

217/782-2113

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT - RENEWAL

PERMITTEE

Fox Valley System Inc.
Attn: Thomas Smrt
640 Industrial Drive
Cary, Illinois 60013

Application No.: 84110014
Applicant's Designation: ILEPA1995
Subject: Paint Manufacturing Facility
Date Issued:
Location: 680 Industrial Drive, Cary

I.D. No.: 111010AAR
Date Received: July 26, 2006
Expiration Date:

This permit is hereby granted to the above-designated Permittee to OPERATE emission unit(s) and/or air pollution control equipment consisting of paint manufacturing station (comprised of six paint mixers with filters and four paint can filling stations) and aerosol can filling station (comprised of four TERCO and one KP aerosol can filling lines) both controlled by afterburner, six solvent storage tanks, three pressurized propellant storage tanks, and ten plastic molding machines 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 a single hazardous air pollutant (HAP) and 25 tons/year for totaled HAP). 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. 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 DD (Aerosol Can Filling). This is consequence of the federally enforceable production and operating limitations, which restrict the 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. 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.

- c. Pursuant to 35 Ill. Adm. Code 218.302(a), emissions of organic material in excess of those permitted by 35 Ill. Adm. Code 218.301 are allowable if such emissions are controlled by flame, thermal or catalytic incineration so as either to reduce such emissions to 10 ppm equivalent methane (molecular weight 16) or less, or to convert 85 percent of the hydrocarbons to carbon dioxide and water
- d. The paint manufacturing operations are subject to the requirements of 35 Ill. Adm. Code Part 218, Subpart AA: Paint and Ink Manufacturing, pursuant to 35 Ill. Adm. Code 218.620 (b)(2) because the source manufactures more than 500,000 gallons per year of paint with less than 10 percent water.
- e. Pursuant to 35 Ill. Adm. Code 218.624, no person shall operate an open-top mill, tank, vat or vessel, with a volume of more than 45 liters (12 gallons) for the production of paint unless:
 - i. The mill, tank, vat or vessel is equipped with a cover which completely covers the mill, tank, vat or vessel opening, except for an opening no larger than necessary to allow for safe clearance for a mixer shaft. Such cover shall extend at least 1.27 cm (0.5 in) beyond the outer rim of the opening or be attached to the rim.
 - ii. The cover remains closed, except when production, sampling, maintenance, or inspection procedures require access.
 - iii. The cover is maintained in good condition, such that when in place, it maintains contact with the rim of the opening for at least 90 percent of the circumference of the rim.
- f.
 - i. Pursuant to 35 Ill. Adm. Code 218.625(a), no person shall operate a grinding mill for the production of paint or ink which is not maintained in accordance with the manufacturer's specifications.
 - ii. Pursuant to 35 Ill. Adm. Code 218.625(b), no person shall operate a grinding mill fabricated or modified after the effective date of this Subpart which is not equipped with fully enclosed screens.
 - iii. Pursuant to 35 Ill. Adm. Code 218.625(c), the manufacturer's specifications shall be kept on file at the plant by the owner or operator of the grinding mill and be made available to any person upon verbal or written request during business hours.
- g.
 - i. Pursuant to 35 Ill. Adm. Code 218.626(a), the owner or operator shall equip tanks storing VOL with a vapor pressure greater than 10 kPa (1.5 psi) at 20°C (68°F) with pressure/vacuum conservation vents set as a minimum at +/-0.2 kPa (0.029 psi). These controls shall be operated at all times. . An alternative air pollution control system may be used if it results in a greater emission reduction than these controls.

