

Sec. 22a-174-4a. Source monitoring, record keeping and reporting

(a) Definitions.

For the purposes of this section, the following definitions shall apply. Any term not defined in this subsection shall be as defined in section 22a-174-1 of the Regulations of Connecticut State Agencies (RCSA).

(1) “Calendar Quarter” means a consecutive three (3) month non-overlapping period beginning on January 1, April 1, July 1 or October 1.

(2) “Continuous Emission Monitoring System” or “CEMS” means the components necessary to sample, quantify, record and store source emission data used for compliance with a standard. A continuous emission rate monitoring system shall be considered a “CEMS.”

(3) “Continuous Opacity Monitoring System” or “COMS” means a monitoring system that measures the light obscuring properties of the exhaust gases from a source.

(4) “Diluent” means a major gaseous constituent in a gaseous pollutant mixture.

(5) “Initial certification” means an audit or series of audits that define the start of a valid data stream from a newly installed CEMS or COMS. A passing “initial certification” also validates conditionally valid data recorded prior to the completion of the “initial certification.”

(6) “Modified CEMS or COMS” means a continuous monitoring system that undergoes significant change or repair on or after the effective date of this section, where the change or repair may affect the representativeness of the sample or may impact the ability of the system to measure or record emissions accurately.

(7) “New CEMS or COMS” means a continuous monitoring system that began operating on or after the effective date of this section.

(8) “Nuisance” means emissions from a source that injure or endanger the public health, safety or welfare.

(9) “Out-of-control period” means a period of time when a CEMS or COMS data is considered invalid. Data may be considered invalid for failure to conduct a required audit, a failed quality assurance audit, or instrument malfunction. An “out-of-control period” commences when the data have been determined to be invalid and ends when the CEMS or COMS is repaired, recalibrated, or re-certified or with the completion of a successful quality control audit, as necessary.

(10) “Re-certification” means, for a CEMS or COMS, a declaration of data validity by means of appropriate repair, replacement of components, or sufficient quality assurance and control measures, following the initial certification.

(11) “Relative Accuracy Test Audit” or “RATA” means a test procedure to determine the difference between an emission rate determined by a CEMS and the value determined by a reference method, as specified in Appendix F to 40 CFR 60 and Appendix A to 40 CFR 75, as applicable.

(12) “Stack test” means a performance or source test. A “stack test” measures the amount of one or more specific pollutants, diluents, or surrogates being emitted; demonstrates the capture efficiency of a capture system; or determines the destruction or removal efficiency of a control device used to reduce emissions at a facility subject to the requirements of the Clean Air Act.

(b) Applicability.

(1) The Commissioner may, by written notice, require the owner or operator of a source to create, maintain and submit data, records or reports of monitoring data and other information deemed necessary by the Commissioner to evaluate compliance with Chapter 446c of the Connecticut General Statutes and regulations adopted thereunder. Such information shall be recorded, compiled and submitted in a manner prescribed by the Commissioner. The written notice shall provide the date by which such data, records or reports shall be submitted to the Commissioner.

(2) The provisions of this section shall apply to the owner or operator of a source that is required to install, operate and maintain a COMS or CEMS to monitor a pollutant or diluent by a federal regulation or by a regulation, permit or order issued by the Commissioner.

(3) Any owner or operator of a source listed in this subdivision shall install, operate and maintain COMS, and maintain records and reports as required by this section:

(A) Equipment that combusts coal;

(B) Liquid or solid fuel-burning equipment with a maximum rated heat input greater than or equal to two hundred fifty million Btu per hour (250,000,000 Btu/hr);

(C) Incinerator with a maximum rated input in excess of two thousand pounds per hour (2,000 lbs/hr); or

(D) A process source with particulate matter emissions exceeding twenty-five pounds per hour (25 lbs/hr) after the application of control equipment, when operated at maximum rated capacity.

(4) If, for a pollutant emitted from a source of air pollution, the Commissioner determines that a CEMS or COMS is reasonably available, technically feasible, economically feasible and necessary for the Commissioner to obtain emission or opacity data to evaluate compliance with Chapter 446c of the Connecticut General Statutes and regulations adopted thereunder, the Commissioner may require, by written notice to the owner or operator of such source, the installation and operation of a CEMS or COMS. Such written notice shall be in the form of a regulation, permit or order and shall include requirements for installation and operation including a date by which such installation and operation is to commence.

(5) If the Commissioner determines that a CEMS or COMS is not reasonably available for a pollutant emitted from a source of air pollution, the Commissioner may, by written notice, require the owner or operator of such source to comply with an alternative monitoring technique or conduct intermittent stack testing to evaluate compliance with Chapter 446c of the Connecticut General Statutes and regulations adopted thereunder. Such written notice shall be in the form of a regulation, permit or order and shall include the requirements for such alternative monitoring or testing including a day by which such alternative monitoring or testing is to commence.

