217/782-2113

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT

PERMITTEE

Specialty Printing Company
Attn: Mr. Adam M. LeFebvre, President
6019 West Howard Street
Niles, Illinois 60714

Application No.: 04080026
Applicant's Designation:
Subject: Sheetfed Lithographic Press
Date Issued: March 20, 2008
Location: 6019 West Howard Street, Niles, Cook County

I.D. No.: 031201AEC
Date Received: August 10, 2004
Expiration Date: March 20, 2013

This permit is hereby granted to the above-designated Permittee to OPERATE emission unit(s) and/or air pollution control equipment consisting of one 5C Goss Sunday 2000 heatset web offset lithographic printing press with natural gas-fired dryer/oxidizer, 6C M110C Harris heatset web offset lithographic printing press with natural gas-fired catalytic oxidizer, heatset web offset lithographic printing press #1 with integral afterburner, printing dryers, 6C Heidelberg XL105 sheetfed non-heatset offset lithographic printing press with aqueous coater and IR dryer, and non-heatset offset lithographic printing presses, 4 and 5 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 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.

ii. To limit emissions of VOM from the source during the seasonal allotment period from May 1 through September 30 of each year shall not exceed 15 tons. This limitation is established at the request of the source to exempt it from the requirements of 35 Ill. Adm. Code Part 205, Emissions Reduction Market System (ERMS), pursuant to 35 Ill. Adm. Code 205.205, except reporting requirements of 35 Ill. Adm. Code 205.300.

iii. To limit the emissions of VOM from the construction of new emission units and other modifications at the source, which occurred without first obtaining construction permit(s) between November 15, 1992 and June 15, 2005 (the period during which the Chicago area was classified as severe nonattainment for ozone), to less than 25 tons/year. As a result, the source is excluded from the requirements of 35 Ill. Adm. Code Part 203, Major Stationary Sources Construction and Modification.

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.

2a. 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 the requirements of 35 Ill. Adm. Code 212.122, pursuant to 35 Ill. Adm. Code 212.123(a), except as allowed by 35 Ill. Adm. Code 212.123(b) and 212.124.

b. No person shall cause or allow any visible emissions of fugitive particulate matter form any process, including any material handling or storage activity beyond the property line of the emission source unless the wind speed is greater than 40.2 kilometers per hour (25 miles per hour), pursuant to 35 Ill. Adm. Code 212.301 and 212.314.

c. Pursuant to 35 Ill. Adm. Code 212.309(a), the emission units described in 35 Ill. Adm. Code 212.304 through 212.308 shall be operated under the provisions of an operating program, consistent with the requirements set for in 35 Ill. Adm. Code 212.310 and 212.312, and prepared by the owner or operator and submitted to the Illinois EPA for its review. Such operating program shall be designed to significantly reduce fugitive particulate matter emissions.

All normal traffic pattern access areas surrounding storage piles specified in 35 Ill. Adm. Code 212.304 and all normal traffic pattern roads and parking facilities which are located on mining or manufacturing property shall be paved or treated with water, oils or chemical dust suppressants. All paved areas shall be cleaned on a regular basis. All areas treated with water, oils or chemical dust suppressants shall have the treatment applied on a regular basis, as needed, in accordance with the operating program required by 35 Ill. Adm. Code 212.309, 212.310 and 212.312.

d. Pursuant to 35 Ill. Adm. Code 212.310, as a minimum the operating program shall include the following:

i. The name and address of the source;

ii. The name and address of the owner or opera6tor responsible for execution of the operating program;

iii. A map or diagram of the source showing approximate locations of storage piles, conveyor loading operations, normal traffic pattern access areas surrounding storage piles and all normal traffic patterns within the source;

iv. Location of unloading and transporting operations with pollution control equipment;

v. A detailed description of the best management practices utilized to achieve compliance with 35 Ill. Adm. Code 212 Subpart K, including an engineering specification of particulate collection equipment, application systems for water, oil, chemicals and dust suppressants utilized any equivalent methods utilized;

vi. Estimated frequency of application of dust suppressants by location of materials; and

vii. Such other information as may be necessary to facilitate the Illinois EPA's review of the operating program.

e. Pursuant to 35 Ill. Adm. Code 212.321(a), 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 subsection (c) of 35 Ill. Adm. Code 212.321.

3. Pursuant to 35 Ill. Adm. Code 214.301, no person shall cause or allow the emission of sulfur dioxide into the atmosphere from any process emission source to excess 2000 ppm.

4a. Pursuant to 35 Ill. Adm. Code 218.204(c), except as provided in 35 Ill. Adm. Code 218.205, 218.207, 218.208, 218.212, 218.215 and 218.216, no owner or operator of a coating line shall apply at any time any coating in which the VOM content exceeds the following emission limitations for the specified coating. The following emission limitations are expressed in units of VOM per volume of coating (minus water and any compounds which are specifically exempted from the definition of VOM) as applied at each coating applicator, except where noted. Compounds which are specifically exempted from the definition of VOM should be treated as water for the purpose of calculating the "less water" part of the coating composition. Compliance with 35 Ill. Adm. Code 218 Subpart F must be demonstrated through the applicable coating analysis test methods and procedures specified in 35 Ill. Adm. Code 218.105(a) and the recordkeeping and reporting requirements specified in 35 Ill. Adm. Code 218.211(c) except where noted. (Note: The equation presented in 35 Ill. Adm. Code 218.206 shall be used to calculate

emission limitations for determining compliance by add on controls, credits for transfer efficiency, emissions trades and cross line averaging.) The emission limitations are as follows:

	kg/l	lb/gal
Paper Coating	0.28*	(2.3)*

b. Pursuant to 35 Ill. Adm. Code 218.301, no person shall cause or allow the discharge of more than 3.6 kg/hour (8 lbs/hour) of organic material into the atmosphere from any emission unit, except as provided in 35 Ill. Adm. Code 218.302, 218.303, or 218.304 and the following exception: If no odor nuisance exists the limitation of 35 Ill. Adm. Code 218 Subpart G shall only apply to photochemically reactive material.

c. Pursuant to 35 Ill. Adm. Code 218.407(a)(1), no owner or operator of lithographic printing line(s) subject to the requirements of 35 Ill. Adm. Code Part 218 Subpart H shall cause or allow the operation of any heatset web offset lithographic printing line unless:

i. The total VOM content in the as-applied fountain solution shall not exceed:

A. 1.6 percent, by volume.

B. 3 percent or less, by volume, and the temperature of the fountain solution is maintained below 15.6°C (60°F), measured at the reservoir or the fountain tray; or

C. 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. The afterburner is equipped with the applicable monitoring equipment specified in 35 Ill. Adm. Code 218.105(d)(2) and the monitoring equipment is installed, calibrated, operated, and maintained according to manufacturer’s specifications at all times when the afterburner is in use; and

v. The afterburner is operated at all times when the printing line is in operation, except the afterburner may be shut down between November 1 and April 1 as provided in 35 Ill. Adm. Code 218.107.

d. Pursuant to 35 Ill. Adm. Code 218.407(a)(2), no owner or operator of lithographic printing line(s) subject to the requirements of 35 Ill. Adm. Code 218 Subpart H shall cause or allow the operation of any non-heatset web offset lithographic printing line unless the VOM content of the as-applied fountain solution is 5 percent or less, by volume and the as-applied fountain solution contains no alcohol.

e. Pursuant to 35 Ill. Adm. Code 218.407(a)(3), no owner or operator of lithographic printing line(s) subject to the requirements of 35 Ill. Adm. Code 218 Subpart H shall cause or allow the operation of any sheet-fed offset lithographic printing line unless:

   i. The VOM content of the as-applied fountain solution is 5 percent or less, by volume; or

   ii. The VOM content of the as-applied fountain solution is 8.5 percent or less, by volume, and the temperature of the fountain solution is maintained below 15.6^{o} C (60° F), measured at the reservoir or the fountain tray;

f. Pursuant to 35 Ill. Adm. Code 218.407(a)(4), no owner or operator of lithographic printing lines subject to the requirements of 35 Ill. Adm. Code Part 218 Subpart H shall cause or allow the use of a cleaning solution on any lithographic printing line unless:

   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).

g. Pursuant to 35 Ill. Adm. Code 218.407(a)(5), no owner or operator of lithographic printing lines subject to the requirements of 35 Ill. Adm. Code Part 218 Subpart H shall 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.

5a. Each thermal oxidizer combustion chamber or afterburner shall be preheated to at least the manufacturer’s recommended temperature but no less than the temperature at which compliance was demonstrated in the most recent compliance test, or 1400°F in the absence of a compliance test, before the printing process is begun, and this temperature shall be maintained during operation of the presses.

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

c. The affected printing lines shall only be operated with natural gas as the fuel in each press dryer and the afterburners.

6a. Emissions of VOM from the source during the seasonal allotment period from May 1 through September 30 of each year shall not exceed 15 tons. This limitation is established at the request of the source to exempt it form the requirements of 35 Ill. Adm. Code Part 205, Emissions Reduction Market System (ERMS), pursuant to 35 Ill. Adm. Code 205.205.

b. In the event that the source's VOM emissions during the seasonal allotment period exceed 15 tons, the source shall no longer be exempt from the ERMS and immediately, shall comply with 35 Ill. Adm. Code Part 205, by holding allotment trading units (ATUs) for its VOM emissions during each seasonal allotment period.

7a. Emissions and operation of emission units constructed at this source, between November 15, 1992 and June 15, 2005 (the period during which the Chicago area was classified as severe nonattainment for ozone) shall not exceed the following limits:

	VOM EMISSIONS	
Emission Unit	Ton/Mo	Ton/Yr
Heidelberg 6C Heatset Web Press, Press #1	0.71	7.11
Didde 5C Nonheatset Web Press, Press #4	0.12	1.18
H-B 6C Sheetfed Press, Press #5	0.60	6.00
	Total	14.29

i. These limits are based on the maximum production rate, 100% capture efficiency of the afterburner for VOM emissions from inks, 70% from fountain solutions, 20% ink's VOM retention for heatset printing presses and 95% for non-heatset printing presses.

ii. The VOM emissions shall be calculated using the equations in Condition 7(f).

iii. The above limitations are being established in this permit pursuant to Title I of the Clean Air Act, specifically 35 Ill. Adm. Code Part 203, Major Stationary Sources Construction and Modification. The source has requested that the Illinois EPA establish emission limitations and other appropriate terms and conditions in this permit that limit the VOM emissions from the above-listed presses below the levels that would trigger the applicability of these rules, consistent with the information provided in the FESOP application

b. Emission and operation of the 5C Goss Sunday 2000 and 6CM110C Harris both heatset web offset lithographic printing presses shall not exceed the following limits:

i. VOM emissions form the two presses combined shall not exceed 3.5 tons/month and 31.6 tons/year. These limits are based on the maximum production rate, maximum operating time (8,760

hours/year), 100% capture efficiency of the afterburner for VOM emissions from inks and 70% from fountain solutions, plus 20% ink VOM retention in the printing stock.

ii. The VOM emissions shall be calculated using the equations in Condition 7(f).

c. Emissions and operation of the 6C Heidelberg XL105 sheetfed non-heatset offset lithographic printing press shall not exceed the following limits:

i. VOM emissions shall not exceed 0.80 tons/month and 7.93 tons/year. These limits are based on the maximum production rate and 95% ink VOM retention for non-heatset printing presses.

ii. The VOM emissions shall be calculated using the equations in Condition 7(f).

iii. The above limitations were established in Permit 06060068, pursuant to 35 Ill. Adm. Code Part 203. These limits ensure that the construction and/or modification addressed in the aforementioned permit does not constitute a new major source or major modification pursuant to Title I of the Clean Air Act, specifically 35 Ill. Adm. Code Part 203.

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

i. The consumption of natural gas shall not exceed:

Natural Gas Usage (mmscf/Month)	(mmscf*/Year)
9	87

* 1 mmscf = 10,200 therms

ii. Emissions from the combustion of natural gas shall not exceed:

Pollutant	Emission Factor (Lbs/mmscf)	Emissions (Tons/Mo)	Emissions (Tons/Yr)
Nitrogen Oxide (NO_x)	100	0.5	4.4
Carbon Monoxide (CO)	84	0.4	3.7
Particulate Matter (PM)	7.6	0.1	0.4
Volatile Organic Material (VOM)	5.5	0.1	0.3
Sulfur Dioxide (SO2)	0.06	0.01	0.03

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

e. The emissions of Hazardous Air Pollutants (HAPs) as listed in Section 112(b) of the Clean Air Act 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 any HAP from this source not triggering the requirement to obtain a CAAPP permit from the Illinois EPA.

f. The VOM emissions from the printing presses shall be calculated using the following equations:

i. From the heatset printing presses:

$$E = \sum [I_i \times V_{Ii} \times 0.8 \times (1\text{-}DE)] + \sum [FS_j \times V_{FSj} \times (1\text{-}0.7 \times DE)] + \sum [CS_k \times V_{CSk}] + \sum S_n + V_{sn};$$

ii. From the non-heatset printing presses:

$$E = \sum (I_m \times V_{Im} \times 0.05) + \sum (S_n \times V_{Sn})$$

Where:

E - VOM emissions (tons);

I_i - Heatset ink usage (tons);

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

FS_j - Heatset fountain solution usage (tons);

V_{FSj} - VOM content of heatset fountain solution (weight fraction);

CS_k - Heatset cleaning solution usage (tons);

V_{CSk} - VOM content of heatset cleaning solution (weight fraction);

DE - Destruction efficiency of afterburner determined by the most recent stack test.

I_m - Non-heatset ink usage (tons);

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

S_n - Other VOM-containing materials (tons);

V_{sn} - VOM content of other materials.

g. 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).

8. Emissions and operation of the dryers and afterburners shall not exceed the following limits:

Natural Gas Usage (mmscf/Month)	Natural Gas Usage (mmscf*/Year)
9	87

* 1 mmscf = 10,200 therms

Pollutant	Emission Factor (Lbs/mmscf)	Emissions (Tons/Mo)	Emissions (Tons/Yr)
Nitrogen Oxide (NO_x)	100	0.5	4.4
Carbon Monoxide (CO)	84	0.4	3.7
Particulate Matter (PM)	7.6	0.1	0.4
Volatile Organic Material (VOM)	5.5	0.1	0.3
Sulfur Dioxide (SO_2)	0.06	0.01	0.03

9. Pursuant to 35 Ill. Adm. Code 212.107, 212.109, and 212.110, testing for particulate matter emissions shall be performed as follows:

   i. For both fugitive and nonfugitive particulate matter emissions, a determination as to the presence or absence of visible emissions from emission units shall be conducted in accordance with Method 22, 40 CFR part 60, Appendix A, incorporated by reference in 35 Ill. Adm. Code 212.113, except that the length of the observing period shall be at the discretion of the observer, but not less than one minute. This Condition shall not apply to 35 Ill. Adm. Code 212.301, pursuant to 35 Ill. Adm. Code 212.107.

   ii. Except as otherwise provided in 35 Ill. Adm. Code Part 212, and except for the methods of data reduction when applied to 35 Ill. Adm. Code 212.122 and 212.123, measurements of opacity shall be conducted in accordance with Method 9, 40 CFR Part 60, Appendix A, and the procedures in 40 CFR 60.675(c) and (d), if applicable, incorporated by reference in 35 Ill. Adm. Code 212.113, except that for roadways and parking areas the number of readings required for each vehicle pass will be three taken at 5-second intervals. The first reading shall be at the point of maximum opacity and second and third readings shall be made at the same point, the observer standing at right angles to the plume at least 15 feet away from the plume and observing 4 feet above the surface of the roadway or parking area. After four vehicles have passed, the 12 readings will be averaged, pursuant to 35 Ill. Adm. Code 212.109.

   iii. Measurement of particulate matter emissions from stationary emission units subject to 35 Ill. Adm. Code Part 212 shall be conducted in accordance with 40 CFR part 60, Appendix A, Methods 5, 5A, 5D, or 5E, pursuant to 35 Ill. Adm. Code 212.110(a).

iv. The volumetric flow rate and gas velocity shall be determined in accordance with 40 CFR part 60, Appendix A, Methods 1, 1A, 2, 2A, 2C, 2D, 3, and 4, pursuant to 35 Ill. Adm. Code 212.110(b).

v. 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, pursuant to 35 Ill. Adm. Code 212.110(c).

b. Testing required by Condition 9(a) shall be performed by a qualified independent testing service.

10a. Pursuant to 35 Ill. Adm. Code 218.211(a), the VOM content of each coating and the efficiency of each capture system and control device shall be determined by the applicable test methods and procedures specified in 35 Ill. Adm. Code 218.105 to establish the records required under 35 Ill. Adm. Code 218.211.

b. Pursuant to 35 Ill. Adm. Code 218.409(a), testing to demonstrate compliance with the requirements of 35 Ill. Adm. Code 218.407 shall be conducted by the owner or operator within 90 days after a request by the Illinois EPA. Such testing shall be conducted at the expense of the owner or operator and the owner or operation shall notify the Illinois EPA in writing 30 days in advance of conducting such testing to allow the Illinois EPA to be present during such testing.

c. Pursuant to 35 Ill. Adm. Code 218.409(b), the methods and procedures of 35 Ill. Adm. Code 218.105(d) and (f) shall be used for testing to demonstrate compliance with the requirements of 35 Ill. Adm. Code 218.407(a)(1)(C) or (b)(1), as follows:

i. To select the sampling sites, Method 1 or 1A, as appropriate, 40 CFR 60, Appendix A. The sampling sites for determining efficiency in reducing VOM from the dryer exhaust shall be located between the dryer exhaust and the control device inlet, and between the outlet of the control device and the exhaust to the atmosphere;

ii. To determine the volumetric flow rate of the exhaust stream, Method 2, 2A, 2C, or 2D, as appropriate, 40 CFR 60, Appendix A;

iii. To determine the VOM concentration of the exhaust stream entering and exiting the control device, Method 25 or 25A, as appropriate, 40 CFR 60, Appendix A. For thermal and catalytic afterburners, Method 25 must be used except under the following circumstances, in which case Method 25A must be used:

A. The allowable outlet concentration of VOM from the control device is less than 50 ppmv, as carbon;

B. The VOM concentration at the inlet of the control device and the required level of control result in exhaust concentrations of VOM of 50 ppmv, or less, as carbon; and

C. Due to the high efficiency of the control device, the anticipated VOM concentration at the control device exhaust is 50 ppmv or less, as carbon, regardless of inlet concentration. If the source elects to use Method 25A under this option, the exhaust VOM concentration must be 50 ppmv or less, as carbon, and the required destruction efficiency must be met for the source to have demonstrated compliance. If the Method 25A test results show that the required destruction efficiency apparently has been met, but the exhaust concentration is above 50 ppmv, as carbon, a retest is required. The retest shall be conducted using either Method 25 or Method 25A. If the retest is conducted using Method 25A and the test results again show that the required destruction efficiency apparently has been met, but the exhaust concentration is above 50 ppmv, as carbon, the source must retest using Method 25.

iv. Notwithstanding the criteria or requirements in Method 25 which specifies a minimum probe temperature of 129°C (265°F), the probe must be heated to at least the gas stream temperature of the dryer exhaust, typically close to 176.7°C (350°F);

v. During testing, the printing line(s) shall be operated at representative operating conditions and flow rates; and

vi. During testing, an air flow direction indicating device, such as a smoke stick, shall be used to demonstrate 100 percent emissions capture efficiency for the dryer in accordance with 35 Ill. Adm. Code 218.407(a)(1)(B).

d. Pursuant to 35 Ill. Adm. Code 218.409(c), testing to demonstrate compliance with the VOM content limitations in 35 Ill. Adm. Code 218.407(a)(1)(A), (a)(2), (a)(3) and (a)(4)(A), and to determine the VOM content of fountain solutions, fountain solution additives, cleaning solvents, cleaning solutions, and inks (pursuant to the requirements of 35 Ill. Adm. Code 218.411(a)(1)(B)), shall be conducted upon request of the Illinois EPA, as follows:

i. The applicable test methods and procedures specified in 35 Ill. Adm. Code 218.105(a) shall be used; provided, however, Method 24, shall be used to demonstrate compliance; or

ii. The manufacturer’s specifications for VOM content for fountain solution additives, cleaning solvents, and inks may be used if such manufacturer’s specifications are based on results of tests

of the VOM content conducted in accordance with methods specified in 24 Ill. Adm. Code 218.105(a); provided, however, Method 24 shall be used to determine compliance.

e. Pursuant to 35 Ill. Adm. Code 218.409(e), 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 in 35 Ill. Adm. 218.110.

11a. Pursuant to 35 Ill. Adm. Code 218.105(d)(2)(A), an owner or operator that uses an afterburner or carbon adsorber to comply with any Section of 35 Ill. Adm. Code Part 218 shall use Illinois EPA and USEPA approved continuous monitoring equipment which is installed, calibrated, maintained, and operated according to vendor specifications at all times the control device is in use except as provided in 35 Ill. Adm. Code 218.105(d)(3). The continuous monitoring equipment must monitor the following parameters:

i. For each afterburner which does not have a catalyst bed, the combustion chamber temperature of each afterburner.

ii. For each afterburner which has a catalyst bed, commonly known as a catalytic afterburner, the temperature rise across each catalytic afterburner bed or VOM concentration of exhaust.

b. Pursuant to 35 Ill. Adm. Code 218.410(a), Fountain Solution Temperature:

i. The owner or operator of any lithographic printing line(s) relying on the temperature of the fountain solution to demonstrate compliance shall install, maintain, and continuously operate a temperature monitor of the fountain solution in the reservoir or fountain tray, as applicable.

ii. The temperature monitor must be capable of reading with an accuracy of 1°C or 2°C, and must be attached to an automatic, continuous recording device such as a strip chart, recorder, or computer, with at least the same accuracy, that is installed, calibrated and maintained in accordance with the manufacturer’s specifications. If the automatic, continuous recording device malfunctions, the owner or operator shall record the temperature of the fountain solution at least once every two operating hours. The automatic, continuous recording device shall be repaired or replaced as soon as practicable.

c. Pursuant to 35 Ill. Adm. Code 218.410(b), Fountain Solution VOM Content. The owner or operator of any lithographic printing line(s) subject to 35 Ill. Adm. Code 218.407(a)(1)(A), (a)(2) or (a)(3) shall:

i. For a fountain solution to which VOM is not added automatically:

A. Maintain records of the VOM content of the fountain solution in accordance with 35 Ill. Adm. Code 218.411(c)(2)(C); or

B. Take a sample of the as-applied fountain solution from the fountain tray or reservoir, as applicable, each time a fresh batch of fountain solution is prepared or each time VOM is added to an existing batch of fountain solution in the fountain tray or reservoir, and shall determine compliance with the VOM content limitation of the as-applied fountain solution by using one of the following options:

I. With a refractometer or hydrometer with a visual, analog, or digital readout and with an accuracy of 0.5 percent. The refractometer or hydrometer must be calibrated with a standard solution for the type of VOM used in the fountain solution, in accordance with manufacturer’s specifications, against measurements performed to determine compliance. The refractometer or hydrometer must be corrected for temperature at least once per 8-hour shift or once per batch of fountain solution prepared or modified, whichever is longer; or

II. With a conductivity meter if it is demonstrated that a refractometer and hydrometer cannot distinguish between compliant and noncompliant fountain solution for the type and amount of VOM in the fountain solution. A source may use a conductivity meter if it demonstrates that both hydrometers and refractometers fail to provide significantly different measurements for standard solutions containing 95 percent, 100 percent and 105 percent of the applicable VOM content limit. The conductivity meter reading for the fountain solution must be referenced to the conductivity of the incoming water. A standard solution shall be used to calibrate the conductivity meter for the type of VOM used in the fountain solution, in accordance with manufacturer's specifications;

ii. For fountain solutions to which VOM is added at the source with automatic feed equipment, determine the VOM content of the as-applied fountain solution based on the setting of the automatic feed equipment which makes additions of VOM up to a pre-set level. Records must be retained of the VOM content of the fountain solution in accordance with 35 Ill. Adm. Code 218.411(c)(2)(D). The equipment used to make automatic additions must be installed, calibrated, operated, and maintained in accordance with manufacturer’s specifications.

d. Pursuant to 35 Ill. Adm. Code 218.410(c), if an afterburner is used to demonstrate compliance, the owner or operator of a heatset web offset lithographic printing line subject to 35 Ill. Adm. Code 218.407(a)(1)(C) shall:

i. Install, calibrate, maintain, and operate temperature monitoring device(s) with an accuracy of 3°C or 5°F on the afterburner 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 afterburner is operating; and

ii. Install, calibrate, operate and maintain, 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.

e. Pursuant to 35 Ill. Adm. Code 218.410(e), Cleaning Solution:

i. The owner or operator of any lithographic printing line relying on the VOM content of the cleaning solution to comply with 35 Ill. Adm. Code 218.407(a)(4)(A) must:

A. For cleaning solutions that are prepared at the source with equipment that automatically mixes cleaning solvent and water (or other non-VOM):

I. Install, operate, maintain, and calibrate the automatic feed equipment in accordance with manufacturer's specifications to regulate the volume of each of the cleaning solvent and water (or other non-VOM), as mixed; and

II. Pre-set the automatic feed equipment so that the consumption rates of the cleaning solvent and water (or other non-VOM), as applied, comply with 35 Ill. Adm. Code 218.407(a)(4)(A).

B. For cleaning solutions that are not prepared at the source with automatic feed equipment, keep records of the usage of cleaning solvent and water (or other non-VOM) as set forth in 35 Ill. Adm. Code 218.411(d)(2).

ii. The owner or operator of any lithographic printing line relying on the vapor pressure of the cleaning solution to comply with 35 Ill. Adm. Code 218.407(a)(4)(B) must keep records for such cleaning solutions used on any such line(s) as set forth in 218.411(d)(2)(C).

12a. 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.

b. 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.

c. Pursuant to 35 Ill. Adm. Code 218.211(c)(2), any owner or operator of a coating line subject to 35 Ill. Adm. Code 218.204 and complying by means of 35 Ill. Adm. Code 218.204 shall collect and record all of the following information each day for each coating line and maintain the information at the source for a period of three years:

   i. The name and identification number of each coating as applied on each coating line.

   ii. The weight of VOM per volume of each coating (minus water and any compounds which are specifically exempted from the definition of VOM) as applied each day on each coating line.

d. 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) or (b)(1) 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) or (b)(1):

i. Afterburner or other approved control device monitoring data in accordance with 35 Ill. Adm. Code 218.410(c) or (d), as applicable;

ii. A log of operating time for the afterburner or other approved control device, monitoring equipment, and the associated printing line;

iii. A maintenance log for the afterburner or other approved control device 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.

e. Pursuant to 35 Ill. Adm. Code 218.411(c)(2), the owner or operator of a lithographic printing line subject to 35 Ill. Adm. Code 218.407(a)(1)(A), (a)(2), or (a)(3), 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. If an owner or operator uses a hydrometer, refractometer, or conductivity meter, pursuant to 35 Ill. Adm. Code 218.407(b)(1)(B), to demonstrate compliance with the applicable VOM content limit in 35 Ill. Adm. Code 218.407(a)(1)(A), (a)(2), or (a)(3):

A. The date and time of preparation and each subsequent modification of the batch;

B. The results of each measurement taken in accordance with 35 Ill. Adm. Code 218.410(b);

C. Documentation of the periodic calibration of the meter in accordance with the manufacturer’s specifications, including date and time of calibration, personnel conducting, identity of standard solution, and resultant reading; and

D. Documentation of the periodic temperature adjustment of the meter, including date and time of adjustment, personnel conducting and results.

iii. If the VOM content of the fountain solution is determined pursuant to 35 Ill. Adm. Code 218.410(b)(1)(A), for each batch of as-applied fountain solution:

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

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

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

D. Any other information necessary to demonstrate compliance with the applicable VOM content limits in 35 Ill. Adm. Code 218.407(a)(1)(A), (a)(2) and (a)(3).

iv. If the VOM content of the fountain solution is determined pursuant to 35 Ill. Adm. Code 218.410(b)(2), for each setting:

A. VOM content limits corresponding to each setting;

B. Date and time of initial setting and each subsequent setting;

C. Documentation of the periodic calibration of the automatic feed equipment in accordance with the manufacturer’s specifications; and

D. Any other information necessary to demonstrate compliance with the applicable VOM content limits in 35 Ill. Adm. Code 218.407(a)(1)(A), (a)(2) or (a)(3).

v. If the owner or operator relies on the temperature of the fountain solution to comply with the requirements in 35 Ill. Adm. Code 218.407(a)(1)(A)(ii) or (a)(3)(B):

A. The temperature of the fountain solution at each printing line, as monitored in accordance with 35 Ill. Adm. Code 218.410(a); and

B. A maintenance log for the temperature monitoring devices and automatic, continuous temperature recorders detailing all routine and non-routine maintenance performed, including dates and duration of any outages;

f. 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 subject to the requirements of 35 Ill. Adm. Code 218.407 shall collect and record the following information for each cleaning solution used on each lithographic printing line:

i. 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, as determined in accordance with 35 Ill. Adm. Code 218.409(c);

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. 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)(4)(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, as determined in accordance with 35 Ill. Adm. Code 218.409(c);

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. 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, as determined in accordance with 35 Ill. Adm. Code 218.409(e);

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, as determined in accordance with 35 Ill. Adm. Code 218.409(e).

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.

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

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 material used;

iii. Natural gas usage of the source (mmscf/month and mmscf/year); and

iv. Monthly and annual emissions of CO, NO_x, PM, SO_2, VOM and HAP emissions from the source with supporting calculations (tons/month and tons/year).

13. All records and logs required by this permit shall be retained at a readily accessible location at the source for at least five (5) 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.

14. 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.

15a. Pursuant to 35 Ill. Adm. Code 218.211(c)(3), any owner or operator of a coating line subject to the limitations of 35 Ill. Adm. Code 218.204 and complying by means of 35 Ill. Adm. Code 218.204 shall notify the Illinois EPA in the following instances:

i. Any record showing violation of 35 Ill. Adm. Code 218.204 shall be reported by sending a copy of such record to the Illinois EPA within 30 days following the occurrence of the violation.

ii. At least 30 calendar days before changing the method of compliance from 35 Ill. Adm. Code 218.204 to 35 Ill. Adm. Code 218.205 or 35 Ill. Adm. Code 218.207, the owner or operator shall comply with all requirements of 35 Ill. Adm. Code 218.211(d)(1) or (e)(1), respectively. Upon changing the method of compliance from 35 Ill. Adm. Code 218.204 to 35 Ill. Adm. Code 218.205 or 35 Ill. Adm. Code 218.207, the owner or operator shall comply with all requirements of 35 Ill. Adm. Code 218.211(d) or (e), respectively.

b. Pursuant to 35 Ill. Adm. Code 218.411(b)(2), if testing of the afterburner or other approved control device is conducted pursuant to 35 Ill. Adm. Code 218.409(b), the owner or operator shall, within 90 days after conducting such testing, submit a copy of all test results to the Illinois EPA and shall submit a certification to the Illinois EPA that includes the following:

i. A declaration that all tests and calculations necessary to demonstrate whether the lithographic printing line(s) is in compliance with 35 Ill. Adm. Code 218.407(a)(1)(C) or (b)(1), as applicable, have been properly performed;

ii. A statement whether the lithographic printing line(s) is or is not in compliance with 35 Ill. Adm. Code 218.407(a)(1)(C) or (b)(1), as applicable; and

iii. The operating parameters of the afterburner or other approved control device during testing, as monitored in accordance with 35 Ill. Adm. Code 218.410(c) or (d), as applicable.

c. Pursuant to 35 Ill. Adm. Code 218.411(c), an owner or operator of a lithographic printing line subject to 35 Ill. Adm. Code 218.407(a)(1)(A), (a)(2), or (a)(3), shall:

i. Notify the Illinois EPA in writing of any violation of 35 Ill. Adm. Code 218.407 within 30 days after the occurrence of such violation. Such notification shall include a copy of all records of such violation; 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 de4monstrating compliance with the VOM content limitations for fountain solutions pursuant to 35 Ill.

Adm. Code 218.409, certify compliance for such new method 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(a).

d. Pursuant to 35 Ill. Adm. Code 218.411(d), for lithographic printing line cleaning operations, an owner or operator of a lithographic printing line subject to the requirements of 35 Ill. Adm. Code 218.407 shall:

i. Notify the Illinois EPA in writing of any violation of 35 Ill. Adm. Code 218.407 within 30 days after the occurrence of such violation. Such notification shall include a copy of all records of such violation; and

ii. 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).

16. If there is an exceedance of or 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/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 exceedance or deviation and efforts to reduce emissions and future occurrences.

17. 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

<u>and</u> 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.

Edwin C. Bakowski, P.E. Date Signed: _____
Acting Manager, Permit Section
Division of Air Pollution Control

ECB:DWH:jws

cc: Illinois EPA, FOS Region 1
Lotus Notes

Attachment A - Emission Summary

This attachment provides a summary of the maximum emissions from the 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)						
Emission Unit	VOM	NO_x	CO	PM	SO_2	Single HAP	Total HAPs
Heatset Web Press #1	7.11						
Nonheatset Web Press #4	1.18						
Sheetfed Press #5	6.00						
Goss Sunday 2000 and Harris Heatset Lithographic Presses	31.60						
Heidelberg XL105 Sheetfed Press	7.93						
Dryers and Afterburners	0.30	4.4	3.7	0.4	0.03		
Plant-Wide Totals	54.12	4.4	3.7	0.4	0.03	9.0	22.5

DWH:jws

Attachment B - Emissions Reduction Market System (ERMS)

1. Description of ERMS

The ERMS is a “cap and trade” market system for major stationary sources located in the Chicago ozone nonattainment area. It is designed to reduce VOM emissions from stationary sources to contribute to reasonable further progress toward attainment, as required by Section 182(c) of the Clean Air Act.

The ERMS addresses VOM emissions during a seasonal allotment period from May 1 through September 30. Participating sources must hold “allotment trading units” (ATUs) for their actual seasonal VOM emissions. Each year participating sources are issued ATUs based on allotments set in the sources’ FESOP or CAAPP permits. These allotments are established from historical VOM emissions or “baseline emissions” lowered to provide the emissions reductions from stationary sources required for reasonable further progress.

By December 31 of each year, the end of the reconciliation period following the seasonal allotment period, each source should have sufficient ATUs in its transaction account to cover its actual VOM emissions during the preceding season. A transaction account’s balance as of December 31 will include any valid ATU transfer agreements entered into as of December 31 of the given year, provided such agreements are promptly submitted to the Illinois EPA for entry into the transaction account database. The Illinois EPA will then retire ATUs in sources’ transaction accounts in amounts equivalent to their seasonal emissions. When a source does not appear to have sufficient ATUs in its transaction account, the Illinois EPA will issue a notice to the source to begin the process for Emissions Excursion Compensation.

In addition to receiving ATUs pursuant to their allotments, participating sources may also obtain ATUs from the market, including ATUs bought from other participating sources and general participants in the ERMS that hold ATUs (35 Ill. Adm. Code 205.630) and ATUs issued by the Illinois EPA as a consequence of VOM emissions reductions from an Emissions Reduction Generator or an Intersector Transaction (35 Ill. Adm. Code 205.500 and 35 Ill. Adm. Code 205.510). During the reconciliation period, sources may also buy ATUs from a secondary reserve of ATUs managed by the Illinois EPA, the “Alternative Compliance Market Account” (ACMA) (35 Ill. Adm. Code 205.710). Sources may also transfer or sell the ATUs that they hold to other sources or participants (35 Ill. Adm. Code 205.630).

2. Applicability

Emissions of VOM from the source during the seasonal allotment period from May 1 through September 30 of each year shall not exceed 15 tons, not including VOM emissions from insignificant emission units and activities. This limitation is established at the request of the source to exempt it from the requirements of 35 Ill. Adm. Code Part 205, Emissions Reduction Market System (ERMS), pursuant to 35 Ill. Adm. Code 205.205.

3. Recordkeeping and Reporting

a. The Permittee shall maintain the following records to determine compliance with the above limitation:

i. Records of operating data and other information for each individual emission unit or group of related emission units at the source, as

specified in this permit, 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, which may be specified in this permit; and

iii. Total VOM emissions from the source, in tons, during each seasonal allotment period.

b. The Permittee shall submit the seasonal emissions component of the Annual Emissions Report by October 31 of each year, reporting actual emissions of VOM during the seasonal allotment period, in accordance with 35 Ill. Adm. Code 205.205(b) and 35 Ill. Adm. Code 205.300.

c. In the event that the source's VOM emissions during the seasonal allotment period exceed 15 tons, the source shall no longer be exempt from the ERMS and immediately shall comply with 35 Ill. Adm. Code Part 205, by holding allotment trading units (ATUs) for its VOM emissions during each seasonal allotment period.

DWH:jws