- ii. Pursuant to 35 Ill. Adm. Code 218.626(b), stationary VOL storage containers with a capacity greater than 946 liters (250 gallons) shall be equipped with a submerged-fill pipe or bottom fill. These controls shall be operated at all times.
- h. Pursuant to 35 Ill. Adm. Code 218.628, the owner or operator of a paint or ink manufacturing source shall, for the purpose of detecting leaks, conduct an equipment monitoring program consistent with the following:
 - i. Each pump shall be checked by visual inspection each calendar week for indication of leaks, that is, liquids dripping from the pump seal. If there are indications of liquids dripping from the pump seal, the pump shall be repaired as soon as practicable, but no later than 15 calendar days after the leak is detected.
 - ii. Any pump, valve, pressure relief valve, sampling connection, open-ended valve and flange or connector containing a fluid which is at least 10 percent VOM by weight which appears to be leaking on the basis of sight, smell, or sound shall be repaired as soon as practicable, but no later than 15 calendar days after the leak is detected.
 - iii. A weather proof, readily visible tag, in bright colors such as red or yellow, bearing an identification number and the date on which the leak was detected shall be attached to leaking equipment. The tag may be removed upon repair, that is, when the equipment is adjusted or otherwise altered to allow operation without leaking.
 - iv. When a leak is detected, the owner or operator shall record the date of detection and repair and the record shall be retained at the source for at least two years from the date of each detection or each repair attempt. The record shall be made available to any person upon verbal or written request during business hours.
- i. Pursuant to 35 Ill. Adm. Code 218.630(a), no person shall clean paint or ink manufacturing equipment with organic solvent unless the equipment being cleaned is completely covered or enclosed except for an opening no larger than necessary to allow safe clearance for proper operation of the cleaning equipment, considering the method and materials being used.
- j. Pursuant to 35 Ill. Adm. Code 218.630(b), no person shall store organic wash solvent in other than closed containers, unless closed containers are demonstrated to be a safety hazard, or dispose of organic wash solvent in a manner such that more than 20 percent by weight is allowed to evaporate into the atmosphere.
- 4a. The afterburners shall be in operation at all times when the associated emission units are in operation and emitting air contaminants.

- b. The afterburner's combustion chambers shall be preheated to at least the manufacturer's recommended temperature but no less than the temperature at which compliance was demonstrated in the most recent compliance test, or 1400°F in the absence of a compliance test. This temperature shall be maintained during operation.
 - c. The Permittee shall, in accordance with the manufacturer(s) and/or vendor(s) recommendations, perform periodic maintenance on the afterburner such that the afterburner is kept in proper working condition and not cause a violation the Environmental Protection Act or regulations promulgated therein.
 - d. This permit is issued based on the aerosol can propellant containing no Hazardous Air Pollutants (HAPs).
- 5a. Paint production and VOM emissions from the plant-wide paint manufacturing and aerosol can filling operations shall not exceed the following limits:

Paint Production		Emission Factor (Lb/10 ³ Gal)	VOM Emissions	
(10 ³ Gal/Mo)	(10 ³ Gal/Yr)		(Ton/Mo)	(Ton/Yr)
300	1,250	21.2	3.2	13.3

These limits define the potential emissions of VOM and are based on the actual emissions determined from the maximum production rate and emission factor derived from the stack test performed at the plant (solvent loss from paint manufacturing operations not exceeding 5% and overall control efficiency of the afterburner of 81.6%). HAP emissions represent a fraction of total VOM emission equal to HAP/VOM ratio in the raw materials.

- b. This permit is issued based on negligible emissions of VOM from the storage tanks and plastic molding machines. For this purpose, emissions from each group of sources shall not exceed nominal emission rates of 0.1 lb/hour and 0.44 ton/year.
- c. PM emission from pigment handling operations shall not exceed the following limits:

Pigment Usage		Emission Factor (Wt.%)	Control Efficiency (%)	PM Emission	
(Ton/Mo)	(Ton/Yr)			(Ton/Mo)	(Ton/Yr)
5,000	25,000	1	99	0.5	2.5

These limits are based on the maximum production rate and standard emission factors for pigment handling given by AP-42 (Section 6.4)..

- d. The emissions of Hazardous Air Pollutants (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.

6. 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).

7a. 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.

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.

iii. Measurement of particulate matter emissions from stationary emission units subject to 35 Ill. Adm. Code Part 212 shall be conducted in accordance with 40 CFR part 60, Appendix A, Methods 5, 5A, 5D, or 5E.

iv. The volumetric flow rate and gas velocity shall be determined in accordance with 40 CFR part 60, Appendix A, Methods 1, 1A, 2, 2A, 2C, 2D, 3, and 4.

v. 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.

