**Section 218.434 Monitoring Requirements**

a) The owner or operator of a source subject to the control requirements in Section 218.432 of this Subpart that uses an incinerator to comply with the VOM emission limitation specified in Section 218.432(a)(1) shall install, calibrate, maintain, and operate, according to manufacturer's specifications, a temperature monitoring device equipped with a continuous recorder and having an accuracy of ± 1 percent of the temperature measured expressed in degress Celsius, or ± 0.5° C, whichever is greater.

1) Where an incinerator other than a catalytic incinerator is used, a temperature monitoring device shall be installed in the firebox.

2) Where a catalytic incinerator is used, temperature monitoring devices shall be installed in the gas stream immediately before and after the catalyst bed.

b) The owner or operator of a source that uses a flare to comply with Section 218.432(a)(2) of this Subpart shall install, calibrate, maintain, and operate, according to manufacturer's specifications, a heat-sensing device, such as an ultraviolet beam sensor or thermocouple, at the pilot light to indicate continuous presence of a flame.

c) The owner or operator of a source that uses a boiler or process heater with a design heat input capacity less than 44 megawatts to comply with Section 218.432(a)(1) of this Subpart shall install, calibrate, maintain, and operate, according to the manufacturer's specifications, a temperature monitoring device in the firebox. The monitoring device shall be equipped with a continuous recorder with an accuracy of ± 1 percent of the temperature being measured expressed in degrees Celsius or ± 0.5° C, whichever is greater. Any boiler or process heater in which all vent streams are introduced with primary fuel is exempt from this requirement.

d) The owner or operator of a process vent with a TRE index value of 4.0 or less that uses one or more product recovery devices shall install either an organic monitoring device equipped with a continuous recorder or the monitoring equipment specified in subsections (d)(1), (d)(2), (d)(3) or (d)(4) of this Section, depending on the type of recovery device used. All monitoring equipment shall be installed, calibrated and maintained according to the manufacturer's specifications.

1) Where an absorber is the final recovery device in the recovery system, a scrubbing liquid temperature monitoring device and a specific gravity monitoring device, each equipped with a continuous recorder, shall be used.

2) Where a condenser is the final recovery device in the recovery system, a condenser exit (product side) temperature monitoring device equipped with a continuous recorder and having an accuracy of ± 1 percent of the temperature being monitored expressed in degrees Celsius or ± 0.5° C, whichever is greater.

3) Where a carbon adsorber is the final recovery device in the recovery system, an integrating regeneration steam flow monitoring device having an accuracy of ± 10 percent, capable of recording the total regeneration steam mass flow for each regeneration cycle; and a carbon bed temperature monitoring device having an accuracy of ± 1 percent of the temperature being monitored expressed in degrees Celsius of ± 0.5° C, capable of recording the carbon bed temperature after each regeneration and within 15 minutes of completing any cooling cycle.

4) Where a scrubber is used with an incinerator, boiler, or, in the case of halogenated vent streams, a process heater, the following monitoring equipment is required for the scrubber:

A) A pH monitoring device equipped with a continuous recorder to monitor the pH of the scrubber effluent; and

B) Flow meters equipped with a continuous recorder at the scrubber influent for liquid flow and the scrubber inlet for gas stream flow.

e) The owner or operator of a process vent using a vent system that contains bypass lines capable of diverting a vent stream away from the control device associated with a process vent shall comply with either (e)(1) or (e)(2) of this Section. Equipment needed for safety purposes, including, but not limited to, pressure relief devices, are not subject to this subsection.

1) The owner or operator shall install, calibrate, maintain and operate a flow indicator that provides a record of vent stream flow at least once every 15 minutes. The flow indicator shall be installed at the entrance to any bypass line that could divert the vent stream away from the control device to the atmosphere.

2) The owner or operator shall secure the bypass line valve in the closed position with a car-seal or a lock-and-key type configuration. A visual inspection of the seal or closure mechanism shall be performed at least once every month to ensure that the valve is maintained in the closed position and the vent stream is not diverted through the bypass line.

f) The owner or operator of a process vent may monitor by an equivalent alternative means or parameters other than those listed in subsections (a) through (d) of this Section. Any equivalent alternative shall be approved by the Agency and USEPA, and contained in the source's operating permit as federally enforceable permit conditions.

(Source: Amended at 20 Ill. Reg. 14428, effective October 17, 1996)