

- iii. The afterburners shall be installed and operated so that VOM emissions (excluding methane and ethane) from the press dryer exhaust(s) are reduced by 90 percent by weight;
 - iv. The afterburner shall be equipped with the applicable monitoring equipment specified in 35 Ill. Adm. Code 218.105(d)(2) and the monitoring equipment shall be installed, calibrated, operated, and maintained according to manufacturer's specifications at all times when the afterburner is in use;
 - v. The afterburner shall be operated at all times when the printing lines are in operation;
 - vi. Upon completion of start-up and achievement of normal operation, the afterburner combustion chamber shall be preheated to the manufacturer's recommended temperature but no less than the temperature at which compliance was demonstrated in the most recent compliance test before the printing process is begun; this temperature shall be maintained during the printing process;
 - vii. The VOM composite partial pressure of the as-used cleaning solution shall not exceed 10 mmHg at 20°C (68°F); and
 - viii. The VOM-containing cleaning materials, including used cleaning towels, associated with any lithographic printing line shall be kept, stored or disposed of in closed containers.
2. The Permittee shall comply with the testing requirements in 35 Ill. Adm. Code 218.409 to determine compliance with the emission limitations and control requirements of 35 Ill. Adm. Code 218.407.
3. Within 60 days of startup of Press P-5, the VOM emissions to and from the afterburner shall be measured during representative operational conditions.
- a. The following methods and procedures shall be used for testing of emissions, unless another method is approved by the Illinois EPA: Refer to 40 CFR 60, Appendix A and 40 CFR 61, Appendix B for USEPA test methods.

Location of Sample Points	USEPA Method 1
Gas Flow and Velocity	USEPA Method 2
Flue Gas Weight	USEPA Method 3
Moisture	USEPA Method 4
Volatile Organic Material	USEPA Method 25, 25A if outlet VOM cont. <50 ppmv as C Non CH ₄
 - b. The Illinois EPA shall be notified prior to these tests to enable the Illinois EPA to observe these tests. Written notification for the expected date of testing shall be submitted a minimum of thirty (30) days prior to the expected date. Written 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 test. The Illinois EPA may at its discretion accept notifications with shorter advance notice provided that the Illinois EPA will not accept such notifications if it interferes with the Illinois EPA's ability to observe testing.

- c. Copies of the Final Report(s) for these tests shall be submitted to the Illinois EPA within 14 days after the test results are compiled and finalized.
- d. Fourteen (14) days after completion of sampling, the Final Report shall include as a minimum:
 - i. A summary of results
 - ii. General information
 - iii. Description of test method(s), including description of sampling points, sampling train, analysis equipment, and test schedule
 - iv. Detailed description of test conditions, including
 - A. Process information, i.e., mode(s) of operation, process rate, e.g. fuel or raw material consumption
 - B. Control equipment information, i.e., equipment condition and operating parameters during testing, and
 - C. A discussion of any preparatory actions taken, i.e., inspections, maintenance and repair
 - v. Data and calculations, including copies of all raw data sheets and records of laboratory analyses, sample calculations, and data on equipment calibration
 - vi. An explanation of any discrepancies among individual tests or anomalous data
- 4. The Permittee shall comply with the monitoring requirements outlined in 35 Ill. Adm. Code 218.410 to determine on going compliance with the emission limitations and control requirements of 35 Ill. Adm. Code 218.407.
 - a. The Permittee shall determine the VOM content of the as-applied fountain solution based on the setting of the automatic feed equipment that makes additions of VOM up to a pre-set level. The equipment used to make automatic additions must be installed, calibrated, operated and maintained in accordance with manufacturer's specifications;

- b. The Permittee must keep records for cleaning solutions used on any line(s) as set forth in 35 Ill. Adm. Code 218.411(d) (2) (C);
 - c. The Permittee shall install, calibrate, maintain, and operate temperature monitoring device(s) with an accuracy of 3°C or 5°F on the thermal oxidizer in accordance with 35 Ill. Adm. Code 218.105(d) (2) and in accordance with the manufacturer's specifications. Monitoring shall be performed at all times when the thermal oxidizer is operating;
 - d. The Permittee shall install, calibrate, maintain, and operate, in accordance with the manufacturer's specifications, a continuous recorder on the temperature monitoring device(s), such as a strip chart, recorder or computer, with at least the same accuracy as the temperature monitor; and
 - e. The Permittee shall, in accordance with the manufacturer's recommendations, perform periodic maintenance on the pollution control equipment covered under this permit such that the pollution control equipment is kept in proper working condition and not cause a violation of the Environmental Protection Act or regulations promulgated therein.
5. The Permittee shall perform the recordkeeping and reporting requirements outlined in 35 Ill. Adm. Code 218.411 to show compliance with the emission limitations and control requirements of 35 Ill. Adm. Code 218.407 and the testing requirements of 35 Ill. Adm. Code 218.409.
- a. The Permittee shall collect and record the following information for each fountain solution used on each lithographic printing line:
 - i. The name and identification of each batch of fountain solution prepared for use on one or more lithographic printing lines, the lithographic printing line(s) or centralized reservoir using such batch of fountain solution, and the applicable VOM content limitation for the batch; and
 - ii. If changing its method of demonstrating compliance with the applicable VOM content limitations in 35 Ill. Adm. Code 218.407, or changing the method of demonstrating compliance with the VOM content limitations for fountain solutions pursuant to 35 Ill. Adm. Code 218.409, certify compliance for such new method(s) in accordance with 35 Ill. Adm. Code 218.411(c) (1) within 30 days after making such change, and perform all tests and calculations necessary to demonstrate that such printing line(s) will be in compliance with the applicable requirements of 35 Ill. Adm. Code 218.407.

- b. The Permittee shall collect and record the following information for each batch of cleaning solution used on each lithographic printing line:
 - i. The name and identification of each cleaning solution;
 - ii. Date and time of preparation, and each subsequent modification, of the batch;
 - iii. The molecular weight, density, and VOM composite partial vapor pressure of each cleaning solvent, as determined in accordance with 35 Ill. Adm. Code 218.409(e);
 - iv. The total amount of each cleaning solvent used to prepare the as-used cleaning solution;
 - v. The VOM composite partial vapor pressure of each as-used cleaning solution, as determined in accordance with 35 Ill. Adm. Code 218.409(e);
 - vi. The date, time and duration of scheduled inspections performed to confirm the proper use of closed containers to control VOM emissions, and any instances of improper use of closed containers, with descriptions of actual practice and corrective action taken, if any; and
 - vii. If changing its method of demonstrating compliance with the requirements of 35 Ill. Adm. Code 218.407(a)(4), or changing between automatic and manual methods of preparing cleaning solutions, certify compliance for such new method in accordance with 35 Ill. Adm. Code 218.411(d)(1), within 30 days after making such change, and perform all tests and calculations necessary to demonstrate that such printing line(s) will be in compliance with the applicable requirements of 35 Ill. Adm. Code 218.407(a)(4).

- c. The Permittee shall collect and record the following information for each heatset lithographic printing line:
 - i. Afterburner monitoring data in accordance with 35 Ill. Adm. Code 218.410(c) or (d);
 - ii. A daily log of operating time for the afterburner, monitoring equipment, and the associated printing line(s);
 - iii. A daily maintenance log for the afterburner and monitoring equipment detailing all routine and non-routine maintenance performed, including dates and duration of any outages; and
 - iv. A daily log detailing checks on the air flow direction or air pressure of the dryer and press room at least once per 24-hour period while in operation.

- d. The Permittee shall collect and record the following information for each lithographic printing line:
 - i. Monthly records of the name and identification of each ink, fountain solution, and cleaning solution used on any printing line;
 - ii. Total usage of each ink, fountain solution, and cleaning solution, as applied (ton/mo and ton/yr);
 - iii. VOM and HAP content of each ink, fountain solution, and cleaning solution (weight percent or lbs/gal); and
 - iv. VOM and HAP emissions (tons/month and tons/year).
- e. 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 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 respond to an Illinois EPA request for records during the course of a source inspection.

6a. Emissions and operation of the new press (P-5) and the existing presses (P1-4) shall not exceed the following limits:

<u>Material</u>	<u>VOM Usage</u>		<u>VOM Emissions</u>	
	<u>(Tons/Mo)</u>	<u>(Tons/Yr)</u>	<u>(Tons/Mo)</u>	<u>(Tons/Yr)</u>
Heatset Ink	22.50	225.0	0.90	9.0
Coldset Ink	0.25	2.5	0.01	0.1
Heatset F.S.	0.65	6.5	0.22	2.2
Coldset F.S.	0.10	1.0	0.10	1.0
Manual B.W.	2.20	22.0	1.10	11.0
Automatic B.W.	0.10	1.0	0.06	0.6
Water-Based White Glue	0.20	2.0	0.07	0.7

These limits are based on the maximum VOM usage, and standard emission factors (20% retention of heatset ink, 95% retention of coldset ink, 70% capture for heatset F.S., no retention for coldset F.S., 50% retention for manual B.W., 40% capture for automatic B.W., and 70% capture for W.B. white glue), and 95% VOM destruction for the afterburner (regenerative thermal oxidizer).

- b. Compliance with the annual limits shall be determined from a running total of 12 months of data.
7. 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.

- 8a. Emissions and operation of all fuel combustion equipment shall not exceed the following limits:

Fuel Usage		Pollutant	Emission	Emissions	
(mmscf/Mo)	(mmscf/Yr)		Factor (Lb/mmscf)	(Tons/Mo)	(Tons/Yr)
7.2	72.0	NO _x	100	0.36	3.60
		CO	84	0.30	3.02
		PM	7.6	0.03	0.27
		VOM	5.5	0.02	0.20
		SO ₂	0.6	0.002	0.02

These limits are based on maximum fuel usage and standard emission factors. Compliance with the annual limits shall be determined from a running total of 12 months of data.

- b. Natural gas shall be the only fuel(s) fired in the fuel combustion equipment. Use of any other fuel will require a revised permit.
9. 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 exceedances or violation and efforts to reduce emissions and future occurrences.
10. Two (2) copies of required reports and notifications concerning equipment operation on 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
 9511 West Harrison Street
 Des Plaines, Illinois 60016

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Please note that Press (P-5) is incorporated into Operating Permit 97120044, to allow operation during stack testing and application of a FESOP.

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

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

DES:JPB:psj

cc: Region 1