



The VOM/HAP emissions shall be determined from the following equation:

$$E = \sum (P_i \times V_i)$$

Where:

E - VOM emissions (tons)

P<sub>i</sub> - Material i usage (tons)

V<sub>i</sub> - VOM/HAP content of the raw materials used in the mold making and polyurethane ware molding operations (wt. fraction)

Compliance with annual limits shall be determined from a running total of 12 months of data.

3. The VOM/HAP emissions from the plastic injection molding operations shall not exceed 0.4 tons/month and 2.4 tons/year.

- a. The VOM/HAP emissions from the plastic injection molding shall be determined from the following equation:

$$E = \sum (P_j \times C_j) / 2,000$$

Where:

E - VOM emissions (tons)

P<sub>j</sub> - Plastic j usage (tons)

C<sub>j</sub> - VOM/HAP emission factor of j plastic provided by plastic resin manufacturer (wt. fraction)

- b. The VOM/HAP emissions from the equipment clean-up shall be determined from the following equation:

$$E = \sum (P_k \times V_k)$$

Where:

E - VOM emissions (tons)

P<sub>k</sub> - Clean-up solvent k usage (tons)

V<sub>k</sub> - VOM/HAP content of the clean-up solvent k (wt. fraction)

- 4a. This permit is issued based on plastic coating operations being subject to limitations of 35 Ill. Adm. Code Part 218, Subpart G: Use of Organic Material. The VOM emissions from painting operations shall not exceed 3.6 kg/hr (8 lb/hr).

- b. VOM emissions from barrier and plastic coating operations shall not exceed 1.3 tons/month and 9.3 tons/year.

The VOM/HAP emissions from the barrier and plastic coating operations shall be determined from the following equation:

$$E = \sum (M_1 \times V_1)$$

Where:

E = VOM/HAP emissions (tons)

M<sub>1</sub> = Raw material 1 usage (tons)

V<sub>1</sub> = VOM/HAP content of the raw material 1 (wt. fraction)

- 5a. The cold degreasers shall be operated according to the operating, equipment and material requirements of 35 Ill. Adm. Code 218.182.
- b. Solvent usage and VOM emissions from four cold degreasers shall not exceed 0.8 ton/mo and 2.5 tons/yr. Compliance with annual limits shall be determined from a running total of 12 months of data.
6. Operation and emissions of the two natural gas fired engine/generators (combined) shall not exceed the following limits:

Natural Gas Usage: 9.5 mmscf/month, 57.2 mmscf/year

<u>Pollutant</u>	<u>Emission Factor (Lb/mmscf)</u>	<u>Emissions</u>	
		<u>(Ton/Mo)</u>	<u>(Ton/Yr)</u>
Nitrogen Oxide (NO <sub>x</sub> )	568	2.7	16.2
Carbon Monoxide (CO)	1,000	4.8	28.6
Volatile Organic Material (VOM)	70	0.3	2.0

These limits are based on the emission factors derived from the stack test performed in April 2004. Compliance with annual limits shall be determined from a running total of 12 months of data.

7. Operation and emissions of the small natural gas combustion emission units (combined) shall not exceed the following limits:

Natural Gas Usage: 5.0 mmscf/month, 30 mmscf/year

<u>Pollutant</u>	<u>Emission Factor (Lb/mmscf)</u>	<u>Emissions</u>	
		<u>(Lb/Mo)</u>	<u>(Ton/Yr)</u>
Nitrogen Oxide (NO <sub>x</sub> )	100	500	1.5
Carbon Monoxide (CO)	84	420	1.3
Particulate Matter (PM)	7.6	38	0.1
Volatile Organic Materials (VOM)	5.5	28	0.1

These limits are based on the standard emission factors. Compliance with annual limits shall be determined from a running total of 12 months of data.

8. This permit is issued based on negligible emissions of volatile organic materials from MDI storage tank and flexographic packaging printing press. For this purpose, emissions from each emission source shall not exceed nominal emission rates of 0.05 lb/hour and 0.1 ton/year.
9. This permit is issued based on negligible emissions of particulate matter from the resin pellets storage, transferring and blending operations. For this purpose emissions from each type of activity shall not exceed nominal emission rate of 0.1 lb/hour and 0.44 ton/year.
10. The emissions of HAPs as listed in Section 112(b) of the Clean Air Act shall not equal or exceed 10 tons per year of any single HAP or 25 tons per year of any combination of such HAPs, or such lesser quantity as USEPA may establish by rule which would require the Permittee to obtain a CAAPP permit from the Illinois EPA. 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.
11. The Permittee shall maintain monthly records of the following items:
  - a. Names and amounts of raw material used at the facility (tons/mo, tons/yr);
  - b. VOM and HAP content of raw materials used (wt. %);
  - c. Natural gas usage by engine/generators and other natural gas combustion units (mmscf/mo, mmscf/yr); and
  - d. Emission calculations (tons/mo, tons/yr).
12. All records and logs required by this permit shall be retained at a easily 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 and 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 the Illinois EPA request for records during the course of a source inspection.
13. If there is an exceedance of 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. 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 or repairs, performance testing or a continuous monitoring system 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

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

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

DES:VJB:

cc: Illinois EPA, FOS Region 1  
Lotus Notes

Attachment A - Emissions Summary

This attachment provides a summary of the maximum emission from the Plastic Product Manufacturing 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. The resulting maximum emissions are below the levels, e.g., 25 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>	E M I S S I O N S					
	<u>VOM</u>	<u>NO<sub>x</sub></u>	<u>CO</u>	<u>PM</u>	<u>Single HAP</u>	<u>Total HAP</u>
Mold Making & Polyurethane Molding	6.3					
Plastics Molding	2.4					
Plastics Coating	9.3					
Cold Degreasers	2.5					
Engine/Generators	2.0	16.2	28.6			
Gas Combustion Units	0.1	1.5	1.3	0.1		
MDI Storage Tank	0.1					
Flexographic Printing Press	0.1					
Pellets Storage, Transferring and Blending				1.3		
Plant-Wide Total	22.8	17.7	29.9		< 10	< 25

VJB: