

217/785-1705

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT

PERMITTEE

PAMCO Label Inc.
Attn: Steve Brownstone
2200 South Wolf Road
Des Plaines, Illinois 60018

Application No.: 11080079 I.D. No.: 031063AHT
Applicant's Designation: Date Received: August 26, 2011
Subject: One Flexographic Printing Press
Date Issued: Expiration Date:
Location: 2200 South Wolf Road, Des Plaines, Cook County 60018

This permit is hereby granted to the above-designated Permittee to OPERATE emission unit(s) and/or air pollution control equipment consisting of seventeen (17) flexographic printing presses, two (2) sheet-fed lithographic printing presses and two HP Indigo offset digital presses 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 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 requirement to obtain a Clean Air Act Permit Program (CAAPP) permit. The maximum emissions of this source, as limited by the conditions of this permit, are described in Attachment A.
 - ii. To establish federally enforceable production and operating limitations, which restrict the maximum theoretical emissions of VOM to less than 100 tons per calendar year and the potential to emit to less than 25 tons per year from the flexographic printing presses constructed without first obtaining construction permit(s), so that the source is not subject to the requirements of 35 Ill. Adm. Code 218.401 (Flexographic and Rotogravure Printing).
 - iii. To limit the potential emissions of VOM from the source to less than 25 tons/year. As a result, the source is excluded from the requirement of 35 Ill. Adm. Code Part 205, Emission Reduction Market System. 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 permits issued 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 212.321(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 35 Ill. Adm. Code 212.321(c).
- d. 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.
- 3a. Pursuant to 35 Ill. Adm. Code 218.187(b), no owner or operator of a source subject to 35 Ill. Adm. Code 218.187 shall perform any cleaning operation unless the owner or operator meets the requirements in subsection (b) (1), (b) (2), or (b) (3).

- i. Pursuant to 35 Ill. Adm. Code 218.187(b) (1) (C) (iv), the VOM content of the as-used cleaning solutions shall not exceed the following emissions limitations:

	kg/l	lb/gal
Flexographic printing that does not print flexible packaging	0.10	0.83

- ii. Pursuant to 35 Ill. Adm. Code 218.187(b) (2), the VOM composite vapor pressure of each as-used cleaning solution used shall not exceed 8.0 mmHg measured at 20°C (68°F).
- 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 apply only to photochemically reactive material.

4. Pursuant to 35 Ill. Adm. Code 218.405(c)(2), the following requirements of 35 Ill. Adm. Code 218.407(a)(3), (4) and (5) 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:
 - a. 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 weight; or
 - ii. 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;
 - b. 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:
 - A. 30 percent, by weight; or
 - B. 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
 - C. The VOM composite partial vapor pressure of the as-used cleaning solution is less than 10 mmHg at 20°C (68°F);
 - c. 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.

- d. Pursuant to 35 Ill. Adm. Code 218.405(c)(3), notwithstanding subsection 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:
 - i. The requirement of 35 Ill. Adm. Code 218.407(a)(2) shall not apply to lithographic printing lines with a total fountain solution reservoir of less than 3.8 liters (1 gallon);
 - ii. The requirements of 35 Ill. Adm. Code 218.407(a)(3) of 35 Ill. Adm. Code Subpart H shall not apply to sheet-fed offset lithographic printing lines with maximum sheet size of 11 x 17 inches or smaller;
 - iii. The requirements of 35 Ill. Adm. Code 218.407(a)(4) of 35 Ill. Adm. Code Subpart H 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;
 - iv. 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.
5. This permit is issued based upon the source not being subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) for the Printing and Publishing Industry, 40 CFR 63, Subpart KK. The flexographic printing presses operated at the facility are not wide-web flexographic printing presses, as defined in 40 CFR 63.822(a).
- 6a. Pursuant to 35 Ill. Adm. Code 218.187(a)(1), except as provided in 35 Ill. Adm. Code 218.187(a)(2), the requirements of 35 Ill. Adm. Code 218.187 shall not apply to all cleaning operations that use organic materials at sources that emit a total of less than 226.8 kg per calendar month (500 lbs per calendar month) of VOM, in the absence of air pollution control equipment, from cleaning operations at the source other than cleaning operations identified in 35 Ill. Adm. Code 218.187(a)(2). For purposes of 35 Ill. Adm. Code 218.187, "cleaning operation" means the process of cleaning products, product components, tools, equipment, or general work areas during production, repair, maintenance, or servicing, including but not limited to spray gun cleaning, spray booth cleaning, large and small manufactured components

cleaning, parts cleaning, equipment cleaning, line cleaning, floor cleaning, and tank cleaning, at sources with emission units;

