§ 63.1445 What work practice standards must I meet for my fugitive dust sources?

(a) You must control particulate matter emissions from fugitive dust sources at your primary copper smelter by operating according to a written fugitive dust control plan that has been approved by the designated authority. For the purpose of complying with this paragraph (a) you may use an existing fugitive dust control plan provided that the plan complies with the requirements of this section. A fugitive dust control plan is considered to be approved if the plan has been incorporated in your applicable State implementation plan, and the document addresses the fugitive dust sources specified in paragraph (b) of this section and includes the information specified in paragraph (c) of this section.

(b) Your fugitive dust control plan must address each of the fugitive dust emission sources listed in paragraphs (b)(1) through (6) of this section that are located at your primary copper smelter.

(1) On-site roadways used by trucks or other motor vehicles (e.g., front-end loaders) when transporting bulk quantities of fugitive dust materials. Paved roads and parking areas that are not used by these vehicles do not need to be included in the plan (e.g., employee and visitor parking lots).

(2) Unloading of fugitive dust materials from trucks or railcars.

(3) Outdoor piles used for storage of fugitive dust materials.

(4) Bedding areas used for blending copper concentrate and other feed constituents.

(5) Each transfer point in conveying systems used to transport fugitive dust materials. These points include, but are not limited to, transfer of material from one conveyor belt to another and transfer of material to a hopper or bin.

(6) Other site-specific sources of fugitive dust emissions that the Administrator or delegated permitting authority designate to be included in your fugitive dust control plan.

(c) Your fugitive dust control plan must describe the control measures you use to control fugitive dust emissions from each source addressed in the plan, as applicable and appropriate for your site conditions. Examples of control measures include, but are not limited to, locating the source inside a building or other enclosure, installing and operating a local hood capture system over the source and venting the captured gas stream to a control device, placing material stockpiles below grade, installing wind screens or wind fences around the source, spraying water on the source as weather conditions require, applying appropriate dust suppression agents on the source, or combinations of these control measures.

(d) The requirement for you to operate according to a written fugitive dust control plan must be incorporated in your operating permit that is issued by the designated permitting authority under part 70 of this chapter. A copy of your fugitive dust control plan must be sent to the designated permitting authority on or before the compliance date for your primary copper smelter, as specified in § 63.1443.

§ 63.1446 What alternative emission limitation may I meet for my combined gas streams?

(a) For situations where you combine gas streams from two or more affected sources for discharge to the atmosphere through a single vent, you may choose to meet the requirements in paragraph (b) of this section as an alternative to complying with the individual total particulate matter emission limits specified in § 63.1444 that apply to you. This alternative emission limit for a combined gas stream may be used for any combination of the affected source gas streams specified in paragraphs (a)(1) through (5) of this section.

(1) Gas stream discharged from a copper concentrate dryer vent that would otherwise be subject to § 63.1444(a)(1) or (2);

(2) Gas stream discharged from a smelting furnace capture system that
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would otherwise be subject to §63.1444(b)(2)(ii);
(3) Process off-gas stream discharged from a slag cleaning vessel that would otherwise be subject to §63.1444(c)(2);
(4) Gas stream discharged from a slag cleaning vessel capture system that would otherwise be subject to §63.1444(c)(3)(ii); and
(5) Gas stream discharged from a batch copper converter secondary capture system that would otherwise be subject to §63.1444(d)(5).

(b) You must meet the requirements specified in paragraphs (b)(1) and (2) of this section for the combined gas stream discharged through a single vent.

(1) For each combined gas stream discharged through a single vent, you must not cause to be discharged to the atmosphere any gases that contain total particulate matter in excess of the emission limit calculated using the procedure in paragraph (b)(2) of this section and measured using the test methods specified in §63.1450(a).

(2) You must calculate the alternative total particulate matter emission limit for your combined gas stream using Equation 1 of this section. The volumetric flow rate value for each of the individual affected source gas streams that you use for Equation 1 (i.e., the flow rate of the gas stream discharged from the affected source but before this gas stream is combined with the other gas streams) is to be the average of the volumetric flow rates measured using the test method specified in §63.1450(a)(1)(ii):

\[
E_{Alt} = \frac{E_d Q_d + E_{sv} Q_{sv} + E_{scvf} Q_{scvf} + E_{cc} Q_{cc}}{Q_d + Q_{sv} + Q_{scvf} + Q_{cc}} \quad \text{(Eq. 1)}
\]

Where

- \( E_{Alt} \) = Alternative total particulate matter emission limit for the combined gas stream discharged to atmosphere through a single vent (mg/dscm);
- \( E_d \) = Total particulate matter emission limit applicable to copper concentrate dryer as specified in §63.1444(a)(1) or (2) (mg/dscm);
- \( Q_d \) = Copper concentrate dryer exhaust gas volumetric flow rate before being combined with other gas streams (dscm);
- \( E_{sv} \) = Total particulate matter emission limit for smelting furnace capture system as specified in §63.1444(b)(2)(ii) (mg/dscm);
- \( Q_{sv} \) = Smelting furnace capture system exhaust gas stream volumetric flow rate before being combined with other gas streams (dscm);
- \( E_{scvf} \) = Total particulate matter emission limit for slag cleaning vessel process off-gas capture system as specified in §63.1444(c)(3)(ii) (mg/dscm);
- \( Q_{scvf} \) = Slag cleaning vessel process off-gas volumetric flow rate before being combined with other gas streams (dscm);
- \( E_{cc} \) = Total particulate emission limit for the batch copper converter secondary capture system as specified in §63.1544(d)(5) (mg/dscm); and
- \( Q_{cc} \) = Batch copper converter capture system exhaust gas stream volumetric flow rate before being combined with other gas streams (dscm).

(c) For each baghouse applied to meet any total particulate matter emission limit in paragraph (b) of this section, you must operate the baghouse such that the bag leak detection system does not alarm for more than 5 percent of the total operating time in any semiannual reporting period.

(d) For each venturi wet scrubber applied to meet any total particulate matter emission limit in paragraph (b) of this section, you must maintain the hourly average pressure drop and scrubber water flow rate at or above the minimum levels established during the initial or subsequent performance test.

(e) For each control device other than a baghouse or venturi wet scrubber applied to meet any total particulate matter emission limit in paragraph (b) of this section, you must operate the control device as specified in paragraphs (d)(1) and (2) of this section.
§ 63.1447 What are my operation and maintenance requirements?

(a) As required by §63.6(e)(1)(i), you must always operate and maintain your affected source, including air pollution control and monitoring equipment, in a manner consistent with good air pollution control practices for minimizing emissions at least to the levels required by this subpart.

(b) You must prepare and operate at all times according to a written operation and maintenance plan for each capture system and control device subject to standards in §63.1444 or §63.1446. The plan must address the requirements in paragraphs (b)(1) through (3) of this section as applicable to the capture system or control device.

(1) Preventative maintenance. You must perform preventative maintenance for each capture system and control device according to written procedures specified in your operation and maintenance plan. The procedures must include a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.

(2) Capture system inspections. You must conduct monthly inspections of the equipment components of the capture system that can affect the performance of the system to collect the gases and fumes emitted from the affected source (e.g., hoods, exposed ductwork, dampers, fans) according to written procedures specified in your operation and maintenance plan. The inspection procedure must include the requirements in paragraphs (b)(2)(i) through (iii) of this section as applicable to the capture system or control device.

(i) Observations of the physical appearance of the equipment to confirm the physical integrity of the equipment (e.g., verify by visual inspection no holes in ductwork or hoods, no flow constrictions caused by dents, or accumulated dust in ductwork).

(ii) Inspection, and if necessary testing, of equipment components to confirm that the component is operating as intended (e.g., verify by appropriate measures that flow or pressure sensors, damper plates, automated damper switches and motors are operating according to manufacturer or engineering design specifications).

(iii) In the event that a defective or damaged component is detected during an inspection, you must initiate corrective action according to written procedures specified in your operation and maintenance plan to correct the defect or deficiency as soon as practicable.

(3) Copper converter department capture system operating limits. You must establish, according to the requirements in paragraph (b)(3)(i) through (iii) of this section, operating limits for the capture system that are representative and reliable indicators of the performance of capture system when it is used to collect the process off-gas vented from batch copper converters during blowing.

(i) Select operating limit parameters appropriate for the capture system design that are representative and reliable indicators of the performance of the capture system when it is used to collect the process off-gas vented from batch copper converters during blowing. Appropriate operating limit parameters for ventilation draft include, but are not limited to, volumetric flow rate through each separately ducted hood, total volumetric flow rate at the inlet to control device to which the capture system is vented, fan motor amperage, or static pressure.