

§ 63.9621

40 CFR Ch. I (7-1-07 Edition)

§ 63.9621 What test methods and other procedures must I use to demonstrate initial compliance with the emission limits for particulate matter?

(a) You must conduct each performance test that applies to your affected source according to the requirements in § 63.7(e)(1) and paragraphs (b) and (c) of this section.

(b) For each ore crushing and handling affected source and each finished pellet handling affected source, you must determine compliance with the applicable emission limit for particulate matter in Table 1 to this subpart by following the test methods and procedures in paragraphs (b)(1) through (3) of this section.

(1) Except as provided in § 63.9620(e), determine the concentration of particulate matter in the stack gas for each emission unit according to the test methods in appendix A to part 60 of this chapter. The applicable test methods are listed 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. Sampling ports must be located at the outlet of the control device and prior to any releases to the atmosphere.

(ii) Method 2, 2A, 2C, 2D, 2F, or 2G, as applicable, 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, 5D, or 17 to determine the concentration of particulate matter.

(2) Each Method 5, 5D, or 17 performance test must consist of three separate runs. Each run must be conducted for a minimum of 2 hours. The average particulate matter concentration from the three runs will be used to determine compliance, as shown in Equation 1 of this section.

$$C_i = \frac{C_1 + C_2 + C_3}{3} \quad (\text{Eq. 1})$$

Where:

C_i = Average particulate matter concentration for emission unit, grains per dry standard cubic foot, (gr/dscf);

C_1 = Particulate matter concentration for run 1 corresponding to emission unit, gr/dscf;

C_2 = Particulate matter concentration for run 2 corresponding to emission unit, gr/dscf; and

C_3 = Particulate matter concentration for run 3 corresponding to emission unit, gr/dscf.

(3) For each ore crushing and handling affected source and each finished pellet handling affected source, you must determine the flow-weighted mean concentration of particulate matter emissions from all emission units in each affected source following the procedure in paragraph (b)(3)(i) or (ii) of this section.

(i) If an initial performance test is conducted on all emission units within an affected source, calculate the flow-weighted mean concentration of particulate matter emissions from the affected source using Equation 2 of this section.

$$C_a = \frac{\sum_{i=1}^n (C_i * Q_i)}{\sum_{i=1}^n Q_i} \quad (\text{Eq. 2})$$

Where:

C_a = Flow-weighted mean concentration of particulate matter for all emission units within affected source, (gr/dscf);

C_i = Average particulate matter concentration measured during the performance test from emission unit "i" in affected source, as determined using Equation 1 of this section, gr/dscf;

Q_i = Average volumetric flow rate of stack gas measured during the performance test from emission unit "i" in affected source, dscf/hr; and

n = Number of emission units in affected source.

(ii) If you are grouping similar emission units together in accordance with § 63.9620(e), you must follow the procedures in paragraphs (b)(3)(ii)(A) through (C) of this section.

(A) Assign the average particulate matter concentration measured from the representative unit, as determined from Equation 1 of this section, to each emission unit within the corresponding group of similar units.

(B) Establish the maximum operating volumetric flow rate of exhaust gas

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from each emission unit within each group of similar units.

(C) Using the data from paragraphs (b)(3)(ii)(A) and (B) of this section, calculate the flow-weighted mean concentration of particulate matter emissions from the affected source using Equation 3 of this section.

$$C_a = \frac{\sum_{k=1}^m (C_k * Q_k)}{\sum_{k=1}^m Q_k} \quad (\text{Eq. 3})$$

Where:

C_a = Flow-weighted mean concentration of particulate matter for all emission units within affected source, gr/dscf;

C_k = Average particulate matter concentration measured during the performance test from the representative emission unit in group "k" of affected source "a," as determined using Equation 1 of this section, gr/dscf;

Q_k = Sum of the maximum operating volumetric flow rates of stack gas from all similar emission units within group "k" of affected source, dscf/hr; and

m = Number of similar emission unit groups in affected source.

(c) For each ore dryer affected source and each indurating furnace affected source, you must determine compliance with the applicable emission limit for particulate matter in Table 1 to this subpart by following the test methods and procedures in paragraphs (c)(1) through (3) of this section.

(1) Determine the concentration of particulate matter for each stack according to the test methods in 40 CFR part 60, appendix A. The applicable test methods are listed in paragraphs (c)(1)(i) through (v) of this section.

(i) Method 1 or 1A to select sampling port locations and the number of traverse points. Sampling ports must be located at the outlet of the control device and prior to any releases to the atmosphere.

(ii) Method 2, 2A, 2C, 2D, 2F, or 2G, as applicable, 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, 5D, or 17 to determine the concentration of particulate matter.

(2) Each Method 5, 5D, or 17 performance test must consist of three separate runs. Each run must be conducted for a minimum of 2 hours. The average particulate matter concentration from the three runs will be used to determine compliance, as shown in Equation 1 of this section.

(3) For each ore dryer and each indurating furnace with multiple stacks, calculate the flow-weighted mean concentration of particulate matter emissions using Equation 4 of this section.

$$C_b = \frac{\sum_{j=1}^n (C_j * Q_j)}{\sum_{j=1}^n Q_j} \quad (\text{Eq. 4})$$

Where:

C_b = Flow-weighted mean concentration of particulate matter for all stacks associated with affected source, gr/dscf;

C_j = Average particulate matter concentration measured during the performance test from stack "j" in affected source, as determined using Equation 1 of this section, gr/dscf;

Q_j = Average volumetric flow rate of stack gas measured during the performance test from stack "j" in affected source, dscf/hr;

n = Number of stacks associated with affected source.

§ 63.9622 What test methods and other procedures must I use to establish and demonstrate initial compliance with the operating limits?

(a) For wet scrubbers subject to performance testing in §63.9620 and operating limits for pressure drop and scrubber water flow rate in §63.9590(b)(1), you must establish site-specific operating limits according to the procedures in paragraphs (a)(1) through (3) of this section.

(1) Using the CPMS required in §63.9631(b), measure and record the pressure drop and scrubber water flow rate every 15 minutes during each run of the particulate matter performance test.

(2) Calculate and record the average pressure drop and scrubber water flow rate for each individual test run. Your