**Section 218.410 Monitoring Requirements for Lithographic Printing**

a) Fountain Solution Temperature

1) The owner or operator of any lithographic printing lines relying on the temperature of the fountain solution to demonstrate compliance shall install, maintain, and continuously operate a temperature monitor of the fountain solution in the reservoir or fountain tray, as applicable.

2) The temperature monitor must be capable of reading with an accuracy of 1°C or 2°C, and must be attached to an automatic, continuous recording device such as a strip chart, recorder, or computer, with at least the same accuracy, that is installed, calibrated and maintained in accordance with the manufacturer's specifications. If the automatic, continuous recording device malfunctions, the owner or operator shall record the temperature of the fountain solution at least once every two operating hours. The automatic, continuous recording device shall be repaired or replaced as soon as practicable.

b) Fountain Solution VOM Content. The owner or operator of any lithographic printing lines subject to Section 218.407(a)(1)(A), (a)(2) or (a)(3) of this Subpart shall:

1) For a fountain solution to which VOM is not added automatically:

A) Maintain records of the VOM content of the fountain solution in accordance with Section 218.411(e)(2)(C); or

B) Take a sample of the as-applied fountain solution from the fountain tray or reservoir, as applicable, each time a fresh batch of fountain solution is prepared or each time VOM is added to an existing batch of fountain solution in the fountain tray or reservoir, and shall determine compliance with the VOM content limitation of the as-applied fountain solution by using one of the following options:

i) With a refractometer or hydrometer with a visual, analog, or digital readout and with an accuracy of 0.5 percent. The refractometer or hydrometer must be calibrated with a standard solution for the type of VOM used in the fountain solution, in accordance with manufacturer's specifications, against measurements performed to determine compliance. The refractometer or hydrometer must be corrected for temperature at least once per 8-hour shift or once per batch of fountain solution prepared or modified, whichever is longer; or

ii) With a conductivity meter if it is demonstrated that a refractometer and hydrometer cannot distinguish between compliant and noncompliant fountain solution for the type and amount of VOM in the fountain solution. A source may use a conductivity meter if it demonstrates that both hydrometers and refractometers fail to provide significantly different measurements for standard solutions containing 95 percent, 100 percent and 105 percent of the applicable VOM content limit. The conductivity meter reading for the fountain solution must be referenced to the conductivity of the incoming water. A standard solution shall be used to calibrate the conductivity meter for the type of VOM used in the fountain solution, in accordance with manufacturer's specifications;

2) For fountain solutions to which VOM is added at the source with automatic feed equipment, determine the VOM content of the as-applied fountain solution based on the setting of the automatic feed equipment which makes additions of VOM up to a pre-set level. Records must be retained of the VOM content of the fountain solution in accordance with Section 218.411(e)(2)(D) of this Subpart. The equipment used to make automatic additions must be installed, calibrated, operated and maintained in accordance with manufacturer's specifications.

c) Afterburners for Heatset Web Offset Lithographic Printing Lines.

 If an afterburner is used to demonstrate compliance, the owner or operator of a heatset web offset lithographic printing line subject to Section 218.407(a)(1)(C) of this Subpart shall:

1) Install, calibrate, maintain, and operate temperature monitoring devices with an accuracy of 3°C or 5°F on the afterburner in accordance with Section 218.105(d)(2) of this Part and in accordance with the manufacturer's specifications. Monitoring shall be performed at all times when the afterburner is operating; and

2) Install, calibrate, operate and maintain, in accordance with manufacturer's specifications, a continuous recorder on the temperature monitoring devices, such as a strip chart, recorder or computer, with at least the same accuracy as the temperature monitor.

d) Other Control Devices for Heatset Web Offset Lithographic Printing Lines. If a control device other than an afterburner is used to demonstrate compliance, the owner or operator of a heatset web offset lithographic printing line subject to this Subpart shall install, maintain, calibrate and operate such monitoring equipment as set forth in the owner or operator's plan approved by the Agency and USEPA pursuant to Section 218.407(b) of this Subpart.

e) Cleaning Solution

1) The owner or operator of any lithographic printing line relying on the VOM content of the cleaning solution to comply with Section 218.407(a)(4)(A) of this Subpart must:

A) For cleaning solutions that are prepared at the source with equipment that automatically mixes cleaning solvent and water (or other non-VOM):

i) Install, operate, maintain, and calibrate the automatic feed equipment in accordance with manufacturer's specifications to regulate the volume of each of the cleaning solvent and water (or other non-VOM), as mixed; and

ii) Pre-set the automatic feed equipment so that the consumption rates of the cleaning solvent and water (or other non-VOM), as applied, comply with Section 218.407(a)(4)(A) of this Subpart;

B) For cleaning solutions that are not prepared at the source with automatic feed equipment, keep records of the usage of cleaning solvent and water (or other non-VOM) as set forth in Section 218.411(f)(2) of this Subpart.

2) The owner or operator of any lithographic printing line relying on the vapor pressure of the cleaning solution to comply with Section 218.407(a)(4)(B) of this Subpart must keep records for such cleaning solutions used on any such lines as set forth in Section 218.411(f)(2)(C) of this Subpart.

(Source: Amended at 34 Ill. Reg. 9096, effective June 25, 2010)