

217/782-2113

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT -- REVISED

PERMITTEE

Henry Pratt Company
Attn: Mr. Jay Morse, Manager
401 South Highland Avenue
Aurora, Illinois 60506

<u>Application No.:</u> 74030107	<u>I.D. No.:</u> 089005ABB
<u>Applicant's Designation:</u> VALVEPLANT	<u>Date Received:</u> October 26, 2006
<u>Subject:</u> Valve Manufacturing Facility	
<u>Date Issued:</u> January 10, 2007	<u>Expiration Date:</u> November 14, 2008
<u>Location:</u> 401 South Highland Avenue, Aurora, Kane County	

This permit is hereby granted to the above-designated Permittee to OPERATE emission unit(s) and/or air pollution control equipment consisting of three paint booths, equipment cleaning, rubber molding operation, soil vapor extraction system, plasma spray system with baghouse, three natural gas-fired boilers (2.52, 7.9 and 7.9 mmBtu/hour), three natural gas-fired preheat ovens (0.175, 0.175 and 0.1 mmBtu/hour), and burn-off oven (0.08 mmBtu/hour) with afterburner (0.08 mmBtu/hour) 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 HAPs). As a result, the source is excluded from the requirements to obtain a Clean Air Act Permit Program (CAAPP) permit. The maximum emissions of this source, as limited by the conditions of this permit, are described in Attachment A.
 - ii. To 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.
 - b. Prior to initial 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.
2. The emissions of Hazardous Air Pollutants (HAPs) as listed in Section 112(b) of the Clean Air Act shall be less than 10 tons per year of any single HAP and 25 tons per year of any combination of such HAPs. As a result of this condition, this permit is issued based on the emissions of all HAPs from this source not triggering the requirements of Section 112(g) of the Clean Air Act.

- 3a. 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 212.321(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).
- 4a. Pursuant to 35 Ill. Adm. Code 218.204(j), 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. The emission limitations are as follows:

	kg/l	lb/gal
i. Clear coating	0.52	(4.3)
ii. Extreme performance coating		
A. Air dried	0.42	(3.5)
B. Baked	0.40	(3.3)
iii. All other coatings		
A. Air Dried	0.40	(3.3)
B. Baked	0.34	(2.8)
iv. Metallic Coating		
A. Air Dried	0.42	(3.5)
B. Baked	0.36	(3.0)

- b. Pursuant to 35 Ill. Adm. Code 218.209, no owner or operator of a coating line subject to the limitations of 35 Ill. Adm. Code 218.204 is required to meet the limitations of 35 Ill. Adm. Code Part 218 Subpart G (35 Ill. Adm. Code 218.301 or 218.302), after the date by which the coating line is required to meet 35 Ill. Adm. Code 218.204.

- 5a. Total combined emissions of VOM from the existing two paint booths, new paint booth and equipment cleaning operations shall not exceed 2.0 tons/month and 19.2 tons/year. Total emissions of combined HAPs (xylene, toluene, ethylbenzene, etc.) from these emission sources shall not exceed 1.7 tons/month and 17.0 tons/year. These emissions shall be determined from the following equation on a monthly basis:

$$E = \sum (M_i \times V_i) / 2000 - \sum (W_j \times V_j);$$

Where

E - VOM or HAP emissions (tons);

M_i - Usage of each VOM or HAP-containing material (coatings, thinners, cleaning solvents, etc., in gallons);

V_i - VOM or HAP content of each material (lb/gallon);

W_i - Certified weight of each waste shipment (tons);

V_j - Certified VOM or HAP content of each waste shipment (wt. %)

These limits are based on the maximum material usage and the maximum actual emissions rate that corresponds to these material usage rates.

- b. Emissions and operation of the rubber molding operation shall not exceed the following limits:

Material	Usage		VOM Emissions		HAPs Emissions (MIBK, MEK and Formaldehyde)	
	(Gal/Mo)	(Gal/Yr)	(Tons/Mo)	(Tons/Yr)	(Tons/Mo)	(Tons/Yr)
Primer	55	550	0.2	1.7	0.2	1.7
Adhesive	50	485	0.2	1.5	0.2	1.5
		Totals	0.4	3.2	0.4	3.2

These limits are based on maximum material usage, VOM content (6.0 lb/gallon), HAPs content (6.0 lb/gallon) and 100% emission. Compliance with annual limits shall be determined from a running total of 12 months of data.

- c. Emissions of VOM (and HAPs) from the soil vapor extraction system shall not exceed 0.2 tons/month and 1.9 tons/year. These limits are based on the maximum operating hours (8,760 hours/year) and 1.5 times the maximum VOM emission rate (0.28 lb/hour).

- d. The particulate matter (PM) emissions of the plasma spray system shall not exceed 1.1 tons/month and 10.2 tons/year. These limits are based on the maximum operating hours (8,760 hours/year) and 1.5 times the maximum PM emission rate (1.543 lbs/hour).
- e. This permit is issued based on negligible emissions of particulate matter (PM) from the paint spray booth. For this purpose, emissions of PM shall not exceed nominal rates of 0.1 lb/hour and 0.44 tons/year.
- f. This permit is issued based on negligible emissions of PM from the burn-off oven with afterburner. For this purpose, emissions shall not exceed nominal emission rates of 0.1 lb/hour and 0.44 tons/year.
- g. Emissions and operation of the natural gas-fired ovens, boilers, and burn-off oven with afterburner (combined) shall not exceed the following limits:

	Natural Gas Usage			
	<u>(mmscf/Month)</u>		<u>(mmscf/Year)</u>	
	17		170	
		Emission	Emissions	
<u>Pollutant</u>		Factor	<u>(Tons/Month)</u>	<u>(Tons/Year)</u>
		(Lb/mmscf)		
Nitrogen Oxides (NO _x)		100	0.9	8.5
Carbon Monoxide (CO)		84	0.8	7.2
Particulate Matter (PM)		7.6	0.1	0.7
Volatile Organic Material (VOM)		5.5	<u>0.1</u>	<u>0.5</u>
		Totals	1.9	16.9

These limits are based on the maximum total firing rate (18.93 mmBtu/hour), maximum operating hours (8,760 hours/year), and standard AP-42 emission factors. Compliance with annual limits shall be determined from a running total of 12 months of data.

- h. 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).
- 6. 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 Sections 218.302, 218.303, 218.304 of this Part and the following exception: If no odor nuisance exists the limitation of this Subpart shall apply only to photochemically reactive material (35 Ill. Adm. Code 218.301).
- 7a. Material insulated with polyvinyl chloride or asbestos, or scrap containing the fuming metals tin, zinc, or lead shall not be charged to the burn-off oven.

- b. The afterburner associated with the burn-off oven shall be heated to an operating temperature of 1400°F before charging and this temperature shall be maintained during operation.
- c. The burn-off oven shall be equipped with an afterburner temperature indicator.
- 8. In the event that the operation of these emission units 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.
- 9. Operation of the two paint booths is subject to the requirements of 35 Ill. Adm. Code 218.204(j)(2), Miscellaneous Metal Parts and Products, Extreme Performance Coating, which limits the as-applied VOM content of all coatings to 3.5 lb/gallon.
- 10. As the result of the limits on the potential to emit VOM in this permit, the rubber molding operation is subject to the coating requirements of 35 Ill. Adm. Code Section 218, Subpart PP, Miscellaneous Fabricated Product Manufacturing Processes.
- 11. 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.
- 12a. 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 IAC 218.211(c)(2), any owner or operator of a coating line subject to the limitations of 35 Ill. Adm. Code 218.204 of and complying by means of 35 Ill. Adm. Code 218.204 shall collect and record 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 number of each coating as applied on the coating lines.
 - 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 the coating lines.
- c. 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 of 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.
- 13. The Permittee shall maintain monthly records of the following items:
 - a. Usage of each VOM-containing material (coatings, thinners, cleaning solvents, etc.), (gallons/month and gallons/year);
 - b. Usage of each HAP-containing material (coatings, thinners, cleaning solvents, etc.), (gallons/month and gallons/year);
 - c. VOM content of each material (lbs/gallon);
 - d. HAP content of each material (lbs/gallon);
 - e. Certified weight of each waste shipment (tons);
 - f. Certified VOM content of each waste shipment (weight %);

- g. Certified HAP content of each waste shipment (weight %);
 - h. Monthly and annual emissions of PM, VOM and HAPs with supporting calculations (tons/month and tons/year).
 - i. Total VOM, single HAP, and combined HAPs emissions (tons/month and tons/year).
14. The Permittee shall, in accordance with the manufacturer(s) and/or vendor(s) recommendation, perform periodic maintenance on the emission sources and pollution control equipment covered under this permit such that the pollution control equipment and emission sources are kept in proper working condition and not cause a violation of the Environmental Protection Act or regulations promulgated therein.
15. The Permittee shall maintain records of the following items:
- a. Records for periodic inspection and maintenance of emission sources and pollution control equipment 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.
16. All records and logs required by this permit shall be retained at a readily accessible location at the source for at least five 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.
17. 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.
18. 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, regarding the soil vapor extraction system, issuance of this permit does not relieve the Permittee from compliance with the 35 Ill. Adm. Code Part 731 Underground Storage Tanks or the permit requirements of Section 21 and 39 of the Environmental Protection Act with respect to a waste management operation, nor does it constitute a release from further responsibility for preventive or corrective action as defined under Section 4(y) of the Environmental Protection Act. Pursuant to 35 Ill. Adm. Code Part 731, approval may be required from the Bureau of Land - Leaking Underground Storage Tank Section 217/782-6761 prior to the installation of this equipment.

It should be noted that the two grit/sand blasters controlled by baghouses are exempt from permitting pursuant to 35 Ill. Adm. Code 201.146(aa) and (jj).

Please note that this permit has been revised to incorporate Construction Permit 06100020.

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

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

ECB:JRS:cjc

cc: Illinois EPA, FOS Region 1
Lotus Notes

Attachment A - Emission Summary

This attachment provides a summary of the maximum emissions from the valve 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. The resulting maximum emissions are well below the levels, e.g., 100 tons/year of volatile organic materials (VOM), 10 tons/year of any single hazardous air pollutant (HAP), and 25 tons/year of combined HAPs at which this source would be considered a major source for purposes of the Clean Air Act Permit Program. Actual emissions from this source will be less than predicted in this summary to the extent that less material is handled, and control measures are more effective than required in this permit.

<u>Equipment</u>	<u>HAPs</u>						
	<u>VOM</u> <u>(T/Yr)</u>	<u>Combined</u> <u>(T/Yr)</u>	<u>Single</u> <u>(T/Yr)</u>	<u>NO_x</u> <u>(T/Yr)</u>	<u>PM</u> <u>(T/Yr)</u>	<u>CO</u> <u>(T/Yr)</u>	<u>SO₂</u> <u>T/Yr)</u>
Three paint booths and equipment cleaning operations	19.2	--	--	--	0.44	--	--
Rubber molding operation							
Primer	1.7	--	--	--	--	--	--
Adhesive	1.5	--	--	--	--	--	--
Soil vapor extraction system	1.9	--	--	--	--	--	--
Plasma spray system	--	--	--	--	10.2	--	--
Burn-off oven with afterburner	--	--	--	--	0.44	--	--
Natural gas-fired ovens, boilers, and afterburner (combined)	0.5	--	--	8.5	0.7	7.2	0.44
Totals:	<u>24.8</u>	<u>< 25</u>	<u>< 10</u>	<u>8.5</u>	<u>11.78</u>	<u>7.2</u>	<u>0.44</u>

JRS:cjc