

(4) The span value for Method 25A of 40 CFR part 60, appendix A-7 shall be 50 parts per million by volume.

(5) Use of Method 25A of 40 CFR part 60, appendix A-7 is acceptable if the response from the high-level calibration gas is at least 20 times the standard deviation of the response from the zero calibration gas when the instrument is zeroed on the most sensitive scale.

(iv) Engineering assessment including, but not limited to, the following:

(A) Previous test results provided the tests are representative of current operating practices at the process unit.

(B) Bench-scale or pilot-scale test data representative of the process under representative operating conditions.

(C) Maximum flow rate, TOC emission rate, organic HAP emission rate, or net heating value limit specified or implied within a permit limit applicable to the process vent.

(D) Design analysis based on accepted chemical engineering principles, measurable process parameters, or physical or chemical laws or properties. Examples of analytical methods include, but are not limited to:

(1) Use of material balances based on process stoichiometry to estimate maximum organic HAP concentrations,

(2) Estimation of maximum flow rate based on physical equipment design such as pump or blower capacities,

(3) Estimation of TOC or organic HAP concentrations based on saturation conditions,

(4) Estimation of maximum expected net heating value based on the vent stream concentration of each organic compound or, alternatively, as if all TOC in the vent stream were the compound with the highest heating value.

(E) All data, assumptions, and procedures used in the engineering assessment shall be documented.

(3) For miscellaneous process vents the emissions profile must be determined according to paragraph (g)(2)(iv) of this section.

(h) *Process changes.* Except for temporary shutdowns for maintenance activities, if you make a process change such that, as a result of that change, you are subject to a different process vent limit in Table 1 or 2 to this sub-

part, then you must meet the requirements of § 63.11896.

§ 63.11930 What requirements must I meet for closed vent systems?

(a) *General.* To route emissions from process vents subject to the emission limits in Table 1 or 2 to this subpart to a control device, you must use a closed vent system and meet the requirements of this section and all provisions referenced in this section. However, if you operate and maintain your closed vent system in vacuum service as defined in § 63.12005, you must meet the requirements in paragraph (h) of this section and are not required to meet the requirements in paragraphs (a) through (g) of this section.

(b) *Collection of emissions.* Each closed vent system must be designed and operated to collect the HAP vapors from each continuous process vent, miscellaneous process vent and batch process vent, and to route the collected vapors to a control device.

(c) *Bypass.* For each closed vent system that contains a bypass as defined in § 63.12005 (*e.g.*, diverting a vent stream away from the control device), you must not discharge to the atmosphere through the bypass. Any such release constitutes a violation of this rule. The use of any bypass diverted to the atmosphere during a performance test invalidates the performance test. You must comply with the provisions of either paragraph (c)(1) or (2) of this section for each closed vent system that contains a bypass that could divert a vent stream to the atmosphere.

(1) *Bypass flow indicator.* Install, maintain, and operate a flow indicator as specified in paragraphs (c)(1)(i) through (iv) of this section.

(i) The flow indicator must be properly installed at the entrance to any bypass.

(ii) The flow indicator must be equipped with an alarm system that will alert an operator immediately, and automatically when flow is detected in the bypass. The alarm must be located such that the alert is detected and recognized easily by an operator.

(iii) If the alarm is triggered, you must immediately initiate procedures to identify the cause of the alarm. If

any closed vent system has discharged to the atmosphere through a vent or bypass, you must initiate procedures to stop the bypass discharge.

(iv) For any instances where the flow indicator alarm is triggered, you must submit to the Administrator as part of your compliance report, the information specified in § 63.11985(b)(9) and (10). This report is required even if you elect to follow the procedures specified in § 63.11895 to establish an affirmative defense and submit the reports specified in § 63.11985(b)(11).

(2) *Bypass valve configuration.* Secure the bypass valve in the non-diverting position with a car-seal or a lock-and-key type configuration.

(i) You must visually inspect the seal or closure mechanism at least once every month to verify that the valve is maintained in the non-diverting position, and the vent stream is not diverted through the bypass. A broken seal or closure mechanism or a diverted valve constitutes a violation from the emission limits in Table 1 or 2 to this subpart. You must maintain the records specified in paragraph (g)(1)(ii) of this section.

