

217/782-2113

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT - RENEWAL

PERMITTEE

Solar Communications  
Attn: Anthony D. Antonellis  
1120 Frontenac Road  
Naperville, Illinois 60563

<u>Application No.:</u> 91120052	<u>I.D. No.:</u> 043065ACQ
<u>Applicant's Designation:</u> LITHOPRINT	<u>Date Received:</u> January 17, 2001
<u>Subject:</u> Litho Printing Plant	
<u>Date Issued:</u> June 1, 2001	<u>Expiration Date:</u> June 1, 2006
<u>Location:</u> 1120 Frontenac Road, Naperville	

This permit is hereby granted to the above-designated Permittee to OPERATE emission source(s) and/or air pollution control equipment consisting of four heatset web offset lithographic printing presses controlled by a catalytic afterburner, two web coldset lithographic printing presses, four non-contact printers and a waste paper collection system controlled by filter as described in 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 to limit the emissions of air pollutants from the source to less than major source thresholds (i.e., 25 tons/year for volatile organic material (VOM), 10 tons/year for a single hazardous air pollutant (HAP) and 25 tons/year for totaled 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.
- 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. The total VOM content in the as-applied fountain solution is 5 percent or less, by volume, and the as-applied fountain solution contains no alcohol;
  - b. The VOM composite partial vapor pressure of the as-used cleaning solution is less than 10 mmHg at 20°C (68°F);
  - c. For the heatset presses:

- i. 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;
  - ii. An afterburner is installed and operated so that VOM emissions from the press dryer exhaust(s) are reduced by 90 percent, by weight;
  - iii. 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;
  - iv. 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;
  - v. The afterburner is operated at all times when at least one printing line is in operation.
- 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 paper coating operations performed on the printing presses are subject to and shall comply with the volatile organic materials (VOM) emission limitations of 35 Ill. Adm. Code Part 218 Subpart F: Coating Operations. Compliance with the requirements of this subpart is achieved through the use of a capture system and control device that provides 81 percent reduction in the overall emissions of volatile organic materials (VOM) from the coating lines and a control device that provides a 90 percent efficiency pursuant to 35 Ill. Adm. Code 218.207(b)(1).
4. Operation and emissions of four heatset web offset lithographic printing presses shall not exceed the following limits:

<u>Material</u>	<u>Material Usage</u>		<u>VOM Content</u>	<u>VOM Emissions</u>	
	<u>(Ton/Mo)</u>	<u>(Ton/Yr)</u>	<u>(Weight %)</u>	<u>(Lb/Mo)</u>	<u>(T/Yr)</u>
Ink	25.0	250	40	800	4.0
Varnish	2.5	25	45	113	0.6
Fountain Solution					
Additive	3.0	30	15	302	1.5
Isopropyl Alcohol	0.02	0.2	100	200	0.2
Blanket Wash	2.0	19	100	2,000	9.5
				Total	15.8

These limits define the potential emissions of the four heatset printing presses and are based on the maximum raw materials usage, the highest VOM content of the raw materials, 95% destruction efficiency of the afterburner, 70% capture efficiency for the fountain solution and 50% retention for the blanket wash. Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months.

5. Operation and emissions of two coldset offset lithographic printing presses shall not exceed the following limits:

<u>Material</u>	<u>Material Usage</u>		<u>VOM Content</u> (Weight %)	<u>VOM Emissions</u>	
	(Ton/Mo)	(Ton/Yr)		(Lb/Mo)	(Ton/Yr)
Ink	3.5	35.0	45	158	0.8
Fountain Solution Additive	0.2	2.0	12.2	49	0.2
Blanket Wash	0.5	5.0	100	500	2.5
				Total 3.5	

These limits define the potential emissions of two printing presses and are based on the maximum raw materials usage, the highest VOM content of raw materials, 95% retention of the ink and 50% retention of the blanket wash. Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months. Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months.

6. VOM usage and VOM emissions from four non-contact printers and miscellaneous clean-up operations shall not exceed 0.4 ton/mo and 4.0 ton/year. Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months.

7. Operation and emissions of the natural gas firing equipment (combined) shall not exceed the following limits:

Natural Gas Usage: 11 mmscf/mo, 132 mmscf/yr

<u>Pollutant</u>	<u>Emission Factor</u> (lb/mmscf)	<u>Emissions</u>	
		(Ton/Mo)	(Ton/Yr)
Nitrogen Oxides (NO <sub>x</sub> )	100	0.6	6.6
Carbon Monoxide (CO)	84	0.5	5.5
Particulate Matter (PM)	7.6	0.05	0.5
Volatile Organic Materials (VOM)	5.5	0.03	0.4

These limits define the potential emissions of the fuel combustion equipment and are based on actual emissions determined from the maximum firing rate, the combustion of natural gas and standard emission factors. Compliance with annual limits shall be determined on a

monthly basis from the sum of the data for the current month plus the preceding 11 months.

8. 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 a rule which would require the Permittee to obtain a CAAPP permit from the Agency. 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 Agency.
9. This permit is issued based on negligible emissions of particulate matter from waste paper collection system. For this purpose, emission shall not exceed a nominal emission rate of 0.1 lb/hour and 0.44 ton/year.
10. The Permittee shall maintain records of the following items:
  - a. Monthly and annual usage of the inks, coatings, fountain solution and clean-up solvents (Ton/Mo, Ton/Yr) used on the heatset printing presses;
  - b. Monthly and annual usage of the inks, coatings, fountain solution and clean-up solvents (Ton/Mo, Ton/Yr) used on the coldset printing presses;
  - c. Monthly and annual usage of the materials used on the non-contact printers and the usage of miscellaneous VOM-containing products (Ton/Mo, Ton/Yr);
  - d. VOM and HAP contents of the materials used (Wt.%);
  - e. Control device monitoring data:
    - i. A log of operating time for the control device, monitoring equipment and the associated printing lines.
    - ii. A maintenance log for the control device and monitoring equipment detailing all routine and non-routine maintenance performed including dates and duration of any outages.
11. 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 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 an Illinois EPA 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 and Enforcement

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.

13. The Permittee shall submit the following additional information with the Annual Emissions Report, due May 1st of each year: annual ink usage, fountain solution usage, cleaning solution usage and other VOM containing material usages for the prior year.
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 Illinois EPA  
Division of Air Pollution Control  
Compliance and Enforcement Section (#40)  
P.O. Box 19276  
Springfield, IL 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

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  
IEPA, Compliance and Enforcement Section  
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. This is using a maximum amount of materials as listed below. The resulting maximum emissions are well below the levels (25 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.

1. Emissions from the four heatset web offset lithographic printing presses:

<u>Material</u>	<u>Material Usage</u>		<u>VOM Content</u> (Weight %)	<u>VOM Emissions</u>	
	(Ton/Mo)	(Ton/Yr)		(Lb/Mo)	(T/Yr)
Ink	25.0	250	40	800	4.0
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				Total	15.8

These limits are based on the 95% destruction efficiency of the afterburner, 70% capture efficiency for the fountain solution and 50% retention for the blanket wash.

2. Emissions from two coldset printing presses:

<u>Material</u>	<u>Material Usage</u>		<u>VOM Content</u> (Weight %)	<u>VOM Emissions</u>	
	(Ton/Mo)	(Ton/Yr)		(Lb/Mo)	(Ton/Yr)
Ink	3.5	35.0	45	158	0.8
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Blanket Wash	0.5	5.0	100	500	2.5
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These are based on the y 95% ink retention and 50% retention of the blanket wash.

3. VOM usage and VOM emissions from four non-contact printers and miscellaneous clean-up operations shall not exceed 0.4 ton/mo and 4.0 ton/year. Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months.

4. Operation and emissions of the natural gas combustion equipment (combined):

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5. 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 a rule which would require the Permittee to obtain a CAAPP permit from the Agency. 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 Agency.
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DES:VJB:psj