(c) Exemptions.

(1) The provisions of subdivision (3)(A) of subsection (b) of this section, concerning equipment that combusts coal, shall not apply to:

(A) Any space heater installed in any single-family home on or before May 1, 1975, provided that such space heater does not combust coal with a sulfur content greater than or equal to 0.3% by weight (dry basis);

(B) Any equipment that combusts coal in a commercial establishment in regular

operation on or before May 1, 1975, provided that such coal burning equipment does not combust coal with a sulfur content greater than or equal to 0.3% by weight (dry basis) and coal consumption is less than seventy-five (75) tons per year; or

(C) Any equipment that combusts coal used primarily for educational or historical demonstrations or exhibits, provided that such coal burning equipment does not combust coal with a sulfur content exceeding one and one-half percent (1.5%) by weight (dry basis). Such coal burning equipment includes, but is not limited to, blacksmiths' forges, steam locomotives, and steamboats.

(2) The provisions of subdivision (3)(B) of subsection (b) of this section shall not apply to:

(A) Any stationary fuel-burning equipment operating less than one hundred sixty-eight (168) hours in a calendar year. For the purpose of this subparagraph, the term "operating" does not include emissions testing or operating only to maintain reliability in emergency situations; or

(B) Turbines combusting natural gas, liquid fuel or a mixture of liquid fuel and natural gas that comply with the applicable particulate matter and opacity limitations set forth in section 22a-174-18 of the Regulations of Connecticut State Agencies without utilizing pollution control equipment.

(3) Any owner or operator who claims exemption from the requirement to install a COMS as provided in subdivision (1) or (2) of this subsection shall, upon notice from the Commissioner, install, operate and maintain a COMS according to this section, and comply with this section, if the Commissioner finds:

(A) Noncompliance with section 22a-174-18 of the Regulations of Connecticut State Agencies has occurred;

(B) Noncompliance with the applicable requirements, limitations or restrictions set forth in this subsection has occurred;

(C) Operation of the subject source has interfered with or is likely to interfere with the attainment or maintenance of an ambient air quality standard or create a nuisance; or

(D) Monitoring equipment is technically feasible, economically feasible and needed to evaluate compliance with Chapter 446c of the Connecticut General Statutes and regulations adopted thereunder, and federal regulations.

(4) The notice provided for in subdivision (3) of this subsection shall be in the form of a permit or order and shall specify requirements for a COMS installation and operation including a date by which such installation and operation is to commence.

(5) Reserved.

(6) Reserved.

(d) Performance specifications.

(1) The owner or operator of a source required to install, operate and maintain a CEMS or COMS pursuant to this section shall meet the performance specifications as defined in subparagraphs (A) and (B) of this subdivision for each pollutant or diluent that is required to be monitored, except as specified in subdivision (2) of this subsection:

(A) The owner or operator of a source required to install, operate and maintain a CEMS shall meet the performance specification applicable to each pollutant or diluent being monitored as set out in 40 CFR 60, Appendix B, as amended from time to time; or

(B) The owner or operator of a source required to install, operate and maintain a COMS shall meet performance specification 1 as set forth in 40 CFR 60, Appendix B, as amended from time to time.

(2) Any owner or operator of a source required to install, operate and maintain a CEMS that is subject to 40 CFR 75 shall meet the applicable performance specification requirements in 40 CFR 75, Appendix A, as amended from time to time. If a CEMS is subject to both 40 CFR 60 and 40 CFR 75 requirements, the owner or operator may elect to comply only with the performance specifications of 40 CFR 75, as amended from time to time, in lieu of complying with the performance specifications of both 40 CFR 60 and 40 CFR 75, insofar as allowed by any applicable federal or state statute or regulation or any permit or order issued by the Commissioner.

(3) If a performance specification for a particular pollutant does not exist in 40 CFR 60, Appendix B, the owner or operator of a source subject to this section shall follow a specification defined by the Commissioner in a guideline, regulation, permit or order applicable to such source to ensure the predictability and consistency of a CEMS for a pollutant.

(e) Monitoring plan.

(1) Initial monitoring plan. Unless otherwise specified by permit or order of the Commissioner, the owner or operator of any source who is required to install, operate and maintain a CEMS or COMS pursuant to this section shall submit a monitoring plan to the Commissioner for approval. The monitoring plan shall be submitted electronically to the Commissioner not less than ninety (90) days before the initiation of the performance specification testing required by this section. The initial monitoring plan shall contain the following information:

(A) A brief description of the source, including, the type of unit or process, type of fuel combusted, type or types of emission control devices, and operational parameters;

(B) A description of the monitoring equipment design, proposed or current monitor location and sampling site location. Such description shall include facility schematics and engineering drawings of the monitoring and sample probe locations; data acquisition system specifications; analytical monitoring technique; make, model and serial number of each monitor; and sampling system design;

(C) The performance specification testing for each pollutant to be conducted by the owner or operator as required by this subsection; and

(D) Procedures and reports, including quality assurance and quality control plans and audits, procedures and performance specifications, procedures for calibration, calibration drift determination and adjustment, preventative maintenance and repair, data recording, calculations, exceedances, data availability, and corrective action for monitoring system breakdowns.

(2) Revised monitoring plan. If an existing CEMS or COMS undergoes significant change that makes a previously submitted monitoring plan inaccurate, a revised monitoring plan shall be submitted electronically to the Department, for approval, not later than fourteen (14) days after completion of the CEMS or COMS modification. The revised monitoring plan shall contain the information listed in subparagraphs (A) through (D) of subdivision (1) of this subsection.

(3) Hard copies or electronic copies of monitoring plans (initial and revised) shall be maintained at the source and available to source facility staff at all times and to the Department upon request.

(4) Not later than one hundred twenty (120) days after the effective date of this section, the owner or operator of a source subject to this section shall submit an initial or revised monitoring plan in accordance with subdivision (1) or (2) of this subsection, as applicable. Such initial or revised monitoring plan shall replace any monitoring plan submitted prior to the effective date of this section.

(5) The Commissioner shall issue a written approval of each initial or revised monitoring plan submission required by subdivision (4) of this subsection. The owner or operator of the stationary source shall maintain such written approval as a record.

(f) Quality assurance and quality control requirements.

(1) The owner or operator of any source required to install, operate and maintain a CEMS or COMS pursuant to this section shall meet the quality assurance requirements specified in this subsection.

(2) The owner or operator of any source that is required to install, operate and maintain a CEMS or COMS pursuant to this section shall perform annual, quarterly and daily quality assurance audits, as follows:

(A) The owner or operator of any source required to monitor a pollutant or diluent in accordance with 40 CFR 75 shall meet the applicable quality assurance requirements of 40 CFR 75, Appendix B, as amended from time to time, for a CEMS for each monitored pollutant or diluent. The owner or operator of any source required to monitor a pollutant or diluent in accordance with both 40 CFR 75 and 40 CFR 60 may elect to comply only with the quality assurance provisions of 40 CFR 75, as amended from time to time, in lieu of complying with the quality assurance provisions of both 40 CFR 60 and 40 CFR 75, insofar as allowed by any applicable federal or state statute or regulation or any permit or order issued by the Commissioner;

(B) The owner or operator of any source that is not subject to 40 CFR 75 for a pollutant or diluent and that is required to install, operate and maintain a CEMS or COMS shall meet the applicable quality assurance requirements of 40 CFR 60, Appendix F, as amended from time to time; or

(C) As defined by the Commissioner in a guideline, regulation, permit or order applicable to such source to ensure the predictability and consistency of a CEMS for a pollutant.

(3) Each new CEMS shall undergo an initial certification for each monitored pollutant, including a Relative Accuracy Test Audit certification.

(4) Each modified CEMS shall undergo a re-certification for each pollutant or diluent for which the continuous emissions monitor was modified.

(5) An initial certification or re-certification shall be conducted in accordance with one of the following methods, as applicable:

(A) 40 CFR 60, Appendix B, as amended from time to time;

(B) 40 CFR 75, Appendix A, as amended from time to time; or

(C) An alternative method approved by the Commissioner for a pollutant for which a method is not established in 40 CFR 60 or 40 CFR 75. An owner or operator shall submit a request to the Commissioner for such alternative method in writing with a justification

for the use of such method.

(g) Data availability.

(1) The owner or operator of any source required to install, operate and maintain a CEMS or COMS in accordance with this section shall meet the data availability requirements of this section on an emission limitation-specific basis.

(2) While the source is operating, the owner or operator shall operate a required CEMS and COMS pursuant to section 22a-174-7(b) of the Regulations of Connecticut State Agencies, and allowable periods of missing data shall apply only to periods of deliberate shutdown allowed by section 22a-174-7(b) of the Regulations of Connecticut State Agencies, or as otherwise provided under this subsection.

(3) Pollutant and diluent data shall be available for no less than ninety percent (90%) of the total operating hours of the source in any calendar quarter, unless subject to a more stringent minimum data availability requirement in any applicable federal or state statute or regulation or any permit or order issued by the Commissioner.

(4) For opacity, data shall be available for no less than ninety-five percent (95%) of the total operating hours of the source in any calendar quarter, unless subject to a more stringent minimum data availability requirement in any applicable federal or state statute or regulation or any permit or order issued by the Commissioner.

(5) Percent data availability shall be calculated using the following equation:

$$\% \text{ Data Availability} = \left(\frac{\text{Unit Operating Time} - \text{Monitoring Downtime}}{\text{Unit Operating Time}} \right) * 100$$

WHERE:

Unit operating time = Total hours of source operation at any level during the calendar quarter.

Monitoring downtime = Total hours of source operation at any level during the calendar quarter

where either no CEMS or COMS data was collected or the CEMS or COMS data was invalid.

Such periods include quality assurance activities such as calibration, preventative maintenance, and

calibration drift exceedances or failed quality assurance audits.

(6) The Commissioner may waive the minimum data availability requirements contained in subdivision (3) or (4), as applicable, of this subsection if the owner or operator of the stationary source can demonstrate to the Commissioner's satisfaction that such data availability was not reasonably achievable. The Commissioner shall consider, at a minimum, the following information:

(A) The actual operating hours of the stationary source;

(B) The duration of and nature of the CEMS or COMS downtime; and

(C) The actual data availability achieved during the calendar quarter.

(7) During an out-of-control period, the CEMS data may not be used in calculating emission compliance nor be counted towards meeting minimum data availability.

(h) Record keeping.

The owner or operator of any source subject to subsection (b) of this section shall

maintain all data, documents and reports required by this section for a minimum of five (5) years from the date each datum, document or report is created.

(i) Reporting.

(1) Upon written notice, the Commissioner may require the owner or operator of a stationary source subject to this section to provide all applicable CEMS or COMS data, in a format acceptable to the Commissioner, for the time period identified in such written notice.

(2) Any owner or operator of any emission unit that is required to install and operate a CEMS or COMS by a regulation, permit or order shall submit to the Commissioner a monitoring plan in accordance with the provisions specified in subsection (e) of this section.

(3) Audit reports. Any owner or operator of any emission unit that is required to install and operate a CEMS or COMS by a regulation, permit or order, shall submit to the Commissioner an audit report each calendar quarter, in accordance with the requirements specified in subsection (f) of this section. Such report shall be submitted to the Commissioner not later than thirty (30) days after the end of each calendar quarter.

(4) Quarterly CEMS or COMS reports. Any owner or operator of any emission unit that is required to install and operate a CEMS or COMS by a regulation, permit or order, shall submit to the Commissioner, on forms prescribed by the Commissioner, a quarterly report summarizing the excess emissions and the CEMS or COMS performance. Such report shall be submitted to the Commissioner not later than thirty (30) days after the end of each calendar quarter in which data was collected. Each quarterly report shall include, at a minimum, the following information:

(A) A list of all periods of excess emissions that includes:

- (i) Date and time of commencement and completion of each period of excess emissions,
- (ii) The measured value of excess emissions,
- (iii) The cause or likely cause of the excess emissions, and
- (iv) Corrective actions and future preventative measures;

(B) A completed excess emissions summary form prescribed by the Commissioner;

(C) A completed CEMS or COMS performance form prescribed by the commissioner which includes calculation of data availability for each pollutant and diluent, as specified in subsection (g) of this subsection; and

(D) A list of all periods of malfunctions of the CEMS or COMS that includes:

- (i) Date and time of commencement and completion of each malfunction period,
- (ii) Cause or likely cause of malfunction, and
- (iii) Corrective actions and future preventative measures.

(5) Not less than sixty (60) days prior to the proposed test date for an initial certification, an owner or operator of a CEMS or COMS shall complete and submit to the Department a form prescribed by the Commissioner, indicating the owner or operator's intent to complete such test.

(6) Not less than forty-five (45) days prior to the proposed test date for an annual RATA or a re-certification, each owner or operator of a CEMS shall complete and submit to the Department a form prescribed by the Commissioner, indicating each owner's or operator's intent to complete such test.

(7) The Commissioner may, in writing, request written documentation from the owner

or operator of equipment exempt from the applicability of this section as provided in subsection (c) of this section to determine if an exemption is correctly applied. Each owner or operator shall deliver such documentation to the Commissioner not later than thirty (30) days after receipt of such a written request.

(8) Any document, data, plan, record or report required to be submitted to the Commissioner under this section shall include the following certification signed by a person authorized by such owner or operator to execute and deliver the certification on behalf of such owner or operator:

“I have personally examined and am familiar with the information submitted in this document and all attachments thereto, and I certify that based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that any false statement made in the submitted information may be punishable as a criminal offense under section 22a-175 or section 53a-157b of the Connecticut General Statutes.”

(Effective October 28, 2022)