

V_s = Volume of air-vapor mixture exhausted at standard conditions, 20 °C and 760 millimeters of mercury (30 inches of mercury), standard cubic meters.

C_i = Total concentration of organic compounds (as measured) at the exhaust vent, parts per million by volume, dry basis.

(E) The organic compound mass emission rates at the inlet and outlet of the control device shall be calculated as follows:

$$E_i = \frac{\sum_{j=1}^n M_{ij}}{T} \quad (\text{Eq. 158-7})$$

$$E_o = \frac{\sum_{j=1}^n M_{oj}}{T} \quad (\text{Eq. 158-8})$$

Where:

E_i , E_o = Mass flow rate of organic compounds at the inlet (i) and outlet (o) of the control device, kilograms per hour.

n = Number of testing intervals.

M_{ij} , M_{oj} = Mass of organic compounds at the inlet (i) or outlet (o) during testing interval j , kilograms.

T = Total time of all testing intervals, hours.

(c) *Halogen test method.* An owner or operator using a halogen scrubber or other halogen reduction device to control halogenated vent streams in compliance with § 65.63(b)(1) for process vents, or § 65.83(b)(1) for transfer racks, who is required to conduct a performance test to determine compliance with the control efficiency or emission limits for hydrogen halides and halogens, as specified in § 65.154(b), shall comply with the following procedures:

(1) For an owner or operator determining compliance with the percent reduction of total hydrogen halides and halogens, sampling sites shall be located at the inlet and outlet of the scrubber or other halogen reduction device used to reduce halogen emissions. For an owner or operator determining compliance with the less than 0.45 kilogram per hour (0.99 pounds per hour) outlet emission limit for total hydrogen halides and halogens, the sampling site shall be located at the outlet of the scrubber or other halogen reduction device and prior to any releases to the atmosphere.

(2) Except as provided in paragraph (a)(2) of this section, Method 26 or Method 26A of appendix A of 40 CFR part 60 shall be used to determine the concentration, in milligrams per dry standard cubic meter, of total hydrogen halides and halogens that may be present in the vent stream. The mass emissions of each hydrogen halide and halogen compound shall be calculated from the measured concentrations and the gas stream flow rate.

(3) To determine compliance with the percent removal efficiency, the mass emissions for any hydrogen halides and halogens present at the inlet of the halogen reduction device shall be summed together. The mass emissions of the compounds present at the outlet of the scrubber or other halogen reduction device shall be summed together. Percent reduction shall be determined by comparison of the summed inlet and outlet measurements.

(4) To demonstrate compliance with the less than 0.45 kilogram per hour (0.99 pound per hour) outlet emission limit, the test results must show that the mass emission rate of total hydrogen halides and halogens measured at the outlet of the scrubber or other halogen reduction device is below 0.45 kilogram per hour (0.99 pound per hour).

§ 65.159 Flare compliance determination and monitoring records.

(a) *Conditions of flare compliance determination records.* Upon request, the owner or operator shall make available to the Administrator such records as may be necessary to determine the conditions of flare compliance determinations performed pursuant to § 65.147(b).

(b) *Flare compliance determination records.* When using a flare to comply with this subpart, record the following information for each flare compliance determination performed pursuant to § 65.147(b):

(1) Flare design (*i.e.*, steam-assisted, air-assisted, or nonassisted);

(2) All visible emission readings, heat content determinations, flow rate measurements, and exit velocity determinations made during the flare compliance determination; and

(3) All periods during the flare compliance determination when all pilot flames are absent or, if only the flare flame is monitored, all periods when the flare flame is absent.

(c) *Monitoring records.* Each owner or operator shall keep up to date and readily accessible hourly records of whether the flare flame or pilot flame monitors are continuously operating during the hour and whether the flare flame or at least one pilot flame is continuously present during the hour. For transfer racks, hourly records are required only while the transfer vent stream is being vented.

(d) *Compliance records.* (1) Each owner or operator shall keep records of the times and duration of all periods during which the flare flame and all the pilot flames are absent. This record shall be submitted in the periodic reports as specified in § 65.166(c).

(2) Each owner or operator shall keep records of the times and durations of all periods during which the flare flame or pilot flame monitors are not operating.

§ 65.160 Performance test and TRE index value determination records.

(a) *Availability of performance tests records.* Upon request, the owner or operator shall make available to the Administrator such records as may be necessary to determine the conditions of performance tests performed pursuant to §§ 65.148(b), 65.149(b), 65.150(b), 65.151(b), 65.152(b), 65.154(b), or 65.155(b).

(b) *Nonflare control device and halogen reduction device performance test records.* Each owner or operator subject to the provisions of this subpart shall keep up-to-date, readily accessible records of the data specified in paragraphs (b)(1) through (3) of this section, as applicable, measured during each performance test performed pursuant to §§ 65.148(b), 65.149(b), 65.150(b), 65.151(b), 65.152(b), 65.154(b), or 65.155(b), and also include that data in the Initial Compliance Status Report as specified in § 65.164(a). The same data specified in paragraphs (b)(1) through (3) of this section, as applicable, shall be submitted in the reports of all subsequently required performance tests where either the emission control efficiency of a nonflare control device or

the outlet concentration of TOC or regulated material is determined.

(1) *Nonflare combustion device.* Where an owner or operator subject to the provisions of paragraph (b) of this section seeks to demonstrate compliance with a percent reduction requirement or a parts per million by volume requirement using a nonflare combustion device, the following information shall be recorded:

(i) For thermal incinerators, record the fire box temperature measured at least every 15 minutes and averaged over the full period of the performance test.

(ii) For catalytic incinerators, record the upstream and downstream temperatures and the temperature difference across the catalyst bed measured at least every 15 minutes and averaged over the full period of the performance test.

(iii) For an incinerator, record the percent reduction of regulated material or TOC achieved by the incinerator determined as specified in § 65.158(b)(4), as applicable, or the concentration of regulated material or TOC (parts per million by volume, by compound) determined as specified in § 65.158(b)(3) at the outlet of the incinerator.

(iv) For a boiler or process heater, record a description of the location at which the vent stream is introduced into the boiler or process heater.

(v) For boilers or process heaters with a design heat input capacity less than 44 megawatts (150 British thermal units per hour) and where the vent stream is not introduced with or as the primary fuel, record the fire box temperature measured at least every 15 minutes and averaged over the full period of the performance test.

(vi) For a boiler or process heater with a design heat input capacity of less than 44 megawatts (150 British thermal units per hour) and where the vent stream is not introduced with or as the primary fuel, record the percent reduction of regulated material or TOC, or the concentration of regulated material or TOC (parts per million by volume, by compound) determined as specified in § 65.158(b)(3) at the outlet of the combustion device.

(2) *Other nonflare control devices.* Where an owner or operator seeks to