3.0 SUBPART AA STANDARDS

Tip:
Must confirm waste concentration annually

3.1 Closed-Vent Systems (264.1033(k) and 265.1033(k))

A closed-vent system is defined as a system that is not open to the atmosphere and that is composed of piping, connections, and, if necessary, flow-inducing devices that transport gas or vapor from a piece or pieces of equipment to a control device. Subpart AA standards require that closed-vent systems operating under positive pressure must be designed and operated with no detectable emissions. No detectable emissions is determined using Method 21 in 40 CFR 60 Appendix A and is achieved by an instrument reading of less than 500 ppm above background. Closed-vent systems operating under negative pressure must be equipped with a pressure measurement device which is monitored to verify that negative pressure is maintained in the system.

On or before the date a closed-vent system becomes subject to Subpart AA requirements (i.e., begins transporting gas or vapor to a control device) all portions of the closed-vent system must be monitored according to Method 21 to demonstrate that the system operates with no detectable emissions. All components of the closed-vent system and connections such as joints, seams, flanges, and welds must be visually inspected and monitored using Method 21. Visible cracks, gaps, holes, and loose connections are some examples of defects which would need repair. Following the initial leak detection, all portions of the closed-vent system must be monitored again at least once per year, or at any time the Regional Administrator requests, unless portions of the closed-vent system are determined to be unsafe to monitor.

Defects detected during monitoring must be repaired as soon as practicable, but no later than 15 calendar days after detected. A first attempt at repair must be made no later than five calendar days after the emission is detected. Following the first attempt at repair, a delay of repair allowance is provided for equipment that can not reasonably be fixed within 15 days without a process unit shutdown. If the owner or operator

EPA Method 21 and other methods referenced in this handbook are available on the World Wide Web @ http://www.epa.gov/ttn/emc/promgate.html.
determines that the repair can not reasonably be fixed without a process unit shutdown, the repair must take place by the end of the next process unit shutdown.

If the owner or operator determines that any component of a closed-vent system is unsafe to monitor because monitoring personnel would be exposed to an immediate danger by conducting monitoring that component of the closed-vents system may be exempt from the annual monitoring requirements. However, the owner or operator must adhere to a written plan that requires monitoring the closed-vent system components as frequently as possible during safe-to-monitor times.

3.2 Control Devices (264.1033(b)-(j) and 265.1033(b)-(j))

The following are descriptions of the control device requirements included in the Subpart AA standards. These control devices must be installed, calibrated maintained and operated according to the manufacturers specifications. They also must be operating at all times when emissions may be vented to them.

3.2.1 Vapor Recovery Devices such as Condensers and Carbon Adsorption Systems (264.1033(b) and 265.1033(b))

A control device involving vapor recovery must be designed and operated to recover the organic vapors vented to it with an efficiency of 95 weight percent or greater. This requirement must be maintained unless the total organic emission for all of the affected process vents at the facility can be maintained at less that 1.4 kg/h and 2.8 Mg/yr if the vapor recovery device is operating at an efficiency less than 95 weight percent. The owner or operator must install, calibrate, maintain and operate according to the manufacturer’s specifications a flow indicator that provides a record of vent stream flow from each affected process vent to the control device at least once every hour. The flow indicator sensor must be installed in the vent stream at the nearest feasible point to the control device inlet but before the point at which the vent streams are combined.

If a condenser is used, the owner or operator has two choices to monitor the unit. One option is to use an organics concentration monitoring device equipped with a continuous recorder to measure the concentration of the organic compounds in the exhaust vent stream from the condenser. Another option is to install a temperature monitoring device equipped with a continuous recorder. The temperature monitoring device must be installed at a location in the exhaust vent stream from the condenser. The temperature monitoring