

## ARTICLE 3. MONITORING REQUIREMENTS

### Rule 5. Continuous Monitoring of Emissions

326 IAC 3-5-1 Applicability; continuous monitoring requirements for applicable pollutants

Authority: IC 13-14-8; IC 13-17-3-4; IC 13-17-3-11

Affected: IC 13-14-4-3; IC 13-15; IC 13-17

Sec. 1. (a) This rule applies to the following sources or emissions units to determine compliance with an emission limitation or standard:

- (1) Any emissions unit required to perform continuous monitoring under 326 IAC 12.
- (2) Fossil fuel-fired steam generators of greater than one hundred million (100,000,000) British thermal units (Btu) per hour heat input capacity.
- (3) Sulfuric acid plants of greater than three hundred (300) tons per day acid production capacity.
- (4) Petroleum refinery catalyst regenerators for fluid bed catalytic cracking units of greater than twenty thousand (20,000) barrels or eight hundred forty thousand (840,000) gallons per day fresh feed capacity.
- (5) Portland cement plants.
- (6) Sources or emissions units that combust sewage sludge.
- (7) Sources or emissions units making coke from raw materials, including the following:
  - (A) Coal refining byproducts.
  - (B) Petroleum refining byproducts.
- (8) Emissions units in Clark and Floyd Counties that:
  - (A) have potential to emit nitrogen oxides (NO<sub>x</sub>) of greater than or equal to forty (40) tons per year; and
  - (B) are located at sources that have potential to emit NO<sub>x</sub> of greater than or equal to one hundred (100) tons per year as described in 326 IAC 10.
- (9) Any emissions unit required to monitor under subsection (c).
- (b) Owners and operators of sources or emissions units described in subsection (a) are subject to the following requirements:
  - (1) Any emissions unit subject to 326 IAC 12 shall comply with the following:
    - (A) The monitoring and reporting requirements as specified for the applicable rule.
    - (B) All requirements of this rule.
  - (2) The owner or operator of a fossil fuel-fired steam generator of greater than one hundred million (100,000,000) Btu per hour heat input capacity shall continuously monitor the following:
    - (A) Opacity, unless one (1) of the following occurs:
      - (i) Gaseous fuel is the only fuel combusted.
      - (ii) Oil or a mix of gas and oil are the only fuels combusted and the emissions unit is able to comply with both of the following rules without using particulate matter collection equipment:
        - (AA) 326 IAC 5-1.
        - (BB) 326 IAC 6-2.
      - (iii) An alternative monitoring requirement request has been granted by the department and approved by U.S. EPA. The owner or operator may request an alternative monitoring requirement when installation of an opacity monitoring system would not provide accurate determinations of emissions as a result of interference from condensed uncombined water vapor. Any alternative monitoring requirement request shall address the following:
        - (AA) Information pertaining to the inability of the affected emissions unit to find an acceptable monitoring location prior to the source of the condensed, uncombined water vapor.
        - (BB) A list of proposed alternative monitoring requirements. For each proposed alternative monitoring requirement, the request must provide a detailed description of thresholds or triggers for corrective action resulting from deviation from normal operating parameters and how deviations from key surrogate parameters shall be addressed to ensure continuous compliance with all applicable particulate and opacity requirements. An example of an acceptable alternative monitoring requirement is a particulate compliance demonstration that is performed at least annually, in accordance with 326 IAC 3-6 and a compliance monitoring plan that, at a minimum, satisfies monitoring requirements under 326 IAC 2-7 or 326 IAC 2-8.

(CC) Record keeping that is consistent with section 6 of this rule.

(DD) Reporting frequency that is no less frequent than that required in section 7 of this rule.

(iv) An alternative monitoring requirement request granted by the department under item (iii) shall be submitted to U.S. EPA as a state implementation plan (SIP) revision and shall not be in effect until approved as a SIP revision.

(B) Sulfur dioxide (SO<sub>2</sub>) under the following conditions:

(i) SO<sub>2</sub> pollution control equipment has been installed.

(ii) A monitor is required to determine compliance with either:

(AA) 326 IAC 12; or

(BB) a new construction permit or operating permit required under 326 IAC 2.

(C) Nitrogen oxide (NO<sub>x</sub>) under the following conditions:

(i) NO<sub>x</sub> pollution control equipment has been installed.

(ii) A monitor is required to determine compliance with either:

(AA) 326 IAC 12; or

(BB) a new construction permit or operating permit required under 326 IAC 2.

(D) The percent oxygen (O<sub>2</sub>) or carbon dioxide (CO<sub>2</sub>) if measurements of O<sub>2</sub> or CO<sub>2</sub> in the flue gas are required to convert either SO<sub>2</sub> or NO<sub>x</sub> continuous monitoring data, or both, to units of the emission limitation for the particular emissions unit.

(3) Sulfuric acid plants of greater than three hundred (300) tons per day acid production capacity shall monitor SO<sub>2</sub> for each sulfuric acid producing emissions unit within the source.

(4) Petroleum refinery catalyst regenerators for fluid bed catalytic cracking units of greater than twenty thousand (20,000) barrels or eight hundred forty thousand (840,000) gallons per day fresh feed capacity shall monitor opacity for each regenerator within the source.

(5) Portland cement plants shall monitor opacity at the following emissions units:

(A) Kilns.

(B) Clinker coolers.

(6) Sources or emissions units that combust sewage sludge shall monitor from the effluent gas exiting the incinerator the following:

(A) Total hydrocarbons.

(B) Oxygen.

(C) Moisture, unless an alternative method is approved by the department and the U.S. EPA.

(D) Temperature.

(7) Sources or emissions units making coke from coal shall monitor opacity on the underfire stack associated with each coke oven battery.

(8) Emissions units in Clark and Floyd counties that have potential to emit NO<sub>x</sub> greater than or equal to forty (40) tons per year and are located at sources that have potential to emit NO<sub>x</sub> greater than or equal to one hundred (100) tons per year shall install NO<sub>x</sub> continuous emission monitors as described in 326 IAC 10-1.

(c) Upon approval by the department, the owner or operator of an emissions unit required to continuously monitor opacity under this section may be exempted from the requirement to install, certify, and operate a COMS if:

(1) a particulate CEMS for measuring PM emissions is used to demonstrate continuous compliance with any applicable emissions limitation; and

(2) the particulate CEMS is installed, certified, operated, and maintained on the affected source in accordance with the requirements of Performance Specification 11 (PS-11)\* and Procedure 2 of 40 CFR 60, Appendix F\*.

(d) The department may require, as a condition of a construction or operating permit issued under 326 IAC 2-1.1, 326 IAC 2-2, 326 IAC 2-3, 326 IAC 2-7, 326 IAC 2-8, or 326 IAC 2-9 that the owner or operator of a new or existing source of air emissions monitor emissions to ensure compliance with the following:

(1) An emission limitation or standard established in one (1) of the permits listed in this subsection.

(2) Permit requirements.

(3) Monitoring requirements in 326 IAC 7.

(e) Unless explicitly stated otherwise, nothing in this rule shall:

(1) excuse the owner or operator of a source or emissions unit from any monitoring, record keeping, or reporting requirement that applies under any provision of the CAA or state statutes or rules; or

(2) restrict the authority of the department to impose additional or more restrictive monitoring, record keeping, testing, or

reporting requirements on any owner or operator of a source or emissions unit under any other provision of the CAA, including Section 114(a)(1), or state statutes or rules, as applicable.

(f) All continuous monitoring systems shall be installed and operational and have the certification testing complete under section 3 of this rule within one hundred eighty (180) days of start-up of the emissions unit.

\*These documents are incorporated by reference. Copies of these documents may be obtained from the Government Printing Office, 732 North Capitol Street NW, Washington, D.C. 20401 or are available for review and copying at the Indiana Department of Environmental Management, Office of Air Quality, Indiana Government Center North, Tenth Floor, 100 North Senate Avenue, Indianapolis, Indiana 46204. (*Air Pollution Control Division; 326 IAC 3-5-1; filed Jan 30, 1998, 4:00 p.m.: 21 IR 2064; filed Dec 20, 2001, 4:30 p.m.: 25 IR 1596; errata filed Jan 7, 2002, 2:20 p.m.: 25 IR 1644; filed Aug 11, 2011, 1:54 p.m.: 20110907-IR-326050330FRA*)

### 326 IAC 3-5-2 Minimum performance and operating specifications

Authority: IC 13-14-8; IC 13-17-3-4; IC 13-17-3-11

Affected: IC 13-14-4-3; IC 13-15; IC 13-17

Sec. 2. Owners and operators of monitoring equipment installed to comply with this rule shall comply with the performance specifications and operating requirements as follows:

(1) Performance specifications set forth in 40 CFR 60, Appendix B\*, shall be used to certify monitoring equipment installed pursuant to this rule; however, where reference is made to the administrator in 40 CFR 60, Appendix B\*, the term "department" shall be inserted for purposes of this rule, and where continuous emissions monitors were installed prior to March 1983 for measuring opacity, the performance specifications in 40 CFR 60, Appendix B\*, 1982 Edition, shall apply.

(2) Cycling times, which include the total time a monitoring system requires to sample, analyze, and record an emission measurement, shall be as follows:

(A) Continuous monitoring systems for measuring opacity shall complete a minimum of one (1) cycle of operation (sampling, analyzing, and data recording) for each successive ten (10) second period.

(B) Continuous monitoring systems that measure the following emissions shall complete a minimum of one (1) cycle of operation (sampling, analyzing, and data recording) for each successive fifteen (15) minute measuring period:

- (i) Carbon dioxide (CO<sub>2</sub>).
- (ii) Carbon monoxide (CO).
- (iii) Hydrogen sulfide (H<sub>2</sub>S).
- (iv) Oxides of nitrogen (NO<sub>x</sub>).
- (v) Oxygen (O<sub>2</sub>).
- (vi) Sulfur dioxide (SO<sub>2</sub>).
- (vii) Total hydrocarbons (THC).
- (viii) Total reduced sulfur (TRS).
- (ix) Volatile organic compounds (VOC).
- (x) Particulate matter (PM).

(3) For opacity monitoring when effluent from two (2) or more affected emissions units are combined before being released to the atmosphere, the owner or operator may either install a COMS:

(A) on the combined effluent; or

(B) comprised of, and capable of combining the signals from, component transmissometers on each effluent stream. Results shall be reported on combined effluent. This requirement shall not apply to emissions units using wet flue gas desulfurization equipment. For emissions units using wet flue gas desulfurization equipment, opacity may be reported on the combined exhaust or on individual exhausts except as provided for emissions units affected by an NSPS as described at 40 CFR 60.13(i)\*. Compliance for emissions units that opt to report on the individual exhausts shall be determined on the individual exhausts based on data provided in accordance with section 7 of this rule.

(4) When the effluent from two (2) or more affected emissions units subject to the same emission standard, other than opacity, are combined before being released to the atmosphere, the owner or operator may report the results as required for each affected emissions unit or for the combined effluent.

(5) Instrument full-scale response or upper limit of concentration measurement range for all opacity monitoring systems shall be set at one hundred percent (100%) opacity if possible. If the monitoring system is required by 40 CFR 60\*, 40 CFR 61\*, 40 CFR 63\*, or 40 CFR 75\*, then the appropriate instrument span values and cycling times pursuant to the applicable part

shall be used. In all cases, the manufacturer's procedures for calibration shall be followed and may result in an upscale maximum response of less than one hundred percent (100%). The minimum instrument full-scale response for gaseous monitoring systems shall be set at two hundred percent (200%) of the expected instrument data display output corresponding to the emission limitation for the emissions unit unless a request for an alternative setting that provides the following information is submitted to and approved by the department and U.S. EPA in writing:

- (A) The proposed alternate instrument span value.
  - (B) The expected range of pollutant measured concentrations.
  - (C) The control device in use.
  - (D) The process to be controlled.
  - (E) The location of the monitor, such as stack or duct.
  - (F) The reason for requesting the alternate instrument span value.
- (6) The department and U.S. EPA may approve locations for installing continuous monitoring systems or monitoring devices that vary from locations provided under the performance specifications of 40 CFR 60, Appendix B\*, upon a demonstration by the owner or operator that installation at alternative locations will enable accurate and representative measurements.
- (7) Owners or operators of affected emissions units shall conduct CEMS performance evaluations, upon the request of the department or U.S. EPA, to demonstrate continuing compliance of the CEMS with performance specifications as follows:
- (A) A performance evaluation is a quantitative and qualitative evaluation of the performance of the continuous emission monitor in terms of:
    - (i) accuracy;
    - (ii) precision;
    - (iii) reliability;
    - (iv) representativeness; and
    - (v) comparability;of the data acquired by the monitoring system.
  - (B) The department or U.S. EPA may request owners or operators of affected emissions units, as described in section 1(a) of this rule, to conduct CEMS performance evaluations if the department has reason to believe, based on review of monitoring data, quality assurance data, inspections, or other information, that the CEMS is malfunctioning or may be providing invalid data over an extended period.
  - (C) The owner or operator of an affected emissions unit shall submit a written report containing the complete information of the performance evaluations to the department within forty-five (45) days after the test date. The department or U.S. EPA may conduct performance evaluations of the CEMS at any time in order to verify the continued compliance of the systems with the performance specifications.

\*These documents are incorporated by reference. Copies may be obtained from the Government Printing Office, 732 North Capitol Street NW, Washington, D.C. 20401 or are available for review and copying at the Indiana Department of Environmental Management, Office of Air Quality, Indiana Government Center North, Tenth Floor, 100 North Senate Avenue, Indianapolis, Indiana 46204. (*Air Pollution Control Division; 326 IAC 3-5-2; filed Jan 30, 1998, 4:00 p.m.: 21 IR 2066; errata filed Dec 12, 2002, 3:35 p.m.: 26 IR 1566; filed Aug 26, 2004, 11:30 a.m.: 28 IR 32; filed Aug 11, 2011, 1:54 p.m.: 20110907-IR-326050330FRA*)

### 326 IAC 3-5-3 Monitor system certification

Authority: IC 13-14-8; IC 13-17-3-4; IC 13-17-3-11

Affected: IC 13-14-4-3; IC 13-15; IC 13-17

Sec. 3. Monitor system certification requirements apply to sources or emissions units subject to this rule as follows:

- (1) The owner or operator shall conduct the applicable performance specifications tests in accordance with the procedures specified in 40 CFR 60\*, or other applicable federal regulations, for the required monitoring system as follows:
  - (A) Not later than one hundred eighty (180) days after emissions unit start-up or initial monitor installation date.
  - (B) Not later than forty-five (45) emissions unit operating days after the date of monitor replacement, or significant monitor repair, such as:
    - (i) replacing or switching a major component of the monitor; or
    - (ii) major overhaul or reconditioning of the monitor that affects the ability of the analyzer to measure emissions accurately.
- (2) The owner or operator shall notify the department in writing as follows:
  - (A) No less than fourteen (14) days in advance of the start of continuous opacity monitor system (COMS)

certification.

(B) No less than thirty-five (35) days in advance of the certification of a gaseous monitoring system.

(3) The owner or operator shall submit all of the required test data and information in the form of a written report to the department for review and approval within forty-five (45) days of completion of the performance specification test.

(4) The department shall issue a written notice of certification status upon review of the complete certification test report. A required monitoring system is certified when the department issues a certification letter stating that the required monitoring system, including all applicable components, has satisfactorily met all federal and state monitoring requirements.

(5) The department may decertify a required monitoring system if an audit or performance evaluation reveals that the monitoring system or a component thereof does not meet applicable performance specifications or requirements. The owner or operator shall repeat the certification process for the required monitoring system within forty-five (45) days of the date of the department's decertification of the required monitoring system.

\*This document is incorporated by reference. Copies may be obtained from the Government Printing Office, 732 North Capitol Street NW, Washington, D.C. 20401 or are available for review and copying at the Indiana Department of Environmental Management, Office of Air Quality, Indiana Government Center North, Tenth Floor, 100 North Senate Avenue, Indianapolis, Indiana 46204. (*Air Pollution Control Division; 326 IAC 3-5-3; filed Jan 30, 1998, 4:00 p.m.: 21 IR 2067; errata filed Dec 12, 2002, 3:35 p.m.: 26 IR 1567; filed Aug 26, 2004, 11:30 a.m.: 28 IR 33; filed Aug 11, 2011, 1:54 p.m.: 20110907-IR-326050330FRA*)

#### 326 IAC 3-5-4 Standard operating procedures

Authority: IC 13-14-8; IC 13-17-3-4; IC 13-17-3-11

Affected: IC 13-14-4-3; IC 13-15; IC 13-17

Sec. 4. (a) Within ninety (90) days after monitor installation, a complete, written continuous monitoring standard operating procedure (SOP) must be submitted to the department by the owner or operator of:

(1) each affected source or emissions unit specified in section 1(a) of this rule; or

(2) any other source or emissions unit required to monitor emissions on a continuous basis.

(b) If revisions are made to the SOP, the owner or operator must submit updates to the department within two (2) years of the revisions.

(c) At a minimum, the SOP shall describe complete step-by-step procedures and operations as follows:

(1) A description of the emissions unit monitored.

(2) A listing of the following for each monitor:

(A) Manufacturer's name.

(B) Model number.

(C) Serial number.

(D) Monitoring location.

(E) Data handling and acquisition system.

(3) Examples of all reporting and log forms.

(4) Record keeping and reporting procedures that include the following:

(A) Reporting of instrument precision and accuracy.

(B) Reporting of emissions data.

(5) Methods and procedures for analysis and data acquisition.

(6) Calibration procedures that include the following:

(A) Calibration error limits and linearity.

(B) Calibration gas type, gas quality, and traceability to the National Institute of Standards and Technology.

(C) Calibration frequency.

(D) Criteria for recalibration, and analysis procedures to periodically verify the accuracy of span and calibration standards.

(7) Operation procedures that include:

(A) daily procedures;

(B) quantifying and recording daily zero (0) and high level drift that meet the requirements of:

(i) 40 CFR 60, Appendix B\*, Performance Specification 2, Section 4.2; or

(ii) other applicable regulations; and

(C) other operating parameter checks indicating correct operational status.

(8) Quality control and quality assurance procedures that include the following:

- (A) A statement of quality policy and objectives.
- (B) Organization and responsibilities description.
- (C) Calibration and span and zero (0) drift criteria.
- (D) Excessive drift criteria.
- (E) Corrective action for excessive drift.
- (F) Precision and accuracy audits.
- (G) Corrective action for accuracy audits failure.
- (H) Data validity criteria.
- (I) Participation in department audits.
- (J) Data recording and calculation audits.

(9) Preventive maintenance procedures and corrective maintenance procedures that include those procedures taken to ensure continuous operation and to minimize malfunctions.

(10) A listing of the manufacturer's recommended spare parts inventory.

(d) If a [sic, an] emissions unit owner or operator fails to submit a SOP or submits a SOP that fails to address the procedures and operations provided under subsection (c), the department may require a performance evaluation pursuant to section 2 of this rule.

\*This document is incorporated by reference. Copies may be obtained from the Government Printing Office, 732 North Capitol Street NW, Washington, D.C. 20401 or are available for review and copying at the Indiana Department of Environmental Management, Office of Air Quality, Indiana Government Center North, Tenth Floor, 100 North Senate Avenue, Indianapolis, Indiana 46204. (*Air Pollution Control Division; 326 IAC 3-5-4; filed Jan 30, 1998, 4:00 p.m.: 21 IR 2068; errata filed Dec 12, 2002, 3:35 p.m.: 26 IR 1567; filed Aug 26, 2004, 11:30 a.m.: 28 IR 34; filed Aug 11, 2011, 1:54 p.m.: 20110907-IR-326050330FRA*)

### 326 IAC 3-5-5 Quality assurance requirements

Authority: IC 13-14-8; IC 13-17-3-4; IC 13-17-3-11

Affected: IC 13-14-4-3; IC 13-15; IC 13-17

Sec. 5. (a) Except for affected units under 40 CFR 75\* that are also emissions units subject to this rule, quality assurance requirements specified in this section and 40 CFR 60\*, Appendix F, apply to continuous emission monitors that monitor the following:

- (1) Carbon dioxide (CO<sub>2</sub>).
- (2) Carbon monoxide (CO).
- (3) Hydrogen sulfide (H<sub>2</sub>S).
- (4) Nitrogen oxide (NO<sub>x</sub>).
- (5) Oxygen (O<sub>2</sub>).
- (6) Sulfur dioxide (SO<sub>2</sub>).
- (7) Total hydrocarbons (THC).
- (8) Total reduced sulfur (TRS).
- (9) Volatile organic compounds (VOC).
- (10) Particulate matter (PM).

(b) Emissions units that are also subject to 40 CFR 75\* shall follow the quality assurance procedures of 40 CFR 75\* and report the results in accordance with subsection (f).

(c) Quality control (QC) requirements for COMS are as follows:

(1) For calibration drift (CD) assessment, the COMS shall be checked at least once daily. The CD shall be quantified and recorded at zero (0) (or low level) and upscale level opacity. The COMS shall be adjusted whenever the CD exceeds the specification of 40 CFR 60, Appendix B\*, Performance Specification 1 (PS-1), and the COMS shall be declared out of control when the CD exceeds twice the specification of PS-1. Corrective actions, followed by a validating CD assessment, are required when the COMS is out of control.

(2) For fault indicators assessment, the fault lamp indicators, data acquisition system error messages, and other system self-diagnostic indicators shall be checked at least daily. Appropriate corrective actions shall be taken when the COMS is operating outside the preset limits.

(3) For performance audits, checks of the individual COMS components and factors affecting the accuracy of the monitoring data, as described in this subdivision, shall be conducted, at a minimum, on a calendar quarter basis. The absolute minimum checks included in the performance audit are as follows:

- (A) The status of the optical alignment of the monitor components shall be checked and recorded according to the

procedure specified by the monitor manufacturer. Monitor components must be realigned as necessary.

(B) The apparent effluent opacity shall be compared and recorded before and after cleaning each of the exposed optical surfaces. The total optical surface dust accumulation shall be determined by summing up the apparent reductions in opacity for all of the optical surfaces that are cleaned.

(C) The zero (0) and upscale response errors shall be determined and recorded according to the CD procedures. The errors are defined as the difference (in percent opacity) between the correct value and the observed value for the zero (0) and high level calibration checks.

(D) The value of the zero (0) compensation applied at the time of the audit shall be calculated as equivalent opacity, corrected to stack exit conditions, according to the procedures specified by the manufacturer. The compensation applied to the effluent recorded by the monitor system shall be recorded.

(E) The optical pathlength correction ratio (OPLR) shall be computed from the monitor pathlength and stack exit diameter and shall be compared, and the difference recorded, to the monitor setup OPLR value. The stack exit correlation error shall be determined as the absolute value of the difference between the measured value and the correct value, expressed as a percentage of the correct value.

(F) A three-point calibration error test of the COMS shall be conducted. Three (3) neutral density filters meeting the requirements of PS-1 shall be placed in the COMS light beam path. The monitor response shall be independently recorded from the COMS permanent data recorder. A total of five (5) nonconsecutive readings for each filter shall be made. The low-range, mid-range, and high-range calibration error results shall be computed as the mean difference and ninety-five percent (95%) confidence interval for the difference between the expected and the actual responses of the monitor as corrected to stack exit conditions. These values shall be calculated using the procedure of PS-1, Section 8.0. The following are requirements for these values:

(i) The calibration error test requires the installation of an external calibration audit device (zero-jig). The zero-jig shall be adjusted to provide the same zero (0) response as the monitor's simulated zero (0).

(ii) Use calibration attenuators, that is, neutral density filters or screens, with values that have been determined according to PS-1, Section 7.1.3, "Attenuator Calibration", and produce simulated opacities (as corrected to stack exit conditions) in the ranges listed in Table 1-2 in PS-1.

(iii) The stability of the attenuator values shall be checked at least once per year according to the procedures specified in PS-1. The attenuators shall be recalibrated if the stability checks indicate a change of two percent (2%) opacity or greater.

(4) The following are requirements for monitor acceptance criteria:

(A) The following criteria are to be used to determine if the COMS audit results are acceptable:

TABLE 1. PERFORMANCE AUDIT CRITERIA

Stack Exit Correlation Error	£ 2 percent
Zero and Upscale Responses	£ 2 percent opacity
Zero Compensation	£ 4 percent opacity
Optical Alignment	Misalignment error £ 2 percent opacity
Optical Surface Dust Accumulation	£ 4 percent opacity
Calibration Error	£ 3 percent opacity

(B) The COMS is out of control whenever the results of a quarterly performance audit indicate noncompliance with any of the performance assessment criteria of Table 1 in clause (A). If the COMS is out of control, the owner or operator shall take the action necessary to eliminate the problem. Following corrective action, the source or emissions unit owner or operator shall reconduct the appropriate failed portion of the audit and other applicable portions to determine whether the COMS is operating properly and within specifications. The COMS owner or operator shall record both audit results showing the COMS to be out of control and the results following corrective action.

(C) Repeated audit failures, that is, out of control conditions revealed in the quarterly audits, indicate that the QC procedures are inadequate or the COMS is incapable of providing quality data. The source or emissions unit owner or operator shall:

(i) increase the frequency of the QC procedures in this subsection until the performance criteria are maintained; or

(ii) modify or replace the COMS whenever two (2) consecutive quarters of unacceptable performance occur.

(5) The performance audit calculations contained in PS-1, Section 8 shall be followed.

(d) Except where 40 CFR 75\* is applicable for affected emissions units under the acid rain program, quality control requirements for flow monitoring systems are as follows:

(1) For CD assessment, the flow monitoring system shall be checked at least once daily. The CD shall be quantified and recorded at zero (0) (or low level) and upscale level. The flow monitoring systems shall be adjusted whenever the CD exceeds the specification of 40 CFR 60, Appendix B, Performance Specification 6 (PS-6)\*, and the flow monitoring systems shall be declared out of control when the CD exceeds twice the specification of PS-6. Corrective actions, followed by a validating CD assessment, are required when the flow monitoring system is out of control.

(2) An annual relative accuracy test.

(e) The owner or operator of a peaking unit, as defined in 326 IAC 3-4-1(13), shall conduct a relative accuracy test audit (RATA) on any required CEMS as specified in 40 CFR 60, Appendix F\* or as follows:

(1) For each primary and redundant backup monitoring system and each sorbent trap monitoring system, RATAs shall be performed once every four (4) successive QA operating quarters.

(2) A calendar quarter that does not qualify as a QA operating quarter shall be excluded in determining the deadline for the next RATA.

(3) Not more than eight (8) successive calendar quarters shall elapse after the quarter in which a RATA was last performed without a subsequent RATA having been conducted.

(4) If a RATA has not been completed by the end of the eighth calendar quarter since the quarter of the last RATA, then the RATA must be completed within a seven hundred twenty (720) unit, or stack, operating hour grace period, as provided in 40 CFR 75, Appendix B, Section 2.3.3,\* following the end of the eighth successive elapsed calendar quarter, or data from the CEMS will become invalid.

(f) Reporting requirements for performance audits are as follows:

(1) Owners or operators of emissions units required to conduct:

(A) cylinder gas audit;

(B) relative accuracy test audit; or

(C) continuous opacity monitor calibration error audit;

on continuous emission monitors shall prepare a written report of the results of the performance audit for each calendar quarter, or for other periods required by the department. The owner or operator shall submit quarterly reports to the department within thirty (30) calendar days after the end of each quarter for cylinder gas audits and continuous opacity monitor calibration error audits and within forty-five (45) calendar days after the completion of the test for relative accuracy test audits.

(2) The performance audit report shall contain the following information:

(A) Plant and monitor information, including the following:

(i) The plant name and address.

(ii) The monitor brand or manufacturer's name, model, and serial number.

(iii) The monitor span.

(iv) The monitor location.

(B) Performance audit information, including the following:

(i) The auditor's name.

(ii) A copy of the audit standard's certification.

(iii) All data used to calculate the audit results.

(iv) The audit results and an indication if the monitor passed or failed the audit. If the performance audit results show the CEMS or COMS to be out of control, the CEMS or COMS owner or operator shall report both the audit results showing the CEMS or COMS to be out of control and the results of the audit following corrective action showing the COMS to be operating within specification.

(v) Any corrective actions performed as the result of a failed audit.

(g) Whenever a relative accuracy test audit of any continuous emission monitor listed in subsection (a) or (e) is performed, the department must be notified in accordance with the protocol requirements of 326 IAC 3-6-2 at least thirty-five (35) days prior to the audit.

\*These documents are incorporated by reference. Copies may be obtained from the Government Printing Office, 732 North Capitol Street NW, Washington, D.C. 20401 or are available for review and copying at the Indiana Department of Environmental

Management, Office of Air Quality, Indiana Government Center North, Tenth Floor, 100 North Senate Avenue, Indianapolis, Indiana 46204. (*Air Pollution Control Division; 326 IAC 3-5-5; filed Jan 30, 1998, 4:00 p.m.: 21 IR 2069; errata filed Dec 12, 2002, 3:35 p.m.: 26 IR 1567; filed Aug 26, 2004, 11:30 a.m.: 28 IR 34; filed Aug 11, 2011, 1:54 p.m.: 20110907-IR-326050330FRA*)

### 326 IAC 3-5-6 Record keeping requirements

Authority: IC 13-14-8; IC 13-17-3-4; IC 13-17-3-11

Affected: IC 13-14-4-3; IC 13-15; IC 13-17

Sec. 6. (a) On and after the certification of a monitoring system, the owner or operator of a source or emissions unit subject to this rule shall maintain records, including raw data, of all monitoring data and supporting information for a minimum of five (5) years from the date of any of the following:

- (1) A monitoring sample.
  - (2) A measurement.
  - (3) A test.
  - (4) A certification.
  - (5) A report.
  - (6) Any other activity required under this article.
- (b) The records described in subsection (a) shall include the following:
- (1) All documentation relating to:
    - (A) design, installation, and testing of all elements of the monitoring system; and
    - (B) required corrective action or compliance plan activities.
  - (2) All maintenance logs, calibration checks, and other required quality assurance activities.
  - (3) All records of corrective and preventive action.
  - (4) A log of plant operations, including emission unit or monitoring system downtime with the following information:
    - (A) Date of emissions unit or monitoring system downtime.
    - (B) Time of commencement and completion of each downtime.
    - (C) Reason for each downtime.
    - (D) Nature of system repairs and adjustments.

(c) The owner or operator of a source or emissions unit subject to this rule shall maintain the records required by this section at the source and make them available to the department or the U.S. EPA upon request. (*Air Pollution Control Division; 326 IAC 3-5-6; filed Jan 30, 1998, 4:00 p.m.: 21 IR 2071; filed Aug 11, 2011, 1:54 p.m.: 20110907-IR-326050330FRA*)

### 326 IAC 3-5-7 Reporting requirements

Authority: IC 13-14-8; IC 13-17-3-4; IC 13-17-3-11

Affected: IC 13-14-4-3; IC 13-15; IC 13-17

Sec. 7. (a) The owner or operator of a source or emissions unit subject to this rule shall submit a monitoring report to the department in accordance with this section.