(ii) For each seal or closure mechanism, you must comply with either paragraph (c)(2)(ii)(A) or (B) of this section.

(A) For each instance that you change the bypass valve to the diverting position, you must submit to the Administrator as part of your compliance report, the information specified in § 63.11985(b)(9) and (10). This report is required even if you elect to follow the procedures specified in § 63.11895 to establish an affirmative defense and submit the reports specified in § 63.11985(b)(11).

(B) You must install, maintain, and operate a bypass flow indicator as specified in paragraphs (c)(1)(i) and (ii) of this section and you must meet the requirements in paragraph (c)(1)(iii) and (iv) of this section for each instance that the flow indicator alarm is triggered.

(d) *Closed vent system inspection and monitoring requirements.* Except as provided in paragraph (d)(3) of this section, you must inspect each closed vent system as specified in paragraph (d)(1) or (2) of this section.

(1) *Hard-piping inspection.* If the closed vent system is constructed of hard-piping, you must comply with the requirements specified in paragraphs (d)(1)(i) and (ii) of this section.

(i) Conduct an initial inspection according to the procedures in paragraph (e) of this section.

(ii) Conduct annual inspections for visible, audible, or olfactory indications of leaks.

(2) *Ductwork inspection.* If the closed vent system is constructed of ductwork, you must conduct initial and annual inspections according to the procedures in paragraph (e) of this section.

(3) *Equipment that is unsafe to inspect.* You may designate any parts of the closed vent system as unsafe to inspect if you determine that personnel would be exposed to an immediate danger as a consequence of complying with the initial and annual closed vent system inspection requirements of this subpart.

(e) *Closed vent system inspection procedures.* Except as provided in paragraph (e)(4) of this section, you must comply with all provisions of paragraphs (e)(1) through (3) of this section.

(1) *General.* Inspections must be performed during periods when HAP is being collected by or vented through the closed vent system. A leak is indicated by an instrument reading greater than 500 parts per million by volume above background or by visual inspection.

(2) *Inspection procedures.* Each closed vent system subject to this paragraph (e)(2) must be inspected according to the procedures specified in paragraphs (e)(2)(i) through (vii) of this section.

(i) Inspections must be conducted in accordance with Method 21 at 40 CFR part 60, appendix A–7, except as otherwise specified in this section.

(ii) Except as provided in paragraph (e)(2)(iii) of this section, the detection instrument must meet the performance criteria of Method 21 at 40 CFR part 60, appendix A–7, except the instrument response factor criteria in section 8.1.1.2 of Method 21 must be for the representative composition of the process fluid and not of each individual volatile organic compound in the stream. For process streams that contain nitrogen, air, water or other inerts that are not organic HAP or volatile organic

compound, the representative stream response factor must be determined on an inert-free basis. You may determine the response factor at any concentration for which you will monitor for leaks.

(iii) If no instrument is available at the plant site that will meet the performance criteria of Method 21 at 40 CFR part 60, appendix A-7 specified in paragraph (e)(2)(ii) of this section, the instrument readings may be adjusted by multiplying by the representative response factor of the process fluid, calculated on an inert-free basis as described in paragraph (e)(2)(ii) of this section.

(iv) The detection instrument must be calibrated before use on each day of its use by the procedures specified in Method 21 at 40 CFR part 60, appendix A-7.

(v) Calibration gases must be as specified in paragraphs (e)(2)(v)(A) through (D) of this section.

(A) Zero air (less than 10 parts per million by volume hydrocarbon in air).

(B) Mixtures of methane in air at a concentration less than 10,000 parts per million by volume. A calibration gas other than methane in air may be used if the instrument does not respond to methane or if the instrument does not meet the performance criteria specified in paragraph (e)(2)(ii) of this section. In such cases, the calibration gas may be a mixture of one or more of the compounds to be measured in air.

(C) If the detection instrument's design allows for multiple calibration scales, then the lower scale must be calibrated with a calibration gas that is no higher than 2,500 parts per million by volume.

