

**PROPOSED RULE 218.2**

**CONTINUOUS EMISSION  
MONITORING SYSTEM: GENERAL  
PROVISIONS**

(a) Purpose

The purpose of this rule is to specify requirements for Continuous Emission Monitoring Systems (CEMS), Alternative Continuous Emission Monitoring System (ACEMS), and Semi-Continuous Emission Monitoring System (SCEMS). This rule refers to Rule 218.3 for requirements for certifications and quality assurance of CEMS, ACEMS, and SCEMS. Unless otherwise specified, the owner or operator of the CEMS, ACEMS, or SCEMS is responsible for compliance with the requirements specified in this rule.

(b) Applicability

(1) This rule shall apply to the owner or operator of a CEMS, ACEMS, or SCEMS that are required by a South Coast AQMD rule, regulation or permit condition, except for a system that is to monitor:

(A) Performance of the basic and/or control equipment and not to determine compliance with any rule emission limit or emission standard; or

(B) NO<sub>x</sub> or SO<sub>x</sub> emissions subject to Regulation XX - Regional Clean Air Incentives Market (RECLAIM).

(2) A CEMS, ACEMS, or SCEMS requirement defined by any other South Coast AQMD rule, regulation or a permit condition will supersede the equivalent requirement of Rule 218.2 with the Executive Officer's written determination of equivalence.

(3) All requirements specified for CEMS in this rule shall be applicable for ACEMS and SCEMS, unless otherwise specified.

(c) Definitions

(1) ALTERNATIVE CONTINUOUS EMISSION MONITORING SYSTEM (ACEMS) means a system that uses process or control device operating parameter measurements and a conversion equation, a graph, or computer program to produce results in units of the applicable emission limitation or

- standard on a continuous monitoring basis, which is demonstrated to the Executive Officer as having the same precision, reliability, accessibility, and timeliness as the data provided by a certified CEMS or certified CEMS component in accordance with Rule 218.2 and Rule 218.3.
- (2) ANALYZER means the part of the continuous emission monitoring system (CEMS) that analyzes the appropriate gaseous constituents of the conditioned gaseous sample or measures stack gas volumetric flow and fuel flow rates, as applicable.
- (A) Contaminant Analyzer - the part of the CEMS that detects the air contaminant and represents those concentrations in a signal output.
- (B) Diluent Analyzer - the part of the CEMS that detects oxygen, carbon dioxide or other diluent gas concentrations and represents those concentrations in a signal output.
- (C) Fuel Flowmeter - the part of the CEMS that detects the parameters of all essential measurement sub-systems (e.g., temperature, pressure, differential pressure, frequency, gas density, gas composition, heating value) and generates signal outputs which are a function of the fuel flow rate and all essential measurement sub-system parameters.
- (D) Stack Flowmeter - the part of the CEMS that detects the parameters from all essential measurement sub-systems (e.g., temperature, static and atmospheric pressure, gas density, gas composition, molecular weight, gas moisture content) and generates signal outputs which are a function of the stack gas volumetric flow rate and all essential measurement sub-system parameters.
- (3) CALIBRATION means a procedure performed to ensure that the CEMS accurately measures and records air contaminant or diluent gas concentration, flow rate and other parameters necessary to generate data.
- (4) CALIBRATION CHECK means a procedure performed to determine the CEMS response to a given gaseous compound concentration.
- (5) CEMS FAILURE means the CEMS or a component of the CEMS ceases normal operation, and thus is incapable of providing the required data to demonstrate compliance with the applicable limit or standard for which this CEMS is dedicated.
- (6) CEMS FINAL CERTIFICATION LETTER means the final approval of CEMS certification or recertification, which at a minimum includes:

