
40 C.F.R. § 63.7732

What test methods and other procedures must I use to demonstrate initial compliance with the emissions limitations?

- (a) You must conduct each performance test that applies to your iron and steel foundry based on your selected compliance alternative, if applicable, according to the requirements in paragraphs (b) through (i) of this section. Each performance test must be conducted under conditions representative of normal operations. Normal operating conditions exclude periods of startup and shutdown. You may not conduct performance tests during periods of malfunction. You must record the process information that is necessary to document operating conditions during the test and include in such record an explanation to support that such conditions represent normal operation. Upon request, you shall make available to the Administrator such records as may be necessary to determine the conditions of performance tests.
- (b) To determine compliance with the applicable emissions limit for PM in § 63.7690(a)(1) through (6) for a metal melting furnace, scrap preheater, pouring station, or pouring area, follow the test methods and procedures in paragraphs (b)(1) through (6) of this section.
- (1) Determine the concentration of PM according to the test methods in 40 CFR part 60, appendix A that are specified in paragraphs (b)(1)(i) through (v) of this section.
- (i) Method 1 or 1A 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 to determine the volumetric flow rate of the stack gas.
- (iii) Method 3, 3A, or 3B to determine the dry molecular weight of the stack gas.
- (iv) Method 4 to determine the moisture content of the stack gas.
- (v) Method 5, 5B, 5D, 5F, or 5I, as applicable, to determine the PM concentration. The PM concentration is determined using only the front-half (probe rinse and filter) of the PM catch.
- (2) Collect a minimum sample volume of 60 dscf of gas during each PM sampling run. A minimum of three valid test runs are needed to comprise a performance test.
- (3) For cupola metal melting furnaces, sample only during times when the cupola is on blast.
- (4) For electric arc and electric induction metal melting furnaces, sample only during normal production conditions, which may include, but are not limited to the following cycles: Charging, melting, alloying, refining, slagging, and tapping.
- (5) For scrap preheaters, sample only during normal production conditions, which may include, but are not limited to the following cycles: Charging, heating, and discharging.
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(6) Determine the total mass of metal charged to the furnace or scrap preheater. For a cupola metal melting furnace at an existing iron and steel foundry that is subject to the PM emissions limit in § 63.7690(a)(ii), calculate the PM emissions rate in pounds of PM per ton (lb/ton) of metal charged using Equation 1 of this section:

$$EF_{PM} = \frac{Q \times C_{PM}}{M_{charge} \times 7,000}$$

Where:

EF_{PM} = Mass emissions rate of PM, pounds of PM per ton (lb/ton) of metal charged; C_{PM} = Concentration of PM measured during performance test run, gr/dscf; Q = Volumetric flow rate of exhaust gas, dry standard cubic feet per minute (dscfm); M_{charge} = Mass of metal charged during performance test run, tons; t_{test} = Duration of performance test run, minutes; and 7,000 = Unit conversion factor, grains per pound (gr/lb).

(c) To determine compliance with the applicable emissions limit for total metal HAP in § 63.7690(a)(1) through (6) for a metal melting furnace, scrap preheater, pouring station, or pouring area, follow the test methods and procedures in paragraphs (c)(1) through (6) of this section.

(1) Determine the concentration of total metal HAP according to the test methods in 40 CFR part 60, appendix A that are specified in paragraphs (c)(1)(i) through (v) of this section.

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