

217/782-2113

RENEWAL  
FEDERALLY ENFORCEABLE STATE OPERATING PERMIT  
NSPS SOURCES

PERMITTEE

Paris Metal Products, L.L.C.  
Attn: Mr. Jim Handlin  
13571 Illinois Highway 133  
Paris, Illinois 61944

Application No.: 93110016                      I.D. No.: 045030ABX  
Applicant's Designation:                      Date Received: June 18, 2003  
Subject: Metal Products Fabricating and Coating  
Date Issued: August 22, 2003                      Expiration Date: August 22, 2008  
Location: 13571 Illinois Highway 133, Paris

This permit is hereby granted to the above-designated Permittee to OPERATE emission source(s) and/or air pollution control equipment consisting of a phosphate dryer, five (5) paint spray booths, a paint burn-off oven, continuous curing oven, batch curing oven, a boiler, and three (3) washer heaters 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 to limit the emissions of air pollutants from the source to less than major source thresholds (i.e., 100 tons/year for VOM, 10 tons/year for any single HAP and 25 tons/year of totaled HAPs), as further described in Attachment A. As a result, the source is excluded from requirements to obtain a Clean Air Act Permit Program permit.
- b. Prior to issuance, a draft of this permit has undergone a public notice and comment period.
- c. This permit supersedes all operating permit(s) issued for this location.
- 2a. The metal furniture coating operations are subject to 40 CFR 60 Subparts A and EE - New Source Performance Standards (NSPS) for Surface Coating of Metal Furniture. The Illinois EPA is administering these standards in Illinois on behalf of the United States EPA under a delegation agreement.
- b. At all times the Permittee shall maintain and operate the metal furniture coating operations in a manner consistent with good air pollution control practice for minimizing emissions, pursuant to the NSPS 40 CFR 60.11(d).
- c. The VOC emissions from the metal furniture coating operations shall not be in excess of 0.90 kilogram of VOC per liter of coating solids applied. [40 CFR 60.312(a)]

3. The coating operations are subject to 35 Ill. Adm. Code 215.204(j) (5) and 215.204(g). Emissions and operation of the coating booths shall not exceed the following limits:

<u>Material</u>	VOM	VOM Usage		VOM Emissions	
	<u>Content</u> (Lb/Gal)	<u>(Tons/Mo)</u>	<u>(Tons/Yr)</u>	<u>(Ton/Mo)</u>	<u>(Ton/Yr)</u>
Coating	3.0	11	73.5	11	73.5

These limits define the potential emissions of VOM from the coating lines and are based on VOM content, maximum usage and 40 CFR 60.313(b). Compliance with annual limits shall be determined from a running total of 12 months of data.

4. The Permittee shall calculate the volume-weighted average emissions of VOC's in kilograms per liter of coating solids applied (G) each calendar month for each affected facility. [40 CFR 60.313(b)]
5. The following procedures shall be used to calculate the volume-weighted average of the total mass of VOC's consumed per unit volume of coating solids applied (G):

- a. Calculate the mass of VOC's used ( $M_o + M_d$ ) during each calendar month for each affected facility by the following equation:

$$M_o + M_d = \sum_{i=1}^n L_{ci} D_{ci} W_{oi} + \sum_{j=1}^m L_{dj} D_{dj}$$

Where:

$M_d$  = The mass of diluent VOC-solvent consumed (kilograms)

$M_o$  = The mass of VOCs in coatings consumed, as received (kilograms)

$L_c$  = The volume of each coating consumed, as received (liters)

$L_d$  = The volume of each diluent VOC-solvent added to coatings (liters)

$D_c$  = Density of each coating, as received (kilograms per liter)

$D_d$  = Density of each diluent VOC-solvent (kilograms per liter)

$W_o$  = The proportion of VOCs in each coating (or input stream), as received (fraction by weight)

$n$  = The number of different coatings used during the calendar month

$m$  = The number of different diluent VOC-solvents used during the calendar month

- b. Calculate the total volume of coating solids used ( $L_s$ ) in each calendar month for each affected facility by the following equation:

$$L_s = \sum_{i=1}^n L_{ci} V_{si}$$

Where:

$L_c$  = The volume of each coating consumed, as received (liters)

$V_s$  = The proportion of solids in each coating (or input stream), as received (fraction by volume)

- c. Calculate the volume-weighted average mass of VOC's consumed per unit volume of coating solids applied (G) during the calendar month for each affected facility by the following equation:

$$G = \frac{M_o + M_d}{I_s T}$$

T = The transfer efficiency (fraction) (for non-rotational electrostatic spray T = 0.70, manual electrostatic spray T = 0.60) for other transfer efficiencies, refer to NSPS 40 CFR 60.313, Table 1.

6. Total natural gas consumption and emissions shall not exceed the following limits:

		Natural Gas Usage (mmscf/Mo) (mmscf/Yr)			
		19.6	234.9		
Nitrogen Oxides Emissions (Ton/Mo) (Ton/Yr)		Carbon Monoxide Emissions (Ton/Mo) (Ton/Yr)		Volatile Organic Material Emissions (Ton/Mo) (Ton/Yr)	
1.1	11.74	1	9.9	0.07	0.7

These limits are based on maximum natural gas consumption and AP-42 emissions factors. Compliance with annual limits shall be determined from a running total of 12 months of data.

7. This permit is issued based on negligible emissions of particulate matter from each emission unit associated with the coating operations. For this purpose, emissions shall not exceed nominal rates of 0.1 lb/hr or 0.44 ton/yr.
8. The emissions of Hazardous Air Pollutants (HAP) as listed in Section 112(b) of the Clean Air Act shall be less than 10 tons/year of any single HAP and 25 tons/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 to obtain a Clean Air Act Permit Program Permit (CAAPP), and Section 112(G) of the Clean Air Act.
- 9a. Material insulated with polyvinyl chloride or asbestos, or scrap containing the fuming metals tin, zinc, or lead shall not be charged to the ovens.

- b. The paint burn-off oven afterburner shall be heated to an operating temperature of 1400°F before charging and this temperature shall be maintained during operation.
  - c. The oven shall be equipped with an afterburner temperature indicator.
10. The Permittee shall, in accordance with the manufacturer(s) and/or vendor(s) recommendations, perform periodic maintenance on the pollution control equipment covered under this permit such that the pollution control equipment be kept in proper working condition and not cause a violation of the Environmental Protection Act or regulations promulgated therein.
11. The Permittee shall maintain records of the vendor recommendations at the facility and be available for inspection and copying by the Illinois EPA.
- 12a. The Permittee shall maintain records of the following items for the coating operations:
- i. The name and identification number of each coating and cleanup solvent as applied.
  - ii. The weight of VOM and HAP content per volume of each coating and cleanup solvent as applied.
  - iii. All coating and solvent usage (gal/month and gal/year).
  - iv. VOM and HAP emissions (lb/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 three 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 a course of a source inspection.
- 13a. The Permittee shall identify, record, and submit a written report to the Illinois EPA's Compliance Section in Springfield, Illinois every calendar quarter of each instance in which the volume-weighted average of the total mass of VOC's emitted to the atmosphere per volume of applied coating solids (N) is greater than the limit specified under Condition 2(c). If no such instances have occurred during a particular quarter, a report stating this shall be submitted semiannually. [40 CFR 60.315(b)]
- b. If there is an exceedance of 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. The report shall include the emissions released in accordance with the record keeping requirements, a copy of the relevant records, and a description of the exceedance or violation and efforts to reduce emissions and future occurrences.

14. Two (2) copies of required reports and notifications concerning equipment operation, performance testing, or monitoring shall be sent to the following address, unless otherwise indicated:

Illinois Environmental Protection Agency  
Bureau of Air  
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 - Regional Office  
2009 Mall Street  
Collinsville, Illinois 62234

- 15a. The Permittee shall submit the following additional information from the prior calendar year, along with the Annual Emission Report, due May 1st of each year:
- i. Coating usage (gal/month and gal/year);
  - ii. VOM emissions and HAP emissions (lb/month and ton/year);
  - iii. Natural gas usage (mmscf/month and mmscf/year).
- b. If there have been no exceedances during the prior calendar year, the Annual Emission Report shall include a statement to that effect.

It should be noted that the welding operations and phosphate washer line are exempt from permit requirements pursuant to 35 Ill. Adm. Code 201.146(y) and (oo), respectively.

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

Donald E. Sutton, P.E.  
Manager, Permit Section  
Division of Air Pollution Control

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cc: Illinois EPA, FOS Region 3  
USEPA

Attachment A - Emissions Summary

This attachment provides a summary of the maximum emission from the metal furniture coating plant 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 levels e.g., 100 tons per year of VOM, 10 tons/year of any single HAP and 25 tons/year of a combination of all HAP's, 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.

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		<u>(Tons/Mo)</u>	<u>(Tons/Yr)</u>	<u>(Ton/Mo)</u>	<u>(Ton/Yr)</u>
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2. Total natural gas consumption and emissions shall not exceed the following limits:

	<u>Natural Gas Usage</u>					
	<u>(mmscf/Mo)</u>	<u>(mmscf/Yr)</u>				
	19.6	234.9				
<u>Nitrogen Oxides</u>	<u>Carbon Monoxide</u>		<u>Volatile Organic</u>			
<u>Material</u>	<u>Emissions</u>		<u>Emissions</u>		<u>Emissions</u>	
	<u>(Ton/Mo)</u>	<u>(Ton/Yr)</u>	<u>(Ton/Mo)</u>	<u>(Ton/Yr)</u>	<u>(Ton/Mo)</u>	
	<u>(Ton/Yr)</u>					
1.1	11.74	1	9.9	0.07	0.7	

These limits are based on maximum natural gas consumption and AP-42 emissions factors. Compliance with annual limits shall be determined from a running total of 12 months of data.

3. This permit is issued based on negligible emissions of particulate matter from all emission units associated with the coating operations. For this purpose, emissions shall not exceed nominal rates of 0.1 lb/hr and 0.44 ton/yr.
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emissions of all HAPs from this source not triggering the requirements to obtain a Clean Air Act Permit Program Permit (CAAPP), and Section 112(G) of the Clean Air Act.

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