

217/785-1705

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT

PERMITTEE

Pride Container Corporation  
Attn: Paul Kracun, Plant Engineer  
4545 West Palmer Street  
Chicago, Illinois 60639

<u>Application No.:</u> 10080030	<u>I.D. No.:</u> 031600FSS
<u>Applicant's Designation:</u>	<u>Date Received:</u> August 23, 2010
<u>Subject:</u> Manufacture Folding Paper Cartons	
<u>Date Issued:</u> October 11, 2012	<u>Expiration Date:</u> October 11, 2022
<u>Location:</u> 4545 West Palmer Street, Chicago, Cook County, 60639	

This permit is hereby granted to the above-designated Permittee to OPERATE emission unit(s) and/or air pollution control equipment consisting of nine (9) flexographic printers with dryers, one (1) corrugator, cardboard baler cyclone, one (1) 13.39 mmB/hr natural gas-fired boiler, storage silo with bin vent filter, weigh hopper with flexible sock boot filter, one (1) auger conveying system, one (1) primary mixer, one (1) high shear mixer, one (1) caustic storage tank, one (1) adhesive storage tank 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. This federally enforceable state operating permit (FESOP) is issued 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 of 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 the Printing and Publishing Industry, 40 CFR Part 63, Subpart KK. This is accomplished through the establishment of federally enforceable production limitations on the usage of HAP at the facility, including materials used for source categories or purposes other than printing and publishing, to less than 10 tons/year for any individual HAP and 25 tons/year of any combination of such HAPs.
  - 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 permit(s) for this location.
- 2a. The wide-web flexographic printing presses as 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 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 212.301, 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 212.321(a), except as further provided in 35 Ill. Adm. Code Part 212, 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 216.121, no person shall cause or allow the emission of carbon monoxide (CO) into the atmosphere from any fuel combustion emission source with actual heat input greater than 2.9 MW (10 mmBtu/hr) to exceed 200 ppm, corrected to 50 percent excess air.
- 5a. Pursuant to 35 Ill. Adm. Code 218.122(b), no person shall cause or allow the loading of any organic material into any stationary tank having a storage capacity of greater than 946 l (250 gal), unless such tank is equipped with a permanent submerged loading pipe or an equivalent device approved by the Illinois EPA according to the provisions of 35 Ill. Adm. Code Part 201, and further processed consistent with 35 Ill. Adm. Code 218.108, or unless such tank is a pressure tank as described in 35 Ill. Adm. Code 218.121(a) or is fitted with a recovery system as described in 35 Ill. Adm. Code 218.121(b) (2).
- b. Pursuant to 35 Ill. Adm. Code 218.187(a) (1), on and after January 1, 2012 except as provided in 35 Ill. Adm. Code 218.187(a) (2), the requirements of 35 Ill. Adm. Code 218.187 shall apply to all cleaning operations which use organic materials at sources that emit a total of 226.8 kg per calendar month (500 lbs per calendar month) or more 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;
- c. Pursuant to 35 Ill. Adm. Code 218.187(b), no owner or operator of a source subject to 35 Ill. Adm. Code 218.187, other than manufacturers of coatings, inks, adhesives, or resins, shall perform any cleaning operation subject to 35 Ill. Adm. Code 218.187 unless the owner or operator meets the requirements in 35 Ill. Adm. Code 218.187(b) (1), (b) (2), or (b) (3). No owner or operator of a source that manufactures coatings, inks, adhesives, or resins shall perform any cleaning operation subject to 35 Ill. Adm. Code 218.187 unless the owner or operator meets the requirements in at least one of the following: 35 Ill. Adm. Code 218.187(b) (1), (b) (2), (b) (3), (b) (4), or (b) (5).

i. The VOM content of the as-used cleaning solutions does not exceed the following emissions limitations:

A. Cleaning of ink application equipment:

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

	kg/l	lb/gal
B. All other cleaning operations not subject to a specific limitation in 35 Ill. Adm. Code 218.187(b) (1) (A) through (b) (1) (D)	0.050	0.42

ii. The composite vapor pressure of each as-used cleaning solution used does not exceed 8.0 mmHg measured at 20°C (68°F);

d. Pursuant to 35 Ill. Adm. Code 218.204(c) (2), 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 Paper Coating. Except as otherwise provided in 35 Ill. Adm. Code 218.204(a), (c), (g), (h), (j), (l), (n), (p), and (q), compliance with the emission limitations is required on and after March 15, 1996. 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:

	kg VOM/kg (lb VOM/lb) <u>solids applied</u>	kg VOM/kg (lb VOM/lb) <u>coatings applied</u>
i. Pressure sensitive tape and label surface coatings	0.20	(0.067)
ii. All other paper coatings	0.40	(0.08)

- iii. 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 218 Subpart H. 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.
- e. Pursuant to 35 Ill. Adm. Code 218.301, no person shall cause or allow the discharge of more than 3.6 kg/hr (8 lbs/hr) 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 exemption: If no odor nuisance exists the limitation of 35 Ill. Adm. Code 218 Subpart G (Use of Organic Material) shall only apply to photochemically reactive material.
- 5. This permit is issued based upon the source not being subject to the National Emission Standard for Hazardous Air Pollutants (NESHAP) for Paper and Other Web Coating, 40 CFR 63 Subpart JJJJ. Pursuant to 40 CFR 63.3330(b), any web coating line that is a product and packaging rotogravure or wide-web flexographic press under 40 CFR 63 Subpart KK (National Emission Standards for The Printing And Publishing Industry) which is included in the affected source under 40 CFR 63 Subpart KK are not part of the affected source of 40 CFR 63 Subpart JJJJ.
- 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/hr (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 218.122(c), if no odor nuisance exists the limitations of 35 Ill. Adm. Code 218.122 shall only apply to the loading of VOL with a vapor pressure of 17.24 kPa (2.5 psia) or greater at 294.3°K (70°F).
- b. Pursuant to 35 Ill. Adm. Code 218.187(a)(2), notwithstanding 35 Ill. Adm. Code 218.187(a)(1):

- i. The following cleaning operations shall be exempt from the requirements of 35 Ill. Adm. Code 218.187(b), (c), (d), (e), (f), and (g):
    - A. Janitorial cleaning;
    - B. Stripping of cured coatings, inks, or adhesives, including screen reclamation activities;
    - C. Cleaning operations in printing pre-press areas, including the cleaning of film processors, color scanners, plate processors, film cleaning, and plate cleaning;
  - ii. Cleaning operations for emission units within the following source categories shall be exempt from the requirements of 35 Ill. Adm. Code 218.187(b), (c), (d), (e), (f), and (g):
    - A. Lithographic printing;
    - B. Paper, film, and foil coating;
  - iii. The cleaning of metering rollers, dampening rollers, and printing plates shall be exempt from the requirements of 35 Ill. Adm. Code 218.187(b), (c), (f), and (g).
- c. 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.
  - d. This permit is issued based on the flexographic printing presses at this not being subject to the control requirements of 35 Ill. Adm. Code 218.401 (Flexographic and Rotogravure Printing) as 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. Pursuant to 35 Ill. Adm. Code 218.402(a), except as otherwise provided in 35 Ill. Adm. Code 218.401, the limitations of 35 Ill. Adm. Code 218.401 apply to all flexographic and rotogravure printing lines at a subject source. Sources with flexographic and/or rotogravure printing lines are subject sources if:
    - i. Total maximum theoretical emissions of VOM from all flexographic and rotogravure printing lines (including solvents used for cleanup operations associated with flexographic and rotogravure printing lines) at the source ever exceed 90.7 Mg (100 tons) per calendar year and the flexographic and rotogravure printing lines (including solvents used for cleanup operations associated with flexographic and rotogravure printing lines) at the source are not limited to less than 90.7 Mg (100 tons) of VOM emissions per

calendar year in the absence of air pollution control equipment through production or capacity limitations contained in a federally enforceable permit or a SIP revision; or

- ii. The flexographic and rotogravure printing lines (including solvents used for cleanup operations associated with flexographic and rotogravure printing lines) at the source have a potential to emit 22.7 Mg (25 tons) or more of VOM per year.
- e. Pursuant to 35 Ill. Adm. Code 218.900(b)(1)(E), notwithstanding 35 Ill. Adm. Code 218.900(a) the requirements of this 35 Ill. Adm. Code 218 Subpart JJ (Miscellaneous Industrial Adhesives) shall not apply to miscellaneous industrial adhesive application operations associated with paper, film, and foil coatings.
- 8a. 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.
- b. Pursuant to 35 Ill. Adm. Code 212.307, all unloading and transporting operations of materials collected by pollution control equipment shall be enclosed or shall utilize spraying, pelletizing, screw conveying or other equivalent methods.
- c. 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.
- d. 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 the 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
  - v. Such other information as may be necessary to facilitate the Illinois EPA's review of the operating program.
- e. 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.
- 9a. Pursuant to 35 Ill. Adm. Code 218.187(c), the owner or operator of a subject source shall demonstrate compliance with 35 Ill. Adm. Code 218.187 by using the applicable test methods and procedures specified in 35 Ill. Adm. Code 218.187(g) and by complying with the recordkeeping and reporting requirements specified in 35 Ill. Adm. Code 218.187(e).
- b. Pursuant to 35 Ill. Adm. Code 218.187(d), the owner or operator of a source subject to the requirements of 35 Ill. Adm. Code 218.187 shall comply with the following for each subject cleaning operation. Such requirements are in addition to work practices set forth in 35 Ill. Adm. Code 218.187(b) (4) and (b) (5), as applicable:
- i. Cover open containers and properly cover and store applicators used to apply cleaning solvents;
  - ii. Minimize air circulation around the cleaning operation;
  - iii. Dispose of all used cleaning solutions, cleaning towels, and applicators used to apply cleaning solvents in closed containers;
  - iv. Utilize equipment practices that minimize emissions;
  - v. When using cleaning solvent for wipe cleaning, sources that manufacture coatings, inks, adhesives, or resins shall:
    - A. Cover open containers used for the storage of spent or fresh organic compounds used for cleanup or coating, ink, adhesive, or resin removal; and
    - B. 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.

- c. 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.
- d. Pursuant to 35 Ill. Adm. Code 218.402(e), any owner or operator of any flexographic or rotogravure printing line that is exempt from any of the limitations of 35 Ill. Adm. Code 218.401 because of the criteria in 35 Ill. Adm. Code 218.402 is subject to the recordkeeping and reporting requirements specified in 35 Ill. Adm. Code 218.404(b) and (f), as applicable.
- 10a. 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. Boiler BR-1 shall only be operated with natural gas as the fuel. The use of any other fuel in the comfort 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.
- 11a. Emissions and operation of the eight flexographic printing presses shall not exceed the following limits:

<u>Materials</u>	<u>VOM Usage</u>		<u>VOM Emissions</u>	
	<u>(Ton/Mo)</u>	<u>(Ton/Yr)</u>	<u>(Ton/Mo)</u>	<u>(Ton/Yr)</u>
Inks, Adhesives & Solvents, etc.	2.00	20.00	2.00	20.00

These limits are based on the maximum material usage, the maximum VOM content, and the maximum HAP content. VOM and HAP emissions from printing operations shall be determined from the following equation:

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

where:

$E$  = VOM or HAP emissions (tons);

$M_i$  = Raw material usage (gallons);

$d_i$  = Density of material (lbs/gallon);

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

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

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

- b. Emissions and operation of the baler cyclone shall not exceed the following limits:

<u>Equipment</u>	<u>Scrap Throughput</u>		<u>Particulate Matter Emissions</u>	
	<u>(lb/hour)</u>	<u>(Tons/Yr)</u>	<u>(lb/hour)</u>	<u>(Tons/Yr)</u>
Baler Cyclone	3,000	13,140	3.15	13.81

These limits are based on the maximum operation, 8760 hours/year of operation, and the allowable emission rate from 35 Ill Adm. Code 212.321.

- c. Operation and emissions of natural gas fired Boiler BR-1 shall not exceed the following limits:

i. Natural Gas Usage: 18.75 mmscf/month and 150 mmscf/year

ii. Emissions from the combustion of natural gas:

<u>Pollutant</u>	<u>Emission Factor</u>	<u>Emissions</u>	
	<u>(lbs/mmscf)</u>	<u>(Tons/Mo)</u>	<u>(Tons/Yr)</u>
Carbon Monoxide (CO)	84.0	0.79	6.30
Nitrogen Oxides (NO <sub>x</sub> )	100.0	0.94	7.50
Particulate Matter (PM)	7.6	0.07	0.57
Sulfur Dioxide (SO <sub>2</sub> )	0.6	0.01	0.05
Volatile Organic Material (VOM)	5.5	0.05	0.41

These limits are based on the maximum natural gas usage and standard emission factors (Tables 1.4-1 and 1.4-2 or AP-42, Volume I, Fifth Edition, Supplement D, July 1998).

- d. This permit is issued based on negligible emissions of particulate matter from the weigh hopper, auger conveying system and 6 die cutters, primary mixer, and high shear mixer. For this purpose, emissions of particulate matter from each emission unit shall not exceed nominal emission rates of 0.1 lb/hour and 0.44 ton/year.

- e. This permit is issued based on negligible emissions of volatile organic matter from the adhesive storage tank and caustic storage tank. For this purpose, emissions from each emission unit shall not exceed nominal emission rates of 0.1 lb/hour and 0.44 tons/year.
  - f. The emissions of Hazardous Air Pollutants (HAPs) as listed in Section 112(b) of the Clean Air Act from this source shall not exceed 0.8 tons/month and 8.0 tons/year of any single HAP and 1.6 tons/month and 16.0 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.
  - g. 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 total).
- 12a. 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 13 and 14 shall be performed upon a written request from the Illinois EPA by a qualified independent testing service.

13. 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.
- 14a. Pursuant to 35 Ill. Adm. Code 218.187(g) (1), testing to demonstrate compliance with the requirements of 35 Ill. Adm. Code 218.187 shall be conducted by the owner or operator within 90 days after a request by the Illinois EPA, or as otherwise specified in 35 Ill. Adm. Code 218.187. Such testing shall be conducted at the expense of the owner or operator and the owner or operator shall notify the Illinois EPA in writing 30 days in advance of conducting the testing to allow the Illinois EPA to be present during the testing;
- b. 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); provided, 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;
- c. 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 in accordance with the applicable methods and procedures specified in 35 Ill. Adm. Code 218.110;
- d. 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.
- e. 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.

15. 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.
16. 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.
17. 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.
- 18a. Pursuant to 35 Ill. Adm. Code 218.129(f), the owner or operator of each storage vessel specified in 35 Ill. Adm. Code 218.119 shall maintain readily accessible records of the dimension of the storage vessel and an analysis of the capacity of the storage vessel. Each storage vessel with a design capacity less than 40,000 gallons is subject to no provisions of 35 Ill. Adm. Code Part 218 other than those required by

maintaining readily accessible records of the dimensions of the storage vessel and analysis of the capacity of the storage vessel.

- b. Pursuant to 35 Ill. Adm. Code 218.187(e) (3), all sources complying with 35 Ill. Adm. Code 218.187 pursuant to the requirements of 35 Ill. Adm. Code 218.187(b) (1) shall collect and record the following information for each cleaning solution used:

- i. For each cleaning solution that is prepared at the source with automatic equipment:
- A. The name and identification of each cleaning solution;
  - B. The VOM content of each cleaning solvent in the cleaning solution;
  - C. Each change to the setting of the automatic equipment, with date, time, description of changes in the cleaning solution constituents (e.g., cleaning solvents), and a description of changes to the proportion of cleaning solvent and water (or other non-VOM);
  - D. The proportion of each cleaning solvent and water (or other non-VOM) used to prepare the as-used cleaning solution;
  - E. The VOM content of the as-used cleaning solution, with supporting calculations; and
  - F. A calibration log for the automatic equipment, detailing periodic checks;
- ii. For each batch of cleaning solution that is not prepared at the source with automatic equipment:
- A. The name and identification of each cleaning solution;
  - B. Date, time of preparation, and each subsequent modification of the batch;
  - C. The VOM content of each cleaning solvent in the cleaning solution;
  - D. The total amount of each cleaning solvent and water (or other non-VOM) used to prepare the as-used cleaning solution; and
  - F. The VOM content of the as-used cleaning solution, with supporting calculations. For cleaning solutions that are not prepared at the site but are used as purchased, the manufacturer's specifications for VOM content 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);

- c. Pursuant to 35 Ill. Adm. Code 218.187(e) (4), all sources complying with this Section pursuant to the requirements of 35 Ill. Adm. Code 218.187(b) (2) shall collect and record the following information for each cleaning solution used:
  - i. The name and identification of each cleaning solution;
  - ii. Date, time of preparation, and each subsequent modification of the batch;
  - iii. The molecular weight, density, and VOM composite partial vapor pressure of each cleaning solvent, as determined in accordance with the applicable methods and procedures specified in 35 Ill. Adm. Code 218.110;
  - iv. The total amount of each cleaning solvent used to prepare the as-used cleaning solution; and
  - v. The VOM composite partial vapor pressure of each as-used cleaning solution, as determined in accordance with the applicable methods and procedures specified in 35 Ill. Adm. Code 218.110;
- d. Pursuant to 35 Ill. Adm. Code 218.187(e) (10), all records required by this 35 Ill. Adm. Code 218.187(e) shall be retained by the source for at least three years and shall be made available to the Illinois EPA upon request.
- e. 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 other than 35 Ill. Adm. Code 218.204(a) (1) (B), (a) (1) (C), (a) (2) (B), (a) (2) (C), or (a) (2) (D) and complying by means of 35 Ill. Adm. Code 218.204 shall comply with the following: On and after a date consistent with 35 Ill. Adm. Code 218.106, or on and after the initial start-up date, the owner or operator of a subject coating line shall collect and record all of the following information each day, unless otherwise specified, 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 each coating line;
  - 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 each coating line;
  - iii. 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, and certified product data sheets for each coating.

- f. Pursuant to 35 Ill. Adm. Code 218.211(g) (3), on and after a date consistent with 35 Ill. Adm. Code 218.106(e), or on and after the initial startup date, whichever is later, the owner or operator of a coating line subject to the requirements of 35 Ill. Adm. Code 218.218 shall comply with the following: Maintain at the source all records required by 35 Ill. Adm. Code 218.211(g) for a minimum of three years from the date the document was created and make those records available to the Illinois EPA upon request.
- g. 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) on and after a date consistent with 35 Ill. Adm. Code 218.106, or, for flexographic or rotogravure printing lines that print flexible packaging or that print flexible packaging and non-flexible packaging on the same line, on and after January 1, 2012, the owner or operator of a flexographic and rotogravure printing line referenced in 35 Ill. Adm. Code 218.404(b) shall collect and record all of the following information each year for each printing line and maintain the information at the source:
  - i. The name and identification number of each coating and ink as applied on each printing line.
  - ii. The VOM content and volume of each coating and ink as applied each year on each printing line.
- 19a. The Permittee shall maintain records of the following items so as to demonstrate compliance with the conditions of this permit:
  - i. Plant-wide usage of VOM and HAP-containing materials (tons/month, tons/year);
  - ii. VOM and HAP content of all VOM and HAP-containing materials (weight %);
  - iii. Certified amount of waste shipped off site (tons/month, tons/year);
  - iv. Certified VOM and HAP content of the waste (weight %);
  - v. Corrugated scrap throughput (tons/month, tons/year);
  - vi. Natural gas usage of Boiler BR-1 (mmscf/month and mmscf/year); and
  - vii. Monthly and annual emissions of CO, NO<sub>x</sub>, PM, SO<sub>2</sub>, VOM, and HAPs from the source, with supporting calculations (tons/month, 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.
- 20. 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 exceedance as required by 40 CFR 63.10(e)(3)(i), the summary report shall include exceedance of either of the criteria of 40 CFR 63.820(a)(2).
  - 21. 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.
  - 22a. Pursuant to 35 Ill. Adm. Code 218.187(e)(2)(B), All sources subject to the requirements of this Section shall: At least 30 calendar days before changing the method of compliance between 35 Ill. Adm. Code 218.187(b)(1), (b)(2), (b)(4), or (b)(5) and 35 Ill. Adm. Code 218.187(b)(3), notify the Illinois EPA in writing of such change. The notification shall include a demonstration of compliance with the newly applicable subsection;
  - b. Pursuant to 35 Ill. Adm. Code 218.187(e)(9), all sources subject to the requirements of 35 Ill. Adm. Code 218.187(b) and (d) shall notify the Illinois EPA of any violation of 35 Ill. Adm. Code 218.187(b) or (d) by providing a description of the violation and copies of records documenting the violation to the Illinois EPA within 30 days following the occurrence of the violation;
  - c. 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 other than 35 Ill. Adm. Code 218.204(a)(1)(B), (a)(1)(C), (a)(2)(B), (a)(2)(C), or (a)(2)(D) and complying by means of 35 Ill. Adm. Code 218.204 shall comply with the following: 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:

- 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), as applicable. 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), as applicable.
- d. Pursuant to 35 Ill. Adm. Code 218.211(g) (2), on and after a date consistent with 35 Ill. Adm. Code 218.106(e), or on and after the initial startup date, whichever is later, the owner or operator of a coating line subject to the requirements of 35 Ill. Adm. Code 218.218 shall comply with the following: Notify the Illinois EPA of any violation of 35 Ill. Adm. Code 218.218 by providing a description of the violation and copies of records documenting the violation to the Illinois EPA within 30 days following the occurrence of the violation.
  - e. Pursuant to 35 Ill. Adm. Code 218.404(b) (3), 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) on and after a date consistent with 35 Ill. Adm. Code 218.106, or, for flexographic or rotogravure printing lines that print flexible packaging or that print flexible packaging and non-flexible packaging on the same line, on and after January 1, 2012, the owner or operator of a flexographic and rotogravure printing line exempted from the limitations of 35 Ill. Adm. Code 218.401 because of the criteria in 35 Ill. Adm. Code 218.402(a) 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, or that the combined potential to emit of 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.
- 23a. 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  
9511 West Harrison  
Des Plaines, Illinois 60016

If you have any questions on this, please call David Hulskotter at 217/785-1705.

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

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

ECB:DWH:jws

cc: Illinois EPA, FOS Region 1  
Lotus Notes

Attachment A - Emissions Summary

This attachment provides a summary of the maximum emissions from the folding paper carton manufacturing plant 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 VOM, 10 tons/year for any single HAP, and 25 tons/year for any combination of such HAPs) 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)					Single <u>HAP</u>	Total <u>HAPs</u>
	<u>CO</u>	<u>NO<sub>x</sub></u>	<u>PM</u>	<u>SO<sub>2</sub></u>	<u>VOM</u>		
Eight Flexographic Printing Presses					20.00		
Baler Cyclone			13.81				
Boiler BR-1	6.30	7.50	0.57	0.05	0.41		
Weigh Hopper			0.44				
Auger Conveying System			0.44				
6 Die Cutters			2.64				
Primary Mixer			0.44				
High Shear Mixer			0.44				
Adhesive Storage Tank					0.44		
Caustic Storage Tank	--	--	--	--	0.44	--	--
Totals	6.30	7.50	18.78	0.05	21.29	8.00	16.00