

217/782-2113

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT -- RENEWAL

PERMITTEE

The Tapecoat Co., Inc.
Attn: Donald Kathrein
1527 Lyons Street
Evanston, Illinois 60201

Application No.: 72110414
Applicant's Designation:
Subject: Manufacturing of Tapes
Date Issued:
Location: 1520-27 Lyons St., Evanston, Cook County, 60201

I.D. No.: 031081ACU
Date Received: November 16, 2006
Expiration Date:

This permit is hereby granted to the above-designated Permittee to OPERATE emission source(s) and/or air pollution control equipment consisting of a enviorshield coating line, a 48" adhesive coating and laminating line, and a mixer, two liquid mixing tanks, one natural gas-fired boiler (1.25 mmBtu/hour), one 10,000 gallon storage tank, a mixtruder and calendar machine with a dust collector, and a mixing tank, holding tank, coater and dust collector for Tapecoat 20 production 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 of volatile organic materials (VOM), 10 tons/year for a single hazardous air pollutant (HAP) and 25 tons/year for totaled HAP). 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. This permit is issued based upon the source not being subject to the requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Miscellaneous Coating Manufacturing, 40 CFR 63 Subpart HHHHH. This is consequence of the federally enforceable production and operating limitations, which restrict a potential to emit to less than 10 tons/year for any individual Hazardous Air Pollutant (HAP), and 25 tons/year of any combination of such HAPs.
 - 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. This permit is issued based upon the plant not being subject to the requirements of 35 Ill. Adm. Code Part 218 Subpart AA (Paint and Ink Manufacturing). This is consequence of the federally enforceable production and operating limitations, which restrict a potential to emit to less than 25 tons per year and production to less 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.
- v. This permit is issued based upon the plant not being subject to the requirements of 35 Ill. Adm. Code Part 218 Subpart PP (Miscellaneous Fabricated Product Manufacturing Processes), 35 Ill. Adm. Code Part 218 Subpart QQ (Miscellaneous Formulation Manufacturing Process), and 35 Ill. Adm. Code Part 218 Subpart TT (Other Emission Units). This is consequence of the federally enforceable production and operating limitations, which restrict a potential to emit to less than 25 tons per year.
- b. Prior to issuance, a draft of this permit has undergone a public notice and comment period.
- c. This permit supersedes all operating permits issued for this location.
- 2a. 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 the requirements of 35 Ill. Adm. Code 212.122, pursuant to 35 Ill. Adm. Code 212.123(a), except as allowed by 35 Ill. Adm. Code 212.123(b) and 212.124.
- b. No person shall cause or allow any visible emissions of fugitive particulate matter from any process, including any material handling or storage activity beyond the property line of the emission source unless the wind speed is greater than 40.2 kilometers per hour (25 miles per hour), pursuant to 35 Ill. Adm. Code 212.301 and 212.314.
- c. Pursuant to 35 Ill. Adm. Code 212.309(a), the emission units described in 35 Ill. Adm. Code 212.304 through 212.308 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.
- i. 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.

- ii. 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.
- 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,
- f. Pursuant to 35 Ill. Adm. Code 212.321(a), no person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any new process emission unit which, either alone or in combination with the emission of particulate matter from all other similar process emission units for which construction or modification commenced on or after April 14, 1972, at a source or premises, exceeds the allowable emission rates specified in subsection (c) of 35 Ill. Adm. Code 212.321.
- 3a. Pursuant to 35 Ill. Adm. Code 218.122(b) and (c), 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). Exception: 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 218.204(c), except as provided in 35 Ill. Adm. Code 218.205, 218.207, 218.208, 218.212, 218.215 and 218.216, no owner or operator of a coating line shall apply at any time any coating in which the VOM content exceeds the following emission limitations for the specified coating. The following emission limitations are expressed in units of VOM per volume of coating (minus water and any compounds which are specifically exempted from the definition of VOM) as applied at each coating applicator, except where noted. Compounds which are specifically exempted from the definition of VOM should be treated as water for the purpose of calculating the "less water" part of the coating composition. Compliance with 35 Ill. Adm. Code 218 Subpart F must be demonstrated through the applicable coating analysis test methods and procedures specified in 35 Ill. Adm. Code 218.105(a) and the recordkeeping and reporting requirements specified in 35 Ill. Adm. Code 218.211(c) except where noted. (Note: The equation presented in 35 Ill. Adm. Code 218.206 shall be used to calculate emission limitations for determining compliance by add on controls, credits for transfer efficiency, emissions trades and cross line averaging.) The emission limitations are as follows:

	kg/l	lb/gal
Paper Coating	0.28*	(2.3)*

- c. 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 these limitation of 35 Ill. Adm. Code 218 Subpart G shall apply only to photochemically reactive material.
- 4a. 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 nuisance.
- b. This permit is issued based on that only Enviro 50:50 and Enviro 100 are the only coatings applied on enviroshield line. Application of any other coating has to be approved by the Illinois EPA.

5. The Permittee shall, in accordance with the manufacturer(s) and/or vendor(s) recommendations, perform periodic maintenance on the scrubber such that the scrubber is kept in proper working condition and not cause a violation the Environmental Protection Act or regulations promulgated therein.

6a. Emissions and operation of the enviorshield coating line shall not exceed the following limits:

<u>Type of Coating</u>	<u>Coating Usage</u>		<u>VOM Content</u>	<u>VOM Emissions</u>	
	<u>tons/mo</u>	<u>tons/yr</u>	<u>Wt%</u>	<u>lbs/mo</u>	<u>tons/yr</u>
Enviro 50:50	33.35	185.3	0.31	207.7	0.58
Enviro 100	16.16	89.8	0.24	76.7	0.22

The emission limits are based on the maximum coating usage, operating hours 6,336 hours/year (720 batches), and the maximum VOM content of the coatings used.

b. Emissions and operation of the 48" adhesive coating and laminating line shall not exceed the following limits:

	<u>Adhesive Usage</u>		<u>VOM Content</u>	<u>VOM Emissions</u>	
	<u>tons/mo</u>	<u>tons/yr</u>	<u>Wt%</u>	<u>lbs/mo</u>	<u>ton/yr</u>
	148.1	1184.4	0.3	887.5	3.55

The emission limits are based on the maximum adhesive usage and the maximum VOM content of the adhesive used.

c. Emissions and operation of the liquid mixing tanks for the production of alpha primer and mastic shall not exceed the following limits:

<u>Product Produced</u>	<u>Material Usage</u>		<u>VOM Content</u>	<u>VOM Emissions</u>	
	<u>tons/mo</u>	<u>tons/yr</u>	<u>Wt%</u>	<u>lbs/mo</u>	<u>tons/yr</u>
Alpha Primer	41.8	167.1	0.8	17.8	0.089
Mastic	35.4	151.9	37.5	1712.0	5.380

The emission limits are based on the material balance, i.e., weight of the material usage minus product produced and the VOM emissions being calculated as follows:

$$\text{Emissions} = (\text{maximum material usage} - \text{product produced}) \times \text{VOM Content}$$

d. Emissions and operation of the mixing tank, holding tank for coating mix and coater for the production of Tapecoat 20 shall not exceed the following limits:

<u>Product Produced</u>	<u>Material Usage tons/mo</u>	<u>Usage tons/yr</u>	<u>VOM Content Wt%</u>	<u>VOM Emissions lbs/mo</u>	<u>tons/yr</u>
Tapecoat 20	191.2	2249.3	0.075	288.7	1.7

The emission limits are based on the material balance, i.e., weight of the material usage minus product produced and the VOM emission being calculated as follows:

$$\text{Emissions} = (\text{maximum material usage} - \text{product produced}) \times \text{VOM Content}$$

- e. This permit is issued based on negligible emissions of particulate matter (PM) and volatile organic material (VOM) from the mixtruder and calendar machine. For this purpose, emissions from each emission unit shall not exceed nominal emission rates of 0.1 lbs/hour and 0.44 tons/year.
- f. This permit is issued based on negligible emissions of volatile organic material (VOM) from the storage tank. For this purpose, emissions shall not exceed nominal emission rates of 0.1 lbs/hour and 0.44 tons/year.
- g. This permit is issued based on negligible emissions of nitrogen oxides (NO_x), sulfur dioxide (SO₂), carbon monoxide (CO), VOM, and PM from the gas fired boiler. For this purpose, emissions of each contaminant from each emission source shall not exceed nominal emission rates of 0.1 lb/hour and 0.44 ton/year for each unit.
- 7. The emissions of HAPs as listed in Section 112(b) of the Clean Air Act 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.
- 8. 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).
- 9a. Pursuant to 35 Ill. Adm. Code 212.107, 212.109, and 212.110, testing for particulate matter emissions shall be performed as follows upon written request specified by 35 Ill. Adm. Code 201.282(a) and 212.110(c):

- i. For both fugitive and nonfugitive particulate matter emissions, a determination as to the presence or absence of visible emissions from emission units shall be conducted in accordance with Method 22, 40 CFR part 60, Appendix A, incorporated by reference in 35 Ill. Adm. Code 212.113, except that the length of the observing period shall be at the discretion of the observer, but not less than one minute. This Condition shall not apply to 35 Ill. Adm. Code 212.301, pursuant to 35 Ill. Adm. Code 212.107.
 - ii. Except as otherwise provided in 35 Ill. Adm. Code Part 212, and except for the methods of data reduction when applied to 35 Ill. Adm. Code 212.122 and 212.123, measurements of opacity shall be conducted in accordance with Method 9, 40 CFR Part 60, Appendix A, and the procedures in 40 CFR 60.675(c) and (d), if applicable, incorporated by reference in 35 Ill. Adm. Code 212.113, except that for roadways and parking areas the number of readings required for each vehicle pass will be three taken at 5-second intervals. The first reading shall be at the point of maximum opacity and second and third readings shall be made at the same point, the observer standing at right angles to the plume at least 15 feet away from the plume and observing 4 feet above the surface of the roadway or parking area. After four vehicles have passed, the 12 readings will be averaged, pursuant to 35 Ill. Adm. Code 212.109.
 - iii. 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, pursuant to 35 Ill. Adm. Code 212.110(c).
 - iv. 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.
 - b. Testing required by Condition 9(a) shall be performed by a qualified independent testing service.
10. 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.

11. 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 five 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.
- 12a. 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 218.211(c)(2), any owner or operator of a coating line subject to 35 Ill. Adm. Code 218.204 and complying by means of 35 Ill. Adm. Code 218.204 shall collect and record all of the following information each day for each coating line and maintain the information at the source for a period of three years:
 - i. The name and identification 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.

- 13a. 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. Amount of each coating used (lbs/month and tons/year);
 - iii. VOM content of each coating used (weight percent);
 - iv. Name and identification of each adhesive and amount of each adhesive used on 48" adhesive coating and laminating line (lbs/month and tons/year);
 - v. VOM content of each adhesive used (weight percent);
 - vi. Type of products produced in the liquid mixing tanks, mixing tank, holding tank for coating mix and coater;
 - vii. Amount of material usage for each product (tons/month and tons/year);
 - viii. VOM content of the material used for each product produced (weight percent);
 - ix. Amount of each product produced (tons/month and tons/year);
 - x. Monthly records of hazardous air pollutant content of all coatings, adhesives and all other materials used; and
 - xi. Monthly and annual CO, NO_x, PM, VOM, and HAP emissions 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) 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.
14. If there is an exceedance of or 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/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.

15. 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.
- 16a. 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 and complying by means of 35 Ill. Adm. Code 218.204 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), respectively. Upon changing the method of compliance from 35 Ill. Adm. Code 218.204 to 35 Ill. Adm. Code 218.205 or 35 Ill. Adm. Code 218.207, the owner or operator shall comply with all requirements of 35 Ill. Adm. Code 218.211(d) or (e), respectively.
- b. Pursuant to 35 Ill. Adm. Code 218.637(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 that 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.
17. 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 Jocelyn Stakely at 217/782-2113.

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

Date Signed: _____

ECB:JRS:jws

cc: Illinois EPA, FOS Region 1
USEPA - Lotus Notes

Attachment A - Emission Summary

This attachment provides a summary of the maximum emissions from the source 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., VOM less than 100 tons per year and individual HAP less than 10 tons per year and 25 tons per year for totaled HAP) at which this source would be considered a major source for purposes of the Clean Air Act Permit Program. Actual emissions from this source will be less than predicted in this summary to the extent that less material is handled and control measures are more effective than required in this permit.

<u>Equipment</u>	<u>VOM</u> <u>(T/Yr)</u>	<u>HAPs</u>		<u>NO_x</u> <u>(T/Yr)</u>	<u>CO</u> <u>(T/Yr)</u>	<u>PM</u> <u>(T/Yr)</u>
		<u>Combined</u> <u>(T/Yr)</u>	<u>Single</u> <u>(T/Yr)</u>			
Alpha Primer	0.089	----	----	----	----	----
Mastic	5.4	----	----	----	----	----
Enviroshield Coating line						
Enviro 50:50	0.58	----	----	----	----	----
Enviro 100	0.22	----	----	----	----	----
48" adhesive coating and laminating line	3.55	----	----	----	----	----
Tapecoat 20	1.7	----	----	----	----	----
Mixtruder and calendar	0.44	----	----	----	----	0.44
Storage Tank	0.44	----	----	----	----	----
Natural gas-fired boiler	<u>0.44</u>	----	----	<u>0.44</u>	<u>0.44</u>	<u>0.44</u>
Totals:	12.86	22.5	9.0	0.44	0.44	0.88

JRS:jws