

217/785-1705

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT -- RENEWAL

PERMITTEE

Schiele Graphics, Inc.  
Attn: Chris Fernandez  
1880 Busse Rd.  
Elk Grove Village, Illinois 60007

<u>Application No.:</u> 90020055	<u>I.D. No.:</u> 031440AIY
<u>Applicant's Designation:</u>	<u>Date Received:</u> February 3, 2009
<u>Subject:</u> Sheet-fed Offset Lithographic Printed Media	
<u>Date Issued:</u>	<u>Expiration Date:</u>
<u>Location:</u> 1900 Arthur Avenue and 1880 Busse Road, Elk Grove Village, Cook County, 60007	

This permit is hereby granted to the above-designated Permittee to OPERATE emission source(s) and/or air pollution control equipment consisting two (2) heatset web offset lithographic printing presses controlled by a catalytic afterburner, and four (4) non-heatset web offset lithographic printing presses (1900 Arthur Avenue location) and six (6) non-heatset sheetfed lithographic printing presses (1880 Busse Road location) 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 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.
- 4a. Pursuant to 35 Ill. Adm. Code 218.204(c)(2), 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 Paper Coating. Except as otherwise provided in 35 Ill. Adm. Code 218.204(a), (c), (g), (h), (j), (l), (n), (p), and (q), compliance with the emission limitations is required on and after March 15, 1996. 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 (Coating Operations) 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:

On and after May 1, 2011:

- |  | kg VOM/kg<br>(lb<br>VOM/lb)<br>solids<br>applied | kg VOM/kg<br>(lb VOM/lb)<br>coatings<br>applied |
|--|--|---|
| i. Pressure sensitive tape and label surface coatings  | 0.20   | (0.067)   |
| ii All other paper coatings  | 0.40   | (0.08)  |
| .  |  |   |
| iii. The paper coating limitation set forth in 35 Ill. Adm. Code 218.204(c) shall not apply to any owner or operator of any paper coating line on which flexographic or rotogravure, lithographic, or letterpress printing is performed if the paper coating line complies with the applicable emissions limitations in 35 Ill. Adm. Code 218 Subpart H. In addition, screen printing on paper is not regulated as paper coating, but is regulated under 35 Ill. Adm. Code 218 Subpart TT. On and after May 1, 2011, the paper coating limitation shall also not apply to coating performed on or in-line with any digital printing press, or to size presses and on-machine coaters on papermaking machines applying sizing or water-based clays. |  |   |
- b. Pursuant to 35 Ill. Adm. Code 218.207(a), any owner or operator of a coating line subject to 35 Ill. Adm. Code 218.204, except coating lines subject to 35 Ill. Adm. Code 218.204(q)(6), may comply with 35 Ill. Adm. Code 218.207, rather than with 35 Ill. Adm. Code 218.204, if a capture system and control device are operated at all times the coating line is in operation and the owner or operator demonstrates compliance with 35 Ill. Adm. Code 218.207(c), (d), (e), (f), (g), (h), (i), (j), (k), (l), (m), or (n) (depending upon the source category) through the applicable coating analysis and capture system and control device efficiency test methods and procedures specified in 35 Ill. Adm. Code 218.105 and the recordkeeping and reporting requirements specified in 35 Ill. Adm. Code 218.211(e); and the control device is equipped with the applicable monitoring equipment specified in 35 Ill. Adm. Code 218.105(d) and the monitoring equipment is installed, calibrated, operated and maintained according to vendor specifications at all times the control device is in use. A capture system and control device, which does not demonstrate compliance with 35 Ill. Adm. Code 218.207(c), (d), (e), (f), (g), (h), (i), (j), (k), (l), (m), or (n) may be used as an alternative to compliance with 35 Ill. Adm. Code 218.204 only if the alternative is approved by the Illinois EPA and approved by the USEPA as a SIP revision.
- c. Pursuant to 35 Ill. Adm. Code 218.207(l), on and after May 1, 2011, no owner or operator of a paper coating line, metal furniture coating line, or large appliance coating line that is equipped with a capture system and control device shall operate the subject coating line unless either:

