

## **REGULATION 6.52 Standards of Performance for Solvent Cleaning Operations Associated with Commercial Surface Coating and Printing Processes**

### **Air Pollution Control District of Jefferson County Jefferson County, Kentucky**

**Relates To:** KRS Chapter 77 Air Pollution Control

**Pursuant To:** KRS Chapter 77 Air Pollution Control

**Necessity And Function:** KRS 77.180 authorizes the Air Pollution Control Board to adopt and enforce all orders, rules, and regulations necessary or proper to accomplish the purposes of KRS Chapter 77. This regulation provides for the control of volatile organic compound emissions from hand-wipe cleaning, flush cleaning, spray gun cleaning, and purge processes associated with commercial surface coating and printing processes during a certain portion of 2003.

### **SECTION 1 Definitions**

- 1.1 “Affected facility” means a process in which a VOC-containing solvent is used for solvent cleaning associated with a commercial surface coating or printing process.
- 1.2 “Control period” means the period beginning June 16, 2003, and ending September 15, 2003.
- 1.3 “Cleaning solvent” means a VOC-containing liquid used to perform solvent cleaning.
- 1.4 “Flush cleaning process” means the use of a solvent to remove adhesives, inks, coatings, or other contaminants from the internal surfaces and passages of the equipment by flushing solvent through the equipment.
- 1.5 “Hand-wipe cleaning process” means the removal of loosely-held adhesives, inks, coatings, or other contaminants for the purpose of surface preparation or cleaning the surface parts of coating or printing process equipment by physically rubbing the surface with an absorbent material such as a rag, paper, or cloth that has been moistened with a cleaning solvent.
- 1.6 “Liquid leak” means a visible liquid solvent leak from a container at a rate of more than three drops per minute or is visible as a mist.
- 1.7 “Non-absorbent container” means a container made of a non-porous material that does not allow the migration of the liquid solvent through the container.
- 1.8 “Non-leaking container” means a container without a liquid leak.
- 1.9 “Purge process” means the expelling of the coating material with either fresh coating material or cleaning solvent to clear the spray gun.
- 1.10 “Solvent cleaning” means the use of a cleaning solvent in a hand-wipe cleaning process, flush cleaning process, spray gun cleaning process, or purge process.
- 1.11 “Spray gun cleaning process” means the use of a cleaning solvent to remove adhesives, coatings, or other contaminants from a spray gun.
- 1.12 “Surface preparation” means the removal of contaminants from the surface of a substrate to be coated or printed.

### **SECTION 2 Applicability**

This regulation applies to any affected facility.

### **SECTION 3 Standards for Cleaning Solvent**

To the extent feasible, the owner or operator of an affected facility should, during the control

period, meet one of the following provisions:

- 3.1 Use cleaning solvent that has a vapor pressure equal to or less than 7 millimeters of mercury (mm Hg) at 20°C (68°F),
- 3.2 Use cleaning solvent that is an aqueous solution meeting all of the following provisions:
  - 3.2.1 At least 80 percent of the solution, as applied, is water,
  - 3.2.2 The flash point, as reported by the manufacturer, is greater than 93°C (200°F), and
  - 3.2.3 The solution is miscible with water, or
- 3.3 Reduce, adjusting for the rate of production, the volume of cleaning solvent used by at least 60 percent from the volume of cleaning solvent used immediately before the effective date of this regulation.

#### **SECTION 4 Solvent Cleaning Operational Practices**

To the extent feasible, the owner or operator of an affected facility should, during the control period, meet the following provisions as applicable to the affected facility:

- 4.1 Fresh cleaning solvent used for a hand-wipe cleaning process of an affected facility shall, prior to its use, be stored in a closed container or hand-held spray bottle.
- 4.2 Fresh cleaning solvent used for a hand-wipe cleaning process of an affected facility shall not be applied to the absorbent material or the surface to be cleaned using a propellant-induced force.
- 4.3 Spent cleaning solvent used for a flush cleaning process of an affected facility shall be contained in an enclosed container or collection system that is kept closed when not in use or into a system with equivalent emission control.
- 4.4 A spray gun cleaning process of an affected facility shall be accomplished using one of the following techniques:
  - 4.4.1 Enclosed system. The spray gun is cleaned in an enclosed system that is closed at all times except when the spray gun is inserted into or removed from the system. Cleaning consists of forcing cleaning solvent through the gun.
  - 4.4.2 Nonatomized cleaning. The spray gun is cleaned by placing cleaning solvent in the pressure pot and forcing it through the spray gun with the atomizing cap in place. No atomizing air is to be used, and the spent cleaning solvent from the spray gun shall be directed into a vat, drum, or other waste container that is closed when not in use.
  - 4.4.3 Disassembled spray gun cleaning. The spray gun is disassembled and the components are cleaned by hand in a vat that shall remain closed at all times except when in use. Alternatively, the components are soaked in a vat that shall remain closed during the soaking period and when components are inserted into or removed from the vat.
  - 4.4.4 Atomizing cleaning. The spray gun is cleaned by forcing the cleaning solvent through the gun and directing the resulting atomized spray into a waste container that is fitted with a device designed to capture the atomized cleaning solvent emissions.
- 4.5 Spent coating material or cleaning solvent used for a purge process of an affected facility shall be directed to a purge capture system that contains all of the purge material.

#### **SECTION 5 Storage and Disposal**

- 5.1 All cleaning solvent used to perform solvent cleaning associated with an affected facility shall be stored in a non-absorbent, non-leaking container that shall be kept closed at all times except when filling or emptying.
- 5.2 Unless prohibited by fire prevention authorities, used absorbent materials used for a hand-wipe cleaning process of an affected facility shall be stored in a closed, non-absorbent,

non-leaking container.

## **SECTION 6 Review of Processes and Changes to Processes**

- 6.1 By June 1, 2003, the owner or operator of each affected facility shall:
  - 6.1.1 Review each hand-wipe cleaning process, flush cleaning process, spray gun cleaning process, and purge process of the affected facility to ascertain whether the current processes are consistent with the provisions of Sections 3 to 5,
  - 6.1.2 For each process reviewed pursuant to section 6.1.1 that is not currently consistent with the provisions of Sections 3 to 5, determine whether process changes are feasible to be implemented during the control period, and
  - 6.1.3 Submit in writing, to the District, the results of the review pursuant to section 6.1.1, the determinations pursuant to section 6.1.2, and a description of any changes to be made during the control period.
- 6.2 Before implementing a process change pursuant to section 6.1, the owner or operator of the affected facility should appropriately address any related safety issues.
- 6.3 To the extent that a process change is not prohibited to be made prior to the issuance of a permit pursuant to Regulation 2.16 *Title V Operating Permits* or Regulation 2.05 *Prevention of Significant Deterioration of Air Quality*, and notwithstanding the permit requirements of Regulation 2 *Permit Requirements*, the owner or operator of an affected facility may, after notifying the District pursuant to section 6.1.3, implement process changes pursuant to section 6.1, except for process changes that increase the capacity of the affected facility, up to the end of the control period without first obtaining an otherwise-required permit from the District pursuant to Regulation 2. Permanent implementation of a process change after the control period is subject to the permit requirements of Regulation 2.

Adopted v1/5-9-03; effective 5-9-03.