

217/782-2113

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT - RENEWAL

PERMITTEE

Engineered Polymer Solutions, Inc.
D/B/A Valspar Coatings
Attn: Plant Manager
1191 South Wheeling Road
Wheeling, Illinois 60090

Application No.: 81100051

I.D. No.: 031324ACO

Applicant's Designation:

Date Received: March 8, 2004

Subject: Latex Paint and Coatings Manufacturing

Date Issued:

Expiration Date:

Location: 1191 South Wheeling Road, Wheeling, Cook County

This permit is hereby granted to the above-designated Permittee to OPERATE emission source(s) and/or air pollution control equipment consisting of storage tanks, mixers, mixing vessels (controlled by a dust collector), let-down tanks, holding/mixing tanks, wash/wastewater tanks and filling lines for the production of latex paints and coatings as further described in Attachment B, 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 PM₁₀, 100 tons/year for VOM, 10 tons/year for any single HAP and 25 tons/year of any combination of such HAPs). 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. 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. 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 l (500,000 gal) 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.
 - 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. i. Pursuant to 35 Ill. Adm. Code 218.122(a), no person shall cause or allow the discharge of more than 3.6 kg/hr (8 lbs/hr) of organic material into the atmosphere during the loading of any organic material from the aggregate loading pipes of any loading area having through-put of greater than 151 cubic meters per day (40,000 gal/day) into any railroad tank car, tank truck or trailer unless such loading area is equipped with submerged loading pipes.
- ii. Pursuant to 35 Ill. Adm. Code 218.122(b), no person shall cause or allow the loading of any organic material into any stationary tank having a storage capacity of greater than 946 l (250 gal), unless such tank is equipped with a permanent submerged loading pipe.
 - iii. Pursuant to 35 Ill. Adm. Code 218.122(c), if no odor nuisance exists the limitations of 35 Ill. Adm. Code 218.122 shall only apply to the loading of VOL with a vapor pressure of 17.24 kPa (2.5 psia) or greater at 294.3°K (70°F).
- b. Pursuant to 35 Ill. Adm. Code 218.301, no person shall cause or allow the discharge of more than 3.6 kg/hr (8 lbs/hr) of organic material into the atmosphere from any emission unit, except as provided in 35 Ill. Adm. Code 218.302, 218.303, 218.304 and the following exception:

If no odor nuisance exists the limitation of this 35 Ill. Adm. Code 218 Subpart G shall apply only to photochemically reactive material.

- 4. 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.
- 5a. The dust collector shall be in operation at all times when the associated emission units are in operation and emitting air contaminants.
- b. The Permittee shall, in accordance with the manufacturer(s) and/or vendor(s) recommendations, perform periodic maintenance on the dust collector such that the dust collector is kept in proper working condition and not cause a violation the Environmental Protection Act or regulations promulgated therein.
- 6a. Operation of the latex paint and coating manufacturing source shall not exceed the following limits:

i. Production of latex paint and coatings VOM and HAP Emissions:

<u>Production</u>		<u>Emission Unit</u>	<u>VOM Emissions</u>		
<u>(Gal/Mo)</u>	<u>(Gal/Yr)</u>		<u>(Ton/Mo)</u>	<u>(Ton/Yr)</u>	
3,000,000	26,250,000	Paint & Coating Manufacturing Equipment/ Storage & Cleaning Tanks	2.24	22.4	
		<u>Single HAP Emissions</u>	<u>Total HAP Emissions</u>		
		<u>(Ton/Month)</u>	<u>(Ton/Year)</u>	<u>(Ton/Month)</u>	<u>(Ton/Year)</u>
		0.89	8.9	2.24	22.4

This limit defines the potential emissions of VOM and HAP from paint and coating manufacturing, storage tanks and cleaning tanks. It is based on the maximum material usage and potential calculations using the method described in 6b. for all paint and coating manufacturing and storage. Storage and cleaning is based on all tanks not storing solvent and non-solvent materials with vapor pressures greater than 0.1 psia at 60°F.

ii. PM and PM₁₀ Emissions:

<u>Process Rate</u>		<u>Emission Unit</u>	<u>PM, PM₁₀ Emissions</u>	
<u>(Ton/Month)</u>	<u>(Ton/Year)</u>		<u>(Ton/Month)</u>	<u>(Ton/Year)</u>
21,900	262,800	Paint and Coating Manufacturing (Mixing Vessels)	4.38	52.6

These limits define the potential emissions of particulate matter from the source and are based on 30 ton/hr process rate, 20 lbs PM or PM-10/ton processed (Table 6.4-1 of AP-42, Fifth Edition, Volume I, May 1983), 98.0% control efficiency from dust collectors and 8,760 hours/year of operation.

- b. Compliance with the emission limits for VOM and HAP in this permit shall be based on the recordkeeping requirements, emission factors and formulas as follows:

For the purposes of these calculations, paints/coatings with similar ingredients and processing steps may be grouped together. For each grouping of paints/coatings, a per batch emission rate shall be calculated using the methods and practices presented in: Preferred and Alternative Methods for Estimating Air Emissions from Paint and Ink Manufacturing Facilities, Eastern Research Group, Inc., Prepared for the Point Source Committee, Emission Inventory Improvement Program, February 2005. These methods and practices are based on engineering methods and fundamental vapor/liquid equilibrium relationships, including Raoult's law and Dalton's law, assuming ideal gas behavior, and accounting for batch recirculation.

- c. Compliance with annual limits of this permit shall be determined on a monthly basis from the sum of the data for the current month plus preceding 11 months (running 12 month total).

- 7a. Upon request by the Illinois EPA and Pursuant to 35 Ill. Adm. Code 212.107, 212.109, and 212.110, testing for particulate matter emissions shall be performed as follows:

- 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 this Condition shall be performed by a qualified independent testing service.
- 8a. 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.
- b. 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.

- c. 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 collector:
 - A. Records for periodic inspection of the dust collector 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. The number of gallons of each type of paint/coating produced (gallons/month and gallons/year);
 - iii. Material stored in each storage tank, throughput of material in each storage tank and VOM vapor pressure of each material;
 - iv. Process Rate of Mixing vessels (tons/month and tons/year); and
 - v. Monthly and annual PM, PM₁₀, VOM and HAP emissions with supporting calculations (tons/month and tons/year);
- 9. 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.
- 10a. 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.
- 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.
- c. 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.

11. 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

Please note that the two boilers are exempt from state permit requirements pursuant to 35 Ill. Adm. Code 201.146(d).

It should be noted that this permit is revised to increase the production and emission limits in condition 6 through more accurate methods for determining emissions. The potential VOM emissions increased by 9.4 tons per year, and potential HAP emissions by 3.6 tons per year.

If you have any questions regarding this permit, please call John Blazis at 217/782-2113.

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

ECB:JPB:

cc: Illinois EPA, FOS Region 1
Lotus Notes (USEPA)

Attachment A - Emission Summary

This attachment provides a summary of the maximum emissions from this latex paint and coating manufacturing 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 that is producing only latex paints and coatings. The resulting maximum emissions are below the levels (i.e., 100 tons/year of PM-10, 100 tons/year of volatile organic material, 10 tons/year of single hazardous air pollutant, and 25 tons/year of combined hazardous air pollutants) at which this source would be considered a major source for purposes of the Clean Air Act Permit Program. Actual emissions from this source will be less than predicted in this summary to the extent that less material is handled and control measures are more effective than required in this permit.

<u>Emission Unit</u>	E M I S S I O N S (Tons/Year)			
	<u>PM</u>	<u>VOM</u>	Single <u>HAP</u>	Total <u>HAPs</u>
Paint Mfg. Equipment/ Mixing Vessels/ Storage & Cleaning Tanks	52.6	22.4	8.9	22.4

JPB:

Attachment B - Equipment List

Engineered Polymer Solutions, Inc. d/b/a Valspar Coatings
 Wheeling, IL
 Equipment List

Dispersion Tanks

Number	Description	Tank Size (Gallons)
1	H-1	2423
2	H-1	2423
3	H-3	2423
4	H-4	2423
5	H-5	2423
6	H-6	2423
7	H-7	1708
8	H-8	1060
9	H-9	1708
10	H-10	1060

Storage Tanks

Number	Tank #	Tank Size (Gallons)
1	1	5,280
2	2	9,988
3	3	4,994
4	4	4,994
5	15	9,498
6	23	4,656
7	26	4,656
8	30	6,462
9	31	6,462
10	32	5,000
11	33	6,462
12	45	485
13	46	485
14	50	485

Thindown Tanks

Number	Description	Tank Size (Gallons)
1	10001	10953
2	10002	10953
3	6001	6020
4	6002	6070
5	6003	6070
6	6004	6070
7	6005	6020
8	6006	6070
9	6007	6998
10	6008	6998
11	3001	2964
12	3002	2999
13	3003	2964
14	3004	2970
15	3005	3028
16	3006	3028
17	3007	2964
18	3008	2964
19	1501	1516
20	1502	1516
21	1503	1516
22	1504	1516
23	1505	1516
24	1506	1516
25	1507	1516
26	1508	1516
27	1509	1516
28	1510	1516
29	1511	1516
30	1512	1516
31	1513	1516
32	1514	1516
33	1515	1607
34	1516	1607
35	1517	1607
36	1518	1607
37	1519	1516
38	1520	1516

Filling Lines

Number	Description
1	One (1) one gallon filling line
2	One (1) one gallon filling line
3	One (1) five gallon filling line (also capable of filling 2 gal and 3 gal pails although not currently utilized for this)
4	One (1) two gallon filling line
5	One (1) filling line (quarts, pints and half-pints)
6	One (1) drum filling station (55 gallon drums)

Wash Water Tanks

Number	Description	Volume (Gal)
1	White	6500
2	Yellow	6500
3	Red	6500
4	Dark	6500

Waste Water Tanks

Number	Description	Volume (Gal)
1	Settling Tank	1500
2	Effluent Tank	3200

Exempt Equipment

2 boilers < 10 mmBtu/hr are exempt from permitting.
 The following storage tanks do not store volatile organic liquids and are therefore exempt from state permitting.

Tank #	Tank Size (Gallons)
5	4,994
6	4,994
7	9,498
8	9,498
9	20,304
10	20,304
11	28,776
12	20,727
13	20,727
14	9,498
16	9,498
17	14,000
18	9,498
19	9,498
20	9,498
21	9,498
22	9,498
24	4,656
25	4,656
27	4,656
28	14,000
29	9,498
34	7,050
44	3,632
47	485
48	485
49	485
51	485
52	485
53	500