

**3.2.3 Enclosed Combustion Devices
such as Vapor Incinerators,
Boilers, and Process Heaters
(264.1033(c) and 265.1033(c))**

Examples of enclosed combustion devices include thermal vapor incinerator, catalytic vapor incinerator, boiler and process heater. Enclosed combustion devices must be operated to achieve one of the following three conditions: i) reduce the organic emissions vented to it by 95 weight percent or greater;

These EPA Methods are available on the World Wide Web @ <http://www.epa.gov/ttn/emc/promgate.html>.

ii) achieve a total organic compound concentration of 20 ppmv, expressed as the sum of actual compounds, not carbon equivalents, on a dry basis corrected to 3 percent oxygen; or, iii) provide a minimum residence time of 0.5 seconds at a minimum temperature of 760 °C. 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 thermal vapor incinerator is used as a control device, the incinerator must have a temperature monitoring device equipped with a continuous recorder installed at a location in the combustion chamber downstream of the combustion zone. The temperature monitoring device must have an accuracy of + 1 percent of the temperature being monitored in °C or + 0.5 °C, whichever is greater. Catalytic vapor incinerators are required to have a temperature monitoring device meeting these same requirements installed at two locations. One location must be in the vent stream feeding the unit at the nearest feasible point to the catalyst bed inlet. The other location must be in the vent stream at the nearest feasible point to the catalyst bed outlet.

If a boiler or process heater is used to destroy the organics in a waste stream, the boiler or process heater must be designed such that the vent stream from the closed-vent system is introduced directly into the flame combustion zone of the boiler or process heater. If the boiler or process heater has a design capacity less than 44 MW, a temperature monitoring device equipped with a continuous recorder must be installed at a location in the furnace downstream of the combustion zone. The temperature monitoring device shall have an accuracy of + 1 percent of the temperature being monitored in °C or + 0.5 °C, whichever is greater. If the boiler or process heater has a design capacity greater than or equal to 44 MW, an appropriate monitoring device such as a continuous monitor of the organic concentration of the effluent equipped with a continuous recorder must be installed on the equipment to indicate that good combustion operating practices are being used. All monitoring devices must be installed, calibrated, operated and maintained according to the manufacturers specifications.