

**§ 63.5535**

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

operate the monitoring equipment according to the requirements in § 63.5545 that apply to you.

(b) You must establish each site-specific operating limit in Table 2 to this subpart that applies to you according to the requirements in § 63.5535 and Table 4 to this Subpart UUUU.

(c) You must submit the Notification of Compliance Status Report containing the results of the initial compliance demonstration according to the requirements in § 63.5575 and Table 7 to this Subpart UUUU.

**§ 63.5535 What performance tests and other procedures must I use?**

(a) You must conduct each performance test in Table 4 to this Subpart UUUU that applies to you.

(b) You must conduct each performance test for continuous process vents and combinations of batch and continuous process vents according to the requirements in § 63.7(e)(1) and under the specific conditions in Table 4 to this Subpart UUUU. Normal operating conditions will be defined by the affected source. You must conduct each performance test for batch process vents under the specific conditions in Table 4 to this subpart and not under normal operating conditions as specified in § 63.7(e)(1).

(c) You may not conduct performance tests during periods of startup, shutdown, or malfunction, as specified in § 63.7(e)(1).

(d) You must conduct three separate test runs for each performance test re-

quired in this section, as specified in § 63.7(e)(3). Each test run must last at least 1 hour, except as specified in § 63.490(c) for batch process vents.

(e) Except as specified in § 63.490(c) for batch process vents, you may use the equations in paragraphs (e)(1) through (3) of this section as applicable to determine the control efficiency for each performance test.

(1) The total organic HAP emission rate is the sum of the emission rates of the individual HAP components. You must calculate the total organic HAP emission rate at the inlet and outlet of each control device for each test run using Equation 1 of this section:

$$ER_{HAP_t} = \sum_{j=1}^m ER_{HAP_j} \quad (\text{Eq. 1})$$

Where:

$ER_{HAP_t}$  = total emission rate of organic HAP in vent stream, kilograms per hour (kg/hr) (pounds per hour (lb/hr)).

$ER_{HAP_j}$  = emission rate of individual organic HAP in vent stream, kg/hr (lb/hr).

$j$  = individual HAP.

$m$  = number of individual HAP sampled in each test run.

(2) The total sulfide emission rate is the sum of the emission rates of the individual sulfide components, expressed as carbon disulfide. You must calculate the total sulfide emission rate at the inlet and outlet of each control device for each test run using Equation 2 of this section:

$$ER_{sulf_t} = ER_{CS_2} + \left( ER_{H_2S} * \frac{M_{CS_2}}{M_{H_2S}} \right) + \left( ER_{COS} * \frac{M_{CS_2}}{M_{COS}} \right) \quad (\text{Eq. 2})$$

Where:

$ER_{sulf_t}$  = total emission rate of sulfide in vent stream, kg/hr (lb/hr), as carbon disulfide.

$ER_{CS_2}$  = emission rate of carbon disulfide in vent stream, kg/hr (lb/hr).

$ER_{H_2S}$  = emission rate of hydrogen sulfide in vent stream, kg/hr (lb/hr).

$M_{CS_2}$  = mass of carbon disulfide per mole of carbon disulfide, 76 kilograms per kilogram-mole (kg/kg-mol) (76 pounds per pound-mole (lb/lb-mol)).

$M_{H_2S}$  = mass of hydrogen sulfide per mole of carbon disulfide, 68 kg/kg-mol (68 lb/lb-mol).

$ER_{COS}$  = emission rate of carbonyl sulfide in vent stream, kg/hr (lb/hr).

$M_{COS}$  = mass of carbonyl sulfide per mole of carbon disulfide, 120 kg/kg-mol (120 lb/lb-mol).

(3) You must calculate the control efficiency for each control device for

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each test run using Equation 3 of this section:

$$CE = \frac{ER_i - ER_o}{ER_i} (100\%) \quad (\text{Eq. 3})$$

Where:

CE = control efficiency, percent.

ER<sub>i</sub> = total emission rate of organic HAP (ER<sub>HAP</sub>) or sulfide (ER<sub>sulf</sub>) in the inlet vent stream of the control device, kg/hr (lb/hr).

ER<sub>o</sub> = total emission rate of organic HAP (ER<sub>HAP</sub>) or sulfide (ER<sub>sulf</sub>) in the outlet vent stream of the control device, kg/hr (lb/hr).

(f) When a flare is used to comply with the applicable emission limit or work practice standard in Table 1 to this subpart, you must comply with the requirements in paragraphs (f)(1) through (3) of this section. You are not required to conduct a performance test to determine the control efficiency of the flare or the outlet organic HAP concentration. If you have previously conducted a compliance demonstration for a flare using the techniques specified in paragraphs (f)(1) through (3) of this section, you may use that compliance demonstration to satisfy the requirements of this paragraph if either no deliberate process changes have been made since the compliance demonstration, or the results of the compliance demonstration reliably demonstrate compliance despite process changes.

(1) Conduct a visible emission test using the techniques specified in §63.11(b)(4);

(2) Determine the net heating value of the gas being combusted using the techniques specified in §63.11(b)(6); and

(3) Determine the exit velocity using the techniques specified in either §63.11(b)(7) or (b)(8), as appropriate.

(g) Viscose process affected sources must conduct a month-long initial compliance demonstration according to the requirements in paragraphs (g)(1) through (5) of this section and Table 3 to this subpart.

(1) Viscose process affected sources that must use non-recovery control devices to meet the applicable emission limit in table 1 to this subpart must conduct an initial performance test of their non-recovery control devices according to the requirements in table 4 to this subpart to determine the con-

trol efficiency of their non-recovery control devices and incorporate this information in their material balance. No additional performance tests are required.

(2) Viscose process affected sources that use recovery devices to meet the applicable emission limit in Table 1 to this subpart must determine the quantity of carbon disulfide fed to the process and the quantity of carbon disulfide recovered using the recovery device and incorporate this information in their material balance.

(3) Viscose process affected sources that use viscose process changes to meet the applicable emission limit in Table 1 to this subpart must determine the quantity of carbon disulfide used before and after the process change and incorporate this information in their material balance.

(4) Cellophane operations that use recovery devices to meet the 95 percent toluene emission limit in Table 1 to this subpart must determine the quantity of toluene fed to the process and the toluene recovered using the solvent recovery device and incorporate this information in their material balance.

(5) Using the pertinent material balance information obtained according to paragraphs (g)(1) through (4) of this section, viscose process affected sources must calculate the monthly average percent reduction for their affected source over the month-long period of the compliance demonstration.

(h) Cellulose ether affected sources using the material balance compliance demonstration must conduct a month-long initial compliance demonstration according to the requirements in paragraphs (h)(1) through (4) of this section and table 3 to this subpart.

(1) Cellulose ether affected sources that must use non-recovery control devices to meet the applicable emission limit in table 1 to this subpart must conduct an initial performance test of their non-recovery control devices according to the requirements in table 4 to this subpart to determine the control efficiency of their non-recovery control devices and incorporate this information in their material balance. No additional performance tests are required.

(2) Cellulose ether affected sources that use recovery devices to meet the applicable emission limit in table 1 to this subpart must determine the quantity of organic HAP fed to the process and the quantity of organic HAP recovered using the recovery device and incorporate this information in their material balance.

(3) Cellulose ether affected sources that use cellulose ether process changes to meet the applicable emission limit in table 1 to this subpart must determine the quantity of organic HAP used before and after the process change and incorporate this information in their material balance. For cellulose ether affected sources that use extended cookout, the start point from which the percent reduction is determined must be the onset of extended cookout.

(4) Using the pertinent material balance information obtained according to paragraphs (h)(1) through (3) of this section, cellulose ether affected sources must calculate the monthly average percent reduction for their affected source over the month-long period of the compliance demonstration.

(i) During the period of each compliance demonstration, you must establish each site-specific operating limit in table 2 to this subpart that applies to you according to the requirements in paragraphs (i)(1) through (9) of this section.

(1) For continuous, batch, and combinations of continuous and batch process vents, establish your site-specific operating limit using the procedures in § 63.505(c), except that, if you demonstrate initial compliance using a month-long compliance demonstration, references to "performance test" mean "compliance demonstration" for purposes of this subpart.

(2) For condensers, record the outlet (product side) gas or condensed liquid temperature averaged over the same period as the compliance demonstration while the vent stream is routed and constituted normally. Locate the temperature sensor in a position that provides a representative temperature.

(3) For thermal oxidizers, record the firebox temperature averaged over the same period as the compliance demonstration. Locate the temperature

sensor in a position that provides a representative temperature.

(4) For water scrubbers, record the range of the pressure drop and flow rate of the scrubber liquid over the same time period as the compliance demonstration while the vent stream is routed and constituted normally. Locate the pressure and flow sensors in a position that provides a representative measurement of the parameter.

(5) For caustic scrubbers, record the range of the pressure drop, flow rate of the scrubber liquid, and pH, conductivity, or alkalinity of the scrubber liquid over the same time period as the compliance demonstration while the vent stream is routed and constituted normally. Locate the pressure sensors, flow sensors, and pH, conductivity, or alkalinity sensors in positions that provide representative measurements of these parameters. Ensure the sample is properly mixed and representative of the fluid to be measured.

(6) For flares, record the presence of a pilot flame. Locate the pilot flame sensor in a position that provides an accurate and continuous determination of the presence of the pilot flame.

(7) For biofilters, record the pressure drop across the biofilter beds, inlet gas temperature, and effluent pH averaged over the same time period as the compliance demonstration while the vent stream is routed and constituted normally. Locate the pressure, temperature, and pH sensors in positions that provide representative measurement of these parameters. Ensure the sample is properly mixed and representative of the fluid to be measured.

(8) For carbon adsorbers, record the total regeneration stream mass or volumetric flow during each carbon bed regeneration cycle during the period of the compliance demonstration. Record the temperature of the carbon bed after each carbon bed regeneration cycle during the period of the compliance demonstration (and within 15 minutes of completion of any cooling cycle(s)). Record the operating time since the end of the last carbon bed regeneration cycle and the beginning of the next carbon bed regeneration cycle during the period of the compliance demonstration. Locate the temperature

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and flow sensors in positions that provide representative measurement of these parameters.

(9) For oil absorbers, record the flow of absorption liquid through the absorber, the temperatures of the absorption liquid before and after the steam stripper, and the steam flow through the steam stripper averaged during the same period of the compliance demonstration. Locate the temperature and flow sensors in positions that provide representative measurement of these parameters.

[67 FR 40055, June 11, 2002, as amended at 70 FR 46692, Aug. 10, 2005]

### **§ 63.5540 By what date must I conduct a performance test or other initial compliance demonstration?**

(a) You must conduct performance tests or other initial compliance demonstrations no later than 180 calendar days after the compliance date that is specified for your source in § 63.5495 and according to the provisions in § 63.7(a)(2).

### **§ 63.5545 What are my monitoring installation, operation, and maintenance requirements?**

(a) For each CMS required in this section, you must develop and make available for inspection by the permitting authority, upon request, a site-specific monitoring plan that addresses the provisions in paragraphs (a)(1) through (3) of this section.

(1) Installation of the CMS sampling probe or other interface at a measurement location relative to each affected process unit such that the measurement is representative of control of the exhaust emissions (e.g., on or downstream of the last control device);

(2) Performance and equipment specifications for the sample interface, the pollutant concentration or parametric signal analyzer, and the data collection and reduction system; and

(3) Performance evaluation procedures and acceptance criteria (e.g., calibrations).

(b) In your site-specific monitoring plan, you must also address the provisions in paragraphs (b)(1) through (3) of this section.

(1) Ongoing operation and maintenance procedures in accordance with

the general requirements of §§ 63.8(c)(1), (3), (4)(ii) and 63.5580(c)(6);

(2) Ongoing data quality assurance procedures in accordance with the general requirements of § 63.8(d)(2); and

(3) Ongoing recordkeeping and reporting procedures in accordance with the general requirements of §§ 63.10(c), (e)(1), (e)(2)(i) and 63.5585.

(c) You must conduct a performance evaluation of each CMS in accordance with your site-specific monitoring plan.

(d) You must operate and maintain the CMS in continuous operation according to the site-specific monitoring plan.

(e) For each continuous emissions monitoring system (CEMS), you must meet the requirements in paragraphs (e)(1) through (6) of this section.

(1) Each CEMS must be installed, operated, and maintained according to the applicable performance specification (PS) listed in paragraphs (e)(1)(i) through (iv) of this section:

(i) PS-7 of 40 CFR part 60, appendix B, for CEMS used to measure hydrogen sulfide emissions;

(ii) PS-8 of 40 CFR part 60, appendix B, for CEMS used to measure volatile organic compound emissions;

(iii) PS-9 of 40 CFR part 60, appendix B, for CEMS that use gas chromatography to measure organic HAP emissions; and

(iv) PS-15 of 40 CFR part 60, appendix B, for CEMS that use Fourier transform infrared spectroscopy to measure organic HAP emissions.

(2) You must conduct a performance evaluation of each CEMS according to the requirements in § 63.8 and according to the applicable performance specification listed in paragraphs (e)(1)(i) through (iv) of this section.

(3) As specified in § 63.8(c)(4)(ii), each CEMS must complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period.

(4) The CEMS data must be reduced to operating data averages computed using valid data from at least 75 percent of the hours during the averaging period. To have a valid hour of data, you must have four or more data points equally spaced over the 1-hour