- b. Testing required by Condition 7(a) shall be performed by a qualified independent testing service.
8. Pursuant to 35 Ill. Adm. Code 218.105(d)(2)(A)(i), an owner or operator that uses an afterburner or carbon adsorber to comply with any Section of 35 Ill. Adm. Code Part 218 shall use Illinois EPA and USEPA approved continuous monitoring equipment which is installed, calibrated, maintained, and operated according to vendor specifications at all times the afterburner or carbon adsorber is in use except as provided in 35 Ill. Adm. Code 218.105(d)(3). For each afterburner which does not have a catalyst bed, the combustion chamber temperature of each afterburner.
- b. Pursuant to 35 Ill. Adm. Code 218.105(d)(2)(B), an owner or operator must install, calibrate, operate and maintain, in accordance with manufacturer's specifications, a continuous recorder on the temperature monitoring device, such as a strip chart, recorder or computer, having an accuracy of ± 1 percent of the temperature measured in degrees Celsius or $\pm 0.5^\circ$ C, whichever is greater.
 - c. Pursuant to 35 Ill. Adm. Code 218.628, the owner or operator of a paint or ink manufacturing source shall, for the purpose of detecting leaks, conduct an equipment monitoring program as set forth below:
 - i. Each pump shall be checked by visual inspection each calendar week for indications of leaks, that is, liquids dripping from the pump seal. If there are indications of liquids dripping from the pump seal, the pump shall be repaired as soon as practicable, but no later than 15 calendar days after the leak is detected.
 - ii. Any pump, valve, pressure relief valve, sampling connection, open-ended valve and flange or connector containing a fluid which is at least 10 percent VOM by weight which appears to be leaking on the basis of sight, smell or sound shall be repaired as soon as practicable, but no later than 15 calendar days after the leak is detected.
 - iii. A weather proof, readily visible tag, in bright colors such as red or yellow, bearing an identification number and the date on which the leak was detected shall be attached to leaking equipment. The tag may be removed upon repair, that is, when the equipment is adjusted or otherwise altered to allow operation without leaking.
9. 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.

10. 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.
- 11a. 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 218.637(b), every owner or operator of a source which is subject to the requirements of 35 Ill. Adm. Code 218 Subpart AA shall maintain all records necessary to demonstrate compliance with those requirements at the source for three years.
- 12a. 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 afterburners:
 - A. Records for periodic inspection of the afterburners 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. Paint production (gal/mo and gal/yr);
 - iii. Names and amount of solvents used (ton/mo and ton/yr);
 - iv. VOM and HAP content in the solvents (lb/gal and wt. %);
 - v. Names and amount of propellants used (ton/mo and ton/yr); and
 - vi. Monthly and annual VOM and HAP emissions with supporting calculations (ton/mo and ton/yr).
 - 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.
13. If there is an exceedance of or deviation from the requirements of this permit as determined by the record 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.
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 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.

16. Two (2) copies of required reports and notifications shall be sent to:

Illinois Environmental Protection Illinois EPA
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 Illinois EPA
Division of Air Pollution Control
9511 West Harrison
Des Plaines, Illinois 60016

If you have any questions on this permit, please call Valeriy Brodsky at 217/782-2113.

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

ECB:VJB:

cc: Illinois EPA, FOS Region 1
Lotus Notes

Attachment A - Emissions Summary

This attachment provides a summary of the maximum emission from the Paint Manufacturing Facility 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. This is production of 1,250,000 gallons of paint per year. The resulting maximum emissions are below the levels (e.g., 100 tons per year of VOM, 10 tons per year for a single HAP, 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 material is handled, and control measures are more effective than required in this permit.

<u>Emission Units</u>	<u>VOM</u>	<u>PM</u>	<u>Single HAP</u>	<u>Total HAP</u>
Coating Manufacturing/Aerosol Can Filling	13.3	2.5		
Storage Tanks	0.44			
Plastic Molding Machines	0.44			
Plant-wide total	14.2	2.5	9.0	22.5

VJB: