



These limits are based on standard AP-42 emission factors, information provided in the application, 95% retention factor for printing inks in non-heatset printing presses, and VOM usage = VOM content \* product usage. Compliance with annual limits shall be determined from a running total of 12 months of data.

4. Emissions and operation of the roll coater with catalytic afterburner shall not exceed the following limits:

<u>Coating</u>	<u>VOM Usage</u>		<u>Overall</u>	<u>VOM Emissions</u>	
	<u>(Lb/Mo)</u>	<u>(Tons/Yr)</u>	<u>Destruction Efficiency (%)</u>	<u>(Lb/Mo)</u>	<u>(Tons/Yr)</u>
Coating	42,000	210	93	2,940	14.7
Wash Solvent	250	1	0	250	1

These limits are based on standard AP-42 emission factors, the information provided in the permit application, 93% destruction efficiency determined through compliance testing, and VOM usage = VOM content \* product usage. Compliance with annual limits shall be determined from a running total of 12 months of data.

5. This permit is issued based on negligible emissions of volatile organic material (VOM) and particulate matter (TSP) from 2 die cutters. For this purpose emissions from each emission source, shall not exceed nominal emission rates of 0.1 lb/hour and 0.44 ton/yr.
- 6a. The Permittee shall operate the afterburner at all times when the roll coater is in operation and emitting air contaminants.
- b. The afterburner combustion chamber shall be preheated to the manufacturers recommended temperature but no lower than 550°, before the roll coater is operation. This temperature shall be maintained during the operation of the roll coater.
- c. Pursuant to 35 Ill. Adm. Code 218.105 (d)(2), An owner or operator that uses a catalytic afterburner to comply with any Section of 35 Ill. Adm. Code Section 218 shall use Illinois EPA and USEPA approved continuous monitoring equipment which is installed, calibrated, maintained, and operated according to vendor specifications at all times the catalytic afterburner is in use. The continuous monitoring equipment shall monitor the temperature rise across each catalytic afterburner bed or VOM concentration of exhaust.
- d. Pursuant to 35 Ill. Adm. Code 218.207 (b)(1), the roll coater with catalytic afterburner shall provide 81 % reduction in overall emissions and 90 % destruction across the catalytic afterburner. The Permittee shall demonstrate compliance with this condition by maintaining 93% reduction in overall emissions from the roll coater with afterburner as indicated in condition #4.
7. Pursuant to 35 Ill. Adm. Code 218.211 (e)(3), the owner or operator of the roll coater with catalytic afterburner shall notify the Illinois EPA in the following instances:

- a. Any record showing violation of 35 Ill. Adm. Code 218.201 (b)(1) shall send a copy of such record to the Illinois EPA within 30 days following the occurrence of the violation.
  
- b. At least 30 calendar days before changing method of compliance with 35 Ill. Adm. Code Section 218 Subpart F from 35 Ill. Adm. Code 218.207 (b)(1) to 35 Ill. Adm. Code 218.204(c) or 218.205.

Upon changing the method of compliance the Permittee shall demonstrate compliance with all recordkeeping and reporting requirements of the new method.

8. Pursuant to 35 Ill. Adm. Code 218.405 (d)(2), the Permittee is exempt from 35 Ill. Adm. Code 218.407 through 411 since the combined emissions of VOM from the 2 lithographic printing lines at the source (including solvents used for cleanup operations associated with the lithographic printing line(s)) never exceed 45.5 kg/day (100 lbs/day), as determined in accordance with 35 Ill. Adm. Code 218.411(a)(1)(B), before the application of capture systems and control devices.
- 9a. Within 90 days of a written request from the Illinois EPA, pursuant to 35 Ill. Adm. Code Section 201.282, the emissions of the afterburner exhaust shall be measured by an approved testing service, during conditions which are representative of the maximum performance. The Illinois EPA may provide additional time for the performance of this testing upon request from the Permittee which shows that it is not feasible to perform representative testing within 90 days.
- b.
  - i. The following methods and procedures shall be used for testing of emissions. Refer to 40 CFR 60, Appendix A for USEPA test methods.

Location of Sample Points	USEPA Method 1
Gas Flow and Velocity	USEPA Method 2
Volatile Organic Material	USEPA Method 25 or 25a
  - ii. A test shall consist of three separate runs each at least 60 minutes in duration. Compliance shall be determined from the average of the runs provided that the Illinois EPA may accept the arithmetic means of the two runs in circumstances described in 40 CFR 60.8(f).
- c. The test procedures shall be designed to verify that the afterburner reduces VOM emissions by at least 93%. Prior to conducting such a test, the Illinois EPA shall be consulted to verify that the intended test method is approved and is appropriate for use in testing this equipment to show compliance with this limit.
- d. Testing shall be performed by a qualified independent testing service.
- e. At least 30 days prior to the actual date of testing a written test plan shall be submitted to the Illinois EPA for review and approval. A copy shall also be submitted to the USEPA. This plan shall describe the specific procedures for testing, including:
  - i. The person(s) who will be performing sampling and analysis and their experience with similar tests.

- ii. The conditions under which testing will be performed, including a discussion of why these conditions will be representative of the maximum operating rate, the levels of operating parameters at or within which compliance is intended to be shown, if applicable, and the means by which the operating parameters for the process and any control equipment will be determine.

- f. The Illinois EPA shall be notified prior to these tests to enable the Agency to observe these tests. Notification for the expected date of testing shall be submitted a minimum of thirty (30) days prior to the expected date. Notification of the actual date and expected time of testing shall be submitted a minimum of five (5) working days prior to the actual date of the tests. The Agency, may, at its discretion, accept notification with shorter advance notice provided that the Agency will not accept such notifications if it interferes with the Agency's ability to observe the testing.
10. For the catalytic afterburner the Permittee shall collect and record all of the following information each day:
    - a. Control device-monitoring data.
    - b. A log of operating time for the capture system, control device and monitoring equipment and the associated equipment.
    - c. A maintenance log for the capture system, control device and monitoring equipment detailing all routine and non-routine maintenance performed including dates and duration of any outages.
  11. The Permittee shall maintain monthly and annual records of the following:
    - a. Name, Usage (lb/mo and lb/yr), VOM and HAP content (%wt or lb/gal), VOM and HAP emissions (lb/mo and ton/yr) of the following:
      - i. Inks;
      - ii. Wash solvents;
      - iii. Coatings; and
      - iv. Cleanup Solvents
    - b. VOM and HAP emissions from the roll coater with catalytic afterburner (lb/mo and ton/yr).
    - c. Calculations which demonstrate that combined emissions of VOM from all lithographic printing lines (including inks, fountain solutions, and solvents used for cleanup operations associated with the lithographic printing lines) at the source never exceed 45.5 kg/day (100 lbs/day) before the use of capture systems and control devices, as follows:
      - i. To calculate daily emissions of VOM, the owner or operator shall determine the monthly emissions of VOM from all

lithographic printing lines at the source (including solvents used for cleanup operations associated with the lithographic printing lines) and divide this amount by the number of days during that calendar month that printing lines at the source were in operation;

- ii. To determine the VOM content of the inks, fountain solution additives and cleaning solvents, the tests methods and procedures set forth in Section 218.409(c) of this Subpart shall be used;
  - iii. To determine VOM emissions from inks used on lithographic printing line(s) at the source, an ink emission adjustment factor of 0.05 shall be used in calculating emissions from all non-heatset inks, and a factor of 0.80 shall be used in calculating emissions from all heatset inks to account for VOM retention in the substrate. The VOM content of the ink, as used, shall be multiplied by this factor to determine the amount of VOM emissions from the use of ink on the printing line(s); and
  - iv. To determine VOM emissions from fountain solutions and cleaning solvents used on lithographic printing line(s) at the source, no retention factor is used;
- d. Pursuant to 35 Ill. Adm. Code 218.411(a)(2)(A), the Permittee shall maintain the following records:
- i. The name and identification of each fountain solution additive, lithographic ink, and cleaning solvent used on any lithographic printing line, recorded each month;
  - ii. A daily record, which shows whether a lithographic printing line at the source was in operation on that day;
  - iii. The VOM content and the volume of each fountain solution additive, lithographic ink, and cleaning solvent used on any lithographic printing line, recorded each month;
  - iv. The total VOM emissions at the source each month, determined as the sum of the product of usage and VOM content for each fountain solution additive, cleaning solvent, and lithographic ink (with the applicable ink VOM emission adjustment) used at the source, calculated each month; and
  - v. The VOM emissions in lbs/day for the month, calculated in accordance with Condition 11(c) of this permit.
12. All records and logs required by this permit shall be retained at a readily accessible location at the source for at least three years from the date of entry and shall be made available for inspection and copying by the Illinois EPA or USEPA upon request. Any records retained in an electronic format (e.g., computer) shall be capable of being retrieved and printed on paper during normal source office hours so as to be able to respond to an Illinois EPA or USEPA request for records during the course of a source inspection.
13. If there is an exceedance of the requirements of this permit as

determined by the records required by this permit, the Permittee shall submit a report to the Illinois EPA's Compliance Section in Springfield, Illinois within 30 days after the exceedance. The report shall include the emissions released in accordance with the recordkeeping requirements, a copy of the relevant records, and a description of the exceedance or violation and efforts to reduce emissions and future occurrences.

14. Two (2) copies of required reports and notifications concerning equipment operation or repairs, performance testing or a continuous monitoring system shall be sent to:

Illinois Environmental Protection Agency  
Division of Air Pollution Control  
Compliance Section (#40)  
P.O. Box 19276  
Springfield, Illinois 62794-9276

and one (1) copy shall be sent to the Illinois EPA's regional office at the following address unless otherwise indicated:

Illinois Environmental Protection Agency  
Division of Air Pollution Control  
Eisenhower Tower  
1701 South First Avenue  
Maywood, Illinois 60153

15. The Permittee shall submit the following additional information with the Annual Emissions Report, due May 1st of each year:
- a. Coating Usage
  - b. Ink Usage
  - c. Solvent Usage

It should be noted that the paper shredder/baler with cyclone is exempt from state permit requirements, pursuant to 35 Ill. Adm. Code 201.146 (aa) and (jj), respectively.

Please note that this permit has been revised to remove the paper shredder/baler due to exemptions and subject to 2 printing presses to the printing regulations of Section 218.

If you have any questions on this, please call Eric Jones at 217/782-2113.

Donald E. Sutton, P.E.  
Manager, Permit Section  
Division of Air Pollution Control

DES:EEJ:psj

cc: Illinois EPA, FOS Region 1  
Illinois EPA, Compliance Section

Lotus Notes

Attachment A - Emission Summary

This attachment provides a summary of the maximum emissions from the printing and coating operation operating in compliance with the requirements of this federally enforceable permit. In preparing this summary, the Illinois EPA used the annual operating scenario which results in maximum emissions from such a plant. The facility is limiting usages of 40 tons/year of printing inks, 2 tons/year of solvent, and 210 tons/year of coating through a catalytic afterburner. The resulting maximum emissions are well below the levels, e.g., 25 tons per year of volatile organic material (VOM), 25 tons per year of combined hazardous air pollutants, and 10 tons per year of a single hazardous air pollutant at which this source would be considered a major source for purposes of the Clean Air Act Permit Program. Actual emissions from this source will be less than predicted in this summary to the extent that less material is handled, and control measures are more effective than required in this permit.

1. The emissions of Hazardous Air Pollutants (HAP) as listed in Section 112(b) of the Clean Air Act shall be less than 10 tons/year of any single HAP and 25 tons/year of any combination of such HAPs. As a result of this condition, this permit is issued based on the emissions of all HAPs from this source not triggering the requirements to obtain a Clean Air Act Permit Program Permit (CAAPP), and Section 112(G) of the Clean Air Act.
2. Emissions and operation of the 2 lithographic printing press (total) shall not exceed the following limits:

<u>Coating</u>	<u>VOM Usage</u>		<u>VOM Emissions</u>	
	<u>(Lb/Mo)</u>	<u>(Tons/Yr)</u>	<u>(Lb/Mo)</u>	<u>(Tons/Yr)</u>
Inks	2,800	14	140	0.7
Wash Solvent	250	1	250	1

These limits are based on standard AP-42 emission factors, information provided in the application, 95% retention factor for printing inks in non-heatset printing presses, and VOM usage = VOM content \* product usage. Compliance with annual limits shall be determined from a running total of 12 months of data.

3. Emissions and operation of the roll coater with catalytic afterburner shall not exceed the following limits:

<u>Coating</u>	<u>VOM Usage</u>		<u>Overall</u>	<u>VOM Emissions</u>	
	<u>(Lb/Mo)</u>	<u>(Tons/Yr)</u>	<u>Destruction</u>	<u>(Lb/Mo)</u>	<u>(Tons/Yr)</u>
			<u>Efficiency</u>		
			<u>(%)</u>		
Coating	42,000	210	93	2,940	14.7
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information provided in the permit application, 93% destruction efficiency determined through compliance testing, and VOM usage = VOM content \* product usage. Compliance with annual limits shall be determined from a running total of 12 months of data.

4. This permit is issued based on negligible emissions of volatile organic material (VOM) and particulate matter (TSP) from 2 die cutters. For this purpose emissions from each emission source, shall not exceed nominal emission rates of 0.1 lb/hour and 0.44 ton/yr.
5. Pursuant to 35 Ill. Adm. Code 218.405 (d)(2), the Permittee is exempt from 35 Ill. Adm. Code 218.407 through 411 since the combined emissions of VOM from the 2 lithographic printing lines at the source (including solvents used for cleanup operations associated with the lithographic printing line(s)) never exceed 45.5 kg/day (100 lbs/day), as determined in accordance with 35 Ill. Adm. Code 218.411(a)(1)(B), before the application of capture systems and control devices.

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I. INTRODUCTION

Lithographic Industries, Inc. for a Printing and Coating Operations has submitted an Application for the renewal of their Federally Enforceable State Operating Permit (FESOP). This Application has been submitted in order to continue to operate under federally enforceable limits. These limits would prevent the facility from being a major source of Volatile Organic Material (VOM), and thereby relieving them of having to obtain a Clean Air Act Permit Program (CAAPP). Included with these federally enforceable limits would be specific recordkeeping and reporting requirements to assure that the facility is operated as a non-major source. These conditions would be enforced by both the USEPA and Illinois EPA.

II. SOURCE DESCRIPTION

Lithographic Industries, Inc. is located in Broadview, Illinois. This facility prints various pieces of publications. Various inks and coatings are applied to this equipment, as determined by individual customer needs.

III. EMISSIONS

Emissions of VOM and Hazardous Air Pollutants (HAPs) from the printing and coating operations will occur when the VOM and HAP contained in the various inks, coatings, and clean-up solvents volatilize.

IV. APPLICABLE EMISSION STANDARDS

All emission sources in Illinois must comply with the emission standards set by the Illinois Pollution Control Board. The Pollution Control Board's emission standards represent the basic requirements for sources in Illinois. The Pollution Control Board has emission standards for VOM and HAPs. The Lithographic Industries, Inc. readily complies with all emission standards set forth by the Pollution Control Board.

V. PROPOSED PERMIT

The conditions in this FESOP are designed to ensure that this facility is continually operated as a non-major source. This permit has conditions that limit the usage of inks, coatings, and clean-up solvents. This permit also contains conditions of specific recordkeeping and reporting requirements. Lithographic Industries, Inc. must carry out these procedures on an ongoing basis to demonstrate compliance with the limits set forth in this FESOP.

VI. REQUEST FOR COMMENTS

It is the Illinois EPA preliminary determination that the facility meets all applicable state and federal air pollution control regulations. The Illinois EPA is therefore proposing the issuance of this FESOP with all of the specific requirements contained in the permit. Comments are

requested on this proposed action by the Illinois EPA and the proposed conditions on this draft FESOP. If substantial interest is shown in this matter, the Illinois EPA will consider holding a public hearing in accordance with 35 Ill. Ad. Code Part 166.

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