217/782-2113

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT

PERMITTEE

Golden Bag Company
Attn: Yuh Chung Chi
290 Illinois Street
East Dundee, Illinois 60118

Application No.: 07030018 I.D. No.: 089425AAF
Applicant's Designation: Date Received: March 6, 2007
Subject: Manufactures and Printing of Plastic Bags
Date Issued: Expiration Date:
Location: 290 Illinois Street, East Dundee, Kane County

This permit is hereby granted to the above-designated Permittee to OPERATE emission unit(s) and/or air pollution control equipment consisting of eight (8) blown-film extruders (Extruder 1-5, Extruder 7-9), seven (7) solvent-base ink flexographic printers (FPU #1-FPU #7), two (2) water-base ink flexographic printers (FPU #8 & FPU #9), six (6) 0.5 mmBtu/hour natural gas-fired ceiling mount space heaters, one (1) 0.5 mmBtu/hour natural gas-fired furnace, and one (1) 0.5 mmBtu/hour natural gas-fired water heater 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/yr for Volatile Organic Material (VOM) and 10 tons/year for a 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 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 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.

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 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.

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

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

i. Prior to May 1, 2011:

	kg/l	lb/gal
	0.28	(2.3)

ii. On and after May 1, 2011:

	kg VOM/kg (lb VOM/lb) solids applied	kg VOM/kg (lb VOM/lb) coatings applied
A. Pressure sensitive tape and label surface coatings	0.20	(0.067)
B. All other paper coatings	0.40	(0.08)

ii. 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 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. 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 218.301, 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.

6. 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).

7a. 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 result 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. 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.

8a. 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.

9a. 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 ceiling mount space heaters shall only be operated with natural gas as the fuel. The use of any other fuel in the ceiling mount space heaters 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.

10a. Emissions and operating of the flexographic printers shall not exceed the following limits:

i. VOM emissions from the nine flexographic printers (FPU #1- FPU #9) shall not exceed 127.94 lb/day and 23.35 tons/year.

ii. VOM and HAP emissions from the flexographic printers shall be determined from the following equation:

$$E = [\Sigma(M_i \times C_i \times d_i) - W \times C_w]/2{,}000$$

where:
E = VOM or HAP emissions (tons);

M_i = Raw material usage (gallons);

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

d_i = Density of the raw material (lb/gallon);

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

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

iii. The above limitations are being established in this permit pursuant to 35 Ill. Adm. Code Part 203. The source has requested that the Illinois EPA establish emission limitations and other appropriate terms and conditions in this permit that limit the VOM emissions from the flexographic printers below the levels that would trigger the applicability of these rules.

iv. Compliance with the annual limits of Condition 10(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. This permit is issued based on negligible emissions of VOM from the eight blown-film extruders (Extruder 1-5, Extruder 7-9). For this purpose, emissions of VOM from all such emission units combined shall not exceed nominal rates of 0.1 lb/hour and 0.44 tons/year.

c. Emissions and operation of the space heaters, furnace, and water heater shall not exceed the following limits:

i. Total Heat Input (all 8 units): 4.0 mmBtu/hour.

ii. Emissions from the combustion of natural gas:

Pollutant	Emission Factor (lbs/mmscf)	Emissions (lbs/hr)	Emissions (Tons/Yr)
Carbon Monoxide (CO)	84.0	0.34	1.47
Nitrogen Oxides (NO_x)	100.0	0.40	1.75
Particulate Matter (PM)	7.6	0.03	0.13
Sulfur Dioxide (SO_2)	0.6	0.01	0.01
Volatile Organic Material (VOM)	5.5	0.02	0.10

These limits are based on the total maximum firing rate of all units, the maximum operating hours (8,760 hours/year) and standard emission factors (Tables 1.4-1 and 1.4-2, AP-42, Fifth Edition, Volume I, Supplement D, July 1998).

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 requirement to obtain a CAAPP permit from the Illinois EPA.

e. Compliance with the annual limits of Conditions 10(b) through (f) of this permit shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month of total).

11a. 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 12 and 13 shall be performed upon a written request from the Illinois EPA by a qualified independent testing service.

12. 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.

13a. 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.

14. 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.

15. 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.

16a. 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 all of the following information each day for each coating line and maintain the information at the source for a period of three years:

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

17a. 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 the flexographic printers (gallons/day and gallons/year);

ii. VOM and HAP content of each material containing VOM or HAP (% by weight);

iii. Density of each material containing VOM or HAP (lbs/gallon);

iv. Certified amount of waste shipped-off (lb/month and lbs/year) and its VOM content (% by weight);

v. Daily and annual VOM emissions from the flexographic printers with supporting calculations (lb/day and ton/yr);

vii. Natural gas usage for all natural gas-fired units (space heaters, furnace, and water heater) (mmscf/month and mmscf/year); and

viii. Monthly and annual emissions of CO, NO_x, PM/PM_{10}, SO_2, VOM, and HAP from the source with supporting calculations (tons/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.

18. 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.

19a. Pursuant to 35 Ill. Adm. Code 218.211(c), 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)(2) or (a)(3)and complying by means of 35 Ill. Adm. Code 218.204 shall comply with the following:

i. By a date consistent with 35 Ill. Adm. Code 218.106, or upon initial start-up of a new coating line, or upon changing the method of compliance from an existing subject coating line from 35 Ill. Adm. Code 218.205, 35 Ill. Adm. Code 218.207, 35 Ill. Adm. Code 218.215, or 35 Ill. Adm. Code 218.216 to 35 Ill. Adm. Code 218.204; the owner or operator of a subject coating line shall certify to the Illinois EPA that the coating line will be in compliance with 35 Ill. Adm. Code 218.204 on and after a date consistent with 35 Ill. Adm. Code 218.106, or on and after the initial start-up date. The certification shall include:

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 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

ii. 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:

A. 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.

B. 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.

20a. 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 Agency
Division of Air Pollution Control
Compliance Section (#40)
P.O. Box 19276
Springfield, Illinois 62794-9276

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

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

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

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

Date Signed: _____

ECB: GB:

cc: Illinois EPA, FOS Region 1
Lotus Notes

Attachment A - Emission Summary

This attachment provides a summary of the maximum emissions from the plastic bag manufacturing and 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.

	E M I S S I O N S (Tons/Year)						
Emission Unit	CO	NOx	PM	SO_2	VOM	Single HAP	Total HAPs
Nine Flexographic Printers					23.35		
Eight Blown-Film Extruders					0.44		
Fuel Combustion	1.47	1.75	0.13	0.01	0.10	--	--
Totals	1.47	1.75	0.13	0.01	23.89	9.0	22.5

GB: