

Proposed Amended Rule 218.2

Continuous Emission Monitoring System: General Provisions

Proposed Amended Rule 218.3

Continuous Emission Monitoring System: Performance Specifications

Public Consultation

June 8, 2022, 10:00 am

Join Zoom Meeting - from PC or Laptop

<https://scaqmd.zoom.us/j/99532508616>

Zoom Webinar ID: 995 3250 8616 (applies to all)

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Agenda



Rule Development Update

Additional Proposed Amendments

Stakeholder Comments and Staff Response

Next Steps

Rule Development Background

- Rules 218.2 and 218.3 amendments focus on certain provisions in landing rules and address U.S. EPA comments
- Public Process
 - First Working Group Meeting held on January 27, 2022
 - Public Workshop held on March 30, 2022
- Additional proposed amendments were identified at the Public Workshop and will be highlighted at this meeting

Proposed Rule Amendments

- Proposed Amended Rules 218.2 and 218.3 (PAR 218.2 and PAR 218.3) will address the following provisions

PAR 218.2

Executive Officer's
Discretion on Recertification

Relative Accuracy Test Audit
Report Submittal*

Executive Officer's
Discretion on Exemption*

PAR 218.3

Linearity Error Test Procedure

Dual Range Analyzer

Mass Emission Calculation Method

Missing Data Procedure*

Mass Emissions for Startup and Shutdown*

Executive Officer's Discretion on Exemption*

** New proposed revision or further modification since the Public Workshop on March 30, 2022*

Proposed Amended Rule 218.2

Executive Officer's Discretion on Recertification

- Staff is proposing to include more specificity to provisions that allow for Executive Officer's discretion to address U.S. EPA concerns
 - Proposing to amend the exemption subdivisions in Rule 218.2 (k) and Rule 218.3 (l)

- (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).

Executive Officer's Discretion on the Exemption Provision

- Rule 218.2 subdivision (k) and Rule 218.3 subdivision (l) provide exemptions to the CEMS requirements when there are equivalent provisions provided by a source specific rule or permit condition
- Staff is proposing the following revision to the exemption provisions in both proposed amended rules in response to U.S. EPA concerns

Exemptions

- (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 ~~has~~ provides written notice to the owner or operator that the rule or permit specified CEMS requirements are less stringent than Rule 218.3.

Relative Accuracy Test Audit Report Submittal

- Stakeholders raised a concern about the submittal time of the Relative Accuracy Test Audit (RATA) report
- Rule 218.2 paragraph (i)(5) requires a RATA Report to be submitted within 60 days upon completion of the test
 - Rule 2012 Chapter 2 (B)(22) for RECLAIM requires that a RATA report be submitted on or before the end of the quarter following the required test date
- Staff is proposing to align with RECLAIM requirements and require the RATA report to be submitted within 90 days upon completion of the test

Proposed Amended Rule 218.3

Mass Emissions for Startup and Shutdown

Stakeholder Suggestion

- A permit or rule may require a mass emission limit with minute increments for a defined startup or shutdown (e.g., 111 pounds for a cold startup of 166 minutes)
- Facilities must calculate mass emission on a per-minute interval to demonstrate compliance
- Stakeholders questioned if the proposed “Missing Data Procedure” in PAR 218.3 should apply:
 - Hourly data should not be used to substitute missing minute data
 - Data should be substituted with data of the same operation status (i.e., startup data for missing startup data minutes)

Startup and Shutdown – Mass Emission Calculation Method

- Staff is proposing a new provision, paragraph (i)(12) in PAR 218.3, for mass emission calculation on a per-minute interval for a startup or shutdown
- The purpose of this calculation is to demonstrate compliance with mass emission limits for a startup or shutdown

(12) Mass Emission Calculation for Startup or Shutdown

For the purpose of determining startup or shutdown mass emission limits based on a minute interval, the owner or operator of the CEMS shall:

- (A) Calculate the mass emissions for each minute according to Equation 9, Equation 10, or Equation 11 in Table 5, using minute-level data rather than hourly-level data; and
- (B) Totalize the mass emissions for all minutes of the startup or shutdown period.

Startup and Shutdown – Data Substitution Procedure

- Staff is proposing a new data substitution provision for startup and shutdown, paragraph (i)(13) in PAR 218.3
 - Requires data substitution by data from a period with the same operating status
 - Includes procedure for missing minute data

(13) Data Substitution Procedure for Missing Minute Data for Startup or Shutdown

For the purpose of determining mass emissions pursuant to paragraph (i)(12), the owner or operator of the CEMS shall substitute data for any minute with no valid data using:

- (A) Data in the startup period when data from a startup period is missing and data in the shutdown period when data from a shutdown period is missing; and
- (B) 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 average of all the valid one-minute mass emission datapoints for the startup or shutdown period; or
- (C) If the sum of the minutes with no valid data is greater than fifty percent of all the minutes for the period, the highest one-minute mass emission average calculated for a startup or shutdown during the period below, whichever is more recent:
 - (i) The previous ten completed startups or shutdowns; or
 - (ii) All completed startups or shutdowns that occurred during the 12-months period prior to the most recent startup or shutdown.

Startup and Shutdown Data Substitution – Example

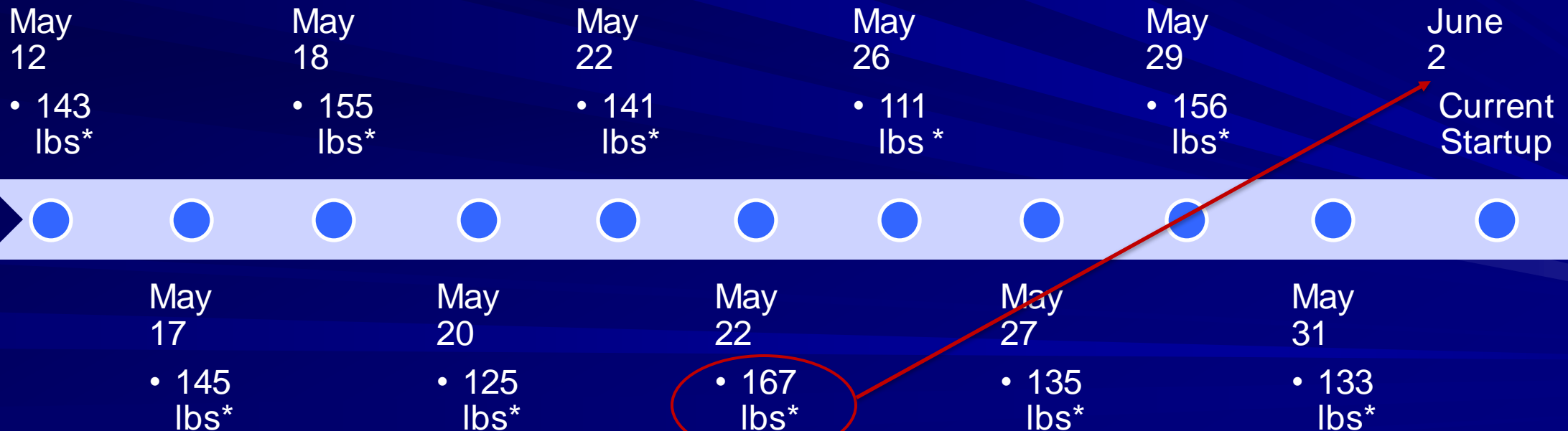
MINUTE	NOx (lbs)
1	15
2	180
3	190
4	185
5	invalid
6	invalid
7	170
8	160
9	154
10	145
11	134
12	122
13	72
14	70
15	71

MINUTE	NOx (lbs)
1	15
2	180
3	190
4	185
5	128.31
6	128.31
7	170
8	160
9	154
10	145
11	134
12	122
13	72
14	70
15	71
Sum	1924.6

1668	Sum of NOx for Valid Minutes (lbs)
13	Number of Valid Minutes
128.31	Valid One-Minute Mass Emissions (lbs) Average for this Startup

Data Substitution for Units with Frequent Startups – Example

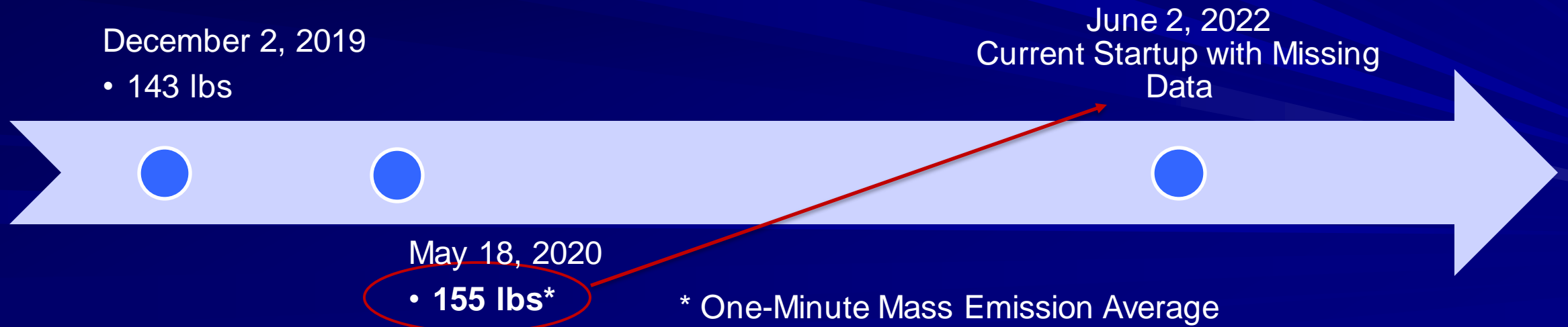
- Units with frequent startups and shutdowns will have to consider the prior 10 completed startups or shutdowns
 - One-minute mass emission average from the June 2nd startup (167 lbs/minute) will replace any missing data from May 22nd startup



* One-Minute Mass Emission Average

Data Substitution for Units with Infrequent Startups – Example

- Units with infrequent startups will have to consider the last complete startup and any startups that occurred 12 months prior
 - In this example, previous startup occurred on May 18, 2020 and there were only two startups between May 18, 2019 – May 18, 2022
 - One-minute mass emission average from the May 18, 2020 startup (155 lbs/minute) will replace any missing minute data from the June 2, 2022 startup



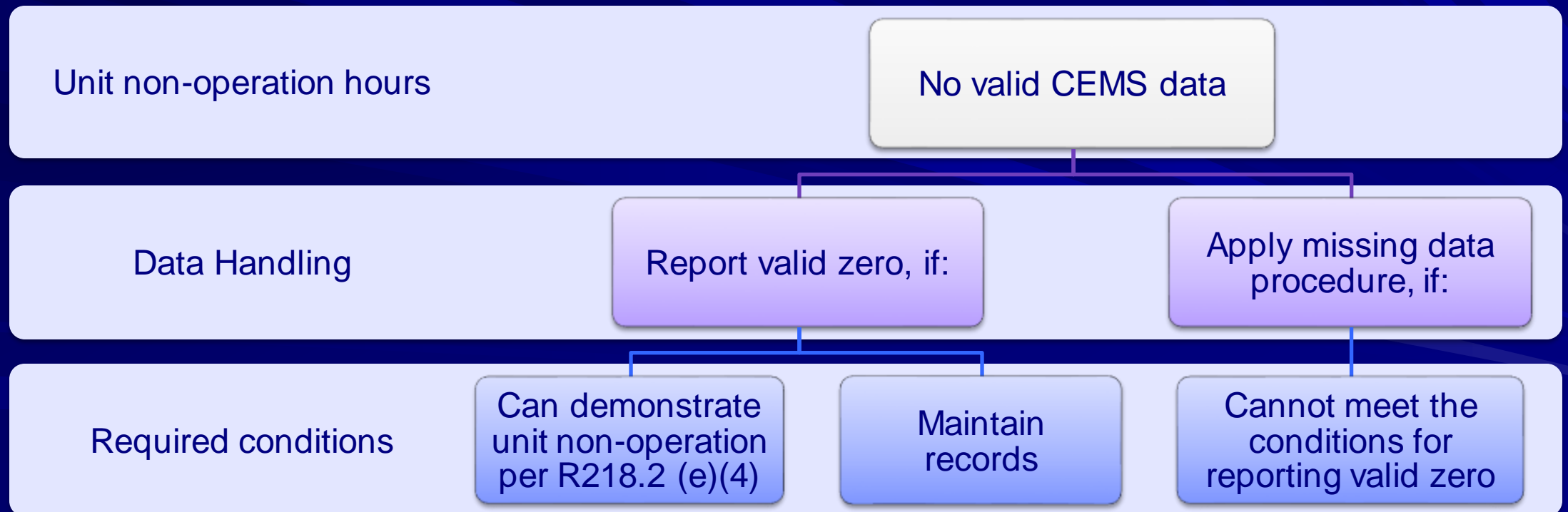
Missing Data Procedure – Unit Non-Operation Hours

Stakeholder Suggestion

- All CEMS rules have some allowances for CEMS to be turned off during maintenance, repair, and when the unit (emitting source) is not operating
 - Rule 218.2 allows longer CEMS shutdown (≥ 7 days) when the base unit is not operating
 - RECLAIM CEMS (Rule 2012) requires missing data procedure for CEMS when the unit is not operating
- For non-operational units, stakeholders suggest:
 - Emissions should be reported as valid zero; and
 - Missing data procedure should not be applicable

Missing Data Procedure – Unit Non-Operation Hours

- Staff is considering the following allowance for unit non-operation hours when no valid CEMS data are recorded



Valid Zero Emission Data for Non-Operation Units

- Proposing a new provision, paragraph (i)(14) in PAR 218.3, to allow for reporting valid zero emissions for unit non-operation hours without requiring missing data procedure

(14) The owner or operator of a CEMS installed on a unit that is not operating may report valid zero emission for hours the unit is not operating provided the owner or operator:

- (A) Demonstrates the unit is not operating and not generating emissions in accordance with Rule 218.2 paragraph (e)(4);
- (B) Maintains the records for a minimum period of two years; and
- (C) Complies with applicable requirements specified in Rule 218.2 paragraphs (e)(2) and (e)(3).

- Unit non-operation should be demonstrated pursuant to the existing provision in Rule 218.2 (e)(4)

How to Demonstrate Unit Non-Operation in Rule 218.2

■ Rule 218.2 (e)(4)

- Existing provision to demonstrate unit non-operation
- Referenced by the proposed new provision PAR 218.3 (i)(14)

- (4) Demonstrating a unit is not operating and no emissions are generated
 - (A) For a unit in which fuel combustion is the only source for the CEMS monitored emissions, the owner or operator of the CEMS shall meet one or more of the following provisions for the entire duration:
 - (i) Disconnect the fuel line to the unit and place blind flange(s) to prevent fuel flow;
 - (ii) Demonstrate there is no fuel flow to the unit based on a dedicated fuel flow meter that is quality assured according to manufacturer's recommendation;
 - (iii) Provide one or more gas bills indicating zero fuel consumption for the unit or the fuel line associated with the unit that is not operating; or
 - (iv) Demonstrate the unit is not operational based on a stack flow monitoring system certified according to subdivision (f), or any other monitoring system approved by the Executive Officer which shows the exhaust flow is less than the lowest quantifiable rate measurable by South Coast AQMD Methods 1-4.
 - (B) For a unit in which fuel combustion is not the only source for the CEMS monitored emissions, the owner or operator of the CEMS shall:
 - (i) Request the Executive Officer's written approval of the method(s) to demonstrate that the unit is not operating and no emissions are generated; and
 - (ii) Include the above approved method(s) in the QA/QC plan.

Response to Comments

CEMS Recertification

Stakeholder Comment

- Exempt modification of components listed in QAQC plan that are subject to periodic preventative and corrective maintenance from recertification requirement

Staff Comment

- Some CEMS component modifications listed in QAQC plan require certification tests
 - For component modifications that do not require certification tests, the facility is only required to submit a notification and to update the QAQC plan
- Due to the uniqueness of CEMS systems, it would be challenging to specify which individual components could be exempt
- As CEMS certification is a case-by-case evaluation, staff will be able to work with the owner or operator and determine which components, if any, may be exempted from the alternative recertification process

Corrective Action for Analyzer Enclosure Temperature Drift

Stakeholder Comment

- Allow facilities to delay corrective actions until the next business day when receiving audible alerts for analyzer enclosure temperature during off hours such as evenings, holidays, and weekends

Staff Response

- Controlled temperature enclosure and environment is necessary for analyzers to operate properly
- Taking corrective action in a timely manner when temperatures are out of manufacturer's recommended range is essential to maintain data accuracy
- Current requirement to make corrective actions within eight hours should be adequate time to ensure data accuracy and address operational practices

Special Consideration on Data Substitution

Stakeholder Comment

- Invalid data should only be substituted by hourly data from an hour with the same operating status

Staff Response

- Staff understands that emissions could be overestimated when using a missing data procedure, especially when substituted data pertain to startup hours
- With current proposal, only a prolonged missing data period would likely be substituted with startup emissions data
 - Missing data procedure in that case would function as a deterrent for more prolonged missing data period

Clarification on Tests

Stakeholder Comment

- Clarification on lower NOx spiking and linearity check applicability

Staff Response

- NOx spiking may be required if facility elects to validate the lowest vendor guaranteed range; not required if facility elects to report 10 percent of the span range
- Linearity check in Rule 218.3 Attachment A Table A-2 is only applicable when facility elects to validate data that falls below 10 percent of the span range that is NOT the lowest vendor guaranteed span range
- Linearity check is also required for all span ranges at certification/recertification; but not required for ongoing QAQC pursuant to Rule 218.3 clause (g)(2)(B)(i)

Deviation Reporting

Stakeholder Comment

- The deviation reporting in Rule 430 - Breakdown Provisions and Rule 218.2 are duplicative and should be removed from Rule 218.2

Staff Response

- Rule 218.2 and Rule 430 reporting requirements address different deviations and are not duplicative
 - Rule 218.2 deviations include excess emissions and CEMS failure
 - Rule 430 deviations include equipment breakdown which results in a violation of any rule or permit condition
- CEMS malfunctions or failures are not considered Rule 430 breakdowns

Next Steps – Rulemaking Process

Stationary Source Committee – June 17, 2022

Set Hearing – August 5, 2022

Public Hearing – September 2, 2022

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