217/782-2113

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT

PERMITTEE

Lehigh Direct
Attn: David Graf, VP/Finance
1900 South 25th Avenue
Broadview, Illinois 60153-4597

Application No.: 06030006 I.D. No.: 031817AAD
Applicant's Designation: Date Received: March 3, 2006
Subject: Heatset Web Offset Lithographic Printing Presses
Date Issued: Expiration Date:
Location: 1900 South 25th Avenue, Broadview

This permit is hereby granted to the above-designated Permittee to OPERATE emission unit(s) and/or air pollution control equipment consisting of 8 heatset web offset lithographic printing presses with dryers controlled by 2 thermal oxidizers, small boilers, HVAC systems, space heaters, water heaters and wastewater evaporator pursuant to the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

1a. This federally enforceable state operating permit is issued:

i. To limit the emissions of air pollutants from the source to less than major source thresholds (i.e., 100 tons/year for volatile organic material (VOM), 10 tons/year for a single hazardous air pollutant (HAP) and 25 tons/year for total HAPs). As a result the source is excluded from the requirement to obtain a Clean Air Act Permit Program (CAAPP) permit. The maximum emissions of this source, as limited by the conditions of this permit, are described in Attachment A.

ii. To establish federally enforceable Emission Reduction Market System (ERMS) provisions, including baseline emissions, allotment for each seasonal allotment period, identification of any units deemed to be insignificant activities for the purposes of the ERMS, emissions calculation methodologies, and provisions addressing all other applicable requirements of 35 Ill. Adm. Code Part 205, which are described in Attachment B.

b. Prior to issuance, a draft of this permit has undergone a public notice and comment period.

c. This permit supersedes all operating permits issued for this location.

2. No owner or operator of lithographic printing line(s) shall:

   a. Cause or allow the operation of any heatset web offset lithographic printing line unless [35 Ill. Adm. Code 218.407(a)(1)]:

      i. The total VOM content in the as-applied fountain solution meets the following:

         5 percent or less, by volume, and the as-applied fountain solution contains no alcohol.

      ii. The air pressure in the dryer is maintained lower than the air pressure of the press room, such that the air flow through all openings in the dryer, other than the exhaust, is into the dryer at all times when the printing line is operating.

      iii. An afterburner is installed and operated so that VOM emissions (excluding methane and ethane) from the press dryer exhaust(s) are reduced by 90 percent, by weight, or to a maximum afterburner exhaust outlet concentration of 20 ppmv (as carbon).

      iv. Each afterburner shall be in operation at all times when the associated emission unit(s) are in operation and emitting air contaminants.

      v. Each afterburner shall be equipped with a continuous monitoring device and strip chart recorder or computer storage which is installed, calibrated, maintained, and operated according to vendor's specifications at all times that the afterburner is in use. This device shall monitor the afterburner combustion chamber temperature.

      vi. Each afterburner combustion chamber shall be preheated to at least the manufacturer's recommended temperature but no less than 1400°F, before the printing process is begun; this temperature shall be maintained during the printing process.

   b. Cause or allow the use of a cleaning solution on any lithographic printing line unless [35 Ill. Adm. Code 218.407(a)(4)]:

      i. The VOM content of the as-used cleaning solution is less than or equal to 30 percent, by weight; or

      ii. The VOM composite partial vapor pressure of the as-used cleaning solution is less than 10 mmHg at 20°C (68°F).

   c. Cause or allow VOM containing cleaning materials, including used cleaning towels, associated with any lithographic printing line to be kept, stored or disposed of in any manner other than in closed containers.

3. The Permittee shall follow good operating practices for the afterburners, including periodic inspections, routine maintenance and prompt repair of defects.

4a. Emissions of volatile organic material (VOM) from the printing presses shall not exceed the following limits:

Emission Unit	VOM Emissions (Tons/Month)	VOM Emissions (Tons/Year)
Printing Press #34	0.40	3.84
Printing Press #39	1.10	10.18
Printing Presses #40 and #41	1.20	11.51
Printing Press #45	0.80	7.18
Printing Press #46	0.80	7.68
Printing Press #47	0.90	8.93
Printing Press #48	0.90	8.93
		58.25

b. The VOM emissions shall be calculated using the following:

i. The VOM emissions from the application of inks on the presses shall be calculated based on ink usage, VOM content of inks used, 20% ink VOM retained on web, 80% ink evaporated in dryer and the overall control efficiencies of the afterburners controlling the presses.

ii. The VOM emissions from the use of fountain solution on the presses shall be calculated based on the maximum fountain solution used, VOM content of the fountain solution and an engineering estimate of 70% of the VOM from the fountain solution being captured and controlled by the afterburners.

iii. The VOM emissions from the use of diluents, autowash, adhesives and scratch off on presses (#s 32, 33, 34, 37, 39, 40, 41 and 45) shall be based on the maximum material usage rate, VOM content of the materials used and an engineering estimate of 40% of the VOM from the materials being captured and controlled by the afterburners at 95% destruction efficiency.

iv. The VOM emissions from the use of blanket wash and other VOM containing material on all presses shall be calculated based on the usage rate and the VOM content of the material used.

5. Pursuant to 35 Ill. Adm. Code 218.409(a), when in the opinion of the Illinois EPA it is necessary to conduct testing to demonstrate compliance with 35 Ill. Adm. Code 218.407(a)(1)(C), the owner or operator of a VOM emission unit subject to the requirements of 35 Ill. Adm. code 218 Subpart TT shall, at his own expense, conduct such tests in accordance with the applicable test methods and procedures specified in 35 Ill. Adm. Code 218.105.

6. Operation and emissions of the natural gas fired combustion equipment shall not exceed the following limits:

Natural Gas Usage: 60 mmscf/month, 350 mmscf/year

Pollutant	Emission Factor (lb/mmscf)	Emissions (Tons/Month)	Emissions (Tons/Year)
Nitrogen Oxides (NO_x)	100	3.00	17.50
Carbon Monoxide (CO)	84	2.52	14.70
Volatile Organic Material (VOM)	5.5	0.17	0.96
Particulate Matter	7.6	0.23	1.33
Sulfur Dioxide (SO_2)	0.6	0.02	0.11

These limits are based on the maximum equipment operations and standard emission factors (Tables 1.4-1 and 1.4-2 of AP-42, Volume I, Fifth Edition, Supplement D, July 1998).

7. The emissions of Hazardous Air Pollutants (HAPs) as listed in Section 112(b) of the Clean Air Act shall not equal or exceed 10 tons per year of any single HAP or 25 tons per year of any combination of such HAPs, or such lesser quantity as USEPA may establish in rule which would require the Permittee to obtain a CAAPP permit from the Illinois EPA. As a result of this condition, this permit is issued based on the emissions of any HAP from this source not triggering the requirement to obtain a CAAPP permit from the Illinois EPA.

8. This permit is issued based on negligible emissions of VOM from the wastewater evaporator. For this purpose, VOM emissions from this unit shall not exceed nominal emission rates of 0.1 lb/hour and 0.44 tons/year.

9. Recordkeeping Requirements

   a. Pursuant to 35 Ill. Adm. Code 218.411(b)(3), an owner or operator of a heatset web offset lithographic printing line(s) subject to the control requirements of 35 Ill. Adm. Code 218.407(a)(1)(C) shall collect and record daily the following information for each heatset web offset lithographic printing line subject to 35 Ill. Adm. Code 218.407(a)(1)(C):

      i. Afterburner monitoring data in accordance with Condition 2(a)(v);

      ii. A log of operating time for the afterburner, monitoring equipment, and the associated printing press;

      iii. A 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 log detailing checks on the air flow direction or air pressure of the dryer and press room to insure compliance

with the requirements of 35 Ill. Adm. Code 218.407(a)(1)(B) at least once per 24-hour period while the line is operating.

b. Pursuant to 35 Ill. Adm. Code 218.411(c)(2), the owner or operator shall collect and record the following information for each fountain solution:

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;

ii. Date and time of preparation and each subsequent modification of the batch;

iii. Volume and VOM content of each component used in, or subsequently added to, the fountain solution batch;

iv. Calculated VOM content of the as-applied fountain solution; and

v. Any other information necessary to demonstrate compliance with the applicable VOM content limits.

c. Pursuant to 35 Ill. Adm. Code 218.411(d)(2), for lithographic printing line cleaning operations, an owner or operator of a lithographic printing line shall collect and record the following information for each cleaning solution:

i. Pursuant to 35 Ill. Adm. Code 218.411(d)(2)(A), for each cleaning solution for which the owner or operator relies on the VOM content to demonstrate compliance with 35 Ill. Adm. code 218.407(a)(4)(A) and which is prepared at the source with automatic equipment:

A. The name and identification of each cleaning solution;

B. The VOM content of each cleaning solvent in the cleaning solution;

C. Each change to the setting of the automatic equipment, with date, time, description of changes in the cleaning solution constituents (e.g., cleaning solvents), and a description of changes to the proportion of cleaning solvent and water (or other non-VOM);

D. The proportion of each cleaning solvent and water (or other non-VOM) used to prepare the as-used cleaning solution;

E. The VOM content of the as-used cleaning solution, with supporting calculations; and

F. A calibration log for the automatic equipment, detailing periodic checks.

ii. Pursuant to 35 Ill. Adm. Code 218.411(d)(2)(B), for each batch of cleaning solution for which the owner or operator relies on the VOM content to demonstrate compliance with 35 Ill. Adm. Code 218.407(a)(54)(A), and which is not prepared at the source with automatic equipment:

A. The name and identification of each cleaning solution;

B. Date and time of preparation, and each subsequent modification, of the batch;

C. The VOM content of each cleaning solvent in the cleaning solution;

D. The total amount of each cleaning solvent and water (or other non-VOM) used to prepare the as-used cleaning solution; and

E. The VOM content of the as-used cleaning solution, with supporting calculations.

iii. Pursuant to 35 Ill. Adm. Code 218.411(d)(2)(C), for each batch of cleaning solution for which the owner or operator relies on the vapor pressure of the cleaning solution to demonstrate compliance with 35 Ill. Adm. Code 218.407(a)(4)(B):

A. The name and identification of each cleaning solution;

B. Date and time of preparation, and each subsequent modification, of the batch;

C. The molecular weight, density, and VOM composite partial vapor pressure of each cleaning solvent;

D. The total amount of each cleaning solvent used to prepare the as-used cleaning solution; and

E. The VOM composite partial vapor pressure of each as-used cleaning solution.

iv. 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 [35 Ill. Adm. Code 218.411(d)(2)(D)].

d. In addition to the records required by 35 Ill. Adm. Code 218.211, the Permittee shall maintain the following records:

i. Monthly and annual usage of the inks, coatings, fountain solutions and solvents (tons/month and tons/year);

ii. VOM and HAP contents of the materials used; and

iii. VOM and HAP emissions with supporting calculations.

10a. This permit is issued based on this source not being a participating source in the Emissions Reduction Market System (ERMS), 35 Ill. Adm. Code Part 205, pursuant to 35 Ill. Adm. Code 205.200. This is based on the source's actual VOM emissions during the seasonal allotment period from May 1 through September 30 of each year being less than 10 tons and the source's baseline emissions also being less than 10 tons.

b. The Permittee shall maintain the following records to allow the confirmation of actual VOM emissions during the seasonal allotment period:

i. Records of operating data and other information for each individual emission unit or group of related emission units at the source, as appropriate, to determine actual VOM emissions during the seasonal allotment period;

ii. Records of the VOM emissions, in tons, during the seasonal allotment period, with supporting calculations, for each individual emission unit or group of related emission units at the source, determined in accordance with the procedures that may be specified in this permit; and

iii. Total VOM emissions from the source, in tons, during each seasonal allotment period, which shall be compiled by November 30 of each year.

c. In the event that the source's VOM emissions during the seasonal allotment period equal or exceed 10 tons, the source shall become a participating source in the ERMS and beginning with the following seasonal allotment period, shall comply with 35 Ill. Adm. Code Part 205, by holding allotment trading units (ATUs) for its VOM emissions during each seasonal allotment period, unless the source obtains exemption from the ERMS by operating with seasonal VOM emissions of no more than 15 tons pursuant to a limitation applied for and established in a Clean Air Act Permit Program (CAAPP) permit or a Federally Enforceable State Operating Permit (FESOP).

11. All records and logs required by this permit shall be retained at a readily accessible location at the source for at least five 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.

12. 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.

13. 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
9511 West Harrison
Des Plaines, Illinois 60016

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

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

DES:DWH: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 printing plant 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 resulting maximum emissions are below the levels, e.g., 100 tons per year of VOM, 10 tons per year for a single HAP, and 25 tons per year for totaled HAPs, 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.

	E M I S S I O N S (Tons/Year)						
						HAPs	
Emission Units	VOM	NO_x	CO	PM	SO_2	Single	Total
Lithographic Printing Presses	58.25						
Combustion Equipment	0.96	17.5	14.7	1.33	0.11		
Evaporator	0.44						
Plant-Wide Total	59.65	17.5	14.7	2.84	0.11	< 10	< 25

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