- (b) The owner or operator shall submit the monitoring report in accordance with the following requirements:
- (1) The owner or operator of sources or emissions units subject to the requirements of section 1 of this rule shall report excess emissions no less frequently than quarterly. For the owner or operator of a source or emissions unit for which quarterly reports are required, the reports shall be:
    - (A) submitted by the source or emissions unit owner or operator to the department; and
    - (B) postmarked or delivered by other means no later than thirty (30) calendar days following the last day of the reporting period.
  - (2) If a permit specifies or a rule requires more frequent reports, the reports shall be:
    - (A) submitted by the source or emissions unit owner or operator to the department; and
    - (B) postmarked or delivered by other means no later than fifteen (15) calendar days after the end of each month.
  - (3) Gaseous excess emissions data reports shall be reported using three (3) hour block periods ending at:
    - (A) 03:00;
    - (B) 06:00;
    - (C) 09:00;
    - (D) 12:00;

- (E) 15:00;
- (F) 18:00;
- (G) 21:00; and
- (H) 24:00;

unless the emissions unit must demonstrate compliance with a different averaging period as specified by an applicable rule or permit condition, such as daily (twenty-four (24) hour) average or thirty (30) day averages.

(c) The monitoring report shall contain the following continuous monitoring information summaries, with all times reported in real time:

- (1) Monitored emission unit operation time during the reporting period.
- (2) Excess emissions or parameters, as applicable, reported in units of the standard, or the applicable parameter unit as follows:

- (A) Date of excess emissions, or other applicable dates.
- (B) Time of commencement and completion for each applicable parameter deviation or excess emission data.

- (3) Magnitude of each excess emission as follows:

- (A) For opacity as follows:

- (i) The actual percent opacity of all six (6) minute (block) averages exceeding the applicable opacity limit shall be reported. If an exceedance occurs continuously beyond one (1) six (6) minute period, the percent opacity for each six (6) minute period or the highest six (6) minute average opacity for the entire period shall be reported.
- (ii) For department approved opacity averaging times other than six (6) minutes, the actual percent opacity of each averaging period in excess of the applicable limit shall be reported.
- (iii) A summary by cause shall be prepared and submitted as part of this report itemizing exceedances by cause.

- (B) For gaseous emissions, the excess emissions, in units of the applicable standard, must be reported based on the applicable averaging time, in addition to any other reporting requirements that may be applicable. The averaging time is specified in the applicable federal or state rules, or in the operating permit for the emissions unit.

- (4) Continuous monitoring system instrument downtime, except for zero (0) and span checks, shall include the following:

- (A) Date of downtime.
- (B) Time of commencement.
- (C) Duration of each downtime.
- (D) Reasons for each downtime.
- (E) Nature of system repairs and adjustments.

(d) If there are no excess emissions or monitor downtime in a reporting period, the owner or operator of a emissions unit subject to this rule shall submit a report indicating that no excess emissions or downtime incidents occurred in the reporting period that includes the start and end dates of the time period. (*Air Pollution Control Division; 326 IAC 3-5-7; filed Jan 30, 1998, 4:00 p.m.: 21 IR 2071; filed Aug 11, 2011, 1:54 p.m.: 20110907-IR-326050330FRA*)

### 326 IAC 3-5-8 Operation and maintenance of continuous emission monitoring and continuous opacity monitoring systems

Authority: IC 13-14-8; IC 13-17-3-4; IC 13-17-3-11

Affected: IC 13-14-4-3; IC 13-15; IC 13-17

Sec. 8. (a) This section applies to the operation and maintenance of CEMS and COMS.

(b) The owner or operator of a CEMS or COMS required by federal or state regulations or permit shall:

- (1) install;
- (2) calibrate;
- (3) maintain;
- (4) operate; and
- (5) certify;

such CEMS or COMS, and related equipment in accordance with applicable federal regulations, this rule, and any applicable permits.

(c) Except for periods when the:

- (1) affected emissions unit is not operating;
- (2) affected source or emissions unit is operating under a scenario that does not require CEMS or COMS;
- (3) the owner or operator is repairing the CEMS or COMS;

- (4) CEMS or COMS is experiencing a malfunction; or
- (5) owner/operator is conducting CEMS or COMS quality assurance and quality control activities, including, but not limited to:

- (A) calibration checks;
- (B) zero and span adjustments;
- (C) calibration gas audits; or
- (D) other required quality assurance/quality control activities;

all CEMS and COMS shall be in continuous operation.

(d) Except as otherwise provided by a rule or provided specifically in a permit, if a CEMS or COMS is malfunctioning or will be down for calibration, maintenance, or repairs for a period of twenty-four (24) hours or more, the owner or operator of the CEMS or COMS shall perform supplemental monitoring in accordance with the permit.

(e) The owner or operator of the CEMS or COMS shall do the following:

(1) Keep records:

- (A) in accordance with section 6(b) of this rule; and
- (B) that describe the supplemental monitoring implemented during any downtime to assure compliance with applicable emission limitations.

(2) Submit reports, as applicable, in accordance with section 7 of this rule.

*(Air Pollution Control Division; 326 IAC 3-5-8; filed Aug 11, 2011, 1:54 p.m.: 20110907-IR-326050330FRA)*