

# SMALL BUSINESS ASSISTANCE PROGRAM

## Guidelines for

## Offset Lithography Emission Standard

### Georgia Rule 391-3-1.02(2)(ddd)

#### GENERAL

This guide is for lithographic printers that emit volatile organic compounds (organic solvents), and hazardous air pollutants (HAPS), from their operations. It was written to help these printers better understand the air pollution rules that may affect their operations, when they should apply for a permit, when operations are exempt from making application (no permit required), and how to get help, and other such matters.

Air pollution rules were developed to improve the quality of the air we breathe. Volatile organic compounds (VOCs) emitted to the air during printing operations mix with other gases in the air. In the presence of sunlight these gases produce ozone, a significant air quality problem in the Atlanta area. HAPS when inhaled into our lungs can cause several health related problems. So your efforts that reduce VOCs and HAPS emissions into the air will improve the air quality in our community to make it a cleaner and safer place to live, work, and play.

Offset lithography printing means the application of words, designs, pictures and other patterns to a substrate by means of roll printing. This is done by chemically treating a roller to accept ink only on the pattern to be printed, then this ink pattern is transferred to a second roller that prints the pattern on a substrate.

If you print by offset lithography, you may be subject to this emission standard. The standard controls the amount of volatile organic compounds (VOCs) or organic solvents that can be emitted from your printing operation. This standard says that your fountain solutions should contain less than 8% VOC (volume) and the VOC emissions from your **heatset** printing operations should be controlled by an emission reduction system (control and capture equipment) that has been approved by the Director of the Division (has been permitted).

This guideline only addresses VOCs and hazardous air pollutants (HAPS) emitted from the printing operations and does not consider emissions of other pollutants at a printing facility such as emissions from a boiler.

### **WHO IS SUBJECT TO THIS EMISSION STANDARD?**

Do not confuse being subject to an emission standard (regulates how much of a pollutant you can emit) with being subject to making an application for a permit (in most cases this depends on the amount of a pollutant you emit annually)

A lithographic print shop that is located in the attainment area (definition below) and has the potential to emit VOCs in an amount of 100 tons per year or more from the lithography printing operations. Unless exempt,

or

A print shop that is located in the 13 county ozone nonattainment area and has the potential to emit VOCs in the amount of 25 tons per year or more from the lithography printing operations. Unless exempt.

The ozone nonattainment area is made up of the following 13 counties; Cherokee, Clayton, Cobb, Coweta, DeKalb, Douglas, Fayette, Forsyth, Fulton, Gwinnett, Henry, Paulding, and Rockdale.

Generally, potential to emit means emissions calculated on the basis of 24 hours a day / 365 days a year operation at the maximum press(es) rate.

Actual emissions represent the amount of VOC emitted during actual operation of your facility. Using your inventory records you can estimate the actual VOC emissions from the press(es).

#### **Attainment Area**

Lithographic printing facilities in the attainment area (not in one of the 13 counties) that have the potential to emit VOCs from the press(es) in excess of 100 tons per year would be subject to this standard. This standard has been in effect for a long time. There is no "grandfather" rule that applies. You can be exempt because you emit a small quantity of VOC as discussed later. Otherwise, you should have a permit issued by the Air Protection Branch. If you do not have an operating permit and are not exempt you should make application for one as soon as possible.

If you can show, using your records, that the actual emissions of VOCs from your lithographic press(es) are less than 100 tons per year, you are not subject to this standard. However, you are not exempt from applying for a permit unless the VOC emissions from the press(es) are less than 10 tons per year.

Attainment Area  
Summary

VOC Emissions	Permit Requirements
Potential emissions of VOCs greater than 100 tons per year	Has a permit issued by the EPD. No permit, then make application for a permit.
Actual emissions of VOCs less than 100 tons per year.	Has a permit issued by the EPD or has made or make application for a permit if emissions are 10 tons a year or greater.

Nonattainment Area

Lithographic printing facilities located in the nonattainment area (13 counties named above) that have the potential to emit VOCs from the press(es) in excess of 25 tons per year should have a permit issued by the Air Protection Branch. If you do not have a permit, you should make application for an operating permit.

If you can show, using your records, that the actual emissions of VOCs from your lithographic press(es) are less than 25 tons per year you are not subject to this emission standard. However, you are not exempt from applying for a permit unless the emissions from the press(es) are less than 2.5 tons per year.

Nonattainment Area  
Summary

VOC Emissions	Permit Requirements
Potential emissions of VOCs greater than 25 tons per year.	Has a permit issued by the EPD. No permit, then make application for a permit.
Actual emissions of VOCs less than 25 tons per year.	Has a permit issued by the EPD or has made or make application for a permit if actual emissions are greater than 2.5 tons per year?

Lithographic printing facilities that are located in the attainment area and their use of

VOC containing materials in the operation of the facility (inks, coatings, and other VOC containing materials such as clean up solvents) are no more than 20,000 pounds (2700 gallons) during any 12 consecutive months may apply for a "Permit by Rule." Small businesses should phone toll free at 1-888-373-5947 for help with this rule. Other businesses should phone (404) 363-7000.

### **EXEMPTION FROM PERMIT**

#### **Printers Located in the Nonattainment Area**

Printers located in the nonattainment area for ozone are exempt from making an application for an operating permit if VOC emissions are less than 2.5 tons a year and the emissions of a single hazardous air pollutant are less than 1 ton per year, 15 pounds per day, and emissions of total HAPS are less than 2.5 tons per year.

If you use less than 500 gallons a year of inks and you must include the gallons of other materials that contains VOCs, then your emissions of VOCs / HAPS should be less than 2.5 tons per year and no single HAP should exceed 1 ton per year.

#### **Printers Located in The Attainment Area**

Printers located in the attainment area are exempt from making an application for an operating permit if VOC emissions are less than 10 tons per year and the emissions of a single hazardous air pollutant are less than 1 ton per year, 15 pounds per day, and and emissions of total HAPS are less than 2.5 tons per year..

If you are located in the attainment area, you are exempt from permitting if you use less than 2000 gallons per year of ink, and you must include the gallons of other materials used at the print shop that contain VOC. The HAP content of the 2000 gallons must be less than 25% (wt.).

### **SMALL BUSINESSES**

We want to help small businesses understand why lithographic printing operations are regulated, help you estimate your VOC emissions both potential and actual, help you complete a permit application form, and at your request, visit your plant and talk about your operation and air emissions. Give us a call on our toll-free number at 1-888-373-5947; ask for small business.

May 20, 1998