

217/785-1705

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT

PERMITTEE

Sun Chemical Corporation
Attn: Lyle Douthitt
2445 Production Drive
St. Charles, Illinois 60174

<u>Application No.:</u> 10020037	<u>I.D. No.:</u> 089483ACF
<u>Applicant's Designation:</u>	<u>Date Received:</u> March 4, 2010
<u>Subject:</u> Ink Manufacturing Plant	
<u>Date Issued:</u> March 19, 2014	<u>Expiration Date:</u> March 19, 2024
<u>Location:</u> 2445 Production Drive, St. Charles, Kane County	

This permit is hereby granted to the above-designated Permittee to OPERATE emission source(s) and/or air pollution control equipment consisting of

Liquid Ink Manufacturing
One (1) Liquid Ink Dispenser
Two (2) Liquid Ink Mixers Controlled by Dust Collectors DC-1 and DC-2
Liquid Ink Packaging
Paste Ink Manufacturing
Fifty-two (52) Paste Ink Mixers Controlled by Dust Collectors DC-1 and DC-2
Seventeen (17) Paste Ink Three-Roll Mills
Paste Ink Packaging
Repackaging/Container Transfers
Parts Washer Vessel and Wipe Cleaning

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 Material (VOM), 10 tons/year for any single hazardous air pollutant (HAP) and 25 tons/year for any combination of such HAPs). As a result the source is excluded from the requirements to obtain a Clean Air Act Permit Program (CAAPP) permit. The maximum emissions of this source, as limited by the conditions of this permit, are described in Attachment A.
 - ii. To establish federally enforceable production and operating limitations, which restrict the potential to emit to less than 10 tons/year for any individual Hazardous Air Pollutant (HAP) and 25 tons/year of any combination of such HAPs so that the source is not subject to the requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Miscellaneous Coating Manufacturing, 40 CFR 63, Subpart HHHHH.

- iii. 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.
 - iv. 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.
 - v. 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 Part 218 Subpart AA (Paint and Ink Manufacturing).
- 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 218.182(c)(3)(B), on and after May 30, 2007 no person shall operate a cold cleaning degreaser with a solvent vapor pressure which exceeds 1.0 mmHg (0.019 psi) measured at 20°C (68°F) , unless the person is in compliance with the control requirements of 35 Ill. Adm. Code 218.182(c)(4) or is exempt under 35 Ill. Adm. Code 218.182(f) or (g).

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 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;

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

- iii. 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;
- iv. 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 liters (60 gallons) 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).
- d. 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 this 35 Ill. Adm. Code 218 Subpart G (Use of Organic Material) shall apply only to photochemically reactive material.
- 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. This is a result of the federally enforceable production and operating limitations, which restrict the potential to emit to less than 10 tons/year for any individual Hazardous Air Pollutant (HAP), and 25 tons/year of any combination of such HAPs.
- b. This permit is issued based upon the source not being subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Chemical Manufacturing Area Sources, 40 CFR 63 Subpart VVVVVV.

Pursuant to 40 CFR 63.11494(c)(1)(i), 40 CFR 63 Subpart VVVVVV does not apply to affected sources under the following chemical manufacturing area source categories listed pursuant to Clean Air Act (CAA) section 112(c)(3) and 112(k)(3)(B)(ii) that are subject to area source standards under 40 CFR Part 63: Manufacture of Paint and Allied Products, subject to 40 CFR 63 Subpart CCCCCC.

- c. 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 is issued based on the source not being subject to 35 Ill. Adm. Code 218 Subpart AA (Paint and Ink Manufacturing). Pursuant to 35 Ill. Adm. Code 218.620(b)(1), 35 Ill. Adm. Code 218 Subpart AA shall also 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.
- 7a. Pursuant to 35 Ill. Adm. Code 218.182(a), no person shall operate a cold cleaning degreaser unless:

- i. Waste solvent is stored in covered containers only and not disposed of in such a manner that more than 20% of the waste solvent (by weight) is allowed to evaporate into the atmosphere;
 - ii. The cover of the degreaser is closed when parts are not being handled; and
 - iii. Parts are drained until dripping ceases.
- b. Pursuant to 35 Ill. Adm. Code 218.182(b), no person shall operate a cold cleaning degreaser unless:
- i. The degreaser is equipped with a cover which is closed whenever parts are not being handled in the cleaner. The cover shall be designed to be easily operated with one hand or with the mechanical assistance of springs, counter-weights or a powered system if:
 - A. The solvent vapor pressure is greater than 2 kPa (15 mmHg or 0.3 psi) measured at 38°C (100°F);
 - B. The solvent is agitated; or
 - C. The solvent is heated above ambient room temperature.
 - ii. The degreaser is equipped with a device for draining cleaned parts. The drainage device shall be constructed so that parts are enclosed under the cover while draining unless:
 - A. The solvent vapor pressure is less than 4.3 kPa (32 mmHg or 0.6 psi) measured at 38°C (100°F); or
 - B. An internal drainage device cannot be fitted into the cleaning system, in which case the drainage device may be external.
 - iii. The degreaser is equipped with one of the following control devices if the vapor pressure of the solvent is greater than 4.3 kPa (32 mmHg or 0.6 psi) measured at 38°C (100°F) or if the solvent is heated above 50°C (120°F) or its boiling point:
 - A. A freeboard height of 7/10 of the inside width of the tank or 91 cm (36 in), whichever is less; or
 - B. Any other equipment or system of equivalent emission control as approved by the Illinois EPA and further processed consistent with 35 Ill. Adm. Code 218.108. Such a system may include a water cover, refrigerated chiller or carbon adsorber.
 - iv. A permanent conspicuous label summarizing the operating procedure is affixed to the degreaser; and

- v. If a solvent spray is used, the degreaser is equipped with a solid fluid stream spray, rather than a fine, atomized or shower spray.
- c. Pursuant to 35 Ill. Adm. Code 218.182(c)(2)(B), no person shall operate a cold cleaning degreaser with a solvent vapor pressure which exceeds 1.0 mmHg (0.019 psi) measured at 20°C (68°F).
- d. 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).
- e. 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.
- 8a. In the event that the operation of this source results in an odor nuisance, the Permittee shall take appropriate and necessary actions to minimize odors, including but not limited to, changes in raw material or installation of controls, in order to eliminate the odor nuisance.
- b. 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 Environmental Protection Act or regulations promulgated therein.

- c. The Ink Manufacturing Plant shall not be operated with a material containing benzene, methylene chloride, or compounds of cadmium, chromium, lead, and/or nickel, in amounts greater than or equal to 0.1 percent by weight, as shown in formulation data provided by the manufacturer or supplier, such as the Material Safety Data Sheet for the material. The use of any a material containing benzene, methylene chloride, or compounds of cadmium, chromium, lead, and/or nickel, in amounts greater than or equal to 0.1 percent by weight, as shown in formulation data provided by the manufacturer or supplier, such as the Material Safety Data Sheet for the material in the water based in production plant 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.

- 9a. Emissions of VOM operation of the paste ink manufacturing shall not exceed the following limits:

<u>Emission Unit</u>	<u>Production Rate</u>		<u>VOM Emissions</u>	
	<u>(Lbs/Month)</u>	<u>(Lbs/Year)</u>	<u>(Tons/Month)</u>	<u>(Tons/Year)</u>
Mixing			0.12	1.19
Milling	650,000	6,500,000	0.44	4.44
Packaging			0.04	0.44
		Total	0.60	6.07

These limits are based on emission factors that were derived from formulas and models contained in the Emission Inventory Improvement Program (EIIP), Vol. II, Chapter 8: Methods for Estimating Air Emissions for Paint and Ink and Other Coating Manufacturing Facilities: February 2005(i.e. VOM emissions occur during mixing of material, milling of material and transfer of batch material from the vessel to another).

- b. Emissions and operation of the Parts Washer Vessel and Wipe Cleaning shall not exceed the following limits:

	<u>Production Rate</u>		<u>VOM Emissions</u>	
	<u>(Lbs/Month)</u>	<u>(Lbs/Year)</u>	<u>(Tons/Month)</u>	<u>(Tons/Year)</u>
8000,000	8,000,000	1.47	14.65	

The emission limits are based on the liquid and paste ink production rate and VOM emission rate.

- c. This permit is issued based on negligible emissions of particulate matter (PM) from the liquid ink manufacturing operations. For this purpose, VOM and PM emissions 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 particulate matter (PM) from the paste ink manufacturing operations. For this purpose, emissions 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 material (VOM) from the Repackaging/Container Transfers. For this purpose, VOM emissions shall not exceed nominal emission rates of 0.1 lb/hour and 0.44 ton/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 0.9 tons/month and 9.0 tons/year of any single HAP and 2.25 tons/month and 22.5 tons/year of any combination of such HAPs. As a result of this condition, this permit is issued based on the emissions of any HAP from this source not triggering the requirement to obtain a CAAPP permit from the Illinois EPA and the NESHAP for Miscellaneous Coating Manufacturing, 40 CFR 63 Subpart HHHHH.
 - 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).
- 10a. Pursuant to 35 Ill. Adm. Code 201.282, every emission source or air pollution control equipment shall be subject to the following testing requirements for the purpose of determining the nature and quantities of specified air contaminant emissions and for the purpose of determining ground level and ambient air concentrations of such air contaminants:
- i. Testing by Owner or Operator. The Illinois EPA may require the owner or operator of the emission source or air pollution control equipment to conduct such tests in accordance with procedures adopted by the Illinois EPA, at such reasonable times as may be specified by the Illinois EPA and at the expense of the owner or operator of the emission source or air pollution control equipment. The Illinois EPA may adopt procedures detailing methods of testing and formats for reporting results of testing. Such procedures and revisions thereto, shall not become effective until filed with the Secretary of State, as required by the APA Act. All such tests shall be made by or under the direction of a person qualified by training and/or experience in the field of air pollution testing. The Illinois EPA shall have the right to observe all aspects of such tests.
 - ii. Testing by the Illinois EPA. The Illinois EPA shall have the right to conduct such tests at any time at its own expense. Upon request of the Illinois EPA, the owner or operator of the emission source or air pollution control equipment shall provide, without charge to the Illinois EPA, necessary holes in stacks or ducts and other safe and proper testing facilities, including

scaffolding, but excluding instruments and sensing devices, as may be necessary.

- b. Testing required by Condition 11 shall be performed upon a written request from the Illinois EPA by a qualified independent testing service.
- 11a. 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.
12. 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.

- 13a. Pursuant to 35 Ill. Adm. Code 218.182(d)(2), all persons subject to the requirements of 35 Ill. Adm. Code 218.182(c)(2)(B) , (c)(2)(B), and (c)(3)(B) must maintain records which include for each purchase:
 - i. The name and address of the solvent supplier;
 - ii. The date of purchase;
 - iii. The type of solvent; and
 - iv. The vapor pressure of the solvent measured in mmHg at 20°C (68°F); and
 - v. For any mixture of solvents, the vapor pressure of the mixture, as used, measured in mmHg at 20°C (68°F).
- b. Pursuant to 35 Ill. Adm. Code 218.182(e), all records required by 35 Ill. Adm. Code 218.182(d) shall be retained for three years and shall be made available to the Illinois EPA upon request.
- c. 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
 - 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).
- d. 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.
- 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.
- 14a. 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. Ink production (gallons/month and gallons/year);
 - iii. Names and amount of cleaning solvents used (tons/month and tons/year);
 - iv. VOM and HAP content in the cleaning solvents (weight %);
 - v. Names and amount of solid particulates used (tons/month; tons/year); and

- vi. Monthly and annual emissions of PM, VOM and HAPs from the source with supporting calculations (tons/month and tons/year).
 - b. All records and logs required by this permit shall be retained at a readily accessible location at the source for at least five (5) years from the date of entry and shall be made available for inspection and copying by the Illinois EPA or USEPA upon request. Any records retained in an electronic format (e.g., computer storage device) shall be capable of being retrieved and printed on paper during normal source office hours so as to be able to respond to an Illinois EPA or USEPA request for records during the course of a source inspection.
- 15a. Pursuant to 35 Ill. Adm. Code 218.182(d)(6), all persons subject to the requirements of 35 Ill. Adm. Code 218.182(b) or (c) shall notify the Illinois EPA of any violation of 35 Ill. Adm. Code 218.182(b) or (c) by sending a description of the violation and copies of records documenting such violations to the Illinois EPA within 30 days following the occurrence of the violation.
- b. 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;
 - c. 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.
 - d. Pursuant to 35 Ill. Adm. Code 218.637(a), upon request by the Illinois EPA, the owner or operator of an emission source which claims to be exempt from the requirements of 35 Ill. Adm. Code 218 Subpart AA shall submit records to the Illinois EPA within 30 calendar days from the date of the request which document that the emission source is in fact exempt from 35 Ill. Adm. Code 218 Subpart AA. These records shall include (but are not limited to) the percent water (by weight) in the paint or ink being produced and the quantity of Magie oil, glycol and other solvents in the ink being produced.
- 16a. If there is an exceedence 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 exceedence 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 exceedence 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

It should be noted that the two (2) natural gas heating units are exempt from permitting pursuant to 35 Ill. Adm. Code 201.146(d).

If you have any questions on this permit, please contact Jocelyn Stakely at 217/785-1705

Raymond E. Pilapil
Acting Manager, Permit Section
Division of Air Pollution Control

Date Signed: _____

REP:JRS:psj

cc: Illinois EPA, Region 1
Lotus Notes

Attachment A

This attachment provides a summary of the maximum emission 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 well 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 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 material is handled and control measures are more effective than required in this permit.

<u>Emission Unit</u>	E M I S S I O N S (Tons/Year)			
	<u>PM</u>	<u>VOM</u>	<u>Single HAP</u>	<u>Total HAPs</u>
Paste Ink Manufacturing	0.44	6.07		
Liquid Ink Manufacturing	0.44	0.44		
Repackaging/Container Transfers	----	0.44		
Parts Washer Vessel and Wipe Cleaning	----	<u>14.65</u>	----	----
Totals:	<u>0.88</u>	<u>21.60</u>	<u>9.0</u>	<u>22.5</u>

JRS:psj