

217/782-2113

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT

PERMITTEE

Custom Graphics, Inc.
Attn: Doug Bartelmay - President
6100 S.W. Washington
Bartonville, Illinois 61607

<u>Application No.:</u> 96070013	<u>I.D. No.:</u> 143005ABA
<u>Applicant's Designation:</u> 5102 and 5401	<u>Date Received:</u> March 26, 2007
<u>Subject:</u> Printing Presses	
<u>Date Issued:</u> July 6, 2011	<u>Expiration Date:</u> July 6, 2016
<u>Location:</u> 6100 South Washington and 4100 South Ricketts, County	Bartonville, Peoria

This permit is hereby granted to the above-designated Permittee to OPERATE emission source(s) and/or air pollution control equipment consisting of five (5) flexographic printing presses (5102, 5401, MA-8, MA-9, and Packer) as described in 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) and 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.
 - ii. To establish area source status under the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Printing and Publishing Industry, 40 CFR 63 Subpart KK. This is a result of the federally enforceable production and operating limitations, which restrict a potential to emit to less than 10 tons/year for any individual Hazardous Air Pollutant (HAP), and 25 tons/year of any combination of such HAPs.
 - 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. The wide-web flexographic printing presses at this source are subject to a National Emission Standards for Hazardous Air Pollutants (NESHAP) for the Printing and Publishing Industry, 40 CFR 63, Subparts A and KK. The Illinois EPA is administering the NESHAP in Illinois on behalf of the United States EPA under a delegation agreement.
 - b. Pursuant to 40 CFR 63.820(a)(2), each new and existing facility at which publication rotogravure, product and packaging rotogravure, or wide-web flexographic printing presses are operated for which the owner or

operator chooses to commit to and meets the criteria of 40 CFR 63.820(a)(2)(i) and (ii) for purposes of establishing the facility to be an area source of HAP with respect to 40 CFR 63 Subpart KK. A facility which establishes area source status through some other mechanism, as described in 40 CFR 63.820(a)(7), is not subject to the provisions of 40 CFR 63 Subpart KK.

- i. Use less than 9.1 Mg (10 tons) per each rolling 12-month period of each HAP at the facility, including materials used for source categories or purposes other than printing and publishing, and
 - ii. Use less than 22.7 Mg (25 tons) per each rolling 12-month period of any combination of HAP at the facility, including materials used for source categories or purposes other than printing and publishing.
- c. Pursuant to 40 CFR 63.820(a)(3), each facility for which the owner or operator chooses to commit to and meets the criteria stated in 40 CFR 63.820(a)(2) shall be considered an area source, and is subject only to the provisions of 40 CFR 63.829(d) and 40 CFR 63.830(b)(1).
- d. Pursuant to 40 CFR 63.820(a)(4), each facility for which the owner or operator commits to the conditions in 40 CFR 63.820(a)(2) may exclude material used in routine janitorial or facility grounds maintenance, personal uses by employees or other persons, the use of products for the purpose of maintaining electric, propane, gasoline and diesel powered motor vehicles operated by the facility, and the use of HAP contained in intake water (used for processing or noncontact cooling) or intake air (used either as compressed air or for combustion).
- e. Pursuant to 40 CFR 63.820(a)(5), each facility for which the owner or operator commits to the conditions in 40 CFR 63.820(a)(2) to become an area source, but subsequently exceeds either of the thresholds in 40 CFR 63.820(a)(2) for any rolling 12-month period (without first obtaining and complying with other limits that keep its potential to emit HAP below major source levels), shall be considered in violation of its commitment for that 12-month period and shall be considered a major source of HAP beginning the first month after the end of the 12-month period in which either of the HAP-use thresholds was exceeded. As a major source of HAP, each such facility would be subject to the provisions of 40 CFR 63 Subpart KK as noted in 40 CFR 63.820(a)(1) and would no longer be eligible to use the provisions of 40 CFR 63.820(a)(2), even if in subsequent 12-month periods the facility uses less HAP than the thresholds in 40 CFR 63.820(a)(2).
- f. Pursuant to 40 CFR 63.820(a)(6), an owner or operator of an affected source subject to 40 CFR 63.820(a)(2) who chooses to no longer be subject to 40 CFR 63.820(a)(2) shall notify the Illinois EPA or USEPA of such change. If, by no longer being subject to 40 CFR 63.820(a)(2), the facility at which the affected source is located becomes a major source:
 - i. The owner or operator of an existing source must continue to comply with the HAP usage provisions of 40 CFR 63.820(a)(2) until the source is in compliance with all relevant requirements for existing affected sources under 40 CFR 63 Subpart KK;

- ii. The owner or operator of a new source must continue to comply with the HAP usage provisions of 40 CFR 63.820(a)(2) until the source is in compliance with all relevant requirements for new affected sources under 40 CFR 63 Subpart KK.
- 3a. 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 meter (1000 foot) 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 212.306, 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.
 - e. 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.
 - f. 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.
- g. 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.
- h. 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).
4. 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.
- 5a. Pursuant to 35 Ill. Adm. Code 215.204(c), no owner or operator of a coating line shall cause or allow the emission of volatile organic material to exceed the following limitations for coating materials, excluding water and any compounds which are specifically exempted from the definition of volatile organic material pursuant to 35 Ill. Adm. Code Part 215, delivered to the coating applicator:
- | Paper Coating | <u>kg/l</u> | <u>lb/gal</u> |
|-----------------------------------------------------------------------------|-------------|---------------|
| i. All paper coating except as provided in 35 Ill. Adm. Code 215.204(c) (2) | 0.35 | (2.9) |
| ii. Specialty High Gloss Catalyzed Coating | 0.42 | (3.5) |
- (Note: These limitations shall not apply to equipment used for both printing and paper coating.)
- b. Pursuant to 35 Ill. Adm. Code 215.301, 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 215.302, 215.303, 215.304 and the following exception:
 If no odor nuisance exists the limitation of 35 Ill. Adm. Code 215
 Subpart K shall apply only to photochemically reactive material.

- 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/hour (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. Pursuant to 35 Ill. Adm. Code 215.209, no coating line subject to the limitations of 35 Ill. Adm. Code 215.204 is required to meet 35 Ill. Adm. Code 215.301 or 215.302, after the date by which the coating line is required to meet 35 Ill. Adm. Code 215.204.
- b. Pursuant to 35 Ill. Adm. Code 215.402, the limitations of 35 Ill. Adm. Code 215 Subpart P: Printing and Publishing shall not apply to any facility whose aggregate uncontrolled rotogravure and/or flexographic printing press emissions of volatile organic materials are limited by operating permit conditions to 907 Mg (1000 tons) per year or less in the absence of air pollution control equipment or whose actual emissions in the absence of air pollution control equipment would be less than or equal to 907 Mg (1000 tons) per year when averaged over the preceding three calendar years.
- 8a. 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. Natural gas shall be the only fuels used in the dryers and ovens associated with the flexographic printing presses. The use of any other fuel in the dryers and ovens associated with the flexographic printing presses requires that the Permittee first obtain a construction permit from the Illinois EPA and then verify compliance with all applicable requirements.
- 9a. Emissions and operation of the flexographic printing presses shall not exceed the following:
 - i. Material usage and VOM emissions:

<u>Material Used</u>	<u>VOM Usage</u>		<u>VOM Emissions</u>	
	<u>(Lbs/Mo)</u>	<u>(Lbs/Yr)</u>	<u>(Tons/Mo)</u>	<u>(Tons/Yr)</u>
Ink	2,370	28,440	1.19	14.22
Varnish	3,600	43,200	1.80	21.60
Additives and Cleanup Solvents	8,200	98,400	4.10	49.20
Total				85.02

- ii. The emissions of Hazardous Air Pollutants (HAPs) as listed in Section 112(b) of the Clean Air Act from this source shall not equal or 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 and establishes area source status under the NESHAP for Printing and Publishing Industry, 40 CFR 63 Subpart KK.
- iii. The above limits are based on the maximum production rate and VOM/HAP content of raw materials. VOM/HAP emissions shall be calculated using the following equation:

$$E = \sum (R_i \times V_R)$$

Where:

E = VOM/HAP emissions (tons);

R = VOM/HAP-containing raw materials usage (tons); and

V_R - VOM/HAP content of raw materials (% by weight).

- b. Operation and emissions of the dryers and ovens associated with flexographic printing presses MA-8, MA-9, and Packer (combined) shall not exceed the following limits:

<u>Pollutant</u>	<u>Emission Factor</u>		<u>Emissions</u>	
	<u>(Lbs/mm scf)</u>	<u>(Lbs/Hour)</u>	<u>(Tons/Yr)</u>	
Carbon Monoxide (CO)	84.0	0.34	1.51	
Nitrogen Oxides (NO _x)	100.0	0.41	1.80	
Particulate Matter (PM)	7.6	0.03	0.14	
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 maximum firing rate of the dryers and ovens associated with the flexographic printing presses (4.1 mmBtu/hour, combined), 8,760 hours/year of operation and standard emission factors (Tables 1.4-1 and 1.4-2, AP-42, Fifth Edition, Volume I, Supplement D, July 1998).

- c. Compliance with the annual limits 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).
- 10a. 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 11 and 12 shall be performed upon a written request from the Illinois EPA by a qualified independent testing service.
11. 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.
 12. Pursuant to 35 Ill. Adm. Code 215.208(a), the VOM content of coatings shall be determined by Method 24, 40 CFR Part 60, Appendix A, except for glues and adhesive coatings, two component reactive coatings forming volatile reaction products, coatings requiring energy other than heat to initiate curing, coatings requiring high temperature catalysis for curing, providing the person proposing testing of the material submits to the Illinois EPA proof that the Method 24 results would not be representative and proof that a proposed alternative test method gives representative, accurate test results. For printing inks, the volatile organic material content shall be determined by Method 24A, 40 CFR Part 60, Appendix A. Any alternate test method must be approved by the Illinois EPA which shall consider data comparing the performance of the proposed alternative to the performance of the approved test method(s). If the Illinois EPA determines that such data demonstrates that the proposed alternative will achieve results equivalent to the approved test method(s), the Illinois EPA shall approve the proposed alternative.
 13. Pursuant to 40 CFR 63.829(d), the owner or operator of each facility which commits to the criteria of 40 CFR 63.820(a)(2) shall maintain records of all required measurements and calculations needed to demonstrate compliance with these criteria, including the mass of all

HAP containing materials used and the mass fraction of HAP present in each HAP containing material used, on a monthly basis.

14. 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.
- 15a. The Permittee shall maintain records of the following items so as to demonstrate compliance with the conditions of this permit:
 - i. Each ink usage (pounds/month and pounds/year);
 - ii. Each ink VOM and HAP content (weight percent);
 - iii. Each ink additive usage (pounds/month and pounds/year);
 - iv. Each ink additive VOM and HAP content (weight percent);
 - v. Each varnish usage (pounds/month and pounds/year);
 - vi.. Each varnish VOM and HAP content (weight percent);
 - vii. Each varnish additive usage (pounds/month and pounds/year);
 - viii. Each varnish additive VOM and HAP content (weight percent);
 - ix. Each clean-up solvent usage (pounds/month and pounds/year);
 - x. Each clean-up solvent VOM and HAP content (weight percent);
 - xi. Natural gas usage (mmscf/month and mmscf/year); and
 - xii. Monthly and annual emissions CO, NO_x, PM, SO₂, 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.
16. Pursuant to 40 CFR 63.830(b)(6)(ii), each owner or operator of an affected source subject to 40 CFR 63 Subpart KK shall submit to the Illinois EPA or USEPA a summary report specified in 40 CFR 63.10(e)(3) shall be submitted on a semi-annual basis (i.e., once every 6-month period). These summary reports are required even if the affected source does not have any control devices or does not take the performance of any control devices into account in demonstrating compliance with the emission limitations in 40 CFR 63.824 or 40 CFR 63.825. In addition to a report of operating parameter exceedances as required by 40 CFR

63.10(e)(3)(i), the summary report shall include exceedances of either of the criteria of 40 CFR 63.820(a)(2).

17. 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.

18a. 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

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
5415 North University
Peoria, Illinois 61614

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

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

Date Signed: _____

ECB:DWH:psj

cc: Illinois EPA, Region 2
Lotus Notes

Attachment A - Emission Summary

This attachment provides a summary of the maximum emissions from printing presses 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 well below the levels (e.g., 100 ton per year of 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>Emission Unit</u>	E M I S S I O N S (Tons/Year)						
	<u>CO</u>	<u>NO_x</u>	<u>PM</u>	<u>SO₂</u>	<u>VOM</u>	Single <u>HAP</u>	Total <u>HAPs</u>
Flexographic Presses					85.02		
Dryers & Ovens associated with Presses MA-8, MA-9, & Packer	<u>1.51</u>	<u>1.80</u>	<u>0.14</u>	<u>0.01</u>	<u>0.10</u>	<u>----</u>	<u>----</u>
Totals	1.51	1.80	0.14	0.01	85.12	9.0	22.5

DWH:psj