

217/782-2113

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT

PERMITTEE

D. B. Hess Company
Attn: Jeff Menolascino
1530 McConnell Road
Woodstock, Illinois 60098

Application No.: 04080004
Applicant's Designation: SHFDPRESS
Subject: Lithographic Printing Presses
Date Issued: March 20, 2006
Location: 1530 McConnell Road, Woodstock

I.D. No.: 111095ABK
Date Received: August 2, 2004
Expiration Date: March 20, 2011

This permit is hereby granted to the above-designated Permittee to OPERATE emission unit(s) and/or air pollution control equipment consisting of three heatset web offset lithographic printing presses (#1, 2 and 3) controlled by the catalytic oxidizer (MCO-12), one heatset web offset lithographic printing press (#4) controlled by the catalytic oxidizer (MCO-9) and two sheet-fed non-heatset offset lithographic printing presses 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)). As a result, the source is excluded from the requirement to obtain a Clean Air Act Permit Program (CAAPP) permit.
 - ii. To limit the potential emissions of VOM from the source to less than 25 tons/year. As a result, the source is excluded from the requirement of 35 Ill. Adm. Code Part 205, Emission Reduction Market System. The maximum emissions of this source, as limited by the conditions of this permit, are described in Attachment A.
 - b. Prior to issuance, a draft of this permit has undergone a public notice and comment period.
 - c. This permit supersedes all operating permit(s) for this location.
2. The lithographic printing presses are subject to the emission limitations and control requirements of 35 Ill. Adm. Code 218.407 and shall comply with the following requirements:
- a. For heatset press:
 - i. Fountain Solution

- A. The total VOM content in the as-applied fountain solution is 1.6 percent or less, by volume; or
 - B. 5 percent or less, by volume, and the as-applied fountain solution contains no alcohol.
- ii. Afterburner
- A. The air pressure in the dryer is maintained lower than the air pressure of the press room, such that 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;
 - B. An afterburner is installed and operated so that VOM emissions from the press dryer exhaust(s) are reduced by 90 percent, by weight;
 - C. The afterburner is equipped with Illinois EPA and USEPA approved continuous monitor that measures the temperature rise across each catalytic afterburner bed. It shall be installed, calibrated, maintained, and operated in accordance with the manufacturer's specifications and shall have an accuracy of 3°C or 5°F. Monitoring shall be performed at all times when the afterburner is operating;
 - D. Monitoring device is equipped with a continuous recorder of the temperature, such as a strip chart recorder or computer, with at least the same accuracy as the temperature monitor. It shall be installed, calibrated, operated and maintained, in accordance with manufacturer's specifications;
 - E. The afterburner is operated at all times when the associated printing lines is in operation.
- b. Non-heatset sheet-fed presses:
- i. The VOM content in the as-applied fountain solution is 5 percent or less, by volume.
- c. Any lithographic printing presses:
- 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).
- d. The VOM containing cleaning materials, including used cleaning towels, associated with any lithographic printing line are kept,

stored or disposed of in any manner other than in closed containers.

3. The VOM emissions from printing operations shall not exceed 2.0 tons/month and 17.2 tons/year. The VOM emissions shall be calculated using the following equations:

- a. From the heatset printing press:

$$E = \sum[I_i \times V_{Ii} \times 0.8 \times (1-CE)] + \sum[FS_j \times V_{FSj} \times (1-0.7 \times CE)] + \sum[CS_k \times V_{CSk} \times (1-0.4 \times CE)] + \sum[CS_1 \times V_{CS1} \times 0.5] + \sum(S_n \times V_{Sn});$$

- b. From the non-heatset printing presses:

$$E = \sum(I_m \times V_{Im} \times 0.05) + \sum[CS_1 \times V_{CS1} \times 0.5] + \sum(S_n \times V_{Sn}), \text{ where}$$

E - VOM emissions (ton);

I_i - Heatset ink usage (ton);

V_{Ii} - VOM content of heatset ink (wt. fraction);

FS_j - Heatset fountain solution containing no alcohol usage (ton);

V_{FSj} - VOM content of heatset fountain solution containing no alcohol (wt. fraction);

CS_k - Heatset automatic cleaning solution with vapor pressure less than 10 mm of Hg usage (ton);

V_{CSk} - VOM content of heatset automatic cleaning solution with vapor pressure less than 10 mm of Hg (wt. fraction);

CS_1 - Manual cleaning solution with vapor pressure less than 10 mm of Hg usage (ton);

V_{CS1} - VOM content of manual cleaning solution with vapor pressure less than 10 mm of Hg (wt. fraction);

CE - Afterburners control efficiency demonstrated during the most recent stack test.

I_m - Non-heatset ink usage (ton);

V_{Im} - VOM content of non-heatset ink (wt. fraction);

S_n - Other VOM-containing materials used;

V_{Sn} - VOM content of other VOM-containing materials (wt. fraction).

This limits are based on the maximum production rate and credits for VOM emissions capture by afterburner and retentions allowed by ACT for Offset Lithographic Printing EPA 453/R-94-064. Compliance with annual limits shall be determined from a running total of 12 months of data.

4. 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) permit.
5. The Permittee shall maintain daily records of the following items pursuant to 35 Ill. Adm. Code 218.411:
 - a. A log of operating time for the afterburner, monitoring equipment, and the associated printing line;
 - b. A maintenance log for the afterburner and monitoring equipment detailing all routine and non-routine maintenance performed, including dates and duration of any outages;
 - c. 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 Section 218.407(a) (1) (B) at least once per 24-hour period while the line is operating;
 - d. 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;
 - e. Date and time of preparation and each subsequent modification of the batch of fountain solution;
 - f. Volume and VOM content of each component used in, or subsequently added to, the fountain solution batch;
 - g. Calculated VOM content of the as-applied fountain solution;
 - h. The name and identification of each cleaning solution;
 - i. Date and time of preparation, and each subsequent modification, of the batch of cleaning solution;
 - j. The VOM content of each cleaning solvent in the cleaning solution;
 - l. The total amount of each cleaning solvent and water (or other non-VOM) used to prepare the as-used cleaning solution; and

- m. The VOM content of the as-used cleaning solution, with supporting calculations.
6. The Permittee shall maintain monthly records of the following items:
 - a. Names and amounts of lithographic inks, fountain solutions, coatings and clean-up solvents used (tons/month, tons/year), separately for heatset and non-heatset presses;
 - b. VOM content of materials in item (a) (weight %); and
 - c. VOM emission with supporting calculations (tons/month, tons/year).
7. 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 and 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 the Illinois EPA or USEPA request for records during the course of a source inspection.
8. 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.
9. 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 Illinois EPA
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 Illinois EPA
Division of Air Pollution Control
9511 West Harrison
Des Plaines, Illinois 60016

Page 6

If you have any questions on this permit, please call Valeriy Brodsky at 217/782-2113.

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

DES:VJB:psj

cc: IEPA, FOS Region 1
Lotus Notes

Attachment A - Emissions 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 Agency used the annual operating scenario which results in maximum emissions from such a plant. The resulting maximum emissions are below the levels (100 tons per year of VOM) 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 used and control measures are more effective than required in this permit.

<u>Emission Units</u>	E M I S S I O N S (Tons/Year)		
	<u>VOM</u>	<u>Single HAP</u>	<u>Total HAPs</u>
Lithographic Presses	17.2	< 10	< 25

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