**Section 724.987 Standards: Closed-Vent Systems and Control Devices**

a) This Section applies to each closed-vent system and control device installed and operated by the owner or operator to control air emissions in accordance with standards of this Subpart CC.

b) The closed-vent system must meet the following requirements:

1) The closed-vent system must route the gases, vapors, and fumes emitted from the hazardous waste in the waste management unit to a control device that meets the requirements specified in subsection (c).

2) The closed-vent system must be designed and operated in accordance with the requirements specified in Section 724.933(k).

3) When the closed-vent system includes bypass devices that could be used to divert the gas or vapor stream to the atmosphere before entering the control device, each bypass device must be equipped with either a flow indicator, as specified in subsection (b)(3)(A), or a seal or locking device, as specified in subsection (b)(3)(B). For the purpose of complying with this subsection (b), low leg drains, high point bleeds, analyzer vents, open-ended valves or lines, spring-loaded pressure-relief valves, and other fittings used for safety purposes are not considered to be bypass devices.

A) If a flow indicator is used to comply with this subsection (b)(3), the indicator must be installed at the inlet to the bypass line used to divert gases and vapors from the closed-vent system to the atmosphere at a point upstream of the control device inlet. For the purposes of this subsection (b), a flow indicator means a device that indicates the presence of either gas or vapor flow in the bypass line.

B) If a seal or locking device is used to comply with subsection (b)(3), the device must be placed on the mechanism by which the bypass device position is controlled (e.g., valve handle or damper lever) when the bypass device is in the closed position such that the bypass device cannot be opened without breaking the seal or removing the lock. Examples of such devices include, but are not limited to, a car-seal or a lock-and-key configuration valve. The owner or operator must visually inspect the seal or closure mechanism at least once every month to verify that the bypass mechanism is maintained in the closed position.

4) The closed-vent system must be inspected and monitored by the owner or operator in accordance with the procedure specified in Section 724.933(l).

c) The control device must meet the following requirements:

1) The control device must be one of the following devices:

A) A control device designed and operated to reduce the total organic content of the inlet vapor stream vented to the control device by at least 95 percent by weight;

B) An enclosed combustion device designed and operated in accordance with the requirements of Section 724.933(c); or

C) A flare designed and operated in accordance with the requirements of Section 724.933(d).

2) The owner or operator that elects to use a closed-vent system and control device to comply with the requirements of this Section must comply with the requirements specified in subsections (c)(2)(A) through (c)(2)(F).

A) Periods of planned routine maintenance of the control device, during which the control device does not meet the specifications of subsection (c)(1)(A), (c)(1)(B), or (c)(1)(C), as applicable, must not exceed 240 hours per year.

B) The specifications and requirements in subsections (c)(1)(A), (c)(1)(B), and (c)(1)(C) for control devices do not apply during periods of planned routine maintenance.

C) The specifications and requirements in subsections (c)(1)(A), (c)(1)(B), and (c)(1)(C) for control devices do not apply during a control device system malfunction.

D) The owner or operator must demonstrate compliance with the requirements of subsection (c)(2)(A) (i.e., planned routine maintenance of a control device, during which the control device does not meet the specifications of subsection (c)(1)(A), (c)(1)(B), or (c)(1)(C), as applicable, must not exceed 240 hours per year) by recording the information specified in Section 724.989(e)(1)(E).

E) The owner or operator must correct control device system malfunctions as soon as practicable after their occurrence in order to minimize excess emissions of air pollutants.

F) The owner or operator must operate the closed-vent system so that gases, vapors, or fumes are not actively vented to the control device during periods of planned maintenance or control device system malfunction (i.e., periods when the control device is not operating or not operating normally), except in cases when it is necessary to vent the gases, vapors, or fumes to avoid an unsafe condition or to implement malfunction corrective actions or planned maintenance actions.

3) The owner or operator using a carbon adsorption system to comply with subsection (c)(1) must operate and maintain the control device in accordance with the following requirements:

A) Following the initial startup of the control device, all activated carbon in the control device must be replaced with fresh carbon on a regular basis, in accordance with the requirements of Section 724.933(g) or Section 724.933(h).

B) All carbon that is a hazardous waste and that is removed from the control device must be managed in accordance with the requirements of Section 724.933(n), regardless of the average volatile organic concentration of the carbon.

4) An owner or operator using a control device other than a thermal vapor incinerator, flare, boiler, process heater, condenser, or carbon adsorption system to comply with subsection (c)(1) must operate and maintain the control device in accordance with the requirements of Section 724.933(j).

5) The owner or operator must demonstrate that a control device achieves the performance requirements of subsection (c)(1), as follows:

A) An owner or operator must demonstrate using either a performance test, as specified in subsection (c)(5)(C), or a design analysis, as specified in subsection (c)(5)(D), the performance of each control device, except for the following:

i) A flare;

ii) A boiler or process heater with a design heat input capacity of 44 megawatts or greater;

iii) A boiler or process heater into which the vent stream is introduced with the primary fuel;

iv) A boiler or industrial furnace burning hazardous waste for which the owner or operator has been issued a final permit under 35 Ill. Adm. Code 702, 703, and 705 and has designed and operates the unit in accordance with the interim status requirements of Subpart H of 35 Ill. Adm. Code 726; or

v) A boiler or industrial furnace burning hazardous waste that the owner or operator has designed and operates in accordance with the interim status requirements of Subpart H of 35 Ill. Adm. Code 726.

B) An owner or operator must demonstrate the performance of each flare in accordance with the requirements specified in Section 724.933(e).

C) For a performance test conducted to meet the requirements of subsection (c)(5)(A), the owner or operator must use the test methods and procedures specified in Section 724.934(c)(1) through (c)(4).

D) For a design analysis conducted to meet the requirements of subsection (c)(5)(A), the design analysis must meet the requirements specified in Section 724.935(b)(4)(C).

E) The owner or operator must demonstrate that a carbon adsorption system achieves the performance requirements of subsection (c)(1) based on the total quantity of organics vented to the atmosphere from all carbon adsorption system equipment that is used for organic adsorption, organic desorption or carbon regeneration, organic recovery, and carbon disposal.

6) If the owner or operator and the Agency do not agree on a demonstration of control device performance using a design analysis then the disagreement must be resolved using the results of a performance test performed by the owner or operator in accordance with the requirements of subsection (c)(5)(C). The Agency may choose to have an authorized representative observe the performance test.

7) The closed-vent system and control device must be inspected and monitored by the owner or operator in accordance with the procedures specified in Section 724.933(f)(2) and (l). The readings from each monitoring device required by Section 724.933(f)(2) must be inspected at least once each operating day to check control device operation. Any necessary corrective measures must be immediately implemented to ensure the control device is operated in compliance with the requirementsof this Section.

(Source: Amended at 42 Ill. Reg. 22614, effective November 19, 2018)