

Environmental Protection Agency

§ 60.455

VOC's per unit volume of applied coating solids (G) during each calendar month for each affected facility using equations (1), (2), (3) if applicable, and (4).

(ii) Calculate the total mass of VOC's recovered (M_r) during each calendar month using the following equation:

$$M_r = L_r D_r \quad (10)$$

(iii) Calculate overall reduction efficiency of the control device (R) for each calendar month for each affected facility using the following equation:

$$R = \frac{M_r}{M_o + M_d} \quad (11)$$

(iv) Calculate the volume-weighted average mass of VOC's emitted to the atmosphere (N) for each calendar month for each affected facility using equation (9).

(v) If the volume-weighted average mass of VOC's emitted to the atmosphere for each calendar month (N) is equal to or less than 0.90 kilogram per liter of applied coating solids, the affected facility is in compliance. Each monthly calculation is considered a performance test.

§ 60.454 Monitoring of emissions and operations.

(a) The owner or operator of an affected facility that uses a capture system and an incinerator to comply with the emission limits specified under § 60.452 shall install, calibrate, maintain, and operate temperature measurement devices as prescribed below:

(1) Where thermal incineration is used, a temperature measurement device shall be installed in the firebox. Where catalytic incineration is used, a temperature measurement device shall be installed in the gas stream immediately before and after the catalyst bed.

(2) Each temperature measurement device shall be installed, calibrated, and maintained according to the manufacturer's specifications. The device shall have an accuracy of the greater of 0.75 percent of the temperature being measured expressed in degrees Celsius or ± 2.5 °C.

(3) Each temperature measurement device shall be equipped with a record-

ing device so that a permanent continuous record is produced.

§ 60.455 Reporting and recordkeeping requirements.

(a) The reporting requirements of § 60.8(a) apply only to the initial performance test. Each owner or operator subject to the provisions of this subpart shall include the following data in the report of the initial performance test required under § 60.8(a):

(1) Except as provided in paragraph (a)(2) of this section, the volume-weighted average mass of VOC's emitted to the atmosphere per volume of applied coating solids (N) for a period of 1 calendar month from each affected facility.

(2) For each affected facility where compliance is determined under the provisions of § 60.453(b)(1)(iv), a list of the coatings used during a period of 1 calendar month, the VOC content of each coating calculated from data determined using Reference Method 24 or supplied by the coating manufacturer, and the minimum transfer efficiency of any coating application equipment used during the month.

(3) For each affected facility where compliance is achieved through use of an incineration system, the following additional information will be reported:

(i) The proportion of total VOC's emitted that enters the control device (F),

(ii) The VOC reduction efficiency of the control device (E),

(iii) The average combustion temperature (or the average temperature upstream and downstream of the catalyst bed), and

(iv) A description of the method used to establish the amount of VOC's captured and sent to the incinerator.

(4) For each affected facility where compliance is achieved through use of a solvent recovery system, the following additional information will be reported:

(i) The volume of VOC-solvent recovered (L_r), and

(ii) The overall VOC emission reduction achieved (R).

(b) Following the initial performance test, the owner or operator of an affected facility shall identify, record,

§ 60.456

40 CFR Ch. I (7-1-99 Edition)

and submit a written report to the Administrator every calendar quarter of each instance in which the volume-weighted average of the total mass of VOC's emitted to the atmosphere per volume of applied coating solids (N) is greater than the limit specified under § 60.452. If no such instances have occurred during a particular quarter, a report stating this shall be submitted to the Administrator semiannually.

(c) Following the initial performance test, the owner or operator of an affected facility shall identify, record, and submit at the frequency specified in § 60.7(c) the following:

(1) Where compliance with § 60.452 is achieved through use of thermal incineration, each 3-hour period of coating operation during which the average temperature of the device was more than 28 °C below the average temperature of the device during the most recent performance test at which destruction efficiency was determined as specified under § 60.453.

(2) Where compliance with § 60.452 is achieved through the use of catalytic incineration, each 3-hour period of coating operation during which the average temperature recorded immediately before the catalyst bed is more than 28 °C below the average temperature at the same location during the most recent performance test at which destruction efficiency was determined as specified under § 60.453. Additionally, all 3-hour periods of coating operation during which the average temperature difference across the catalyst bed is less than 80 percent of the average temperature difference across the catalyst bed during the most recent performance test at which destruction efficiency was determined as specified under § 60.453 will be recorded.

(3) For thermal and catalytic incinerators, if no such periods as described in paragraphs (c)(1) and (c)(2) of this section occur, the owner or operator shall state this in the report.

(d) Each owner or operator subject to the provisions of this subpart shall maintain at the source, for a period of at least 2 years, records of all data and calculations used to determine VOC emissions from each affected facility. Where compliance is achieved through the use of thermal incineration, each

owner or operator shall maintain at the source daily records of the incinerator combustion chamber temperature. If catalytic incineration is used, the owner or operator shall maintain at the source daily records of the gas temperature, both upstream and downstream of the incinerator catalyst bed. Where compliance is achieved through the use of a solvent recovery system, the owner or operator shall maintain at the source daily records of the amount of solvent recovered by the system for each affected facility.

[47 FR 47785, Oct. 27, 1982, as amended at 55 FR 51383, Dec. 13, 1990]

§ 60.456 Test methods and procedures.

(a) The reference methods in Appendix A to this part, except as provided under § 60.8(b), shall be used to determine compliance with § 60.452 as follows:

(1) Method 24 or formulation data supplied by the coating manufacturer to determine the VOC content of a coating. In the event of dispute, Reference Method 24 shall be the reference method. For determining compliance only, results of Method 24 analyses of waterborne coatings shall be adjusted as described in subsection 4.4 of Method 24. Procedures to determine VOC emissions are provided in § 60.453.

(2) Method 25 for the measurement of the VOC concentration in the gas stream vent.

(3) Method 1 for sample and velocity traverses.

(4) Method 2 for velocity and volumetric flow rate.

(5) Method 3 for gas analysis.

(6) Method 4 for stack gas moisture.

(b) For Method 24, the coating sample must be a 1-liter sample taken into a 1-liter container at a point where the sample will be representative of the coating material.

(c) For Method 25, the sample time for each of three runs is to be at least 60 minutes and the minimum sample volume is to be at least 0.003 dscm except that shorter sampling times or smaller volumes, when necessitated by process variables or other factors, may be approved by the Administrator.

(d) The Administrator will approve sampling of representative stacks on a