- (A) Unit (emission source) and control equipment (if applicable) description.
  - (B) Stack description.
  - (C) Probe configuration and conditions.
  - (D) Instrument type, manufacturer, model number, and serial number for:
    - (i) Each of the contaminant analyzer (s), diluent analyzer, and fuel flowmeter (if applicable);
    - (ii) Sample condition and calibration system; and
    - (iii) Data acquisition and handling system and programmable logic controller.
  - (E) Certified full span range(s) for each of the contaminant analyzer(s), diluent analyzer, and fuel or stack flowmeter (if applicable).
- (7) CEMS MODIFICATION means a modification to a CEMS component that is identified on the CEMS final certification letter, or a modification to the CEMS sampling interface, analyzer, or data acquisition and handling system that has a potential for adversely affecting the ability of the CEMS to provide accurate, precise and timely data representative of emissions for the unit being monitored.
- (8) CERTIFIED CEMS means a CEMS certified and maintained to meet the performance specifications pursuant to the applicable requirements of Rules 218.2 and 218.3.
- (9) CONTINUOUS EMISSION MONITORING SYSTEM (CEMS) means the total combined equipment and systems, including the sampling interface, analyzers, and data acquisition and handling system, required to continuously determine air contaminants and diluent gas concentrations and/or mass emission rate of a source effluent (as applicable).
- (10) CONTINUOUS MONITORING means monitoring in which a minimum of one measurement (e.g., concentration, mass emission, flow rate) is taken and recorded each minute.
- (11) DATA ACQUISITION AND HANDLING SYSTEM (DAHS) means the part of the CEMS that processes data generated by the analyzer and records the results, thus creating a permanent record of the output signal in terms of concentration, flow rate, and/or any other applicable parameter necessary to generate the required data in units of applicable standard. The DAHS

- consist of all equipment such as a computer and the software required to convert the original recorded values to any values required for reporting.
- (12) DILUENT GAS means a constituent of the flue gas that is measured by the CEMS in order to provide values to calculate emission levels.
  - (13) FORMER RECLAIM FACILITY means a facility, or any of its successors, that was in the NO<sub>x</sub> Regional Clean Air Incentives Market (RECLAIM) as of January 5, 2018, as established in Regulation XX, that has received a final determination notification, and is no longer in the NO<sub>x</sub> RECLAIM program.
  - (14) LABORATORY APPROVAL PROGRAM (LAP) means a program administered by the South Coast AQMD for granting test-method-specific approvals to independent testing laboratories or firms that perform tests to determine source compliance with the South Coast AQMD rules and regulations.
  - (15) MAINTENANCE means preventive evaluation and adjustment (if necessary) of CEMS performed to preclude system failure. Maintenance may be performed as recommended by the manufacturer or a documented standard operating procedure determined through operating experience and approved by the Executive Officer. Repairs to a malfunctioning system are excluded from this definition.
  - (16) RECLAIM means the REgional CLean Air Incentives Market program.
  - (17) RECLAIM FACILITY – means a facility, or any of its successors, that was in the Regional Clean Air Incentives Market as of January 5, 2018, as established in Regulation XX.
  - (18) SAMPLING INTERFACE means that part of the CEMS that performs sample acquisition using one or more of the following operations: extraction, physical/chemical separation, transportation, or conditioning of a representative sample from a designated source.
  - (19) SEMI-CONTINUOUS EMISSION MONITORING SYSTEM (SCEMS) means an emission monitoring system that is different from a regular CEMS on response time and data acquisition frequency. SCEMS continuously takes and records measurements (e.g. concentration, mass emission, flow rate) at a minimum of once in every fifteen (15) minutes. SCEMS includes but is not limited to gas chromatography, integrated sensitized tape analyzer, other sample integration based technologies, and time-shared CEMS.
  - (20) TIME-SHARED CEMS means an emission monitoring system where the analyzer, and possibly the associated sample conditioning system, is used

on more than one source. A time-shared CEMS is categorized as a type of SCEMS under Rules 218.2 and 218.3.

