

## SECTION 12:10: CONTINUOUS MONITORING REQUIREMENTS FOR STATIONARY SOURCES

### 12.10.1 Monitoring Requirements

The Control Officer may require any source of regulated air pollutants, to monitor, sample or perform other studies to quantify emissions or the levels of air pollution that may be reasonably attributable to such source. In the case of determining compliance with an applicable requirement for which a source is required to obtain a permit under Section 12, monitoring may include continuous emission or continuous opacity monitoring.

### 12.10.2 Calibration, Operation, and Maintenance of Equipment

- (a) Any owner or operator of a stationary source listed in 40 CFR 51, Appendix P, Sections 1.1.1 through 1.1.4 that is not subject to a 40 CFR 60 "New Source Performance Standard" shall install, calibrate, operate, and maintain all monitoring equipment necessary for continuously monitoring the pollutants specified in Appendix P, Sections 1.1.1 through 1.1.4, for each applicable source category. These stationary sources must also meet the basic requirements of 40 CFR 51, Appendix P, Section 2.0 *et seq.*
- (b) Any owner or operator of a stationary source subject to the requirements of 40 CFR 75 shall comply with the applicable installation, calibration, operational, and monitoring requirements as incorporated by reference in Section 22 of the Clark County Air Quality Regulations (AQRs).
- (c) If an emission unit is subject to more than one federal performance standard pertaining to Continuous Emission Monitoring System installation, certification, operation or evaluation, then the permit shall specify which of the federal requirements the owner or operator must comply with, including a reference to the applicable federal statute.

### 12.10.3 Monitoring Locations

- (a) All Continuous Emissions Monitoring Systems or monitoring devices must be installed as specified in the applicable performance specifications of Appendix B of 40 CFR Part 60 or, if not specified, so that representative measurements of emissions or process parameters from the affected facility are obtained. Additional procedures for location of Continuous Emissions Monitoring Systems are contained in the applicable performance specifications of Appendix B of 40 CFR Part 60.

- (b) When the effluents from a single affected facility, or two (2) or more affected facilities subject to the same emission standards, are combined before being released to the atmosphere, and compliance with the emission standard is determined by a Continuous Emissions Monitoring System, the owner or operator may install applicable Continuous Emissions Monitoring Systems for each effluent or for the combined effluent. When the affected facilities are not subject to the same emission standards, separate Continuous Emissions Monitoring Systems must be installed for each effluent. When the effluent from one affected facility is released to the atmosphere through more than one point, the owner or operator shall install applicable Continuous Emissions Monitoring Systems on each separate effluent unless the installation of fewer systems is approved by the Control Officer.

#### **12.10.4 Verification of Operational Status**

- (a) Unless otherwise approved by the Control Officer or specified in these AQRs, the requirements of Section 12.10 apply to all Continuous Emissions Monitoring Systems required under applicable provisions of these AQRs.
- (b) All Continuous Emissions Monitoring Systems and monitoring devices must be installed and operational prior to conducting the applicable performance tests. Verification of operational status must, as a minimum, consist of the following:
  - (1) For Continuous Emissions Monitoring Systems referred to in paragraph (a) of Section 12.10.5, completion of the conditioning period specified by applicable requirements in Appendix B of 40 CFR Part 60.
  - (2) For Continuous Emissions Monitoring Systems, completion of seven (7) days of operation.
  - (3) For monitoring devices referred to in this section, completion of the manufacturer's written requirements or recommendations for checking the operation or calibration of the device.

#### **12.10.5 Performance Evaluations**

- (a) During any required performance tests or within thirty (30) days thereafter, and at such other times as may be required by the Control Officer as necessary to verify compliance, the owner or operator of any affected facility shall conduct continuous evaluations of the performance of monitoring systems and furnish the Control Officer within sixty (60) days thereof a copy of the written report of the results of such tests. If the reporting criteria are specified in a federal require-

ment that is applicable to the stationary source, then the owner or operator shall comply with the federal reporting requirements. These evaluations must be conducted in accordance with the specifications and procedures provided in this section.

- (b) Continuous Emissions Monitoring Systems listed in this section must be evaluated in accordance with the requirements and procedures contained in the applicable performance specification of Appendix B of 40 CFR Part 60:
  - (1) Opacity of emissions must comply with Performance Specification 1;
  - (2) Nitrogen oxide emissions must comply with Performance Specification 2;
  - (3) Sulfur dioxide emissions must comply with Performance Specification 2; and
  - (4) The oxygen content of carbon dioxide content of effluent gases must comply with Performance Specification 3.

#### **12.10.6 Adjustments**

Owners or operators of all Continuous Emissions Monitoring Systems installed in accordance with the provisions of this section shall check the zero and span drift at least once daily in accordance with the method prescribed by the manufacturer of the systems unless the manufacturer recommends adjustments at shorter intervals, in which case the recommendations must be followed. The zero and span must, as a minimum, be adjusted whenever the 24-hour zero drift or 24-hour calibration drift limits of the applicable performance specifications in Appendix B of 40 CFR 60 are exceeded.

#### **12.10.7 Minimum Procedures**

Unless otherwise approved by the Control Officer, the following procedures, as applicable, must be followed:

- (a) For extractive Continuous Emissions Monitoring Systems measuring gases, minimum procedures must include introducing applicable zero and span gas mixtures into the measurement system as near the probe as is practical. Span and zero gases certified by their manufacturer to be traceable to National Institute of Standards and Technology reference gases must be used whenever these reference gases are available. The span and zero gas mixtures must be the same composition as specified in Appendix B of 40 CFR 60. Every six (6) months after the date of manufacture, span and zero gases must be reanalyzed by conducting triplicate analyses with Reference Methods

6 for SO<sub>2</sub>, 7 for NO, and 3 for O<sub>2</sub> and CO<sub>2</sub>, respectively. The gases may be analyzed at less frequent intervals if longer shelf lives are guaranteed by the manufacturer.

- (b) For nonextractive Continuous Emissions Monitoring Systems measuring gases, minimum procedures include upscale checks using a certified calibration gas cell or test cell which is functionally equivalent to a known gas concentration. The zero check may be performed by computing the zero value from upscale measurements or by mechanically producing a zero condition.

#### **12.10.8 Measurement of Opacity**

- (a) For Continuous Emissions Monitoring Systems measuring opacity of emissions, the optical surfaces exposed to the effluent gases must be cleaned before performing the zero or span drift adjustments, except that for systems using automatic zero adjustments, the optical surfaces must be cleaned when the cumulative automatic zero compensation exceeds four (4) percent opacity.
- (b) For Continuous Emissions Monitoring Systems measuring opacity of emissions, minimum procedures include a method for producing a simulated zero opacity condition and an upscale (span) opacity condition using a certified neutral density filter or other related technique to produce a known obscuration of the light beam. These procedures must provide a system check of the analyzer internal optical surfaces and all electronic circuitry, including the lamp and photodetector assembly.

#### **12.10.9 Frequency of Operation**

Except for system breakdowns, repairs, calibration checks, and zero and span adjustments required by Section 12.10.6, all Continuous Emissions Monitoring Systems must be in continuous operation and meet minimum frequency of operation requirements, as follows:

- (a) All Continuous Emissions Monitoring Systems referred to in Section 12.10.5 for measuring opacity of emissions must complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 10-second period.
- (b) All Continuous Emissions Monitoring Systems referred to in Section 12.10.5 for measuring oxides of nitrogen, sulfur dioxide, carbon dioxide, or oxygen must complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period.

### **12.10.10 Recordation of Data**

- (a) Owners or operators of all Continuous Emissions Monitoring Systems for the measurement of opacity shall reduce all data to 6-minute averages, and for systems other than opacity, to 1-hour averages.
- (b) For systems other than opacity, 1-hour averages must be computed from four or more data points equally spaced over each 1-hour period.
- (c) Data recorded during periods of system breakdowns, repairs, calibration checks, and zero and span adjustments must not be included in the data averages computed under this section. An arithmetic or integrated average of all calibrated data must be used. The data output of all Continuous Emissions Monitoring Systems may be recorded in reduced or nonreduced form, e.g., ppm pollutant and percent O<sub>2</sub> or lb/million Btu of pollutant.
- (d) All excess emissions must be converted into units of the standard using the applicable conversion procedures specified in these regulations. After conversion into units of the standard, the data may be rounded to the same number of significant digits used in those sections to specify the applicable standard, e.g., rounded to the nearest one (1) percent opacity.
- (e) As used in this section, “calibrated data” means data which is precise and accurate within a stated acceptance criteria for the instrument.

### **12.10.11 Records; Reports**

- (a) Any owner or operator subject to the provisions of this section shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility and any malfunction of the air pollution control equipment or any periods during which a Continuous Emissions Monitoring System or monitoring device is inoperative.
- (b) Each owner or operator required to install a Continuous Emissions Monitoring System shall submit a written report of excess emissions to the Control Officer every six (6) months. All reports must be post-marked by the 30th day following the end of each six-month period and must include the following information:
  - (1) The magnitude of excess emissions computed in accordance with this section, any conversion factors used, and the date and time of commencement and completion of each time period of excess emissions;

- (2) Specific identification of each period of excess emissions that occurs during startups, shutdowns and malfunctions of the affected facility;
  - (3) The nature and cause of any malfunction, if known, and the corrective action taken or preventative measures adopted;
  - (4) Specific identification of each period during which the Continuous Emissions Monitoring System was inoperative, except for zero and span checks, and the nature of any repairs or adjustments that were made; and
  - (5) Specific identification of each period when no excess emissions have occurred and the Continuous Emissions Monitoring System has not been inoperative, repaired, or adjusted.
- (c) In addition to the reporting requirements of this section, an owner or operator shall also comply with the reporting requirements of Section 25.6 for an occurrence of emissions in excess of an applicable requirement or the emission limits prescribed by the permit.
- (d) Any owner or operator subject to the provisions of this section shall maintain a file of all measurements, including:
- (1) Continuous Emissions Monitoring Systems, monitoring devices and performance testing measurements;
  - (2) All Continuous Emissions Monitoring System performance evaluations;
  - (3) All Continuous Emissions Monitoring Systems or monitoring device calibration checks;
  - (4) Adjustments and maintenance performed on these systems or devices; and
  - (5) All other information required by this section, recorded in a permanent form suitable for inspection.

The file must be retained for at least five (5) years following the date of the measurements, maintenance, reports and records.

### **12.10.12 Alternative Monitoring Procedures or Requirements**

- (a) Upon written application by an owner or operator, the Control Officer may approve alternatives to any monitoring procedures or requirements of this section, including, but not limited to, the following:

- (1) Alternative monitoring requirements when installation of a Continuous Emissions Monitoring System or monitoring device specified by those sections would not provide accurate measurements due to liquid water or other interferences caused by substances with the effluent gases, except when the monitoring device requirement is specified in 40 CFR 60, 61, and 63;
  - (2) Alternative monitoring requirements when the affected facility is infrequently operated;
  - (3) Alternative monitoring requirements to accommodate Continuous Emissions Monitoring Systems that require additional measurements to correct for stack moisture conditions;
  - (4) Alternative locations for installing Continuous Emissions Monitoring Systems or monitoring devices when the owner or operator can demonstrate that installation at alternate locations will enable accurate and representative measurements;
  - (5) Alternative methods of converting regulated air pollutant concentration measurements to units of the standards;
  - (6) Alternative procedures for performing daily checks of zero and span drift that do not involve use of span gases or test cells;
  - (7) Alternatives to the test methods of the American Society for Testing and Materials or sampling procedures specified by any provision of this section;
  - (8) Alternative Continuous Emissions Monitoring Systems that do not meet the design or performance requirements in Performance Specification 1, Appendix B of 40 CFR 60, but adequately demonstrate a definite and consistent relationship between their measurements and the measurements of opacity by a system complying with the requirements in Performance Specification 1. The Control Officer may require that such demonstration be performed for each affected facility; or
  - (9) Alternative monitoring requirements when the effluent from a single affected facility or the combined effluent from two or more affected facilities are released to the atmosphere through more than one point.
- (b) Notwithstanding the provisions of paragraph (a) of this section, the Control Officer shall not approve an alternative method or equivalent method to determine compliance with a standard or emission limitation contained in 40 CFR 60, 61, or 63 for:

- (1) An emissions unit that is subject to a testing requirement pursuant to 40 CFR 60, 61, or 63; or
- (2) An affected source.

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