- i. The capture system and control device provide at least 90 percent reduction in the overall emissions of VOM from the coating line; or
  - ii. The owner or operator complies with the applicable limitation set forth in 35 Ill. Adm. Code 218.204 by utilizing a combination of low-VOM coatings and a capture system and control device.
- d. Pursuant to 35 Ill. Adm. Code 218.301, 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 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 (Use of Organic Material) shall apply only to photochemically reactive material.
- e. Pursuant to 35 Ill. Adm. Code 218.407(a), no owner or operator of lithographic printing lines subject to the requirements of 35 Ill. Adm. Code 218 Subpart H (Printing and Publishing) shall:
- i. Cause or allow the operation of any heatset web offset lithographic printing line unless:
    - A. The total VOM content in the as-applied fountain solution meets one of the following conditions:
      - I. 1.6 percent or less, by weight;
      - II. 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
      - III. 5 percent or less, by volume, and the as-applied fountain solution contains no alcohol.
    - B. 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;
    - C. An afterburner is installed and operated so that VOM emissions (excluding methane and ethane) from the press dryer exhausts are reduced as follows: On and after August 1, 2010, by 90 percent, by weight, for afterburners first constructed at the source prior to January 1, 2010; by at least 95 percent, by weight, for afterburners first constructed at the source on or after January 1, 2010; or to a maximum afterburner exhaust outlet concentration of 20 ppmv (as carbon);
    - D. The afterburner is equipped with the applicable monitoring equipment specified in 35 Ill. Adm. Code 218.105(d)(2); and

- E. 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;
  - ii. 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 weight, and the as-applied fountain solution contains no alcohol.
  - iii. Cause or allow the operation of any sheetfed offset lithographic printing line unless:
    - A. The VOM content of the as-applied fountain solution is 5 percent or less, by weight; or
    - B. The VOM content of the as-applied fountain solution is 8.5 percent or less, by weight, and the temperature of the fountain solution is maintained below 15.6° C (60° F), measured at the reservoir or the fountain tray;
  - iv. Cause or allow the use of a cleaning solution on any lithographic printing line unless:
    - A. The VOM content of the as-used cleaning solution is less than or equal to:
      - I. 30 percent, by weight; or
      - II. On and after August 1, 2010, for owners or operators of sources that meet the applicability criteria in 35 Ill. Adm. Code 218.405(c)(3) and do not certify pursuant to 35 Ill. Adm. Code 218.411(g)(1)(B) that the source will not make use of any of the exclusions in 35 Ill. Adm. Code 218.405(c)(3), 70 percent, by weight; or
    - B. The VOM composite partial vapor pressure of the as-used cleaning solution is less than 10 mmHg at 20°C (68°F).
  - v. 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, except when specifically in use.
5. This permit is issued based on the lithographic printing presses at this 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, screen-printing, letterpress, and narrow-web flexographic printing processes are not part of the affected source under 40 CFR 63 Subpart JJJJ.

6. Pursuant to 35 Ill. Adm. Code 212.314, 35 Ill. Adm. Code 212.301 shall not apply and spraying pursuant to 35 Ill. Adm. Code 212.304 through 212.310 and 35 Ill. Adm. Code 212.312 shall not be required when the wind speed is greater than 40.2 km/hr (25 mph). Determination of wind speed for the purposes of this rule shall be by a one-hour average or hourly recorded value at the nearest official station of the U.S. Weather Bureau or by wind speed instruments operated on the site. In cases where the duration of operations subject to this rule is less than one hour, wind speed may be averaged over the duration of the operations on the basis of on-site wind speed instrument measurements.
- 7a. This permit is issued based on the source not being subject to 35 Ill. Adm. Code 218.187 (Other Industrial Solvent Cleaning Operations). Pursuant to 35 Ill. Adm. Code 218.187(a)(2), notwithstanding 35 Ill. Adm. Code 218.187(a)(1):
  - i. The following cleaning operations shall be exempt from the requirements of 35 Ill. Adm. Code 218.187(b), (c), (d), (e), (f), and (g);
    - A. Janitorial cleaning;
    - B. Stripping of cured coatings, inks, or adhesives, including screen reclamation activities;
    - C. Cleaning operations in printing pre-press areas, including the cleaning of film processors, color scanners, plate processors, film cleaning, and plate cleaning;
  - ii. Cleaning operations for emission units within the following source categories shall be exempt from the requirements of 35 Ill. Adm. Code 218.187(b), (c), (d), (e), (f), and (g);
    - A. Lithographic printing;
    - B. Paper, film and foil coating;
  - iii. The following cleaning operations shall be exempt from the requirements of 35 Ill. Adm. Code 218.187(b), (c), (f), and (g):
    - A. Cleaning of metering rollers, dampening rollers, and printing plates;
    - B. Cleaning operations associated with digital printing.
- b. Pursuant to 35 Ill. Adm. Code 218.209, no owner or operator of a coating line subject to the limitations of 35 Ill. Adm. Code 218.204 is required to meet the limitations of 35 Ill. Adm. Code 218 Subpart G (35 Ill. Adm. Code 218.301 or 218.302), after the date by which the coating line is required to meet 35 Ill. Adm. Code 218.204.
- c. Pursuant to 35 Ill. Adm. Code 218.405(c), on and after August 1, 2010:

- i. The requirements in 35 Ill. Adm. Code 218.407(a)(1)(B) through (a)(1)(E) and 218.407(b) and all applicable provisions in 35 Ill. Adm. Code 218.409 through 218.411 shall apply to all owners or operators of heatset web offset lithographic printing lines, if the combined emissions of VOM from all lithographic printing lines at the source (including solvents used for cleanup operations associated with the lithographic printing lines) ever exceed 45.5 kg/day (100 lbs/day) calculated in accordance with 35 Ill. Adm. Code 218.411(a)(1)(B), before the application of capture systems and control devices;
- ii. The requirements in 35 Ill. Adm. Code 218.407(a)(1)(A) and (a)(2) through (a)(5) and all applicable provisions in 35 Ill. Adm. Code 218.409 through 218.411 shall apply to all owners or operators of lithographic printing lines if the combined emissions of VOM from all lithographic printing lines at the source (including solvents used for cleanup operations associated with the lithographic printing lines) ever equal or exceed 6.8 kg/day (15 lbs/day), calculated in accordance with 35 Ill. Adm. Code 218.411(b)(1)(B), before the application of capture systems and control devices;
- iii. Notwithstanding 35 Ill. Adm. Code 218.405(c)(2), at sources where the combined emissions of VOM from all lithographic printing lines at the source (including solvents used for cleanup operations associated with the lithographic printing lines) equal or exceed 6.8 kg/day (15 lbs/day) but do not exceed 45.5 kg/day (100 lbs/day), calculated in accordance with 35 Ill. Adm. Code 218.411(b)(1)(B), before the application of capture systems and control devices, the following exclusions shall apply unless the owner or operator of the source certifies pursuant to 35 Ill. Adm. Code 218.411(g)(1)(B) that the source will not make use of any such exclusions:
  - A. The requirements of 35 Ill. Adm. Code 218.407(a)(1)(A), (a)(2), and (a)(3) shall not apply to lithographic printing lines with a total fountain solution reservoir of less than 3.8 liters (1 gallon);
  - B. The requirements of 35 Ill. Adm. Code 218.407(a)(3) shall not apply to sheet-fed offset lithographic printing lines with maximum sheet size of 11x17 inches or smaller;
  - C. The requirements of 35 Ill. Adm. Code 218.407(a)(4) shall not apply to up to a total of 416.3 liters (110 gallons) per year of cleaning materials used on all lithographic printing lines at the source;
  - D. The requirements of 35 Ill. Adm. Code 218.407(a)(4)(A)(i) shall not apply to lithographic printing lines at the source. Instead, the requirements of 35 Ill. Adm. Code 218.407(a)(4)(A)(ii) shall apply to such lines.

- d. Pursuant to 35 Ill. Adm. Code 218.900(b)(1)(E), notwithstanding 35 Ill. Adm. Code 218.900(a) the requirements of this 35 Ill. Adm. Code 218 Subpart JJ (Miscellaneous Industrial Adhesives) shall not apply to miscellaneous industrial adhesive application operations associated with paper, film, and foil coatings.
  
- 8a. Pursuant to 35 Ill. Adm. Code 212.306, 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.
  
- b. Pursuant to 35 Ill. Adm. Code 212.309(a), the emission units described in 35 Ill. Adm. Code 212.304 through 212.308 and 35 Ill. Adm. Code 212.316 shall be operated under the provisions of an operating program, consistent with the requirements set forth 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.
  
- c. 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 operator 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 and 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.

- d. Pursuant to 35 Ill. Adm. Code 212.312, the operating program shall be amended from time to time by the owner or operator so that the operating program is current. Such amendments shall be consistent with 35 Ill. Adm. Code 212 Subpart K and shall be submitted to the Illinois EPA for its review.
  
- 9a. Pursuant to 35 Ill. Adm. Code 218.218(a), on and after May 1, 2011, every owner or operator of a source subject to the requirements of 35 Ill. Adm. Code 218.204(c) shall:
  - i. Store all VOM-containing cleaning materials in closed containers;
  - ii. Ensure that mixing and storage containers used for VOM-containing materials are kept closed at all times except when depositing or removing those materials;
  - iii. Minimize spills of VOM-containing cleaning materials;
  - iv. Convey VOM-containing cleaning materials from one location to another in closed containers or pipes; and
  - v. Minimize VOM emissions from the cleaning of storage, mixing, and conveying equipment.
  
- 10a. 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 odor nuisance.
  - b. The Permittee shall, in accordance with the manufacturer(s) and/or vendor(s) recommendations, perform periodic maintenance on the catalytic afterburner associated with the heatset lithographic printing presses such that the catalytic afterburner is kept in proper working condition and not cause a violation of the Illinois Environmental Protection Act or regulations promulgated therein.
  - c. The afterburner's combustion chamber 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 600°F in the absence of a compliance test. This temperature shall be maintained during operation of the associated heatset lithographic printing presses.
  - d. The catalytic afterburner shall only be operated with natural gas as the fuel. The use of any other fuel in the catalytic afterburner 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.
  
- 11a. This permit is issued based on this source not being a participating source in the Emissions Reduction Market System (ERMS), 35 Ill. Adm. Code Part 205, pursuant to 35 Ill. Adm. Code 205.200. This is based on the source's actual VOM emissions during the seasonal allotment period

from May 1 through September 30 of each year being less than 10 tons and the source's baseline emissions also being less than 10 tons.

- b. In the event that the source's VOM emissions during the seasonal allotment period equal or exceed 10 tons, the source shall become a participating source in the ERMS and shall comply with 35 Ill. Adm. Code Part 205, by holding allotment trading units (ATUs) for its VOM emissions during each seasonal allotment period, unless the source obtains exemption from the ERMS by operating with seasonal VOM emissions of no more than 15 tons pursuant to a limitation applied for and established in a Clean Air Act Permit Program (CAAPP) permit or a Federally Enforceable State Operating Permit (FESOP).
  - c. Pursuant to 35 Ill. Adm. Code 205.316(a), any participating or new participating source shall not operate without a CAAPP permit or FESOP. Pursuant to 35 Ill. Adm. Code 205.316(a)(2), if a participating or new participating source does not have a CAAPP permit containing ERMS provisions and the source elects to obtain a permit other than a CAAPP permit, the source shall apply for and obtain a FESOP that contains, in addition to other necessary provisions, federally enforceable ERMS provisions, including baseline emissions, allotment for each seasonal allotment period, identification of any units deemed to be insignificant activities for purposes of the ERMS, emissions calculation methodologies, and provisions addressing all other applicable requirements of 35 Ill. Adm. Code Part 205.
- 12a. VOM emissions from and operation of the two (2) heatset web offset lithographic printing presses controlled by a catalytic afterburner, and four (4) non-heatset web offset lithographic printing presses (1900 Arthur Avenue location) shall not exceed the following limits:

<u>(Tons/Month)</u>	VOM Emissions	<u>(Tons/Year)</u>
2.20		22.00

These limits are based on the maximum production rate, credits for VOM capture efficiencies from inks, fountain solutions and cleaning solvents on heatset printing presses and inks VOM retentions allowed by Control Techniques Guidelines for Offset Lithographic Printing and Letterpress Printing (EPA-453/R-06-002).

- b. VOM emissions from and operation of the six (6) non-heatset sheetfed lithographic printing presses (1880 Busse Road location) shall not exceed the following limits:

<u>(Tons/Month)</u>	VOM Emissions	<u>(Tons/Year)</u>
4.40		44.00

These limits are based on the maximum production rate, and inks VOM retention allowed by Control Techniques Guidelines for Offset Lithographic Printing and Letterpress Printing (EPA-453/R-06-002).

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

$$E = \sum[I_i \times V_{Ii} \times 0.8 \times (1-CE)] + \sum(I_j \times V_{Ij} \times 0.05) + \sum[FS_k \times V_{FSk} \times (1-0.7 \times CE)] + \sum[CS_1 \times V_{CS1} \times (1-0.4 \times CE)] + \sum(CS_m \times V_{CSm} \times 0.5) + \sum(S_n \times V_{Sn})$$

Where:

E = VOM or HAP emissions (tons);

I<sub>i</sub> = heatset ink usage (tons);

V<sub>Ii</sub> = VOM or HAP content of heatset ink (wt. fraction);

I<sub>j</sub> = non-heatset ink usage (tons);

V<sub>Ij</sub> = VOM or HAP content of non-heatset ink (wt. fraction);

FS<sub>k</sub> = heatset fountain solution containing no alcohol usage (tons);

V<sub>FSk</sub> = VOM or HAP content of heatset fountain solution containing no alcohol (wt. fraction);

CS<sub>1</sub> = heatset automatic cleaning solution with vapor pressure less than 10 mm of Hg usage (tons);

V<sub>CSm</sub> = VOM or HAP content of heatset automatic cleaning solution with vapor pressure less than 10 mm of Hg (wt. fraction);

CS<sub>m</sub> = heatset manual cleaning solution with vapor pressure less than 10 mm of Hg usage (tons);

V<sub>CSm</sub> = VOM content of heatset manual cleaning solution with vapor pressure less than 10 mm of Hg (wt. fraction);

S<sub>n</sub> = Other VOM or HAP-containing material (coating, including varnish, fountain solution containing alcohol, cleaning solution with vapor pressure equal to or more than 10 mm of Hg, etc.) usage (tons);

V<sub>Sn</sub> = VOM or HAP content of other VOM or HAP-containing materials (wt. fraction); and

CE = Overall control efficiency of the catalytic afterburner (fraction)

CE = 0.9 during afterburner operation;

CE = 0 during afterburner shutdown.

- d. This permit is issued based on negligible emissions of Carbon Monoxide (CO), Nitrogen Oxides (NO<sub>x</sub>), Particulate Matter (PM), Sulfur Dioxide (SO<sub>2</sub>) and Volatile Organic Material (VOM) from the combustion of natural gas in the catalytic afterburner. For this purpose, emissions of each pollutant shall not exceed nominal emission rates of 0.1 lb/hour and 0.44 ton/year.
  - e. The emissions of Hazardous Air Pollutants (HAPs) as listed in Section 112(b) of the Clean Air Act from this source shall not exceed 0.79 tons/month and 7.9 tons/year of any single HAP and 1.99 tons/month and 19.9 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. Compliance with the annual limits 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 of total).
- 13a. 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 14 and 15 shall be performed upon a written request from the Illinois EPA by a qualified independent testing service.

14. 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.
- 15a. 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 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, or as otherwise specified in 35 Ill. Adm. Code 218 Subpart H. Such testing shall be conducted at the expense of the owner or operator and the owner or operator 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), (b)(1)(B), or (b)(2)(B), as applicable), shall be conducted upon request of the Illinois EPA or as otherwise specified in 35 Ill. Adm. Code 218 Subpart H, 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 35 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.

- 13a. Pursuant to 35 Ill. Adm. Code 218.105(d)(2)(A)(ii), 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: 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 218.105(d)(2)(B), an owner or operator must install, calibrate, operate and maintain, in accordance with manufacturer's specifications, a continuous recorder on the temperature monitoring device, such as a strip chart, recorder or computer, having an accuracy of  $\pm 1$  percent of the temperature measured in degrees Celsius or  $\pm 0.5^\circ$  C, whichever is greater.
- c. Pursuant to 35 Ill. Adm. Code 218.410(a), Fountain Solution Temperature:
  - i. The owner or operator of any lithographic printing lines 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  $1^\circ$ C or  $2^\circ$ 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.
- d. Pursuant to 35 Ill. Adm. Code 218.410(b), 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.
- e. 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 devices 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.
- f. 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(f)(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 lines as set forth in 35 Ill. Adm. Code 218.411(f)(2)(C).
17. 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.

18. 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.
- 19a. Pursuant to 35 Ill. Adm. Code 218.211(c)(2), any owner or operator of a coating line subject to the limitations of 35 Ill. Adm. Code 218.204 other than 35 Ill. Adm. Code 218.204(a)(1)(B), (a)(1)(C), (a)(2)(B), (a)(2)(C), or (a)(2)(D) and complying by means of 35 Ill. Adm. Code 218.204 shall comply with the following: On and after a date consistent with 35 Ill. Adm. Code 218.106, or on and after the initial start-up date, the owner or operator of a subject coating line shall collect and record all of the following information each day, unless otherwise specified, 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;
  - iii. For coating lines subject to the limitations of 35 Ill. Adm. Code 218.204(c)(2), the weight of VOM per weight of solids (or the weight of VOM per weight of coatings, as applicable) in each coating as applied each day on each coating line, and certified product data sheets for each coating.
- b. Pursuant to 35 Ill. Adm. Code 218.211(e)(2), any owner or operator of a coating line subject to the limitations of 35 Ill. Adm. Code 218.207 and