- b. Pursuant to 35 Ill. Adm. Code 218.187(a)(2)(A)(iv), notwithstanding 35 Ill. Adm. Code 218.187(a)(1), cleaning operations in printing pre-press areas, including the cleaning of film processors, color scanners, plate processors, film cleaning, and plate cleaning shall be exempt from the requirements of 35 Ill. Adm. Code 218.187(b), (c), (d), (f), and (g).
 - c. Pursuant to 35 Ill. Adm. Code 218.187(a)(2)(B)(ii), the lithographic printing cleaning operations shall be exempt from the requirements of Ill. Adm. Code 218.187(b), (c), (d), (f), and (g).
 - d. Pursuant to 35 Ill. Adm. Code 218.204(c)(3), 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, rotogravure, lithographic, or letterpress printing is performed if the paper coating line complies with the applicable emissions limitations in 35 Ill. Adm. Code Part 218 Subpart H. In addition, 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.
 - e. This permit is issued based upon the flexographic printing presses at the source not being subject to the requirements of 35 Ill. Adm. Code 218.401, Flexographic and Rotogravure Printing. Pursuant to 35 Ill. Adm. Code 218.402(a), the limitations of 35 Ill. Adm. Code 218.401 do not apply if the flexographic and rotogravure printing lines (including solvents used for cleanup operations associated with flexographic and rotogravure printing lines) at the source having total maximum theoretical emissions of VOM limited to less than 90.7 Mg (100 tons) per calendar year and combined potential to emit limited to less than 22.7 Mg (25 tons) of VOM per year.
7. The owner or operator of a source subject to the requirements of 35 Ill. Adm. Code 218.187 shall comply with the following applicable operating requirements in 35 Ill. Adm. Code 218.187(d):
- a. Cover open containers and properly cover and store applicators used to apply cleaning solvents;
 - b. Minimize air circulation around the cleaning operation;
 - c. Dispose of all used cleaning solutions, cleaning towels, and applicators used to apply cleaning solvents in closed containers;
 - d. Utilize equipment practices that minimize emissions;
 - e. When using cleaning solvent for wipe cleaning, sources that manufacture coatings, inks, adhesives, or resins shall:

- i. Cover open containers used for the storage of spent or fresh organic compounds used for cleanup or coating, ink, adhesive, or resin removal; and
 - ii. Cover open containers used for the storage or disposal of cloth or paper impregnated with organic compounds that are used for cleanup or coating, ink, adhesive, or resin removal.
8. 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.
- 9a. The operations and combined VOM emissions from all printing operations at the source shall not exceed the following limits:

VOM Usage		VOM emissions	
(tons/mo)	(tons/yr)	(tons/mo)	(tons/yr)
4.0	24.0	4.0	24.0

VOM and HAP emissions from printing operations shall be determined from the following equation:

$$E = \Sigma(M_i \times C_i) - W \times C_w, \text{ where:}$$

E = VOM or HAP emissions (tons);

M_i = Raw material usage (tons);

C_i = VOM or HAP content of the raw material (% by weight);

W = Certified amount of waste shipped-off (tons);

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

- b. The emissions of Hazardous Air Pollutants (HAPs) as listed in Section 112(b) of the Clean Air Act from the source shall not exceed 0.9 tons/month and 9.0 tons/year of any single HAP and 2.25 tons/month and 22.5 tons/year of any combination of such HAPs. As a result of this condition, this permit is issued based on the emissions of any HAP from this source not triggering the requirements of Section 112(g) of the Clean Air Act.
 - c. 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).
- 10a. Pursuant to 35 Ill. Adm. Code 218.187(g)(2), testing to demonstrate compliance with the VOM content limitations in 35 Ill. Adm. Code

218.187(b) (1), and to determine the VOM content of cleaning solvents and cleaning solutions, shall be conducted 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 cleaning solvents 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), however, Method 24 shall be used to determine compliance. In the event of any inconsistency between a Method 24 test and the manufacturer's specifications, the Method 24 test shall govern;
 - b. Pursuant to 35 Ill. Adm. Code 218.187(g) (3), testing to determine the VOM composite partial vapor pressure of cleaning solvents, cleaning solvent concentrates, and as-used cleaning solutions shall be conducted within 90 days after a request by the Illinois EPA in accordance with the applicable methods and procedures specified in 35 Ill. Adm. Code 218.110.
11. Pursuant to 35 Ill. Adm. Code 218.187(e), all sources subject to the requirements of 35 Ill. Adm. Code 218.187 shall collect and record applicable information required by 35 Ill. Adm. Code 218.187(e) (3) and (4).
- 12a. Pursuant to 35 Ill. Adm. Code 218.404(b) (2), any owner or operator of a printing line which is exempted from any of the limitations of 35 Ill. Adm. Code 218.401 because of the criteria in 35 Ill. Adm. Code 218.402(a) shall collect and record all of the following information each year for each printing line and maintain the information at the source for a period of three years:
 - i. The name and identification number of each coating and ink as applied on each printing line.
 - ii. The VOM content and the volume of each coating and ink as applied each year on each printing line.
- b. Pursuant to 35 Ill. Adm. Code 218.411(c), 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.
- 13a. The Permittee shall maintain records of the following items so as to demonstrate compliance with the conditions of this permit:
 - i. Amount of each VOM or HAP contains material used on printing presses (tons/month and tons/year);

- ii. VOM and HAP content of each material containing VOM or HAP ((% by weight));
 - iii. Certified amount of waste shipped-off (tons/month and tons/year) and its VOM content (% by weight); and
 - iv. Monthly and annual VOM and HAP emissions from the source with supporting calculations (ton/month and tons/year).
- b. 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 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 an Illinois EPA or USEPA request for records during the course of a source inspection.
- 14a. Pursuant to 35 Ill. Adm. Code 218.187(e) (1) (C), the owner or operator of a source exempt from the limitations of 35 Ill. Adm. Code 218.187 because of the criteria in subsection 218.187(a) (1), shall notify the Illinois EPA of any record that shows that the combined emissions of VOM from cleaning operations at the source, other than cleaning operations identified in subsection (a) (2) of this Section, ever equal or exceed 226.8 kg/month (500 lbs/month), in the absence of air pollution control equipment, within 30 days after the event occurs.
- b. Pursuant to 35 Ill. Adm. Code 218.404(b) (3), any owner or operator of a printing line which is exempted from the limitations of 35 Ill. Adm. Code 218.401 because of the criteria in 35 Ill. Adm. Code 218.402 shall notify the Illinois EPA of any record showing that combined potential to emit of VOM from all flexographic and rotogravure printing lines at the source equals or exceeds 22.7 Mg (25 tons) of VOM in any calendar year, by sending a copy of such record to the Illinois EPA within 30 days after the exceedance occurs.
- c. Pursuant to 35 Ill. Adm. Code 218.411(b) (1) (E), on and after August 1, 2010, an owner or operator of lithographic printing lines exempt from the limitations in 35 Ill. Adm. Code 218.407 because of the criteria in 35 Ill. Adm. Code 218.405(c) (2), shall notify the Illinois EPA in writing if the 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 ever equal or exceed 6.8 kg/day (15 lbs/day), before the use of capture systems and control devices, within 30 days after the event occurs.
- 15a. If there is an exceedance or a deviation of the requirements of this permit as determined by the records required by this permit, the Permittee shall submit a report to the Illinois EPA's Compliance 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 Agency
Division of Air Pollution Control
Compliance Section (#40)
P.O. Box 19276
Springfield, Illinois 62794-9276

and one (1) copy shall be sent to the Illinois EPA's regional office at the following address unless otherwise indicated:

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

If you have any questions on this, please call Valeriy Brodsky at 217/782-2113.

Robert W. Bernoteit
Acting Manager, Permit Section
Division of Air Pollution Control

Date Signed: _____

RWB:VJB:

cc: Illinois EPA, FOS Region 1
Lotus Notes

Attachment A - Emission Summary

This attachment provides a summary of the maximum emissions from the label printing facility operating in compliance with the requirements of this federally enforceable permit. In preparing this summary, the Illinois EPA used the annual operating scenario which results in maximum emissions from such a plant. The resulting maximum emissions are below the levels (e.g., 100 tons/year for volatile organic material (VOM), 10 tons per year for a single HAP, and 25 tons per year for any combination of such HAP) at which this source would be considered a major source for purposes of the Clean Air Act Permit Program. Actual emissions from this source will be less than predicted in this summary to the extent that less material is handled and control measures are more effective than required in this permit.

<u>Process</u>	<u>Emissions (tons/year)</u>		
	<u>VOM</u>	<u>Single HAP</u>	<u>Total HAP</u>
Label Printing	20.0	9.0	22.5

VJB: