

217/782-2113

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT -- REVISED

PERMITTEE

Bag Makers, Inc.
Attn: Don Brown
6606 South Union Road
Union, Illinois 60180

Application No.: 03070014

I.D. No.: 111804AAD

Applicant's Designation:

Date Received: February 4, 2008

Subject: Packaging Printing Plant

Date Issued:

Expiration Date: May 10, 2010

Location: 6606 South Union Road, Union, McHenry County

This permit is hereby granted to the above-designated Permittee to OPERATE emission unit(s) and/or air pollution control equipment consisting of twenty-one flexographic and twenty-nine silk screen printing 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., 10 tons/year for a single hazardous air pollutant (HAP) and 25 tons/year for totaled 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 limit the emissions of VOM from the construction of new emission units and other modifications at the source, which occurred without first obtaining construction permit(s) between November 15, 1992 and June 15, 2005 (the period during which the Chicago area was classified as severe nonattainment for ozone), to less than 25 tons/year. As a result, the source is excluded from the requirements of 35 Ill. Adm. Code Part 203, Major Stationary Sources Construction and Modification.
 - iii. To limit emissions of VOM from the source during the seasonal allotment period from May 1 through September 30 of each year to less than 15 tons. This limitation is established at the request of the source to exempt it from the requirements of 35 Ill. Adm. Code Part 205, Emissions Reduction Market System (ERMS), pursuant to 35 Ill. Adm. Code 205.205, except reporting requirements of Section 205.300.
 - iv. To establish federally enforceable production and operating limitations, which restrict the potential to emit for VOM to less

than 25 tons per year so that the source is not subject to the requirements of 35 Ill. Adm. Code 218.401 (Flexographic and Rotogravure Printing).

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

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

Note: The paper coating limitation shall not apply to any owner or operator of any paper coating line on which flexographic or rotogravure printing is performed if the paper coating line complies with the emissions limitations in 35 Ill. Adm. Code 218.401. In addition, screen printing on paper is not regulated as paper coating, but is regulated under 35 Ill. Adm. Code 218 Subpart TT.

- 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.
- 3. 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).

- 4a. 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.
- b. This permit is issued based upon the source not being subject to the requirements of 35 Ill. Adm. Code 218.401, Flexographic and Rotogravure Printing. This is a consequence of the federally enforceable production and operating limitations of this permit, which restrict the maximum theoretical emissions of VOM from this facility to less than 100 tons per year and the potential to emit for VOM emissions to less than 25 tons per year.
- c. This permit is issued based upon the silk screen printing presses are not required to meet the control requirements of 35 Ill. Adm. Code 218.986 pursuant to 35 Ill. Adm. Code 218.980(d): No limits under 35 Ill. Adm. Code 218 Subpart TT shall apply to emission units with emissions of VOM to the atmosphere less than or equal to 2.3 Mg (2.5 tons) per calendar year if the total emissions from such emission units not complying with 35 Ill. Adm. Code 219.986 does not exceed 4.5 Mg (5.0 tons) per calendar year.
5. 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.
- 6a. Emissions and operating of the flexographic printing presses and the silk screen printing presses shall not exceed the following limits:
 - i. VOM emissions from fifteen flexographic printing presses (FP1 - FP15) and ten silk screen printing presses (SP1 - SP10) constructed before June 15, 2005 shall not exceed 245 lb/day and 24.5 tons/year.
 - ii. VOM emissions from twenty-one flexographic printing presses (including one new press FP21) shall not exceed 245 lb/day and 24.5 tons/year.
 - iii. The above limitations were established in Permit 08020004, pursuant to 35 Ill. Adm. Code Part 203. These limits ensure that the construction and/or modification addressed in the aforementioned permit does not constitute a new major source or major modification pursuant to Title I of the Clean Air Act, specifically 35 Ill. Adm. Code Part 203.
 - iv. Compliance with the annual limits of Condition 6(a) shall be determined on a daily basis from the sum of the data for the current day plus the preceding 364 days (running 365 day total).

- b. VOM emissions from twenty-nine silk screen printing presses shall not exceed 0.15 ton/mo and 1.16 tons/year (including 0.56 tons/yr from fourteen new presses, SP16 - SP29).
- c. Total VOM emissions from the source (all twenty-one flexographic and all twenty-nine silk screen printing presses) shall not exceed 2.57 tons/month and 25.66 tons/year.
- d. 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.
- e. VOM and HAP emissions shall be determined from the following equation:

$$E = [\sum (M_i \times C_i) - W \times C_w] / 2,000$$

where:

E = VOM or HAP emissions (tons);

M_i = Raw material usage (gallons);

C_i = VOM or HAP content of the raw material (lbs/gallon);

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

C_w - certified VOM or HAP content of the waste (% by weight).

- f. Compliance with the annual limits of Conditions 6(b) through 6(e) 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).
- 7a. Emissions of VOM from the source during the seasonal allotment period from May 1 through September 30 of each year shall not exceed 15 tons. This limitation is established at the request of the source to exempt it from the requirements of 35 Ill. Adm. Code Part 205, Emissions Reduction Market System (ERMS), pursuant to 35 Ill. Adm. Code 205.205.
- b. In the event that the source's VOM emissions during the seasonal allotment period exceed 15 tons, the source shall no longer be exempt from the ERMS and shall comply with 35 Ill. Adm. Code Part 205, by holding allotment trading units (ATUs) for its VOM emissions during each seasonal allotment period.
- 8a. 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 Condition 9 shall be performed upon a written request from the Illinois EPA by a qualified independent testing service.
- 9a. 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 218.404(a), the VOM content of each coating and ink 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 218.404.
10. 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.

- 11a. 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 and complying by means of 35 Ill. Adm. Code 218.204 shall collect and record following information each day for each coating line and maintain the information at the source for a period of three years:
 - i. The name and identification number of each coating as applied on the coating lines.
 - 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 the coating lines.
- b. Pursuant to 35 Ill. Adm. Code 218.404(b)(2), the 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 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.
- 12a. The Permittee shall maintain records of the following items so as to demonstrate compliance with the conditions of this permit:
 - i. Amount of each material, which contains either VOM or HAP, used on printing presses FP1 - FP15 and silk screen printing presses

- SP1 - SP10, which were constructed prior to June 15, 2005, (gallons/day and gallons/year);
- ii. Amount of each material, which contains either VOM or HAP, used on all flexographic printing presses FP1 - FP21 (gal/day, gal/mo, and gal/yr);
 - iii. Amount of each material, which contains either VOM or HAP, used on all silk screen printing presses SP1 - SP29 (gal/mo, and gal/yr);
 - iv. VOM and HAP content of each material containing VOM or HAP (lbs/gallon);
 - v. Certified amount of waste shipped-off (lb/month and lbs/year) and its VOM content (% by weight);
 - vi. Daily and annual VOM emissions for printing presses FP1 - FP15 and silk screen printing presses SP1 - SP10 (which were constructed prior to June 15, 2005) with supporting calculations (lb/day and tons/year);
 - vii. Daily and annual VOM emissions from flexographic printing presses FP1 - FP21 with supporting calculations (lb/day and ton/yr);
 - viii. Monthly and annual VOM emissions from screen printing presses SP1 - SP29 with supporting calculations (ton/month and tons/year); and
 - ix. 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) 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.
13. If there is an exceedance 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. 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 violation and efforts to reduce emissions and future occurrences.
- 14a. 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 of

and complying by means of 35 Ill. Adm. Code 218.204 shall notify the Illinois EPA in the following instances:

- i. Any record showing violation of 35 Ill. Adm. Code 218.204 shall be reported by sending a copy of such record to the Illinois EPA within 30 days following the occurrence of the violation.
 - ii. At least 30 calendar days before changing the method of compliance from 35 Ill. Adm. Code 218.204 to 35 Ill. Adm. Code 218.205 or 35 Ill. Adm. Code 218.207, the owner or operator shall comply with all requirements of 35 Ill. Adm. Code 218.211(d) (1) or (e) (1), respectively. Upon changing the method of compliance from 35 Ill. Adm. Code 218.204 to 35 Ill. Adm. Code 218.205 or 35 Ill. Adm. Code 218.207, the owner or operator shall comply with all requirements of 35 Ill. Adm. Code 218.211(d) or (e), respectively.
- b. Pursuant to 35 Ill. Adm. Code 218.404(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 total maximum theoretical emissions of VOM from all printing lines exceed 90.7 Mg (100 tons) in any calendar year before the application of capture systems and control devices 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 218.990, upon request by the Illinois EPA, the owner or operator of an emission unit which is exempt from the requirements of 35 Ill. Adm. Code 218 Subparts PP, QQ, RR, TT or 35 Ill. Adm. Code 218.208(b) shall submit records to the Illinois EPA within 30 calendar days from the date of the request that document that the emission unit is exempt from those requirements.
15. 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

It should be noted that this permit has been revised to include operation of the equipment described in Construction Permit 08020004.

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

Edwin C. Bakowski, P.E.
Acting 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 the packaging 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 and New Source Review. 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>	Emissions (tons/year)		
	<u>VOM</u>	<u>Single HAP</u>	<u>Total HAP</u>
Twenty-one flexographic printing presses	24.5		
Twenty-nine silk screen printing presses	<u>1.2</u>		
Total	25.7	9.0	22.5

VJB:

Attachment B - Emissions Reduction Market System (ERMS)

1. Description of ERMS

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

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

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

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

2. Applicability

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

205, Emissions Reduction Market System (ERMS), pursuant to 35 Ill. Adm. Code 205.205.

3. Recordkeeping and Reporting

- a. The Permittee shall maintain the following records to determine compliance with the above limitation:
 - i. Records of operating data and other information for each individual emission unit or group of related emission units at the source, as specified in this permit, as appropriate, to determine actual VOM emissions during the seasonal allotment period;
 - ii. Records of the VOM emissions, in tons, during the seasonal allotment period, with supporting calculations, for each individual emission unit or group of related emission units at the source, determined in accordance with the procedures, which may be specified in this permit; and
 - iii. Total VOM emissions from the source, in tons, during each seasonal allotment period.
- b. The Permittee shall submit the seasonal emissions component of the Annual Emissions Report by November 30 of each year, reporting actual emissions of VOM during the seasonal allotment period, in accordance with 35 Ill. Adm. Code 205.205(b) and 35 Ill. Adm. Code 205.300.
- c. In the event that the source's VOM emissions during the seasonal allotment period exceed 15 tons, the source shall no longer be exempt from the ERMS and shall immediately comply with 35 Ill. Adm. Code Part 205, including holding allotment trading units (ATUs) for its VOM emissions during the first seasonal allotment period it exceeds 15 tons and each seasonal allotment period, thereafter, pursuant to 35 Ill. Adm. Code 205.150(c).