

STATE OF CONNECTICUT

Regulation of Environmental Protection

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

(a) **Definitions.** For the purposes of this section:

- (1) "Calendar quarter" means a consecutive three (3) month period (nonoverlapping) beginning on January 1, April 1, July 1 or October 1.
- (2) "Coal burning equipment" means fuel burning equipment that combusts coal.
- (3) "Gaseous, liquid or solid fuel burning equipment" means fuel burning equipment that combusts gaseous, liquid or solid fuels.
- (4) "Standby fuel burning equipment" means fuel burning equipment that is used only to provide backup heat or power.

(b) **Opacity continuous emissions monitoring (CEM).**

(1) Except as provided in subdivisions (2) and (3) of this subsection, the owner or operator of the stationary sources listed in subparagraphs (A) through (D) of this subdivision shall install opacity CEM equipment. The owner or operator shall operate and maintain installed opacity CEM equipment in accordance with subsections (c)(3) and (c)(4) of this section and retain the data generated in accordance with subsection (d) of this section:

(A) Any coal burning equipment;

(B) Any 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) Any incinerator with a maximum rated input in excess of two thousand pounds per hour (2,000 lbs/hr); and

(D) Any 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.

(2) The provisions of subdivision (1)(A) of this subsection, concerning coal burning equipment, 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 three-quarters of one percent (0.75%) by weight (dry basis);

(B) Any coal burning equipment 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 three-quarters of one percent (0.75%) by weight (dry basis) and coal consumption is less than seventy-five (75) tons per year; and

(C) Any coal burning equipment 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 (1.5%) by weight (dry basis). Such coal burning equipment includes, but is not limited to, blacksmiths' forges, steam locomotives, and steamboats

(3) The provisions of subdivision (1)(B) of this subsection, concerning gaseous, liquid or solid fuel burning equipment, shall not apply to:

(A) Any standby 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" shall not include emissions testing or operating only to maintain reliability in emergency situations; and

(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.

(4) The Commissioner may, in writing, request written documentation from the owner or operator of equipment listed in subdivisions (2) or (3) of this subsection to ascertain the applicability of subdivisions (2) or (3) of this subsection. An owner or operator shall deliver such documentation to the commissioner within thirty (30) days of receipt of such a written request.

(5) An owner or operator that claims subsection (b)(1) of this section is not applicable by virtue of compliance with subsection (b)(2) or (b)(3) of this section shall, upon notice from the commissioner, install, operate and maintain opacity CEM equipment according to this section, and comply with subsections (c) and (d) of this section, if the commissioner finds:

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

(B) Noncompliance with the requirements, limitations or restrictions set forth in subdivisions (2) or (3) of this subsection has occurred;

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

(D) Monitoring equipment is technically feasible, economically feasible and needed to determine compliance with chapter 446c of the Connecticut General Statutes and regulations promulgated thereunder.

(6) The notice provided for in subsection (b)(5) of this section shall be in the form of a permit or order and shall specify requirements for opacity CEM equipment installation and operation including a day by which such installation and operation is to commence.

(c) General opacity and gaseous CEM equipment operation and performance.

(1) If, for a source of air pollution, the commissioner determines that opacity or gaseous CEM equipment is reasonably available, technically feasible, economically feasible and necessary for the commissioner to obtain opacity or emissions data to evaluate compliance with chapter 446c of the Connecticut General Statutes and regulations promulgated thereunder, the commissioner may require, by written notice to the owner or operator of such source, the installation and operation of CEM equipment. Such written notice shall be in the form of a regulation, permit or order and shall include requirements for installation and operation including a day by which such installation and operation is to commence.

(2) If the commissioner determines that CEM equipment is not reasonably available for 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 verify the source is in compliance the chapter 446c of the Connecticut General Statutes and regulation promulgated 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.

(3) Monitoring plan. Unless otherwise specified by permit or order of the commissioner, the owner or operator of any source for which construction commenced on or after the effective date of this amendment to this section who is required to install, operate and maintain opacity CEM equipment pursuant to subsection (b) of this section or gaseous or opacity CEM equipment pursuant to subdivision (1) of this subsection shall submit to the commissioner for approval, at least sixty (60) days before the initiation of the performance specification testing required by subdivision (4) of this subsection, a monitoring plan containing the information specified in subparagraphs (A) through (D) of this subdivision:

(A) A brief description of the source, including, but not limited to, type of unit or process, type of fuel combusted, type or types of emission control devices, and operation parameters;

(B) A description of the monitoring equipment design, proposed monitor location and sampling site location. This description should include, but is not limited to, facility schematics and engineering drawings of the monitoring and sample probe locations, data acquisition system specifications, analytical monitoring technique and sampling system design;

(C) An explanation of the performance specification testing to be conducted by the owner or operator as required by subdivision (4) of this subsection; and

(D) A quality assurance plan including procedures for calibration, calibration drift determination and adjustment, preventative maintenance, data recording, calculation, audits and corrective action for monitoring system breakdowns.

(4) Performance specifications and quality assurance requirements. The owner or operator of any source required to install, operate and maintain CEM equipment pursuant to this section shall meet the following performance specifications and quality assurance requirements:

(A) The applicable performance specifications and quality assurance requirements of 40 CFR 60 Appendices B and F, unless the source is subject to 40 CFR 75, in which case the owner or operator shall meet the applicable performance specifications and quality assurance requirements of 40 CFR 75;

(B) For opacity CEM equipment, the following quality assurance requirements:

(i) Calibration shall be adjusted whenever the daily zero or upscale calibration exceeds plus/minus two percent ($\pm 2\%$) opacity;

(ii) Data shall be invalid for calculating data availability in accordance with subdivision (5) of this subsection if the zero or upscale calibration value exceeds either the reference zero or the upscale calibration value recorded during the most recent clear-path calibration by plus/minus two percent ($\pm 2\%$) opacity for five (5) consecutive days or plus/minus five percent ($\pm 5\%$) opacity on any single day. The period of invalid data begins with either the fifth consecutive occurrence of a drift value exceeding plus/minus two percent ($\pm 2\%$) opacity or with the last daily check preceding the single occurrence of a drift value exceeding plus/minus five percent ($\pm 5\%$) opacity. The period of invalid data shall end when a calibration drift check, conducted after corrective action, demonstrates that reliable monitoring data is being generated,

(iii) Quality assurance audits shall be conducted during each calendar quarter in which the source operates,

(iv) The commissioner shall be notified, in writing, no fewer than thirty (30) days prior to the initially proposed quality assurance audit, and

(v) Quality assurance audits shall be conducted in accordance with the procedures contained in "Performance Audit Procedures for Opacity Monitors," EPA Document No. 450/4-92/010, dated April 1992. If EPA promulgates quality assurance procedures in 40 CFR 60, Appendix F, quality assurance audits shall be conducted according to such procedures. If either EPA Document No. 450/4-92/010 or subsequently promulgated procedures in 40 CFR 60, Appendix F, as applicable, does not contain audit procedures for the opacity CEM selected by the owner or operator, the owner or operator shall, in writing, propose audit procedures to the commissioner for review and written approval at least thirty (30) days prior to the initial opacity CEM audit; and

(C) If the results of a quality assurance audit fail to conform to the quality assurance requirements of subparagraph (B) of this subdivision, such opacity CEM data shall be deemed invalid by the commissioner, and the owner or operator will be deemed to have failed the quality assurance audit. Data collected after any failed quality assurance audit shall be invalid for calculating percent data availability in accordance with subdivision (5)(A) of this subsection.

(5) Data availability.

(A) The owner or operator of any source required to install, operate and maintain CEM equipment in accordance with this section shall meet the following data availability requirements on an emission limitation-specific basis:

(i) While the source is operating, the owner or operator shall operate required CEM equipment 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, unavoidable system malfunction or as otherwise provided under this subdivision,

(ii) Except as provided in subparagraphs (B) and (C) of this subdivision, for opacity emissions, data shall be available for no less than ninety-five (95%) of the total operating hours of the source in any calendar quarter,

(iii) Except as provided in subparagraphs (B) and (C) of this subdivision, for air pollutant emissions other than opacity, data shall be available for no less than ninety percent (90%) of the total operating hours of the source in any calendar quarter, and

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

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

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 CEM equipment data was collected or the CEM equipment data was invalid. Such periods include, but are not limited to, quality assurance activities such as calibration, preventative maintenance, and calibration drift exceedances or quality assurance audits that result in invalid data.

(B) The commissioner, in writing, may exempt the owner or operator of a source from the minimum data availability requirements of subparagraphs (A)(ii) and (A)(iv) of this subdivision if such source is equipped with properly operating opacity CEM equipment, and the source is operated less than or equal to five hundred four (504) hours in the calendar quarter.

(C) The commissioner, in writing, may exempt the owner or operator of a source from the minimum data availability requirements of subparagraphs (A)(iii) and (A)(iv) of this subdivision if such source is equipped with properly operating gaseous CEM equipment, and the source is operated less than or equal to three hundred thirty-six (336) hours in the calendar quarter.

(D) To obtain an exemption under subparagraphs (B) or (C) of this subdivision, the owner or operator of the source shall submit the following information to the commissioner within thirty (30) days following the last day of the calendar quarter for which the exemption is sought:

- (i) A request for an exemption for a specified calendar quarter,
- (ii) The actual operating hours of the source during the calendar quarter,
- (iii) The duration of and nature of the CEM equipment breakdowns, repairs or adjustments made during the calendar quarter, and

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

(d) Record keeping and reporting.

(1) The commissioner may, by written notice, require the owner or operator of any 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 promulgated thereunder. Such information shall be recorded, compiled and submitted on forms furnished or prescribed by the commissioner. The written notice shall provide the data by which such data, records or reports shall be submitted to the commissioner.

(2) Any document, data, plan, record or report required to be submitted to the commissioner by this section shall include a certification signed by a responsible corporate officer or a duly authorized representative of such officer, as those terms are defined in subdivision (2) of subsection (b) of section 22a-430-3 of the Regulations of Connecticut State Agencies, and by the individual or individuals responsible for actually preparing such document, each of whom shall examine and be familiar with the information submitted in the document and all attachments there, and shall make inquiry of those individuals responsible for obtaining the information to determine that the information is true, accurate and complete, and each of whom shall certify in writing as follows:

"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 of the Connecticut General Statutes or, in accordance with section 22a-6 of the Connecticut General Statutes, under section 53a-157b of the Connecticut General Statutes, and in accordance with any other applicable statute."

(3) The owner or operator of any source subject to the provisions of chapter 446c of the Connecticut General Statutes and regulations adopted thereunder shall maintain all data, documents and reports required by this section in a legible and comprehensible form for at least five (5) years from the date such data, document or report is created.

(4) Each calendar quarter, the owner or operator of any opacity CEM equipment required pursuant to this section shall submit the following information to the commissioner:

(A) The data obtained through such equipment during the preceding calendar quarter that is required to determine compliance with an emission limitation or standard;

(B) A summary of such data;

(C) A copy of the quality assurance audit conducted for that calendar quarter; and

(D) A summary of all corrective actions taken in response to a failed CEM equipment audit.

(5) Submissions made to comply with subdivision (4) of this subsection shall be made no later than thirty (30) days following the end of each calendar quarter.

(e) The commissioner may exempt an owner or operator of a source subject to this section from the requirements of this section as they apply to a particular air pollutant if such owner or operator demonstrates in writing, for the commissioner's written approval, that such source is physically incapable of violating any applicable requirement for such air pollutant set forth in chapter 446c of the Connecticut General Statutes and regulations promulgated thereunder.

(f) Upon written notice in the form of a permit or order to an owner or operator of a source granted an exemption under subsection (e) of this section, such owner or operator shall install, operate and maintain CEM equipment in accordance with such notice if:

(1) The commissioner determines there is repeated noncompliance with section 22a-174-18 of the Regulations of Connecticut State Agencies;

(2) Operation of the subject source has interfered with or is likely to interfere with the attainment or maintenance of ambient air quality standards, create a health hazard or create a nuisance; or

(3) The source has been altered or the operations of the source have changed such that subsection (e) of this section is no longer applicable.