217/785-1705

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT – REVISED

PERMITTEE

Kingery Printing Company
Attn: Thomas A. Kingery
3012 South Banker
Effingham, Illinois 62401

Application No.: 04070057 I.D. No.: 049025ABU
Applicant's Designation: Date Received: July 13, 2012
Subject: Offset Lithographic Printing Facility
Date Issued: August 31, 2012 Expiration Date: July 13, 2015
Location: 3012 South Banker, Effingham, Effingham County

This permit is hereby granted to the above-designated Permittee to OPERATE emission unit(s) and/or air pollution control equipment consisting of four (4) heatset web offset lithographic printing presses (Press 1, Press 2, Press 3, and Press 8) with natural gas-fired dryers (12.27 mmBtu/hour, total) and four (4) sheetfed coldset offset lithographic printing presses and paper scrap collection and baling system controlled by baghouse 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 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 any single hazardous air pollutant (HAP) and 25 tons/year for any combination of such HAPs). As a result, the source is excluded from the requirements 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 initial 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.

2a. Pursuant to 35 Ill. Adm. Code 212.123(a), no person shall cause or allow the emission of smoke or other particulate matter, with an opacity greater than 30 percent, into the atmosphere from any emission unit other than those emission units subject to 35 Ill. Adm. Code 212.122.

b. Pursuant to 35 Ill. Adm. Code 212.123(b), the emission of smoke or other particulate matter from any such emission unit may have an opacity greater than 30 percent but not greater than 60 percent for a period or periods aggregating 8 minutes in any 60 minute period provided that such opaque emissions permitted during any 60 minute

period shall occur from only one such emission unit located within a 305 m (1000 ft) radius from the center point of any other such emission unit owned or operated by such person, and provided further that such opaque emissions permitted from each such emission unit shall be limited to 3 times in any 24 hour period.

c. Pursuant to 35 Ill. Adm. Code 212.301, no person shall cause or allow the emission of fugitive particulate matter from any process, including any material handling or storage activity, that is visible by an observer looking generally toward the zenith at a point beyond the property line of the source.

d. Pursuant to 35 Ill. Adm. Code 212.321(a), except as further provided in 35 Ill. Adm. Code Part 212, no person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any new process emission unit which, either alone or in combination with the emission of particulate matter from all other similar process emission units for which construction or modification commenced on or after April 14, 1972, at a source or premises, exceeds the allowable emission rates specified in 35 Ill. Adm. Code 212.321(c).

3. Pursuant to 35 Ill. Adm. Code 214.301, except as further provided by 35 Ill. Adm. Code Part 214, no person shall cause or allow the emission of sulfur dioxide into the atmosphere from any process emission source to exceed 2000 ppm.

4. Pursuant to 35 Ill. Adm. Code 215.301, no person shall cause or allow the discharge of more than 3.6 kg/hr (8 lbs/hr) of organic material into the atmosphere from any emission source, except as provided in 35 Ill. Adm. Code 215.302, 215.303, 215.304, and the following exception: If no odor nuisance exists the limitation of 35 Ill. Adm. Code 215 Subpart K (Use of Organic Material) shall apply only to photochemically reactive material.

5a. This permit is issued based on the source not being subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) for the Printing and Publishing Industry, 40 CFR 63 Subpart KK because flexographic and rotogravure printing presses are not used at this source.

b. This permit is issued based the source not being subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Paper and Other Web Coating, 40 CFR 63 Subpart JJJJ. Pursuant to 40 CFR 63.3300(c), web coating lines in lithography, screenprinting, letterpress, and narrow-web flexographic printing processes are not part of the affected source of 40 CFR 63 Subpart JJJJ.

6a. This permit is issued based on coating operations performed on the lithographic printing press are not subject to limitations of 35 Ill. Adm. Code 215.204(c) (Paper Coating). Pursuant to note to 35 Ill. Adm. Code 215.204(c), the limitations of 35 Ill. Adm. Code 215.204(c) shall not apply to equipment used for both printing and paper coating.

b. This permit is issued based on the heatset lithographic printing presses not being subject to 35 Ill. Adm. Code 215.408 (Heatset Web Offset Lithographic Printing) because the emissions of organic material from this source are limited below 100 tons/year.

7a. In the event that the operation of this source results in an odor nuisance, the Permittee shall take appropriate and necessary actions to minimize odors, including but not limited to, changes in raw material or installation of controls, in order to eliminate the nuisance.

b. The press dryers shall only be operated with natural gas. The use of any other fuel in any press dryer requires that the Permittee first obtain a construction permit from the Illinois EPA and then perform stack testing to verify compliance with all applicable requirements.

c. Used cleaning towels shall be stored in closed containers.

8a. The VOM emissions from printing operations shall not exceed 10.0 tons/month and 80.0 tons/year. These limits are based on the maximum production rate, 20% ink's VOM retention for heatset printing presses and 95% for coldset printing presses. A credit of fifty percent VOM retention is given for the use of VOM-containing clean-up solvent with vapor pressure less than 10 mmHg at 20°C used on cleaning towels and stored in closed containers and sent off-site.

b. The emissions of Hazardous Air Pollutants (HAP) as listed in Section 112(b) of the Clean Air Act from this source shall not exceed 0.9 tons/month and 9.0 tons/year of any single HAP and 2.25 tons/month and 22.5 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 (CAAPP) Permit.

c. The VOM and HAP emissions shall be calculated using the following equations:

$$E = \sum [I_{HS} \times V_{HS} \times 0.8] + \sum [I_{CS} \times V_{CS} \times 0.05] + \sum [FS \times V_{FS}] + \sum [CU \times V_{CU} \times 0.5] - W \times C_w$$

Where:

E = VOM or HAP emissions (ton);

I_{HS} = Heatset ink usage (ton);

V_{HS} = VOM or HAP content of heatset ink (% by wt.);

I_{CS} = Coldset ink usage (ton);

V_{CS} = VOM or HAP content of coldset ink (wt. fraction);

FS = Fountain solution and coating usage (ton);
V_{FS} = VOM or HAP content of fountain solution and coating (% by wt.);

CU = Clean-up solutions usage (ton);

V_{CU} = VOM or HAP content of clean-up solutions (% by wt.);

W = Certified amount of waste shipped off (ton); and

C_w = Certified VOM or HAP content of the waste (% by wt.)

d. Emissions and operation of the heatset press dryers shall not exceed the following limits:

i. Natural Gas Usage: 11.2 mmscf/month and 112 mmscf/year.

ii. Emissions from the combustion of natural gas:

Pollutant	Emission Factor (lbs/mmscf)	Emissions (Tons/Mo)	(Tons/Yr)
Carbon Monoxide (CO)	84.0	0.47	4.70
Nitrogen Oxides (NO_x)	100.0	0.56	5.60
Particulate Matter (PM)	7.6	0.04	0.43
Sulfur Dioxide (SO_2)	0.6	0.01	0.03
Volatile Organic Material (VOM)	5.5	0.03	0.31

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

e. This permit is issued based on negligible emission of particulate matter from the paper scrap collection and baling system. For this purpose emissions shall not exceed nominal emission rates of 0.1 lb/hour and 0.44 ton/year.

f. Compliance with the annual limits of this permit shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total).

9a. Pursuant to 35 Ill. Adm. Code 201.282, every emission source or air pollution control equipment shall be subject to the following testing requirements for the purpose of determining the nature and quantities of specified air contaminant emissions and for the purpose of determining ground level and ambient air concentrations of such air contaminants:

i. Testing by Owner or Operator. The Illinois EPA may require the owner or operator of the emission source or air pollution control equipment to conduct such tests in accordance with procedures adopted by the Illinois EPA, at such reasonable times as may be specified by the Illinois EPA and at the expense of the owner or operator of the emission source or air pollution control

equipment. The Illinois EPA may adopt procedures detailing methods of testing and formats for reporting results of testing. Such procedures and revisions thereto, shall not become effective until filed with the Secretary of State, as required by the APA Act. All such tests shall be made by or under the direction of a person qualified by training and/or experience in the field of air pollution testing. The Illinois EPA shall have the right to observe all aspects of such tests.

ii. Testing by the Illinois EPA. The Illinois EPA shall have the right to conduct such tests at any time at its own expense. Upon request of the Illinois EPA, the owner or operator of the emission source or air pollution control equipment shall provide, without charge to the Illinois EPA, necessary holes in stacks or ducts and other safe and proper testing facilities, including scaffolding, but excluding instruments and sensing devices, as may be necessary.

b. Testing required by Conditions 10 and 11 shall be performed upon a written request from the Illinois EPA by a qualified independent testing service.

10. Pursuant to 35 Ill. Adm. Code 212.110(c), upon a written notification by the Illinois EPA, the owner or operator of a particulate matter emission unit subject to 35 Ill. Adm. Code Part 212 shall conduct the applicable testing for particulate matter emissions, opacity, or visible emissions at such person's own expense, to demonstrate compliance. Such test results shall be submitted to the Illinois EPA within thirty (30) days after conducting the test unless an alternative time for submittal is agreed to by the Illinois EPA.

11a. Pursuant to 35 Ill. Adm. Code 215.409,the volatile organic material content of fountain solution and all coatings shall be determined by Method 24, 40 CFR 60, Appendix A. The volatile organic material content of printing inks shall be determined by Method 24A, 40 CFR Part 60, Appendix A. Any alternate test method must be approved by the Illinois EPA, which shall consider data comparing the performance of the proposed alternative to the performance of the approved test method(s). If the Illinois EPA determines that such data demonstrates that the proposed alternative will achieve results equivalent to the approved test method(s), the Illinois EPA shall approve the proposed alternative.

b. Pursuant to 35 Ill. Adm. Code 215.410(b), upon a reasonable request by the Illinois EPA, the owner or operator of a volatile organic material emission source required to comply with the limits of 35 Ill. Adm. Code 215 Subpart P shall conduct emissions testing, at his own expense, to demonstrate compliance.

12. Testing to determine the VOM composite partial vapor pressure of cleaning solvents, cleaning solvent concentrates, and as-used cleaning

solutions shall be conducted in accordance with the applicable methods and procedures specified below:

a. If the organic material or solvent consists of only a single compound, the vapor pressure shall be determined by ASTM Method D2879-86 or the vapor pressure may be obtained from a publication such as: Boublik, T., V. Fried and E. Hala, "The Vapor Pressure of Pure Substances," Elsevier Scientific Publishing Co., New York (1973); Perry's Chemical Engineer's Handbook, McGraw-Hill Book Company (1984); CRC Handbook of Chemistry and Physics, Chemical Rubber Publishing Company (1986-87); and Lange's Handbook of Chemistry, John A. Dean, editor, McGraw-Hill Book Company (1985).

b. If the organic material or solvent is in a mixture made up of both organic material compounds and compounds which are not organic material, the vapor pressure shall be determined by the following equation:

$$P_{om} = \frac{\sum_{i=1}^{n} P_i \, X_i}{\sum_{i=1}^{n} X_i}$$

where:

P_{om} = Total vapor pressure of the portion of the mixture which is composed of organic material;

n = Number of organic material components in the mixture;

i = Subscript denoting an individual component;

P_i = Vapor pressure of an organic material component determined in accordance with Condition 11(b)(i) of this permit;

X_i = Mole fraction of the organic material component of the total organic mixture.

c. If the organic material or solvent is in a mixture made up of only organic material compounds, the vapor pressure shall be determined by ASTM Method D2879-86 or by the above equation.

13. Pursuant to 40 CFR 63.10(b)(3), if an owner or operator determines that his or her stationary source that emits (or has the potential to emit, without considering controls) one or more hazardous air pollutants regulated by any standard established pursuant to Section 112(d) or (f) of the Clean Air Act, and that stationary source is in the source category regulated by the relevant standard, but that source is not subject to the relevant standard (or other requirement established under 40 CFR Part 63) because of limitations on the source's potential to emit or an exclusion, the owner or operator must keep a record of the applicability determination on site at the source for a period of 5

years after the determination, or until the source changes its operations to become an affected source, whichever comes first. The record of the applicability determination must be signed by the person making the determination and include an analysis (or other information) that demonstrates why the owner or operator believes the source is unaffected (e.g., because the source is an area source). The analysis (or other information) must be sufficiently detailed to allow the USEPA and/or Illinois EPA to make a finding about the source's applicability status with regard to the relevant standard or other requirement. If relevant, the analysis must be performed in accordance with requirements established in relevant subparts of 40 CFR Part 63 for this purpose for particular categories of stationary sources. If relevant, the analysis should be performed in accordance with USEPA guidance materials published to assist sources in making applicability determinations under Section 112 of the Clean Air Act, if any. The requirements to determine applicability of a standard under 40 CFR 63.1(b)(3) and to record the results of that determination under 40 CFR 63.10(b)(3) shall not by themselves create an obligation for the owner or operator to obtain a Title V permit.

14. Pursuant to 35 Ill. Adm. Code 212.110(e), the owner or operator of an emission unit subject to 35 Ill. Adm. Code Part 212 shall retain records of all tests which are performed. These records shall be retained for at least three (3) years after the date a test is performed.

15a. The Permittee shall maintain records of the following items so as to demonstrate compliance with the conditions of this permit:

i. Names and amounts of each material, which contains either VOM or HAP, used on printing presses (ton/mo and ton/yr);

ii. VOM and HAP content of each materials containing VOM or HAP (% by weight);

iii. Information for each cleaning solution for which Permittee relies on the vapor pressure to take 50% retention emission credit:

A. The name and identification of each cleaning solution;

B. The molecular weight, density, and VOM composite partial vapor pressure of each cleaning solvent, as determined in accordance with Condition 12(b) or (c) of this permit;

iv. Certified amount of waste solvent shipped off-site (tons);

v. Certified VOM content of the waste material (% by weight); and

vi. Natural gas consumption (mmscf/mo and mmscf/yr); and

vii. Monthly and annual emissions of CO, NO_x, PM, SO_2,VOM, and HAPs from the source with supporting calculations (ton/mo, ton/yr).

HAP emissions may be calculated as a fraction of total VOM emission proportional to VOM/HAP ratio in the raw materials.

b. 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 storage device) 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.

16. Pursuant to 35 Ill. Adm. Code 212.110(d), a person planning to conduct testing for particulate matter emissions to demonstrate compliance shall give written notice to the Illinois EPA of that intent. Such notification shall be given at least thirty (30) days prior to the initiation of the test unless a shorter period is agreed to by the Illinois EPA. Such notification shall state the specific test methods from 35 Ill. Adm. Code 212.110 that will be used.

17. Pursuant to 35 Ill. Adm. Code 215.410(c), a person planning to conduct a volatile organic material emissions test to demonstrate compliance with 35 Ill. Adm. Code 215 Subpart P shall notify the Illinois EPA of that intent not less than 30 days before the planned initiation of the tests so the Illinois EPA may observe the test.

18a. If there is an exceedance of or a deviation from 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 or deviation. 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 deviation and efforts to reduce emissions and future occurrences.

b. Two (2) copies of required reports and notifications 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
2009 Mall Street
Collinsville, Illinois 62234

It should be noted that this permit has been revised to include operation of heatset printing press described in construction permit 12070026 and no longer include operation of two heatset printing presses.

If you have any questions on this permit, please call Valeriy Brodsky at 217/785-1705.

Edwin C. Bakowski, P.E.
Manager, Permit Section
Division of Air Pollution Control

Date Signed: _____

ECB:VJB:

cc: Illinois EPA, FOS Region 1
Lotus Notes

Attachment A - Emissions Summary

This attachment provides a summary of the maximum emission from the Printing Facility 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/year for VOM, 10 tons/year for any single HAP, and 25 tons/year for any combination of such HAP) 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 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)						
Emission Unit	CO	NO_x	PM	SO_2	VOM	Single HAP	Total HAPs
Printing Presses					80.00		
Paper Handling System			0.44				
Dryers	4.70	5.60	0.43	0.03	0.31	--	--
Totals:	4.70	5.60	0.87	0.03	80.31	9.0	22.5