

when emissions limitations were exceeded due to the emergency (or an alternate timeframe acceptable to the permitting authority). This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.

(5) As an alternative to the requirements in paragraph (c)(4) of this section, you must comply with the start-up, shutdown, and malfunction requirements in 40 CFR 63.6(e)(3).

(d) *Deviations.* You must submit written notification to the permitting authority of any deviation from the requirements of this subpart, including the probable cause of such deviations and any corrective actions or preventative measures taken. You must submit this notification within 14 days of the date the deviation occurred.

(e) *Reports.* You must submit semi-annual monitoring reports to your permitting authority. All instances of deviations from the requirements of this subpart must be clearly identified in the reports.

(f) *Records.* (1) You must retain records of all required monitoring data and support information. Support information includes all calibration and maintenance records, all original strip charts or appropriate recordings for continuous monitoring instrumentation, and copies of all reports required by this subpart. For all monitoring requirements, the owner or operator must record, where applicable, the date, place, and time of sampling or measurement; the date analyses were performed; the company or entity that performed the analyses; the analytical techniques or methods used; the results of such analyses; and the operating conditions existing at the time of sampling or measurement.

(2) You must maintain records of the activities performed to assure proper operation and maintenance of the air pollution control equipment and monitoring systems or devices. Records of these activities must be maintained for at least 5 years.

**§ 63.11148 What are the standards and compliance requirements for existing sources using batch copper converters?**

(a) *Emissions limits and work practice standards.* (1) For each copper concentrate dryer, you must not discharge to the atmosphere from the dryer vent any gases that contain total particulate matter (PM) in excess of 0.022 grains per dry standard cubic foot (gr/dscf).

(2) You must exhaust the process off gas from each smelting vessel to a control device according to the requirements in paragraphs (a)(2)(i) and (ii) of this section.

(i) During periods when copper ore concentrate feed is charged to and smelted to form molten copper matte and slag layers in the smelting vessel, you must exhaust the process off gas from the smelting vessel to a gas cleaning system controlling PM and to a sulfuric acid plant prior to discharge to the atmosphere.

(ii) During periods when no copper ore concentrate feed is charged to the smelting vessel but the smelting vessel remains in operation to temporarily hold molten material in the vessel before resuming copper production, you must exhaust the process off gas from the smelting vessel to an electrostatic precipitator, wet scrubber, or baghouse prior to discharge to the atmosphere.

(3) You must control the process emissions released when tapping copper matte or slag from a smelting vessel according to paragraphs (a)(3)(i) and (ii) of this section.

(i) You must operate a capture system that collects the gases and fumes released when copper matte or slag is tapped from the smelting vessel. The design and placement of this capture system must be such that the tapping port opening, launder, and receiving vessel (e.g., ladle, slag pot) are positioned within the confines or influence of the capture system's ventilation draft during those times when the copper matte or slag is flowing from the tapping port opening.

(ii) You must not cause to be discharged to the atmosphere from the capture system used to comply with paragraph (a)(3)(i) of this section any

gases that contain total PM in excess of 0.022 gr/dscf.

(4) For each batch copper converter, you must meet the requirements in paragraphs (a)(4)(i) through (iv) of this section.

(i) You must operate a primary capture system that collects the process off gas vented when one or more batch copper converters are blowing. If you operate a batch copper converter that does not use a "U"-shaped side flue located at one end of the converter, then the capture system design must include use of a primary hood that covers the entire mouth of each batch copper converter vessel when the copper converter is positioned for blowing. The capture system may use multiple intake and duct segments through which the ventilation rates are controlled independently of each other.

(ii) If you operate a batch copper converter that does not use a "U"-shaped side flue located at one end of the converter, then you must operate a secondary capture system that collects gases and fumes released from the batch copper converter when the converter mouth is rotated out partially or totally from within the confines or influence of the primary capture system's ventilation draft during charging, skimming, pouring, or holding. The capture system design must use additional hoods (e.g., sliding secondary hoods, air curtain hoods) or other capture devices (e.g., building evacuation systems). The capture system may use multiple intake and duct segments through which the ventilation rates are controlled independently of each other, and individual duct segments may be connected to separate PM control devices.

(iii) You must exhaust the process off gas captured by the primary capture system that is used to comply with paragraph (a)(4)(i) of this section to a gas cleaning system controlling PM and to a sulfuric acid plant prior to discharge to the atmosphere.

(iv) For each secondary capture system that is used to comply with paragraph (a)(4)(ii) of this section and is not vented to a gas cleaning system controlling PM and a sulfuric acid plant, you must not cause to be discharged to the atmosphere any gases

that contain total particulate matter in excess of 0.02 grains/dscf.

(b) *Monitoring requirements for electrostatic precipitators.* To monitor the performance of each electrostatic precipitator used to comply with the PM emissions limits in paragraph (a) of this section, you must use a continuous opacity monitoring system (COMS) that is installed at the outlet of each electrostatic precipitator or a common duct at the outlet of multiple electrostatic precipitators.

(1) Each COMS must meet Performance Specification 1 in 40 CFR part 60, appendix B.

(2) You must comply with the quality assurance requirements in paragraphs (b)(2)(i) through (v) of this section.

(i) You must automatically (intrinsic to the opacity monitor) check the zero and upscale (span) calibration drifts at least once daily. For a particular COMS, the acceptable range of zero and upscale calibration materials is as defined in the applicable version of Performance Specification 1 in 40 CFR part 60, appendix B.

(ii) You must adjust the zero and span whenever the 24-hour zero drift or 24-hour span drift exceeds 4 percent opacity. The COMS must allow for the amount of excess zero and span drift measured at the 24-hour interval checks to be recorded and quantified. The optical surfaces exposed to the effluent gases must be cleaned prior to performing the zero and span drift adjustments, except for systems using automatic zero adjustments. For systems using automatic zero adjustments, the optical surfaces must be cleaned when the cumulative automatic zero compensation exceeds 4 percent opacity.

(iii) You must apply 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. All procedures applied must provide a system check of the analyzer internal optical surfaces and all electronic circuitry including the lamp and photodetector assembly.

(iv) Except during periods of system breakdowns, repairs, calibration checks, and zero and span adjustments,

the COMS must be in continuous operation and must complete a minimum of one cycle of sampling and analyzing for each successive 10 second period and one cycle of data recording for each successive 6-minute period.

(v) You must reduce all data from the COMS to 6-minute averages. Six-minute opacity averages must be calculated from 36 or more data points equally spaced over each 6-minute period. Data recorded during periods of system breakdowns, repairs, calibration checks, and zero and span adjustments must not be included in the data averages. An arithmetic or integrated average of all data may be used.

(3) You must evaluate opacity measurements from the COMS on a 24-hour rolling average excluding periods of startup, shutdown, and malfunction. If the 24-hour rolling average opacity exceeds 15 percent, you must initiate investigation of the relevant controls or equipment within 24 hours of the first discovery of the high opacity incident and, if necessary, take corrective action as soon as practicable to adjust or repair the controls or equipment to reduce the opacity average to below the 15 percent level.

(4) You must log in ink or electronic format and maintain a record of 24-hour opacity measurements performed in accordance with paragraph (b)(3) of this section and any corrective actions taken, if any. A record of corrective actions taken must include the date and time during which the 24-hour rolling average opacity exceeded 15 percent and the date, time and type of the corrective action.

(c) *Monitoring requirements for baghouses.* To monitor the performance of each baghouse used to comply with PM emissions limits in paragraph (a) of this section, you must use a bag leak detection system according to the requirements in paragraphs (c)(1) through (4) of this section.

(1) You must install, calibrate, maintain, and continuously operate a bag leak detection system for the baghouse to monitor the baghouse performance.

(2) The baghouse leak detection system must meet the specifications and requirements in paragraphs (c)(2)(i) through (v) of this section.

(i) The bag leak detection system must be certified by the manufacturer to be capable of detecting particulate matter emissions at concentrations that can effectively discern any dysfunctional leaks of the baghouse.

(ii) The bag leak detection system sensor must provide output of relative or absolute particulate matter loadings.

(iii) The bag leak detection system must be equipped with an alarm system that will sound automatically when an increase in relative particulate emissions over a preset level is detected. The alarm must be located where it is easily heard by plant operating personnel.

(iv) The bag leak detection system must be installed downstream of the baghouse.

(v) The bag leak detection system must be installed, operated, calibrated, and maintained in a manner consistent with the manufacturer's written specifications and recommendations. The calibration of the system must, at a minimum, consist of establishing the relative baseline output level by adjusting the sensitivity and the averaging period of the device and establishing the alarm set points and the alarm delay time.

(3) If the bag leak detection system alarm sounds, you must initiate investigation of the baghouse within 24 hours of the first discovery of the alarm and, if necessary, take corrective action as soon as practicable to adjust or repair the baghouse to minimize possible exceedances of the applicable PM emissions limits in paragraph (a) of this section.

(4) You must log in ink or electronic format and maintain a record of installation, calibration, maintenance, and operation of the bag leak detection system. If the bag leak detection system alarm sounds, the records must include an identification of the date and time of all bag leak detection alarms, their cause, and an explanation of the corrective actions taken, if any.

(d) *Alternative monitoring requirements for baghouses.* As an alternative to the requirements in paragraph (c) of this section for bag leak detection systems, you must monitor the performance of each baghouse used to comply with a

PM emissions limit in paragraph (a) of this section using a COMS that is installed at the outlet on the baghouse or a common duct at the outlet of multiple baghouses. Each COMS must meet the requirements in paragraphs (b)(1) through (4) of this section.

(e) *Performance testing.* (1) You must demonstrate initial compliance with the applicable PM emissions limits in paragraph (a) of this section based on the results of a performance test for each affected source.

(i) You may certify initial compliance for an affected source based on the results of a previous performance test conducted within the past 12 months before your compliance date.

(ii) If you have not conducted a performance test to demonstrate compliance with the applicable emissions limits within the past 12 months before your compliance date, you must conduct a performance test within 180 days of your compliance date and report the results in your notification of compliance status.

(2) You must demonstrate subsequent compliance with the applicable PM emissions limits in paragraph (a) of this section based on the results of repeat performance tests conducted at least every 2.5 years for each affected source.

(3) You must conduct each performance test according to §63.7(e)(1) using the test methods and procedures in paragraphs (e)(3)(i) through (v) of this section.

(i) Method 1 or 1A (40 CFR part 60, appendix A) to select sampling port locations and the number of traverse points in each stack or duct. Sampling sites must be located at the outlet of the control device (or at the outlet of the emissions source if no control device is present) prior to any releases to the atmosphere.

(ii) Method 2, 2A, 2C, 2D, 2F, or 2G (40 CFR part 60, appendix A) to determine the volumetric flow rate of the stack gas.

(iii) Method 3, 3A, or 3B (40 CFR part 60, appendix A) to determine the dry molecular weight of the stack gas. You may use ANSI/ASME PTC 19.10-1981, "Flue and Exhaust Gas Analyses" (incorporated by reference—see §63.14) as an alternative to EPA Method 3B.

(iv) Method 4 (40 CFR part 60, appendix A) to determine the moisture content of the stack gas.

(v) Method 5 (40 CFR part 60, appendix A) to determine the PM concentration for negative pressure baghouses or Method 5D (40 CFR part 60, appendix A) for positive pressure baghouses. A minimum of three valid test runs are needed to comprise a PM performance test.

(f) *Operation and maintenance requirements.* (1) At all times, including periods of startup, shutdown, and malfunction, you must to the extent practicable, maintain and operate any affected source, including associated air pollution control equipment, in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the permitting authority which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

(2) All pollution control equipment must be installed, maintained, and operated properly. Instructions from the vendor or established maintenance practices that maximize pollution control must be followed. All necessary equipment control and operating devices, such as pressure gauges, amp meters, volt meters, flow rate indicators, temperature gauges, continuous emissions monitor, etc., must be installed, operated properly and easily accessible to compliance inspectors. A copy of all manufacturers' operating instructions for pollution control equipment and pollution emitting equipment must be maintained at your facility site. These instructions must be available to all employees who operate the equipment and must be made available to the permitting authority upon request. Maintenance records must be made available to the permitting authority upon request.

(3) You must document the activities performed to assure proper operation and maintenance of the air pollution control equipment and monitoring systems or devices. Records of these activities must be maintained as required by the permitting authority.

(4) Except as specified in paragraph (f)(5) of this section, in the event of an emergency situation, you must comply with the requirements specified in paragraphs (f)(4)(i) through (iii) of this section. For the purpose of complying with this paragraph, an emergency situation is any situation arising from sudden and reasonably unforeseeable events beyond the control of the facility owner or operator that requires immediate corrective action to restore normal operation and that causes the affected source to exceed applicable emission limitation under this subpart due to unavoidable increases in emissions attributable to the emergency. An emergency must not include non-compliance to the extent it is caused by improperly designed equipment, lack of preventive maintenance, careless or improper operation, or operator error.

(i) During the period of the emergency you must implement all reasonable steps to minimize levels of emissions that exceeded the emission standards or other applicable requirements in this subpart.

(ii) You must document through signed contemporaneous logs or other relevant evidence that an emergency occurred and you can identify the probable cause, your facility was being operated properly at the time the emergency occurred, and the corrective actions taken to minimize emissions as required by paragraph (f)(4)(i) of this section.

(iii) You must submit a notice of the emergency to the permitting authority within two working days of the time when emission limitations were exceeded due to the emergency (or an alternate timeframe acceptable to the permitting authority). This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.

(5) As an alternative to the requirements in paragraph (f)(4) of this section, you must comply with the startup, shutdown, and malfunction requirements in 40 CFR 63.6(e)(3).

(g) *Recordkeeping requirements.* (1) You must maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the oper-

ation of an affected source subject to this subpart; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative.

(2) You must maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required by this section recorded in a permanent form suitable for inspection. The file must be retained for at least 5 years following the date of such measurements, maintenance, reports.

(h) *Reporting requirements.* (1) You must prepare and submit to the permitting authority an excess emissions and monitoring systems performance report and summary report every calendar quarter. A less frequent reporting interval may be used for either report as approved by the permitting authority.

(2) The summary report must include the information in paragraphs (h)(2)(i) through (iv) of this section.

(i) The magnitude of excess emissions computed, any conversion factor(s) used, and the date and time of commencement and completion of each time period of excess emissions. The process operating time during the reporting period.

(ii) Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the affected facility. The nature and cause of any malfunction (if known), the corrective action taken or preventative measures adopted.

(iii) The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments.

(iv) When no excess emissions have occurred or the continuous monitoring system(s) have not been inoperative,

repaired, or adjusted, such information must be stated in the report.

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**§63.11149 What are the standards and compliance requirements for new sources?**

(a) *Emissions limits and work practice standards.* (1) You must not discharge to the atmosphere exhaust gases that contain total PM in excess of 0.6 pound per ton of copper concentrate feed charged on a 24-hour average basis from any combination of stacks, vents, or other openings on furnaces, reactors, or other types of process vessels used for the production of anode copper from copper sulfide ore concentrates by pyrometallurgical techniques. Examples of such process equipment include, but are not limited to, copper concentrate dryers, smelting flash furnaces, smelting bath furnaces, converting vessels, combined smelting and converting reactors, anode refining furnaces, and anode shaft furnaces.

(2) You must operate a capture system that collects the gases and fumes released during the transfer of molten materials from smelting vessels and converting vessels and conveys the collected gas stream to a baghouse or other PM control device.

(3) You must operate one or more capture systems that collect the gases and fumes released from each vessel used to refine blister copper, remelt anode copper, or remelt anode scrap and convey each collected gas stream to a baghouse or other PM control device. One control device may be used for multiple collected gas streams.

(b) *Monitoring requirements.* (1) You must install, operate, and maintain a PM continuous emissions monitoring system (CEMS) to measure and record PM concentrations and gas stream flow rates for the exhaust gases discharged to the atmosphere from each affected source subject to the emissions limit in paragraph (a)(1) of this section. A single PM CEMS may be used for the combined exhaust gas streams from multiple affected sources at a point before the gases are discharged to the atmosphere. For each PM CEMS used to comply with this paragraph, you must

meet the requirements in paragraphs (b)(1)(i) through (iii) of this section.

(i) You must install, certify, operate, and maintain the PM CEMS according to EPA Performance Specification 11 in 40 CFR part 60, appendix B, and the quality assurance requirements of Procedure 2 in 40 CFR part 60, appendix F.

(ii) You must conduct an initial performance evaluation of the PM CEMS according to the requirements of Performance Specification 11 in 40 CFR part 60, appendix B. Thereafter, you must perform the performance evaluations as required by Procedure 2 in 40 CFR part 60, appendix F.

(iii) You must perform quarterly accuracy determinations and daily calibration drift tests for the PM CEMS according to Procedure 2 in 40 CFR part 60, appendix F.

(2) You must install, operate, and maintain a weight measurement system to measure and record the weight of the copper concentrate feed charged to the smelting vessel on a daily basis.

(c) *Compliance requirements.* (1) You must demonstrate initial compliance with the emissions limit in paragraph (a)(1) of this section using the procedures in paragraph (c)(2) this section within 180 days after startup and report the results in your notification of compliance status no later than 30 days after the end of the compliance demonstration.

(2) You must demonstrate continuous compliance with the emissions limit in paragraph (a)(1) of this section using the procedures in paragraph (c)(2)(i) through (iii) of this section whenever your facility is producing copper from copper concentrate.

(i) You must continuously monitor and record PM emissions, determine and record the daily (24-hour) value for each day, and calculate and record the daily average pounds of total PM per ton of copper concentrate feed charged to the smelting vessel according to the requirements in paragraph (b) of this section.

(ii) You must calculate the daily average at the end of each calendar day for the preceding 24-hour period.

(iii) You must maintain records of the calculations of daily averages with supporting information and data, including measurements of the weight of