

217/785-1705

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT

PERMITTEE

INX International Ink Company
Attn: Kevin Facklam
150 North Martingale Road, Suite 700
Schaumburg, Illinois 60173

Application No.: 11090040

I. D. No.: 031821ABG

Applicant's Designation:

Date Received: September 26, 2011

Subject: Printing Ink Production

Date Issued: May 2, 2012

Expiration Date: May 2, 2022

Location: 5001 South Mason Avenue, Chicago, Cook County, 60638

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) mills (AM-1, AM-2, AM-3, AM-4, and AM-5), fifteen (15) mixers (AD-1, AD-2, AD-3, AD-4, AD-5, AD-6, AD-7 and AD-9 controlled by a dust collector, RS-1 and RS-2 controlled by a dust collector, AD-12 controlled by a dust collector when blending dry additives, AD-10, AD-11, RS-3 and RS-5 each controlled by an individual dust collector) and ten (10) storage tanks (TK-1: 6,000 gallons, TK-2: 6,000 gallons, TK-3: 3,000 gallons, TK-4: 3,000 gallons, TK-5: 1,500 gallons, TK-6: 1,500 gallons, TK-7: 1,500 gallons, TK-8: 1,500 gallons, TK-9: 500 gallons, and TK-9A: 500 gallons) pursuant to the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

- 1a. This federally enforceable state operating permit is issued:
 - i. To limit the emissions of air pollutants from the source to less than major source thresholds (i.e., 100 tons/year for Volatile Organic Materials (VOM)). 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.
- 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. 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 212.321(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).
- 3a. 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 liters (250 gallons), 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 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 218.122(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).
- c. 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 that 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;

- d. 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 subsections: 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:

	kg/l	lb/gal
Cleaning of equipment used in the manufacture of coatings, inks, adhesives, or resins	0.20	1.67

- ii. The composite vapor pressure of each as-used cleaning solution used does not exceed 8.0 mmHg measured at 20°C (68°F);
- iii. An afterburner or carbon adsorber is installed and operated that reduces VOM emissions from the subject cleaning operation by at least 85 percent overall, or for sources that manufacture coatings, inks, adhesives, or resins, an afterburner or carbon adsorber is installed and operated that reduces VOM emissions from the subject cleaning operation by at least 80 percent overall and has a 90 percent efficiency. The owner or operator may use an emissions control system other than an afterburner or carbon adsorber if such device reduces VOM emissions from the subject cleaning operation in accordance with the applicable capture and control requirements of this 35 Ill. Adm. Code 218.187(b)(3), the owner or operator submits a plan to the Agency detailing appropriate monitoring devices, test methods, recordkeeping requirements, and operating parameters for such control device, and such plan is approved by the Agency and USEPA within federally enforceable permit conditions;

- iv. For sources that manufacture coatings, inks, adhesives, or resins, the owner or operator complies with the following work practices:
 - A. Equipment being cleaned is maintained leak-free;
 - B. VOM-containing cleaning materials are drained from the cleaned equipment upon completion of cleaning;
 - C. VOM-containing cleaning materials, including waste solvent, are not stored or disposed of in such a manner that will cause or allow evaporation into the atmosphere; and
 - D. VOM-containing cleaning materials are stored in closed containers; or
- v. Sources that manufacture coatings, inks, adhesives, or resins may utilize solvents that do not comply with 35 Ill. Adm. Code 218.187(b)(1) or (b)(2) provided that all of the following requirements are met:
 - A. No more than 228 l (60 gal) of fresh solvent is used per calendar month. Solvent that is reused or recycled, either onsite or offsite, for further use in equipment cleaning or in the manufacture of coatings, inks, adhesives, or resins, shall not be included in this limit;
 - B. Solvents, including cleanup solvents, are collected and stored in closed containers; and
 - C. Records are maintained in accordance with 35 Ill. Adm. Code 218.187(e)(6).
- e. 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.
- f. Pursuant to 35 Ill. Adm. Code 218.620(b), 35 Ill. Adm. Code 218 Subpart AA (Paint and Ink Manufacturing) shall apply to all paint and ink manufacturing sources which:
 - i. Have the potential to emit 22.7 Mg (25 tons) or more of VOM per year, in aggregate, from process emission units that:
 - A. Are not regulated by 35 Ill. Adm. Code 218 Subparts B, E, F, H, Q, R, S, T (excluding 35 Ill. Adm. Code 218.486), V, X, Y, Z, or BB; or

- B. Are not included in any of the following categories:
 - synthetic organic chemical manufacturing industry (SOCMI) distillation, SOCMI reactors, wood furniture, plastic parts coating (business machines), plastic parts coating (other), offset lithography, industrial wastewater, autobody refinishing, SOCMI batch processing, volatile organic liquid storage tanks and clean-up solvents operations, or
 - ii. Produce more than 1,892,705 liters (500,000 gallons) per calendar year of paint or ink formulations which contain less than 10% (by weight) water, and ink formulations not containing as the primary solvents water, Magie oil or glycol.
- 4a. This permit is issued based upon the source not being subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Miscellaneous Coating Manufacturing, 40 CFR 63, Subpart HHHHH because this source is not a major source of Hazardous Air Pollutant (HAP) emissions, as defined in Section 112(a) of the Clean Air Act (CAA).
- b. This permit is issued based on the source not being subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Area Sources: Paints and Allied Products Manufacturing, 40 CFR 63 Subpart CCCCCC because the source does not processes, uses, or generates materials containing HAP, as defined in 40 CFR 63.11607.
5. 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.
- 6a. This permit is issued based on the storage tanks at this source not being subject to 35 Ill. Adm. Code 218.120, Control Requirements for Storage Containers for VOL. Pursuant to 35 Ill. Adm. Code 218.119, the limitations of 35 Ill. Adm. Code 218.120 shall apply to all storage containers of volatile organic liquid (VOL) with a maximum true vapor pressure of 0.5 psia or greater in any stationary tank, reservoir, or other container of 151 cubic meters (40,000 gallons) capacity or greater.
- b. Pursuant to 35 Ill. Adm. Code 218.621 the requirements of 35 Ill. Adm. Code 218.624 and 218.625 and 35 Ill. Adm. Code 218.628(a) shall not apply to equipment while it is being used to produce either:
- i. Paint or ink formulations which contain 10 percent or more (by weight) water; or

- ii. Inks containing Magie oil and glycol as the primary solvent.
- 7a. 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 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.

- 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.

- 8a. 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 218.624, no person shall operate an open-top mill, tank, vat or vessel, with a volume of more than 45 liters (12 gallons) for the production of paint or ink unless:
 - i. The mill, tank, vat or vessel is equipped with a cover which completely covers the mill, tank, vat or vessel opening, except for an opening no larger than necessary to allow for safe clearance for a mixer shaft. Such cover shall extend at least 1.27 cm (0.5 in) beyond the outer rim of the opening or be attached to the rim.

- ii. The cover remains closed, except when production, sampling, maintenance, or inspection procedures require access.
 - iii. The cover is maintained in good condition, such that when in place, it maintains contact with the rim of the opening for at least 90 percent of the circumference of the rim.
- d. Pursuant to 35 Ill. Adm. Code 218.625(a), no person shall operate a grinding mill for the production of paint or ink which is not maintained in accordance with the manufacturer's specifications.
 - e. Pursuant to 35 Ill. Adm. Code 218.625(b), except as provided by 35 Ill. Adm. Code 218.621, no person shall operate a grinding mill fabricated or modified after the effective date of 35 Ill. Adm. Code 218 Subpart AA which is not equipped with fully enclosed screens.
 - f. Pursuant to 35 Ill. Adm. Code 218.626(a), the owner or operator shall equip tanks storing VOL with a vapor pressure greater than 10 kPa (1.5 psi) at 20°C (68°F) with pressure/vacuum conservation vents set as a minimum at +/-0.2 kPa (0.029 psi). These controls shall be operated at all times. An alternative air pollution control system may be used if it results in a greater emission reduction than these controls. Any alternative control system can be allowed only if approved by the Illinois EPA and approved by the USEPA as a SIP revision.
 - g. Pursuant to 35 Ill. Adm. Code 218.626(b), stationary VOL storage containers with a capacity greater than 946 liters (250 gallons) shall be equipped with a submerged-fill pipe or bottom fill. These controls shall be operated at all times. An alternative control system can be allowed only if approved by the Illinois EPA and approved by the USEPA as a SIP revision.
 - h. Pursuant to 35 Ill. Adm. Code 218.628, except as provided by 35 Ill. Adm. Code 218.621, the owner or operator of a paint or ink manufacturing source shall, for the purpose of detecting leaks, conduct an equipment monitoring program as set forth below:
 - i. Each pump shall be checked by visual inspection each calendar week for indication of leaks, that is, liquids dripping from the pump seal. If there are indications of liquids dripping from the pump seal, the pump shall be repaired as soon as practicable, but no later than 15 calendar days after the leak is detected.
 - ii. Any pump, valve, pressure relief valve, sampling connection, open-ended valve and flange or connector containing a fluid which is at least 10 percent VOM by weight which appears to be leaking on the basis of sight, smell, or sound shall be repaired as soon as practicable, but no later than 15 calendar days after the leak is detected.
 - iii. A weather proof, readily visible tag, in bright colors such as red or yellow, bearing an identification number and the date on

which the leak was detected shall be attached to leaking equipment. The tag may be removed upon repair, that is, when the equipment is adjusted or otherwise altered to allow operation without leaking.

- k. Pursuant to 35 Ill. Adm. Code 218.630(a), no person shall clean paint or ink manufacturing equipment with organic solvent unless the equipment being cleaned is completely covered or enclosed except for an opening no larger than necessary to allow safe clearance for proper operation of the cleaning equipment, considering the method and materials being used.
- l. Pursuant to 35 Ill. Adm. Code 218.630(b), no person shall store organic wash solvent in other than closed containers, unless closed containers are demonstrated to be a safety hazard, or dispose of organic wash solvent in a manner such that more than 20 percent by weight is allowed to evaporate into the atmosphere.
- 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 Permittee shall, in accordance with the manufacturer(s) and/or vendor(s) recommendations, perform periodic maintenance on the dust collectors such that the dust collectors are kept in proper working condition and not cause a violation of the Illinois Environmental Protection Act or regulations promulgated therein.
- 10a. This permit is issued based on this source not being a participating source in the Emissions Reduction Market System (ERMS), 35 Ill. Adm. Code Part 205, pursuant to 35 Ill. Adm. Code 205.200. This is based on the source's actual VOM emissions during the seasonal allotment period from May 1 through September 30 of each year being less than 10 tons and the source's baseline emissions also being less than 10 tons.
- b. In the event that the source's VOM emissions during the seasonal allotment period equal or exceed 10 tons, the source shall become a participating source in the ERMS and shall comply with 35 Ill. Adm. Code Part 205, by holding allotment trading units (ATUs) for its VOM emissions during each seasonal allotment period, unless the source obtains exemption from the ERMS by operating with seasonal VOM emissions of no more than 15 tons pursuant to a limitation applied for and established in a Clean Air Act Permit Program (CAAPP) permit or a Federally Enforceable State Operating Permit (FESOP).
- c. Pursuant to 35 Ill. Adm. Code 205.316(a), any participating or new participating source shall not operate without a CAAPP permit or FESOP. Pursuant to 35 Ill. Adm. Code 205.316(a)(2), if a participating or new participating source does not have a CAAPP permit containing ERMS provisions and the source elects to obtain a permit other than a CAAPP permit, the source shall apply for and obtain a FESOP that contains, in

addition to other necessary provisions, federally enforceable ERMS provisions, including baseline emissions, allotment for each seasonal allotment period, identification of any units deemed to be insignificant activities for purposes of the ERMS, emissions calculation methodologies, and provisions addressing all other applicable requirements of 35 Ill. Adm. Code Part 205.

11a. Operations and VOM emissions from the mills and mixers shall not exceed the following limits:

i. Mills and mixers constructed between November 15, 1992 and June 15, 2005:

<u>Emission Units</u>	<u>Production Rate</u>		<u>Emission Factor</u> (Lbs/Ton)	<u>VOM Emissions</u>	
	(Tons/Mo)	(Tons/Yr)		(Tons/Mo)	(Tons/Yr)
Mills AM1-AM4	42	330	14.8	0.31	2.44
Mixers AD2-AD7, AD9, RS1, RS2	330	2,620	12.4	2.03	<u>16.24</u>
				Total:	<u>18.68</u>

ii. Mills and mixers, constructed before November 15, 1992 and after June 15, 2005 shall not exceed the following limits:

<u>Emission Units</u>	<u>Production Rate</u>		<u>Emission Factor</u> (Lb/Ton)	<u>VOM Emissions</u>	
	(Tons/Mo)	(Tons/Yr)		(Lbs/Mo)	(Tons/Yr)
Mill AM5	18	141	14.8	0.13	1.04
Mixers AD1, AD10- AD12, RS3, RS5	405	3,223	12.4	2.51	<u>19.98</u>
				Total:	<u>21.02</u>

iii. These limits are based on the maximum production rate and emission factor published by the National Association of Printing Ink Manufacturers: Guide to Estimating VOC Emissions from Printing Ink Manufacturing, Table 3-3.

b. Emissions from the equipment clean-up operations shall not exceed the following limits:

<u>VOM Usage</u>		<u>VOM Emissions</u>	
(Tons/Month)	(Tons/Year)	(Tons/Month)	(Tons/Year)
0.58	4.60	0.58	4.60

These limits are based on the maximum material usage, the maximum VOM content of the material used and material balance. The VOM emission shall be calculated based on material balance between amounts of VOM used in clean-up and shipped off for disposal.

- c. This permit is issued based on negligible emissions of particulate matter from the mills and mixer. For this purpose, emissions from each emission unit shall not exceed nominal emission rates of 0.1 lb/hour and 0.44 ton/year.
 - d. This permit is issued based on negligible emissions of volatile organic material from ten storage tanks. For this purpose, emissions from all such emission units shall not exceed nominal emission rates of 0.1 lb/hour and 0.44 ton/year (combined).
 - e. 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).
12. This permit is issued based on the Potential to Emit (PTE) for Hazardous Air Pollutants (HAP) as listed in Section 112(b) of the Clean Air Act from this source being less than 10 tons/year of any single HAP and 25 tons/year of any combination of such HAPs. As a result, this permit is issued based on the emissions of all HAPs from this source not triggering the requirements to obtain a Clean Air Act Permit Program (CAAPP) Permit and the NESHAP for Miscellaneous Coating Manufacturing, 40 CFR 63 Subpart HHHHH.
- 13a. 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 14 and 15 shall be performed upon a written request from the Illinois EPA by a qualified independent testing service.
14. 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.
- 15a. 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), 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;
16. 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.

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 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
 - E. 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 35 Ill. Adm. Code 218.187 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)(5), all sources complying with 35 Ill. Adm. Code 218.187 pursuant to the requirements of 35 Ill. Adm. Code 218.187(b)(3) shall comply with the following:
- i. By January 1, 2012, or upon initial start-up of the source, whichever is later, and upon initial start-up of a new emissions control system, include in the certification required by 35 Ill. Adm. Code 218.187(e)(3) a declaration that the monitoring equipment required under 35 Ill. Adm. Code 218.187(e) (f) of this Section has been properly installed and calibrated according to manufacturer's specifications;
 - ii. If testing of an emissions control system is conducted pursuant to 35 Ill. Adm. Code 218.187(g), the owner or operator shall, within 90 days after conducting such testing, submit a copy of all test results to the Agency and shall submit a certification to the Agency that includes the following:
 - A. A declaration that all tests and calculations necessary to demonstrate compliance with 35 Ill. Adm. Code 218.187(b)(3) have been properly performed;
 - B. A statement whether the subject cleaning operation is or is not in compliance with 35 Ill. Adm. Code 218.187(b)(3); and
 - C. The operating parameters of the emissions control system during testing, as monitored in accordance with 35 Ill. Adm. Code 218.187(f);
 - iii. Collect and record daily the following information for each cleaning operation subject to the requirements of 35 Ill. Adm. Code 218.187(b)(3):
 - A. Emissions control system monitoring data in accordance with 35 Ill. Adm. Code 218.187(f), as applicable;
 - B. A log of operating time for the emissions control system, monitoring equipment, and the associated cleaning equipment;

- C. A maintenance log for the emissions control system and monitoring equipment detailing all routine and non-routine maintenance performed, including dates and duration of any outages;
- iv. Maintain records documenting the use of good operating practices consistent with the equipment manufacturer's specifications for the cleaning equipment being used and the emissions control system equipment. At a minimum, these records shall include:
 - A. Records for periodic inspection of the cleaning equipment and emissions control system equipment with date of inspection, individual performing the inspection, and nature of inspection;
 - B. Records for repair of malfunctions and breakdowns with identification and description of incident, date identified, date repaired, nature of repair, and the amount of VOM released into the atmosphere as a result of the incident;
- e. Pursuant to 35 Ill. Adm. Code 218.187(e)(6), all sources complying with 35 Ill. Adm. Code 218.187 pursuant to the requirements of 35 Ill. Adm. Code 218.187(b)(5) shall collect and record monthly the following information for each cleaning operation subject to the requirements of 35 Ill. Adm. Code 218.187(b)(5):
 - i. The name, identification, and volume of each VOM-containing cleaning solution as applied in each cleaning operation;
 - ii. The volume of each fresh cleaning solvent used for cleaning coating, ink, adhesive, or resin manufacturing equipment;
 - iii. The volume of cleaning solvent recovered for either offsite or onsite reuse or recycling for further use in the cleaning of coating, ink, adhesive, or resin manufacturing equipment;
- f. Pursuant to 35 Ill. Adm. Code 218.187(e)(10), all records required by 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.
- g. Pursuant to 35 Ill. Adm. Code 218.625(c), the manufacturer's specifications shall be kept on file at the plant by the owner or operator of the grinding mill and be made available to any person upon verbal or written request during business hours.
- h. Pursuant to 35 Ill. Adm. Code 218.628(d), when a leak is detected, the owner or operator shall record the date of detection and repair and the record shall be retained at the source for at least two years from the date of each detection or each repair attempt. The record shall be

made available to any person upon verbal or written request during business hours.

- i. Pursuant to 35 Ill. Adm. Code 218.637(b), every owner or operator of a source which is subject to the requirements of 35 Ill. Adm. Code 218 Subpart AA shall maintain all records necessary to demonstrate compliance with those requirements at the source for three years.
- 19a. The Permittee shall maintain records of the following items so as to demonstrate compliance with the conditions of this permit:
- i. Records addressing use of good operating practices for the dust collectors:
 - A. Records for periodic inspection of the dust collectors with date, individual performing the inspection, and nature of inspection; and
 - B. Records for prompt repair of defects, with identification and description of defect, effect on emissions, date identified, date repaired, and nature of repair.
 - ii. Production rate separately for each group of mills and mixers (tons/month and tons/year);
 - iii. VOM and HAP content of the materials used (weight percent);
 - iv. Amount of waste clean-up solvent shipped off for disposal (tons/month and tons/year) and its VOM/HAP content (weight percent); and
 - v. Monthly and annual PM, VOM, and HAP emissions with supporting calculations (tons/month and tons/year). HAP emissions may be assumed as a part of VOM emission proportional to the HAP/VOM fraction in the raw materials used.
- b. The Permittee shall maintain the following records to allow the confirmation of actual VOM emissions during the seasonal allotment period:
- i. Records of operating data and other information for each individual emission unit or group of related emission units at the source, as appropriate, to determine actual VOM emissions during the seasonal allotment period;
 - ii. Records of the VOM emissions, in tons, during the seasonal allotment period, with supporting calculations, for each individual emission unit or group of related emission units at the source, determined in accordance with the procedures that may be specified in this permit; and

- iii. Total VOM emissions from the source, in tons, during each seasonal allotment period, which shall be compiled by November 30 of each year.
 - c. 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 the Illinois EPA or USEPA request for records during the course of a source inspection.
20. 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.
- 21a. Pursuant to 35 Ill. Adm. Code 218.187(e)(2)(B), all sources subject to the requirements of 35 Ill. Adm. Code 218.187 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.
- 22a. 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 permit, please call Valeriy Brodsky at 217/785-1705.

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

Date Signed: _____

ECB:VJB:psj

cc: Illinois EPA, FOS Region 1
Lotus Notes

Attachment A - Emission Summary

This attachment provides a summary of the maximum emissions from the Ink 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) 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 Units</u>	<u>E M I S S I O N S (Tons/Year)</u>	
	<u>PM</u>	<u>VOM</u>
Mills AM1-AM4	1.76	2.44
Mixers AD2-AD7, AD9, RS1, RS2	2.64	16.24
Mill AM5	0.44	1.04
Mixers AD1,AD10- AD12, RS3, RS5	2.64	19.98
Equipment Clean-up		4.60
10 Storage Tanks	<u>----</u>	<u>0.44</u>
Total:	7.48	44.74

VJB:psj