complying by means of 35 Ill. Adm. Code 218.207(c), (d), (e), (f), (g), (h), (l), (m), or (n) shall comply with the following: On and after a date consistent with 35 Ill. Adm. Code 218.106, or on and after the initial start-up date, the owner or operator of a subject coating line 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 weight of VOM per volume of coating solids as applied each day on each coating line, if complying pursuant to 35 Ill. Adm. Code 218.207(b)(2).
  - ii. Control device monitoring data.
  - iii. A log of operating time for the capture system, control device, monitoring equipment and the associated coating line.
  - iv. A maintenance log for the capture system, control device and monitoring equipment detailing all routine and non-routine maintenance performed including dates and duration of any outages.
- c. Pursuant to 35 Ill. Adm. Code 218.211(g)(3), on and after a date consistent with 35 Ill. Adm. Code 218.106(e), or on and after the initial startup date, whichever is later, the owner or operator of a coating line subject to the requirements of 35 Ill. Adm. Code 218.218 shall comply with the following: Maintain at the source all records required by 35 Ill. Adm. Code 218.211(g) for a minimum of three years from the date the document was created and make those records available to the Illinois EPA upon request.
- d. Pursuant to 35 Ill. Adm. Code 218.411(c), unless complying with 35 Ill. Adm. Code 218.411(b)(1)(C) and (b)(1)(F), an owner or operator of lithographic printing lines subject to the requirements of 35 Ill. Adm. Code 218.411(a) or (b) shall collect and record either the information specified in 35 Ill. Adm. Code 218.411(c)(1) or (c)(2) for all lithographic printing lines at the source:
- i. Standard recordkeeping, including the following:
    - A. The name and identification of each fountain solution additive, lithographic ink, and cleaning solvent used on any lithographic printing line recorded each month;
    - B. A daily records which shows whether a lithographic printing line at the source was in operation on that day;
    - C. The VOM content and the volume of each fountain solution additive, lithographic ink, and cleaning solvent used on any lithographic printing line, recorded each month;
    - D. The total VOM emissions at the source each month, determined as the sum of the product of usage and VOM

content for each fountain solution additive, cleaning solvent, and lithographic ink (with the applicable ink VOM emission adjustment) used at the source, calculated each month;

- E. The VOM emissions in lbs/day for the month, calculated in accordance with 35 Ill. Adm. Code 218.411(a)(1)(B), (b)(1)(B), or (b)(2)(B), as applicable;
- ii. Purchase and inventory recordkeeping, including the following:
    - A. The name, identification, and VOM content of each fountain solution additive, lithographic ink, and cleaning solvent used on any lithographic printing line, recorded each month;
    - B. Inventory records from the beginning and end of each month indicating the total volume of each fountain solution additive, lithographic ink, and cleaning solvent to be used on any lithographic printing line at the source;
    - C. Monthly purchase records for each fountain solution additive, lithographic ink, and cleaning solvent used on any lithographic printing line at the source;
    - D. A daily record which shows whether a lithographic printing line at the source was in operation on that day;
    - E. The total VOM emissions at the source each month, determined as the sum of the product of usage and VOM content for each fountain solution additive, cleaning solvent, and lithographic ink (with the applicable ink VOM emission adjustment) used at the source, calculated each month based on the monthly inventory and purchase records required to be maintained pursuant to 35 Ill. Adm. Code 218.411(c)(2)(A), (c)(2)(B), and (c)(2)(C);
    - F. The VOM emissions in lbs/day for the month, calculated in accordance with 35 Ill. Adm. Code 218.411(a)(1)(B), (b)(1)(B), or (b)(2)(B), as applicable.
- e. Pursuant to 35 Ill. Adm. Code 218.411(d)(3), an owner or operator of a heatset web offset lithographic printing line subject to the control requirements of 35 Ill. Adm. Code 218.407(a)(1)(C) or (b)(1) shall, except as provided in 35 Ill. Adm. Code 218.411(d)(3)(D)(ii), collect and record daily the following information for each heatset web offset lithographic printing line subject to the requirements of 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) on and after August 1, 2010, at least once per 24-hour period while the line is operating.
- f. Pursuant to 35 Ill. Adm. Code 218.411(e)(2), 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 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 218.410(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. 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 or weight, as applicable, 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 limit 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) and (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;
- g. Pursuant to 35 Ill. Adm. Code 218.411(f)(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 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. For cleaning solutions that are used as purchased, the manufacturer's specifications for VOM content 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 35 Ill. Adm. Code 218.105(a);
- 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). For cleaning solutions that are used as purchased, the manufacturer's specifications for VOM composite partial vapor pressure may be used if such manufacturer's specifications are based on results of tests conducted in accordance with methods specified in 35 Ill. Adm. Code 218.105(a) and 218.110;
  - 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). For cleaning solutions that are used as purchased, the manufacturer's specifications for VOM composite partial vapor pressure may be used if such manufacturer's specifications are based on results of tests conducted in accordance with methods specified in 35 Ill. Adm. Code 218.105(a) and 218.110;
- 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.
- h. Pursuant to 35 Ill. Adm. Code 218.411(g)(2)(A), the owner or operator of lithographic printing lines subject to one or more of the exclusions set forth in 35 Ill. Adm. Code 218.405(c)(3) shall, unless the source has certified in accordance with 35 Ill. Adm. Code 218.411(g)(1)(B) that it will not make use of any of the exclusions set forth in 35 Ill. Adm. Code 218.405(c)(3), collect and record the following information for all lithographic printing lines at the source:
- i. Calculations that demonstrate that combined emissions of VOM from all lithographic printing lines (including inks, fountain solutions, and solvents used for cleanup operations associated with the lithographic printing lines) at the source never exceed 45.5 kg/day (100 lbs/day) before the use of capture systems and control devices, determined in accordance with the calculations in 35 Ill. Adm. Code 218.411(b)(2)(B);
  - ii. The name, identification, and volume of all cleaning materials used per calendar month on lithographic printing lines at the source that do not comply with the cleaning material limitations in 35 Ill. Adm. Code 218.407(a)(4);
- i. Pursuant to 35 Ill. Adm. Code 218.411(h), the owner or operator shall maintain all records required by 35 Ill. Adm. Code 218.411 at the

source for a minimum period of three years and shall make all records available to the Illinois EPA upon request.

- 20a. The Permittee shall maintain records of the following items so as to demonstrate compliance with the conditions of this permit:
- i. Records addressing use of good operating practices for the catalytic afterburner associated with the heatset lithographic printing presses:
    - A. Records for periodic inspection of the catalytic afterburner associated with the heatset lithographic printing presses with date, individual performing the inspection, and nature of inspection; and
    - B. Records for prompt repair of defects, with identification and description of defect, effect on emissions, date identified, date repaired, and nature of repair.
  - ii. Names and amounts of lithographic inks, coatings, fountain solutions and automatic and manual clean-up solvents used, separately for heatset and non-heatset presses (ton/mo and ton/year);
  - iii. VOM and HAP content of the lithographic inks, coatings, fountain solutions and automatic and manual clean-up solvents (wt. fraction); and
  - iv. Monthly and annual emissions of CO, NO<sub>x</sub>, PM, SO<sub>2</sub>, VOM and HAP from the source with supporting calculations (tons/month and tons/year).
- b. The Permittee shall maintain the following records to allow the confirmation of actual VOM emissions during the seasonal allotment period:
- i. Records of operating data and other information for each individual emission unit or group of related emission units at the source, as appropriate, to determine actual VOM emissions during the seasonal allotment period;
  - ii. Records of the VOM emissions, in tons, during the seasonal allotment period, with supporting calculations, for each individual emission unit or group of related emission units at the source, determined in accordance with the procedures that may be specified in this permit; and
  - iii. Total VOM emissions from the source, in tons, during each seasonal allotment period, which shall be compiled by November 30 of each year.
- c. 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 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.

21. 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.
- 22a. 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 other than 35 Ill. Adm. Code 218.204(a)(1)(B), (a)(1)(C), (a)(2)(B), (a)(2)(C), or (a)(2)(D) and complying by means of 35 Ill. Adm. Code 218.204 shall comply with the following: On and after a date consistent with 35 Ill. Adm. Code 218.106, the owner or operator of a subject coating line 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), as applicable. 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), as applicable.
- b. Pursuant to 35 Ill. Adm. Code 218.211(e)(3), any owner or operator of a coating line subject to the limitations of 35 Ill. Adm. Code 218.207 and complying by means of 35 Ill. Adm. Code 218.207(c), (d), (e), (f), (g), (h), (l), (m), or (n) of this Subpart shall comply with the following: On and after a date consistent with 35 Ill. Adm. Code 218.106, the owner or operator of a subject coating line shall notify the Illinois EPA in the following instances:
  - i. Any record showing violation of 35 Ill. Adm. Code 218.207 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 with 35 Ill. Adm. Code 218 Subpart F from 35 Ill. Adm. Code 218.207 to 35 Ill. Adm. Code 218.204 or 35 Ill. Adm. Code

218.205, the owner or operator shall comply with all requirements of 35 Ill. Adm. Code 218.211(c)(1) or (d)(1), respectively. Upon changing the method of compliance with 35 Ill. Adm. Code 218 Subpart F from 35 Ill. Adm. Code 218.207 to 35 Ill. Adm. Code 218.204 or 35 Ill. Adm. Code 218.205, the owner or operator shall comply with all requirements of 35 Ill. Adm. Code 218.211(c) or (d), respectively.

- c. Pursuant to 35 Ill. Adm. Code 218.411(d), an owner or operator of a heatset web offset lithographic printing line subject to the control requirements of Section 218.407(a)(1)(C) or (b)(1) shall comply with the following:
  - i. 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:
    - A. 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;
    - B. 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
    - C. 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.
  - ii. Notify the Illinois EPA in writing of any violation of 35 Ill. Adm. Code 218.407(a)(1)(C) or (b)(1) within 30 days after the occurrence of such violation. Such notification shall include a copy of all records of such violation;
  - iii. If changing its method of compliance between 35 Ill. Adm. Code 218.411(a)(1)(C) and (b), certify compliance for the new method of compliance in accordance with 35 Ill. Adm. Code 218.411(d)(1) at least 30 days before making such change, and perform all tests and calculations necessary to demonstrate that such printing lines will be in compliance with the requirements of 35 Ill. Adm. Code 218.407(a)(1)(B), (a)(1)(C), (a)(1)(D) and (a)(1)(E), or 35 Ill. Adm. Code 218.407(b), as applicable.
- d. Pursuant to 35 Ill. Adm. Code 218.411(e)(3), an owner or operator of a lithographic printing line subject to of 35 Ill. Adm. Code 218.407(a)(1)(A), (a)(2), or (a)(3), shall 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.

- e. Pursuant to 35 Ill. Adm. Code 218.411(f)(3), 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 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.
- f. Pursuant to 35 Ill. Adm. Code 218.411(g), the owner or operator of lithographic printing lines subject to one or more of the exclusions set forth in 35 Ill. Adm. Code 218.405(c)(3) shall:
  - i. If changing from utilization of the exclusions set forth in 35 Ill. Adm. Code 218.405(c)(3) to opting out of such exclusions pursuant to 35 Ill. Adm. Code 218.411(g)(1)(B), or if there is a change at the source such that the exclusions no longer apply, certify compliance in accordance with 35 Ill. Adm. Code 218.411(g)(1)(B), 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;
  - ii. If changing from opting out of the exclusions set forth in 35 Ill. Adm. Code 218.405(c)(3) pursuant to 35 Ill. Adm. Code 218.411(g)(1)(B) to utilization of such exclusions, certify compliance in accordance with 35 Ill. Adm. Code 218.411(g)(1)(A) within 30 days after making such change.
- 23a. 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 exceedance 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 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:

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Illinois Environmental Protection Illinois EPA  
Division of Air Pollution Control  
9511 West Harrison  
Des Plaines, Illinois 60016

If you have any questions on this, 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 - Emission Summary

This attachment provides a summary of the maximum emissions from printing plant operating in compliance with the requirements of this federally enforceable permit. In preparing this summary, the Illinois EPA used the annual operating scenario which results in maximum emissions from such a plant. The resulting maximum emissions are below the levels (e.g., 100 tons/year for VOM, 10 tons/year for any single HAP and 25 tons/year for any combination of such 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.

<u>Emission Unit</u>	E M I S S I O N S (Tons/Year)						Single	Combined
	<u>CO</u>	<u>NO<sub>x</sub></u>	<u>PM</u>	<u>SO<sub>2</sub></u>	<u>VOM</u>	<u>HAP</u>	<u>HAPs</u>	
Heatset and Non- Heatset Web Presses					22.00			
Sheetfed Presses					44.00			
Fuel Combustion	<u>0.44</u>	<u>0.44</u>	<u>0.44</u>	<u>0.44</u>	<u>0.44</u>	--	--	
Totals	<u>0.44</u>	<u>0.44</u>	<u>0.44</u>	<u>0.44</u>	<u>66.44</u>	<u>7.9</u>	<u>19.9</u>	

VJB: