



- A. The VOM content of the as-applied fountain solution shall be 5 percent or less, by volume. [35 IAC 218.407(a)(3)(A)]
  - B. The cleaning solution shall meet one of the following requirements.
    - 1. The VOM content of the as-used cleaning solution is less than or equal to 30 percent, by weight; or [35 IAC 218.407(a)(4)(A)]
    - 2. The VOM composite partial vapor pressure of the as-used cleaning solution is less than 10 mmHg at 20°C (68°F). [35 IAC 218.407(a)(4)(B)]
  - C. The VOM containing cleaning materials, including used cleaning towels, associated with any lithographic printing line shall be kept, stored and disposed of only in closed containers. [35 IAC 218.407(a)(5)]
- iii. The Permittee shall not cause or allow the discharge of more than 3.6 kg/hr (8 lb/hr) of organic material into the atmosphere from each affected printing line. If no odor nuisance exists the limitation shall apply only to photochemically reactive material as defined in 35 IAC 211.4690. [35 IAC 218.301]
- b. i. An "affected coating line" for the purpose of these unit-specific conditions, is a flexographic coating operation described in Conditions 1.1.1 and 1.1.2.
  - ii. The affected coating lines are subject to 35 IAC 218.204(c), which provides that no owner or operator of a subject paper coating line shall apply at any time any coating in which the VOM content exceeds the following emission limitation. This emission limitation is 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. 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 composites.

kg/liter	lbs/gallon
0.28	2.3

1.1.4 Non-Applicability Provisions

- a. The affected coating lines are not subject to 35 IAC 218.301, Use of Organic Material, pursuant to 35 IAC 218.209, Exemption From General Rule on Use of Organic Material. This rule excludes coating lines subject to 35 IAC 218.204 from this requirement.
- b.
  - i. This permit is issued based on this project not being a major modification for purposes of the state rules for Major Stationary Sources Construction and Modification (MSSCAM), 35 IAC Part 203. This is because this project will not result in a significant net increase in emissions of VOM. (See also Table 1 and 2 at the end of this permit.)
  - ii. This permit is issued based upon the permanent shutdown of Rotogravure Press #9, Rotogravure Press #10, P-9 Gravure Afterburner, P-10 Gravure Afterburner, and the Transportable Solvent Recycle Unit. Any future operation of this equipment is prohibited unless the Permittee obtains a construction permit addressing the resumption of operation of that equipment and an appropriately revised version of this construction permit.

1.1.5 Production and Emission Limitations

- a. Operation and emissions of the affected units, i.e., the affected coating lines and affected printing lines combined, shall not exceed the following limits. Compliance with the annual limits shall be determined from a running total of 12 months of data.

Material	VOM Usage		VOM Emissions	
	Ton/Mo	Ton/Yr	Ton/Mo	Ton/Yr
Ink	3.88	19.40	0.19	0.97
Coating	8.32	41.62	8.32	41.62
Fountain Solution	2.04	10.19	2.04	10.19
Wash Materials	4.66	23.28	4.66	23.28
	Total:			76.06

- b. This permit is issued based on the addition of the affected units in combination with the existing emission units at the source not affecting the source's status as a minor source for emissions of hazardous air pollutants (HAPs). The source's Clean Air Act Permit Program (CAAPP) permit contains provisions limiting source-wide HAP emissions to less than 10 tons of any individual HAP and less than 25 tons total (See Condition 5.6.2 of CAAPP Permit 95090022). The CAAPP permit also imposes recordkeeping requirements to verify minor source status for HAPs.

1.1.6 Testing Requirements

- a. For the affected printing lines:
- i. Testing to demonstrate compliance with the requirements of 35 IAC 218.407 shall be conducted by the Permittee within 90 days after a request by the Illinois EPA. Such testing shall be conducted at the expense of the Permittee and the Permittee 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. [35 IAC 218.409(a)]
  - ii. Testing to demonstrate compliance with the VOM content limitations in 35 IAC 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 IAC 218.411(a)(1)(B)), shall be conducted upon request of the Illinois EPA, as follows: [35 IAC 218.409(c)]
    - A. The applicable test methods and procedures specified in 35 IAC 218.105(a) shall be used; provided, however, Method 24, incorporated by reference at 35 IAC 218.112, shall be used to demonstrate compliance; or
    - B. 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 IAC 218.105(a); provided, however, Method 24 shall be used to determine compliance.
  - iii. 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 IAC 218.110. [35 IAC 218.409(e)]
- b. For the affected coating lines, the VOM content of each coating shall be determined by the applicable test methods and procedures specified in 35 IAC 218.105 to establish the records required under 35 IAC 218.211. [35 IAC 218.211(a)]

1.1.7 Monitoring Requirements

The Permittee shall conduct the following monitoring for the affected printing line:

a. Fountain Solution VOM Content.

- i. For a fountain solution to which VOM is not added automatically, the Permittee shall maintain records of the VOM content of the fountain solution in accordance with 35 IAC 218.411(c)(2)(C). [35 IAC 218.410(b)(1)(A)]
- 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. The equipment used to make automatic additions must be installed, calibrated, operated and maintained in accordance with manufacturer's specifications. [35 IAC 218.410(b)(2)]

b. Cleaning Solution.

- i. If the Permittee is relying on the VOM content of the cleaning solution to comply with 35 IAC 218.407(a)(4)(A): [35 IAC 218.410(e)(1)]
  - A. For cleaning solutions that are prepared at the source with equipment that automatically mixes cleaning solvent and water (or other non-VOM):
    1. 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
    2. 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 IAC 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 IAC 218.411(d)(2).
- ii. If the Permittee is relying on the vapor pressure of the cleaning solution to comply with 35 IAC 218.407(a)(4)(B), keep records for such cleaning

solutions used on any such line(s) as set forth in 35 IAC 218.411(d)(2)(C). [35 IAC 218.410(e)(2)]

1.1.8 Recordkeeping Requirements

The Permittee shall maintain records of the following items:

a. For the affected printing lines:

i. Collect and record the following information for each fountain solution: [35 IAC 218.411(c)(2)]

A. 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;

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

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

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

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

C. If the VOM content of the fountain solution is determined pursuant to 35 IAC 218.410(b)(2), for each setting:

1. VOM content limit corresponding to each setting;

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

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

ii. Collect and record the following information for each cleaning solution: [35 IAC 218.411(d)(2)]

- A. For each cleaning solution for which the Permittee relies on the VOM content to demonstrate compliance with 35 IAC 218.407(a)(4)(A) and which is prepared at the source with automatic equipment:
1. The name and identification of each cleaning solution;
  2. The VOM content of each cleaning solvent in the cleaning solution, as determined in accordance with 35 IAC 218.409(c);
  3. 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);
  4. The proportion of each cleaning solvent and water (or other non-VOM) used to prepare the as-used cleaning solution;
  5. The VOM content of the as-used cleaning solution, with supporting calculations; and
  6. A calibration log for the automatic equipment, detailing periodic checks;
- B. For each batch of cleaning solution for which the Permittee relies on the VOM content to demonstrate compliance with 35 IAC 218.407(a)(4)(A), and which is not prepared at the source with automatic equipment:
1. The name and identification of each cleaning solution;
  2. Date and time of preparation, and each subsequent modification, of the batch;
  3. The VOM content of each cleaning solvent in the cleaning solution, as determined in accordance with 35 IAC 218.409(c);
  4. The total amount of each cleaning solvent and water (or other non-VOM) used to prepare the as-used cleaning solution; and

5. The VOM content of the as-used cleaning solution, with supporting calculations;
- C. For each batch of cleaning solution for which the Permittee relies on the vapor pressure of the cleaning solution to demonstrate compliance with 35 IAC 218.407(a)(4)(B):
1. The name and identification of each cleaning solution;
  2. Date and time of preparation, and each subsequent modification, of the batch;
  3. The molecular weight, density, and VOM composite partial vapor pressure of each cleaning solvent, as determined in accordance with 35 IAC 218.409(e);
  4. The total amount of each cleaning solvent used to prepare the as-used cleaning solution; and
  5. The VOM composite partial vapor pressure of each as-used cleaning solution, as determined in accordance with 35 IAC 218.409(e);
- D. 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;
- b. For the affected coating lines:
- i. The VOM content of each coating shall be determined by the applicable test methods and procedures specified in 35 IAC 218.105 to establish the records required under 35 IAC 218.211. [35 IAC 218.211(a)]
  - ii. The Permittee shall collect and record all of the following information each day and maintain the information at the source for a period of three years: [35 IAC 218.211(c)(2)]
    - A. The name and identification number of each coating as applied on each coating line;

- B. 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;
- c. For the affected units:
- i. Amount of each VOM containing raw material used (tons/month and tons/year) by type;
  - ii. VOM and HAP content of each material used (weight percent);
  - iii. Amount of cleanup solution reclaimed for reuse or sent offsite for disposal and VOM content of the waste.
  - iv. VOM and HAP emissions (tons/month and tons/year), with supporting calculations.

1.1.9 Reporting Requirements

- a. For the affected printing line, the Permittee shall:
- i. Notify the Illinois EPA in writing of any violation of 35 IAC 218.407 within 30 days after the occurrence of such violation. Such notification shall include a copy of all records of such violation; and [35 IAC 218.411(c)(3) and 35 IAC 218.411(d)(3)]
  - ii. If changing its method of demonstrating compliance with the applicable VOM content limitations in 35 IAC 218.407, or changing the method of demonstrating compliance with the VOM content limitations for fountain solutions pursuant to 35 IAC 218.409, certify compliance for such new method(s) in accordance with 35 IAC 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 IAC 218.407. [35 IAC 218.411(c)(4)]
  - iii. If changing its method of demonstrating compliance with the requirements of 35 IAC 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 IAC 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 IAC 218.407(a)(4). [35 IAC 218.411(d)(4)]

b. For the affected coating line, the Permittee shall notify the Illinois EPA in the following instances: [35 IAC 218.211(c)(3)]

- i. Any record showing violation of 35 IAC 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 IAC 218.204 to 35 IAC 218.205 or 35 IAC 218.207, the Permittee shall comply with all requirements of 35 IAC 218.211(d)(1) or (e)(1), respectively. Upon changing the method of compliance from 35 IAC 218.204 to 35 IAC 218.205 or 35 IAC 218.207, the Permittee shall comply with all requirements of 35 IAC 218.211(d) or (e), respectively.

c. Reporting of Deviations

The Permittee shall promptly notify the Illinois EPA of deviations of the affected unit with the permit requirements as follows unless otherwise specified by the CAAPP permit for the source. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:

- i. Notification as provided by Condition 1.1.9(a)(i) or (b)(i).
- ii. Operation or emissions from the affected unit in excess of the limits specified in Condition 1.1.5 within 30 days of such occurrence.
- iii. Notifications for other deviations in a quarterly report.

#### 1.1.10. Authorization to Operate

The affected units may be operated under this permit until renewal of the source's CAAPP permit provided the source has submitted a complete and timely CAAPP renewal application. This condition supersedes Standard Condition 6.

It should be noted that the new sheeter is exempt from state permit requirements pursuant to 35 IAC 201.146(aa). It should also be noted that the three new cutters (a modification to the pneumatic scrap system) are exempt from state permit requirements pursuant to 35 IAC 201.146(kkk).

If you have any questions on this permit, please contact Jason Schnepf at 217/782-2113.

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

Date Signed: \_\_\_\_\_

ECB:JMS:

cc: Region 1

Table 1: Annual VOM Emission Limits and Increases<sup>a</sup> In VOM Emissions For the Project (Tons/Year)

Affected Units	VOM	
	Limit	Increase
New Presses #6 and #7	76.06	76.06
Significance Threshold		40
Greater Than Significant		No

Table 2: Netting Analysis (Tons/Year)

	Date	Permit	VOM
Project Emissions Increases	1/2010	09090006	76.06
Contemporaneous <sup>a</sup> Increases			
Transportable Solvent Recycle Unit	10/2004	04080009	0.44
Gluer	9/2008	08080035	0.10
Gluer	9/2009	09050056	0.10
Increases Subtotal			0.64
Contemporaneous <sup>a</sup> Decreases			
Rotogravure Press #9 <sup>b</sup>	9/2009	09090006	16.49
Rotogravure Press #10 <sup>c</sup>	12/2004	09090006	24.64
Transportable Solvent Recycle Unit	12/2005	09090006	0.01
Decreases Subtotal			41.14
NET EMISSIONS CHANGE			35.56
Significance Threshold			40
Greater Than Significant			No

Note:

- a. The contemporaneous time period begins September 2004.
- b. Includes the VOM emissions attributable to natural gas combustion in the P-9 Gravure Afterburner.
- c. Includes the VOM emissions attributable to natural gas combustion in the P-9 Gravure Afterburner