(D) Perform a calibration drift assessment, at a minimum, at the end of each monitoring day. Check the instrument using the same calibration gas(es) that were used to calibrate the instrument before use. Follow the procedures specified in Method 21 at 40 CFR part 60, appendix A-7, section 10.1, except do not adjust the meter readout to correspond to the calibration gas value. Record the instrument reading for each scale used as specified in paragraph (g)(4) of this section. Divide these readings by the initial calibration values for each scale and multiply

by 100 to express the calibration drift as a percentage. If any calibration drift assessment shows a negative drift of more than 10 percent from the initial calibration value, then all equipment monitored since the last calibration with instrument readings below the appropriate leak definition and above the leak definition multiplied by the value specified in paragraph (e)(2)(v)(D)(1) of this section must be re-monitored. If any calibration drift assessment shows a positive drift of more than 10 percent from the initial calibration value, then, at your discretion, all equipment since the last calibration with instrument readings above the appropriate leak definition and below the leak definition multiplied by the value specified in paragraph (e)(2)(v)(D)(2) of this section may be re-monitored.

(1) 100 minus the percent of negative drift, divided by 100.

(2) 100 plus the percent of positive drift, divided by 100.

(vi) You may elect to adjust or not adjust instrument readings for background. If you elect not to adjust readings for background, all such instrument readings must be compared directly to 500 parts per million by volume to determine whether there is a leak. If you elect to adjust instrument readings for background, you must measure background concentration using the procedures in this section. You must subtract the background reading from the maximum concentration indicated by the instrument.

(vii) If you elect to adjust for background, the arithmetic difference between the maximum concentration indicated by the instrument and the background level must be compared with 500 parts per million by volume for determining whether there is a leak.

(3) *Instrument probe.* The instrument probe must be traversed around all potential leak interfaces as described in Method 21 at 40 CFR part 60, appendix A-7.

(4) *Unsafe-to-inspect written plan requirements.* For equipment designated as unsafe to inspect according to the provisions of paragraph (d)(3) of this section, you must maintain and follow a written plan that requires inspecting

the equipment as frequently as practical during safe-to-inspect times, but not more frequently than the annual inspection schedule otherwise applicable. You must still repair unsafe-to-inspect equipment according to the procedures in paragraph (f) of this section if a leak is detected.

(f) *Closed vent system leak repair provisions.* The provisions of this paragraph (f) apply to closed vent systems collecting HAP from an affected source.

(1) *Leak repair general for hard-piping.* If there are visible, audible, or olfactory indications of leaks at the time of the annual visual inspections required by paragraph (d)(1)(ii) of this section, you must follow the procedure specified in either paragraph (f)(1)(i) or (ii) of this section.

(i) You must eliminate the leak.

(ii) You must monitor the equipment according to the procedures in paragraph (e) of this section and comply with the leak repair provisions in paragraph (f)(2) of this section.

(2) *Leak repair schedule.* Leaks must be repaired as soon as practical, except as provided in paragraph (f)(3) of this section.

(i) A first attempt at repair must be made no later than 5 days after the leak is detected.

(ii) Except as provided in paragraph (f)(3) of this section, repairs must be completed no later than 15 days after the leak is detected or at the beginning of the next introduction of vapors to the system, whichever is later.

(3) *Delay of repair.* Delay of repair of a closed vent system for which leaks have been detected is allowed if repair within 15 days after a leak is detected is technically infeasible or unsafe without a closed vent system shutdown or if you determine that emissions resulting from immediate repair would be greater than the emissions likely to result from delay of repair. Repair of such equipment must be completed as soon as practical, but not later than the end of the next closed vent system shutdown.

(g) *Closed vent system records.* For closed vent systems, you must record the information specified in paragraphs (g)(1) through (5) of this section, as applicable.

(1) *Bypass records.* For each closed vent system that contains a bypass that could divert a vent stream away from the control device and to the atmosphere, or cause air intrusion into the control device, you must keep a record of the information specified in either paragraph (g)(1)(i) or (ii) of this section, as applicable.

(i) You must maintain records of any alarms triggered because flow was detected in the bypass, including the date and time the alarm was triggered, the duration of the flow in the bypass, as well as records of the times of all periods when the vent stream is diverted from the control device or the flow indicator is not operating.

(ii) Where a seal mechanism is used to comply with paragraph (c)(2) of this section, hourly records of flow are not required. In such cases, you must record that the monthly visual inspection of the seals or closure mechanisms has been done, and must record the occurrence of all periods when the seal mechanism is broken, the bypass valve position has changed, or the key for a lock-and-key type lock has been checked out, and records of any car-seal that has been broken.

(2) *Inspection records.* For each instrumental or visual inspection conducted in accordance with paragraph (d)(1) or (2) of this section for closed vent systems collecting HAP from an affected source during which no leaks are detected, you must record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected.

(3) *Leak records.* When a leak is detected from a closed vent system collecting HAP from an affected source, the information specified in paragraphs (g)(3)(i) through (vi) of this section must be recorded and kept for 5 years.

(i) The instrument and the equipment identification number and the operator name, initials, or identification number.

(ii) The date the leak was detected and the date of the first attempt to repair the leak.

(iii) The date of successful repair of the leak.

(iv) The maximum instrument reading measured by the procedures in

paragraph (e) of this section after the leak is successfully repaired.

(v) Repair delayed and the reason for the delay if a leak is not repaired within 15 days after discovery of the leak. You may develop a written procedure that identifies the conditions that justify a delay of repair. In such cases, reasons for delay of repair may be documented by citing the relevant sections of the written procedure.

(vi) Copies of the compliance reports as specified in § 63.11985(b)(9), if records are not maintained on a computerized database capable of generating summary reports from the records.

(4) *Instrument calibration records.* You must maintain records of the information specified in paragraphs (g)(4)(i) through (vi) of this section for monitoring instrument calibrations conducted according to sections 8.1.2 and 10 of Method 21 at 40 CFR part 60, appendix A-7, and paragraph (e) of this section.

(i) Date of calibration and initials of operator performing the calibration.

(ii) Calibration gas cylinder identification, certification date, and certified concentration.

(iii) Instrument scale(s) used.

(iv) A description of any corrective action taken if the meter readout could not be adjusted to correspond to the calibration gas value in accordance with section 10.1 of Method 21 at 40 CFR part 60, appendix A-7.

(v) Results of each calibration drift assessment required by paragraph (e)(2)(v)(D) of this section (*i.e.*, instrument reading for calibration at end of the monitoring day and the calculated percent difference from the initial calibration value).

(vi) If you make your own calibration gas, a description of the procedure used.

(5) *Unsafe-to-inspect records.* If you designate equipment as unsafe-to-inspect as specified in paragraph (d)(3) of this section, you must keep the records specified in paragraph (g)(5)(i) and (ii) of this section.

(i) You must maintain the identity of unsafe-to-inspect equipment as specified in paragraph (d)(3) of this section.

(ii) You must keep a written plan for inspecting unsafe-to-inspect equipment as required by paragraph (e)(4) of this

section and record all activities performed according to the written plan.

(h) *Closed vent systems in vacuum service.* If you operate and maintain a closed vent system in vacuum service as defined in § 63.12005, you must comply with the requirements in paragraphs (h)(1) through (3) of this section, and you are not required to comply with any other provisions of this section. Any incidence where a closed vent system designed to be in vacuum service is operating and not in vacuum service constitutes a violation of this rule, unless the closed vent system is meeting the requirements in paragraphs (a) through (g) of this section for closed vent systems that are not in vacuum service. Any such incidence during a performance test invalidates the performance test.

(1) *In vacuum service alarm.* You must install, maintain, and operate a pressure gauge and alarm system that will alert an operator immediately and automatically when the pressure is such that the closed vent system no longer meets the definition of in vacuum service as defined in § 63.12005. The alarm must be located such that the alert is detected and recognized easily by an operator.

(2) *In vacuum service alarm procedures.* If the alarm is triggered for a closed vent system operating in vacuum service as specified in paragraph (h)(1) of this section, you must immediately initiate procedures to identify the cause of the alarm. If the closed vent system is not in vacuum service, you must initiate procedures to get the closed vent system back in vacuum service as defined in § 63.12005, or you must immediately comply with the requirements in paragraphs (a) through (g) of this section for closed vent systems that are not in vacuum service.

(3) *In vacuum service alarm records and reports.* For any incidences where a closed vent system designed to be in vacuum service is not in vacuum service, you must submit to the Administrator as part of your compliance report, the information specified in § 63.11985(b)(10). This report is required even if you elect to follow the procedures specified in § 63.11895 to establish an affirmative defense and submit the reports specified in § 63.11985(b)(11).