

217/782-2113

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT -- REVISED

PERMITTEE

Engineered Polymer Solutions, Inc.  
d/b/a Valspar Coatings  
Attn: Tina Levitt  
1191 South Wheeling Road  
Wheeling, Illinois 60090

Application No.: 81100051

I.D. No.: 031324ACO

Applicant's Designation:

Date Received: January 14, 2009

Subject: Latex Paint and Coatings Manufacturing

Date Issued: June 16, 2009

Expiration Date: December 18, 2013

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 ten (10) dispersion tanks (mixers, mixing vessels) controlled by a dust collector, fourteen (14) storage tanks, thirty-eight (38) thindown tanks, eight (8) filling lines, four (4) wash water tanks, and two (2) waste water tanks 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 Particulate Matter less than 10 microns (PM<sub>10</sub>), 100 tons/year for Volatile Organic Material (VOM), 10 tons/year for any single Hazardous Air Pollutant (HAP), and 25 tons/year of any combination of such HAPs). As a result the source is excluded from the 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 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 potential emissions of VOM from the source to less than 25 tons/year. As a result, the source is excluded from the requirement of 35 Ill. Adm. Code Part 205, Emission Reduction Market System. The maximum emissions of this source, as limited by the conditions of this permit, are described in Attachment A.

- iv. To establish federally enforceable production and operating limitations, which restrict the potential to emit for VOM to less than 25 tons per year 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 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 permits issued 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 m (1000 ft) radius from the center point of any other such emission unit owned or operated by such person, and provided further that such opaque emissions permitted from each such emission unit shall be limited to 3 times in any 24 hour period.
- c. Pursuant to 35 Ill. Adm. Code 212.301, no person shall cause or allow the emission of fugitive particulate matter from any process, including any material handling or storage activity, that is visible by an observer looking generally toward the zenith at a point beyond the property line of the source.
- d. Pursuant to 35 Ill. Adm. Code 212.306, 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 suppressant 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.
- e. 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.

- f. 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 any 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.
- g. 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.
- h. 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 35 Ill. Adm. Code 212.321(c).
- 3a. Pursuant to 35 Ill. Adm. Code 218.122(a), no person shall cause or allow the discharge of more than 3.6 kg/hour (8 lbs/hour) 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 gallons/day) into any railroad tank car, tank truck or trailer unless such loading area is equipped with submerged loading pipes or a device that is equally

effective in controlling emissions and is 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.

- b. 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).
- 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 the limitation of this 35 Ill. Adm. Code 218 Subpart G shall apply only to photochemically reactive material.
- 4. 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 consequence 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.
- 5a. 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. This permit is issued based upon the source not being subject to the requirements of 35 Ill. Adm. Code Part 218 Subpart AA (Paint and Ink Manufacturing). This is a result 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.
- 6a. 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 dust collector shall be in operation at all times when the associated emission units are in operation and emitting air contaminants.
  - c. 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 of the Environmental Protection Act or regulations promulgated therein.
- 7a. Operation of the latex paint and coating manufacturing equipment, cleaning operation, and storage tanks at this source shall not exceed the following limits:

- i. Production of latex paint and coatings:

Paint & Coating Production	
<u>(Gallons/Month)</u>	<u>(Gallons/Year)</u>
3,000,000	26,250,000

- ii. VOM and HAP emissions:

VOM Emissions		Single HAP Emissions		Total HAP Emissions	
<u>(Tons/Mo)</u>	<u>(Tons/Yr)</u>	<u>(Tons/Mo)</u>	<u>(Tons/Yr)</u>	<u>(Tons/Mo)</u>	<u>(Tons/Yr)</u>
2.24	22.4	0.89	8.9	2.24	22.4

These limits are based on the maximum material usage and calculations using the method described in the Emission Inventory Improvement Program, Vol. II: Ch. 8, Preferred and Alternative Methods for Estimating Air Emissions from Paint and Ink Manufacturing Facilities, February 2005 for all paint and coating manufacturing and storage. These methods and practices are based on engineering methods and fundamental vapor/liquid equilibrium relationships, including Raoult's law and Daltons' law, assuming ideal gas behavior, and accounting for batch recirculation 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.

- iii. PM and PM<sub>10</sub> emissions:

<u>Emission Unit</u>	Process Rate		PM, PM <sub>10</sub> Emissions	
	<u>(Tons/Mo)</u>	<u>(Tons/Yr)</u>	<u>(Tons/Mo)</u>	<u>(Tons/Yr)</u>
Paint and Coating Manufacturing (Mixing Vessels)	21,900	262,800	4.38	52.6

These limits are based on the maximum process rate (30 tons/hour), a standard emission factor (20 lbs PM or PM<sub>10</sub>/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. The emissions of Hazardous Air Pollutants (HAP) as listed in Section 112(b) of the Clean Air Act from the source shall not exceed 0.89 tons/month and 8.9 tons/year of any single HAP and 2.24 tons/month and 22.4 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, the requirements of Section 112(g) of the Clean Air Act, and the NESHAP for Hazardous Air Pollutants: Miscellaneous Coating Manufacturing, 40 CFR 63 Subpart HHHHH.
  - 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).
- 8a. 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 9 shall be performed upon a written request from the Illinois EPA by a qualified independent testing service.

9. 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.
10. 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.
11. 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.
12. 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.

- 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 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);
    - v. Production rate for the latex paint and coating manufacturing equipment (including the new filling lines) (tons/month and tons/year); and
    - vi. Monthly and annual PM, PM<sub>10</sub>, VOM and HAP emissions 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. 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.
  15. 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.

16a. 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

It should be noted that this permit is revised to include the operation of the equipment described in Construction Permit 09010025.

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

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

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

ECB:JRS:psj

cc: Illinois EPA, FOS Region 1  
Lotus Notes

Attachment A - Emission Summary

This attachment provides a summary of the maximum emissions from this latex paint 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<sub>10</sub>, 100 tons/year of VOM, 10 tons/year for any single HAP, and 25 tons/year for any combination of such 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>Emission Unit</u>	E M I S S I O N S (Tons/Year)			
	<u>PM</u>	<u>VOM</u>	<u>HAP</u>	<u>Total HAPs</u>
Paint Manufacturing Equipment/Mixing Vessels/Storage and Cleaning Tanks	52.6	22.4	8.9	22.4

JRS:psj

Attachment B - Equipment List

Engineered Polymer Solutions, Inc. d/b/a Valspar Coating  
Wheeling, Illinois  
Equipment List

Dispersion Tanks

Number	Description	Tank Size (Gallons)
1	H-1	2,423
2	H-1	2,423
3	H-3	2,423
4	H-4	2,423
5	H-5	2,423
6	H-6	2,423
7	H-7	1,708
8	H-8	1,060
9	H-9	1,708
10	H-10	1,060

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	10,953
2	10002	10,953
3	6001	6,020
4	6002	6,070
5	6003	6,070
6	6004	6,070
7	6005	6,020
8	6006	6,070
9	6007	6,998
10	6008	6,998
11	3001	2,964
12	3002	2,999
13	3003	2,964
14	3004	2,970
15	3005	3,028
16	3006	3,028
17	3007	2,964
18	3008	2,964
19	1501	1,516
20	1502	1,516
21	1503	1,516
22	1504	1,516
23	1505	1,516
25	1507	1,516
26	1508	1,516
27	1509	1,516
28	1510	1,516
29	1511	1,516
30	1512	1,516
31	1513	1,516
32	1514	1,516
33	1515	1,607
34	1516	1,607
35	1517	1,607
36	1518	1,607
37	1519	1,516
38	1520	1,516

Filing 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 two gallon and three gallon 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)
7	One (1) one gallon filling line
8	One (1) five gallon filling line

Wash Water Tanks

Number	Description	Volume (Gallon)
1	White	6,500
2	Yellow	6,500
3	Red	6,500
4	Dark	6,500

Waste Water Tanks

Number	Description	Volume (Gallon)
1	Settling Tank	1,500
2	Effluent Tank	3,200

JRS:psj