.3. Staff proposed to revise the exemption provision specifying that the basis of the exemption is on the requirement stringency. The Executive Officer will provide a written notice to the owner or operator if the rule or permit specified CEMS requirements are deemed less stringent and therefore the owner or operator must comply with the requirements in Rules 218.2 and 218.3.

Comment Letter #2

Michael Krause
Assistant Deputy Executive Officer
Planning, Rule Development, and Area Sources
South Coast Air Quality Management District
mkrause@aqmd.gov

Dear Mr. Krause:

The South Coast AQMD released a draft Proposed Amended Rule 218.3 on March 18, 2022. One of the primary purposes of the amendment is to address facilities' concerns over the monitoring data gap for dual range analyzers. The draft amended Rule 218.3(i)(1)(C) and Attachment A (Table A-2) provide a new supplemental/alternative test approach that most facilities can apply. In the draft rule, AQMD expanded the applicability of the new approach to any non-lowest vendor guaranteed span range which would have potential impacts on the rich-burn engine CEMS operated at our Joint Water Pollution Control Plant (JWPCP) located in Carson, CA.

The JWPCP operates five rich-burn engines equipped with NOx controls and NOx, CO and O_2 CEMS for compliance. As designed, the rich-burn engine NOx emissions and O_2 concentrations are typically measured as zero or near zero (within the margin of error) during normal operations. Historically, the NOx and O_2 values have consistently been zero or near zero as demonstrated during annual compliance source tests and CEMS RATA tests. We believe that the proposed linearity error checks in Table A-2 should not be required for rich-burn engine NOx CEMS at such low levels; for instance, EPA Part 75 exempts a CEMS from the quarterly linearity checks if the span range is ≤ 30 ppm.

We understand that Rules 218.2 and 218.3 are intended to provide general requirements and specifications for facilities to comply with AQMD rules and permit conditions. The intent of the amendments is to address the monitoring data that may fall below 10% of the span of the high range of a dual range analyzer which is normally more than 1000 ppm. In addition, it is our understanding that R218.3(i)(1)(C) and Attachment A only apply to pollutant CEMS, but not O_2 CEMS since all combustion units, except rich-burn engines, would not have any readings below 10% of the O_2 analyzer range. Therefore, we believe R218.3(i)(1)(C) and Attachment A should not be applicable to the very limited number of rich-burn engines operating within SCAQMD jurisdiction. 2-1

We recommend that AQMD consider an exemption for rich-burn engine NOx and O_2 CEMS from the Rule 218.3(1)(1)(C) and Attachment A requirements. We would also like to meet and discuss with your team further on the potential impacts and challenges for these rich-burn engine CEMS, if possible.

Sincerely,

Mathew L. Watson, P.E.
Supervising Engineer | Air Quality Engineering
562-908-4288 ext. 2117
mathewwatson@lacsd.org

LOS ANGELES COUNTY SANITATION DISTRICTS
Converting Waste Into Resources
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Response to Comment Letter #2

Response 2-1: Linearity check addressed in Attachment A Table A-2 is only applicable when the facility elects to validate data that fall below 10 percent of the span range that is not the lowest vendor guaranteed span range. For example, if the analyzer has two span ranges, 0-10 ppm and 0-200 ppm. Span range 0-10 could be the lowest vendor guaranteed span range. In this case, the linearity check is only applicable when the facility elects to validate data in the monitoring gap of 9.5-20 ppm. The linearity check is not required to validate data below 1 ppm, which is below 10 percent of the lowest vendor guaranteed span range.

Rule 218.3 (i)(1)(C) and Attachment A provide an additional option on how to report data below 10 percent of the upper span value of a span range. Previously, this additional option was only provided to validate data below 10 percent of the upper span value of the lowest vendor guaranteed span range. The rule now proposes to also provide this option to validate data below 10 percent of the upper span value of other higher span range. Since it is an additional option, the facility may choose not to refer to R218.3(i)(1)(C) and Attachment A. Instead, the facility may continue previous practice by complying with R218.3(i)(1)(A)&(B) and reporting data below 10 percent of the upper span value of any span range at the 10 percent value.

Comment Letter #3

April 13, 2022

Ms. Yanrong Zhou
South Coast Air Quality Management District
21865 Copley Drive
Diamond Bar, CA 91765

Dear Ms. Zhou:

Subject: Los Angeles Department of Water and Power's (LADWP) Comments on Proposed Amended Rule 218.2 – Continuous Emission Monitoring System: General Provisions, and Proposed Amended Rule 218.3 – Continuous Emission Monitoring System: Performance Specifications

LADWP appreciates the opportunity to provide comments on the proposed amendments to Rule 218.2 – Continuous Emission Monitoring System: General Provisions, and Rule 218.3 – Continuous Emission Monitoring System: Performance Specifications. LADWP remains committed to working with the South Coast Air Quality Management District (SCAQMD) to develop effective policies for monitoring emissions from major facilities in order to meet air quality goals in the South Coast Air Basin.

LADWP operates seven combined cycle units, four boilers units, and 14 simple cycle units, each with a dedicated Continuous Emission Monitoring System (CEMS) currently certified under SCAQMD Rules 2012, 218, 218.1, and 40 CFR Part 75. Six of the seven combined cycle units and six of 14 simple cycle units are dual fuel units capable of combusting both natural gas and diesel fuel, with the latter only used for emergency. The CEMS for these dual fuel units are certified to measure NOx and CO emissions from both natural gas and diesel combustion.

Comments on Proposed Amendments to Rules 218.2

1. Section f.1.B – Certification Requirements

The rule requires the owner or operator of a CEMS to certify or recertify any CEMS that is modified for any component that is either listed on the certification letter, Technical Guidance Document R-002, or Quality Assurance/Quality Control (QA/QC) Plan, unless the Executive Officer determines that such modification would not impact data accuracy and certification or recertification is not necessary.

Typically, a CEMS unit has hundreds of consumable parts (as listed in Attachment 1-Sample List of Parts) that are periodically (monthly, quarterly, yearly) maintained and/or replaced. Multiplying the number of CEMS consumable parts by the number of LADWP generating units will result in an enormous number of recertification events that must be completed in a quarter. With the amount of testing needed, scheduling with source test companies and coordinating with energy dispatch will be very difficult. 3-1

In addition, CEMS breakdowns which can happen on a weekend require immediate action to keep the percent availability above 95%. Asking for a determination from the Executive Officer whether each repair activity will affect accuracy of the CEMS or not, may cause delays in getting the CEMS back in service and collecting valid data. Applying for recertification of the CEMS each time a part of a CEMS component is replaced will be onerous and expensive.

LADWP suggests that the requirement to recertify CEMS be limited only to replacement of major components listed in the CEMS Certification and ST220 form. Components/Parts listed in Quality Assurance Plan (QAP) that are subject to periodic preventative and corrective maintenance should be exempt from this requirement. LADWP requests clarification on the distinction between a CEMS modification and CEMS preventative/corrective maintenance. The definition of "CEMS modification" should be updated to clarify the distinction and reiterate that this does not apply to "preventative and corrective maintenance".

Comments on Proposed Amendments to Rules 218.3

1. Mass Calculation

LADWP combustion turbine units have NOx mass permit limits for startups and shutdowns. In addition, some of these units have a NOx mass rate limit for startup. Currently, LADWP calculates NOx mass emissions every minute during startup and shutdown durations. The mass calculation is based on stack gas concentration, heat input rate and oxygen concentration Oxygen F-Factor approach). The valid minutes are added up to determine compliance with the permit limits.

3-2

LADWP appreciates SCAQMD for allowing the use of the Higher Heating Value (HHV) of 1050 Btu/hour to calculate mass emissions as outlined in Table 5. However, the use of the HHV results in the over-reporting of mass emissions. LADWP requests that SCAQMD allow the use of the Heating Value provided in the monthly gas company bills as an approved alternative method to avoid over-reporting of mass emissions during periods of startups and shutdowns. This method is consistent with 40 CFR Part 75 which allows the use of heating value provided by the gas company every month. The heating value is applied starting on the date of receipt of the gas bill until the date of receipt of the following month's gas bill.

2. Data Substitution Procedure

The proposed Data Substitution Procedure in section i.11.A if applied to invalid hours during startup and shutdown may result in the exceedance of startup and shutdown permit mass limits which constitutes a violation. In the following example, if hours 12 and 13 were invalid, the cold start limit of 600 pounds would have been exceeded based on the proposed mass substitution procedure using the average of the hour before and after the invalid data period.

3-3

Date/Time (Local)	Unit ID	Unit Status	Gross MWH	Net MWH	Natural Gas (KCFH)	O2 Dry (%)	NOx BA (PPM)	NOx Cor (PPM)	NH3 Cor (PPM)	CO Cor (PPM)	Stack Flow BA (msc	NOx Rate BA (lbs/I	Startup lbs
10/13/2018 0:00	51	9	0	0	0	20.925	0	0	0	0	0	0	
10/13/2018 1:00	51	9	0	0	0	20.912	0	0	0	0	0	0	
10/13/2018 2:00	51	9	0	0	0	20.897	0	0	0	0	0	0	
10/13/2018 3:00	51	9	0	0	0	20.89	0	0	0	0	0	0	
10/13/2018 4:00	51	9	0	0	0	20.894	0	0	0	0	0	0	
10/13/2018 5:00	51	9	0	0	0	20.933	0	0	0	0	0	0	
10/13/2018 6:00	51	9	0	0	0	20.89	0	0	0	0	0	0	
10/13/2018 7:00	51	9	0	0	0	20.869	0	0	0	0	0	0	
10/13/2018 8:00	51	9	0	0	0	20.901	0	0	0	0	0	0	
10/13/2018 9:00	51	9	0	0	0	20.942	0	0	0	0	0	0	
10/13/2018 10:00	51	9	0.932	0.932	146.14	20.477	1.899	5.655	0	44.23	14.594	14.928	14.928
10/13/2018 11:00	51	7	18.493	18.493	870.77	17.91	23.173	45.491	0.758	26.196	55.666	173.41	173.41
10/13/2018 12:00	51	7	17.658	17.658	845.34	17.95	12.234	24.483	0	24.457	54.799	90.295	142.91
10/13/2018 13:00	51	7	17.88	17.88	847.56	17.501	12.827	22.295	0	18.885	47.881	82.432	142.91
10/13/2018 14:00	51	7	22.848	22.848	880.31	17.48	16.881	29.26	0.279	37.626	49.304	112.4	112.4
10/13/2018 15:00	51	7	66.995	66.995	1124.1	15.482	12.893	15.093	1.267	33.628	40.258	68.758	64.75
10/13/2018 16:00	51	9	4.533	4.533	202.67	20.274	3.743	7.498	1.072	10.354	31.388	20.27	
10/13/2018 17:00	51	7	30.628	30.628	867.06	16.079	19.871	24.143	0.048	23.816	34.39	91.929	
10/13/2018 18:00	51	9	36.863	36.863	783.9	16.652	17.183	19.578	3.515	21.041	40.128	79.945	
10/13/2018 19:00	51	9	8.207	8.207	342.31	19.59	4.244	8.27	0.145	8.771	24.301	21.637	
10/13/2018 20:00	51	7	42.225	42.225	937.34	15.784	28.867	33.462	1.091	20.527	34.94	136.17	
10/13/2018 21:00	51	0	125.07	125.07	1473.5	14.291	2.063	1.842	0.642	0.018	42.628	11.831	
10/13/2018 22:00	51	0	163.89	163.89	1761.8	14.232	2.276	2.015	0.938	0.043	50.509	15.483	
10/13/2018 23:00	51	0	163.86	163.86	1761.5	14.198	2.31	2.035	1.018	0.004	50.239	15.63	
											Startup Total		651.3

3-3

This procedure cannot be applied during startups and shutdowns because these events occur in a span of minutes during which the emissions per minute are added together to determine compliance with mass limits. Since unit startup (Status Code 7) and steady state operation (Status Code 0) can occur in the same hour, LADWP believes that calculating mass emissions per startup minute is a more accurate accounting of startup mass emissions. However, there are instances when startup minutes are deemed invalid and cannot be used in the calculation of startup or shutdown mass emissions. LADWP proposes that only valid minutes should be included in the total mass calculations for startups and shutdowns.

Substituted data at the hourly level should not be enforceable for startup and shutdown mass limits that are accumulated at the minute level. As soon as the startup ends, the NOx mass emissions are no longer accumulated towards determining compliance with mass limits. LADWP recommends omitting the phrase "for the purpose of determining mass emissions" under 218.3(i)(11) and revising the staff report to clarify that substituted data is not enforceable for mass emission and concentration limits and that only valid data will be used for compliance determinations.

3. Timing of Corrective Actions

PAR 218.3 section (f)(2)(A) states "The owner or operator of the CEMS shall make corrective actions within 8 hours of receiving the audible alert." It is not always possible to begin making corrective actions to repair the CEMS during off hours such as holidays and weekends when personnel may not be available. LADWP recommends revising this section to the following: "The owner or operator of the CEMS shall make corrective actions within eight hours of receiving the audible alert, except during off hours such as evenings, holidays, and weekends. The Operator will be allowed up to eight hours from the start of the next business day to begin making corrective actions." 3-4

LADWP requests SCAQMD's consideration of these comments and looks forward to working with SCAQMD on the development and refinement of these rules.

If you have any questions or would like additional information, please contact Ms. Andrea Villarin of my staff at (213) 367-0409.

Sincerely,

Katherine Rubin

Digitally signed by Katherine Rubin
Date: 2022.04.13 10:49:00 -07'00'

Katherine Rubin
Manager of Air and Wastewater Quality and Compliance

LL:

c: Mr. Michael Krauss
South Coast Air Quality Management District

Mr. Gary Quinn
South Coast Air Quality Management District

Ms. Heather Farr
South Coast Air Quality Management District

Ms. Andrea Villarin
Los Angeles Department of Water and Power

Response to Comment Letter #3

Response 3-1: CEMS components identified in its QA/QC plan are, or can be, unique to each system and could have a potential impact on the CEMS performance. Staff understands that some CEMS component modifications for periodic preventative and corrective maintenance may require some certification test. For example, sampler or analyzer filter replacement is preventative maintenance that would require a calibration according to Technical Guidance Documents R-002 (TGD R-002).

For the modification of a component that is identified in its QA/QC plan but not in the certification letter or TGD R-002, the owner or operator is only required to submit a notification and update the QA/QC plan. The owner or operator is not required to submit the application form ST220, or obtain an approval to conduct this type of modification. The notification provides the Executive Officer an opportunity to determine if such modification, especially in a unique case, would impact data accuracy and whether certain test(s) would be required.

Rule 218.2 (f) has been streamlined and codified existing practices for certification and recertification. Maintaining the existing case by case evaluation allows for flexibility to both staff and the CEMS owner who will be made aware of those potentially impacted components. During the Executive Officer's review for approval of the QA/QC plan, staff will be able to work with the owner or operator and determine which, or any, components that will be exempted from the alternative recertification process for a future modification.

Response 3-2: Rule 218.3 proposes to allow a measured heating value of the fuel determined by a method approved by the Executive Officer (see footnote of Table 5). Staff agrees that a heating value determined by gas bills should be considered as a measured heating value.

Response 3-3: Staff recognizes some South Coast AQMD permits or rules may require a mass emission limit with minute increments for a defined startup or shutdown period, and agrees that there is a need to determine mass emissions on a per minute interval.

Staff is proposing to include a method for determining mass emissions for a permit or rule defined startup or shutdown period with minute increments in Rule 218.3. The owner or operator would calculate the mass emissions for each minute using the equations listed in Table 5, except that minute level should be used in the calculation rather than hourly parameters. The mass emissions for all minutes of the period would be totalized to demonstrate compliance. The owner or operator would use data in the

startup period for substitution when data from a startup period is missing and data in the shutdown period for substitution when data from a shutdown period is missing.

Response 3-4: A controlled temperature enclosure/environment is necessary for analyzers to operated properly. When temperature in the analyzer enclosure changes and falls out of manufacturer's recommended range, the analyzer measurements may drift and become inaccurate. Taking corrective action in a timely manner is essential for maintaining data accuracy. The current requirement of making corrective actions within eight hours has included the consideration for both data accuracy and operation practice.

Comment Letter #4

July 21, 2022

Ms. Yanrong Zhu
Air Quality Specialist
South Coast Air Quality Management District
21865 Copley Drive
Diamond Bar, CA 91765
Email: yzhu1@aqmd.gov

Subject: Comments on Revised Proposed Amended Rule 218.3 - Continuous Emission Monitoring System: Performance Specifications

Dear Ms. Zhu:

AES is grateful to have been consulted during the amendment process for Rule 218.3 (Continuous Emission Monitoring System: Performance Specifications) and appreciates the opportunity to comment on the latest version of the Draft Proposed Amended Rule (PAR) 218.3 dated June 10, 2022. AES' comments are as follows:

1. AES supports the addition of the proposed Low-Level Linearity Performance Test (LLLPT) as a method to quality assure data falling in the "Monitoring Gap" between 95% of a lower span range and 10% of an upper span range. However, the current PAR 218.3 requires a Low-Level Calibration Error (LLCE) test in addition to the LLLPT despite the acceptance criteria of the LLLPT being significantly more stringent. The table below shows reference gas concentrations and allowable error for both tests based on the example contained in the PAR 218.2/218.3 Revised Preliminary Draft Staff Report dated June 2022. For the span ranges in the example, the allowable error of the LLLPT expressed in parts per million (ppm) is as low as 1 ppm while the allowable error for the LLCE is 25 ppm. Therefore, AES believes that with the requirement of the LLLPT the LLCE test is unnecessary for quality assuring the "Monitoring Gap" between ranges. AES requests that the LLCE test requirement be removed for ranges other than the lowest vendor guaranteed span range. 4-1

Lower Range: 0 – 10 ppmv, Upper Range: 0 – 1000 ppmv					
Low-Level Linearity Performance Test (LLLPT)			**Low Level Calibration Error Test (LLCE)**		
Gas Level	Ref. Gas Concentration	Allowable Error (5% of Ref.)	Gas Level (% of Span)	Ref. Gas Concentration	Allowable Error (2.5% of Span)
L	20 ppm	**1 ppm**	5%	50 ppm	**25 ppm**
M	60 ppm	**3 ppm**	10%	100 ppm	**25 ppm**
H	100 ppm	**5 ppm**	20%	200 ppm	**25 ppm**

2. The current PAR 218.3 specifies "10% of Span Range Tested" for the upper value of the Low-Level Linearity Performance Test in Table A-2. AES requests this to be changed to 4-2

"Approximately 10% of Span Range Tested" to allow for minor variation between the requested reference gas concentration ordered and the actual concentration delivered by the gas supplier. 4-2

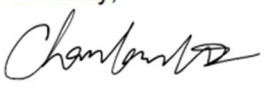
3. The current PAR 218.3 Section (i)(2)(B)(i) is inconsistent with the changes proposed in Section (i)(1)(C). AES recommends Section (i)(2)(B)(i) be updated in accordance with the proposed change to Section (i)(1)(C). 4-3

4. The current PAR 218.3 Section (i)(13)(C) requires data substitution using data from previous completed startups or shutdowns if a startup or shutdown has more than fifty percent of missing 1-minute mass emission data. AES requests the "completed" startups or shutdowns in this rule section to be revised to "successfully completed" startups or shutdown, so that data from completed but non-representative startups or shutdowns due to equipment breakdown issues would be excluded from emission calculations. 4-4

5. The current PAR 218.3 Section (i)(11)(A) requires data substitution for hourly pollutant concentration, stack flow, and pollutant mass emission rate for any hour with missing data. AES requests update of the rule language in this section to clarify the definition of "any hour". The current PAR 218.3 Section (i)(4)(A) defines how the hourly average should be calculated based on the number of 15-minute quadrants with valid data in the unit operating hour and if maintenance or quality assurance activities occurred during the operating hour. AES suggests the current PAR 218.3 Section (i)(11)(A) be updated to only require data substitution on any hour that does not meet the emission data averaging requirements outlined in the current PAR 218.3 Section (i)(4)(A). 4-5

Please feel to contact us with any questions.

Sincerely,



Charlene He
Environmental Manager
AES Alamitos Energy

Ben Morgan
Environmental Manager
AES Huntington Beach Energy

cc: Weikko Wirta/AES Southland Energy
Heather Farr/South Coast AQMD
Michael Krause/ South Coast AQMD
Dipankar Sarkar/ South Coast AQMD
Bill Welch/ South Coast AQMD

The AES Corporation | 21730 Newland Street | Huntington Beach, CA 92646

Response to Comment Letter #

Response 4-1: Staff agrees with the commentor and has updated the proposed rule language to not require longer LLCE test requirements for ranges other than the lowest vendor guaranteed span range.

Response 4-2: Staff agrees and updated Table A-2 to include the term "Nominal Concentration at 10% of Span Range Tested.".

Response 4-3: Staff agrees and revised Rule 218.3 clause (i)(2)(B)(i) to be consistent with the proposed revision to Rule 218.3 subparagraph (i)(1)(C).

Response 4-4: Staff agrees and incorporated the commenter's suggestion.

Response 4-5: To clarify the requirement, staff has included the sentence "any hour without sufficient valid data points required by subparagraph (i)(4)(A)" to provide more specificity for the hours requiring a data substitution.