- (21) UNIT for the purposes of this rule means the combustion source for which the certified continuous emission monitoring system, or alternative continuous emission monitoring system, monitors the combustion source's emissions.
- (d) Implementation Schedule
- (1) Prior to the implementation date specified in paragraphs (d)(2) through (d)(4), the owner or operator shall comply with:
- (A) Rules 218 and 218.1 for a CEMS that is subject to paragraph (d)(2);  
or
- (B) Rule 2012 for a CEMS that is subject to paragraph (d)(3).
- (2) For a CEMS certified to comply with Rules 218 and 218.1, the owner or operator of the CEMS shall meet the requirements of this rule no later than:
- (A) The date an application is submitted to the Executive Officer on and after January 1, 2022 for any CEMS certification or recertification;
- (B) January 1, 2025, for any CEMS that was certified prior to January 1, 2022 but without an application submitted to the Executive Officer between January 1, 2022 and January 1, 2025 for a CEMS recertification; or
- (C) The implementation date of a source-specific rule for which the CEMS shall be certified or recertified as part of the implementation.
- (3) For a CEMS certified to comply with Rule 2012, the owner or operator of the CEMS shall meet the requirements of this rule no later than:
- (A) The date an application is submitted to the Executive Officer for any CEMS certification or recertification that is on and after the NO<sub>x</sub> RECLAIM facility has been notified as a former RECLAIM facility;
- (B) Twenty-four (24) months after the NO<sub>x</sub> RECLAIM facility has been notified as a former RECLAIM facility, if there is no CEMS recertification during this 24-month period; or
- (C) The implementation schedule of a source specific rule for which the CEMS shall be certified or recertified as part of the implementation.
- (4) If a CEMS that is subject to paragraph (d)(2) is sharing the sampling interface or other component(s) with another CEMS that is subject to paragraph (d)(3), the owner or operator of the CEMS shall meet the

requirements of this rule based on the later implementation date specified in paragraphs (d)(2) and (d)(3).

(e) Monitoring Requirements

- (1) The owner or operator of a CEMS shall install, maintain and operate the CEMS for continuous measurement according to all applicable requirements in Rules 218.2 and 218.3.
- (2) If there is a CEMS failure, the owner or operator of the CEMS shall:
  - (A) Maintain operation of the CEMS and meet the requirements of paragraph (e)(1), unless the CEMS failure occurs for up to 96 hours and the CEMS is:
    - (i) Undergoing maintenance pursuant to the Quality Assurance and Quality Control Program for the CEMS; or
    - (ii) Damaged as a result of circumstances beyond the control of the owner or operator;
  - (B) Submit a report pursuant to paragraph (h)(3), if the CEMS failure or shut down has occurred for more than 24 hours; and
  - (C) Submit a request to the Executive officer for time extension beyond the time period specified in subparagraph (e)(2)(A) for an additional 96 hours, if the CEMS unit is not operating or generating emissions, as demonstrated pursuant to paragraph (e)(4).
- (3) If there is a scheduled shutdown for the unit and no emissions have been generated for a minimum of 168 consecutive hours, as demonstrated pursuant to paragraph (e)(4), the owner or operator of the CEMS shall:
  - (A) Maintain operation of the CEMS and meet the requirements of paragraph (e)(1), unless the CEMS has been recording zero emission for a minimum of 4 hours after the unit being monitored becomes non-operational at which time the requirements of paragraph (e)(1) shall not apply;
  - (B) Submit the notifications and report in accordance with paragraph (h)(4);
  - (C) Resume CEMS operation and meet the requirements of paragraph (e)(1) for a minimum of 4 hours before the unit resumes operation or at which time any emissions are generated; and
  - (D) Conduct a calibration of all analyzers of the CEMS before any emissions are detected.

- (4) For the purpose of demonstrating a unit is not operating or generating emissions under paragraphs (e)(2) and (e)(3), the owner or operator shall meet one or more of the following provisions for the entire duration that the unit is not operating:
  - (A) Disconnect the fuel line to the unit and place flanges at both ends of the fuel line;
  - (B) 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;
  - (C) 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
  - (D) Demonstrate the unit is not operational based on a stack flow monitoring system or any other monitoring system that is certified by the Executive Officer according to subdivision (f).

**THE FOLLOWING SUBDIVISIONS ARE FORTHCOMING:**

- (f) Certification
- (g) Quality Assurance Requirements
- (h) Recordkeeping Requirements
- (i) Reporting Requirements
- (j) Posting of Written Approval of CEMS Certification