

- iv. This permit is issued based upon the gluing, foam pouring and fuel combustion operations not being subject to the requirements of 35 Ill. Adm. Code Part 218, Subpart PP: Miscellaneous Fabricated Product Manufacturing Processes and Subpart TT: Other Emission Units. This is consequence of the federally enforceable production and operating limitations, which restrict a potential to emit of volatile organic materials (VOM) to less than 25 tons per year.
 - b. Prior to the initial issuance of a FESOP to this source, 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. The boiler is subject to New Source Performance Standards (NSPS) for Small Industrial-Commercial-Institutional Steam Generating Units, 40 CFR 60, Subparts A and Dc. The Illinois EPA is administering these standards in Illinois on behalf of the United States EPA under a delegation agreement.
- b. The Permittee shall fulfill reporting and recordkeeping requirements of 40 CFR 60.48c(g): to keep monthly records of natural gas usage.
 - c. Pursuant to 40 CFR 60.11(d), at all times, including periods of startup, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment, in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Illinois EPA or USEPA which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.
- 3a. The three storage tanks with capacity greater than 75 m³ (20,000 gallons) are not subject to New Source Performance Standards (NSPS) for Volatile Organic Liquid Storage Vessels, 40 CFR 60, Subparts A and Kb as long as a maximum true vapor pressure of a stored liquid is less than 15.0 kPa (2.2 psi).
- b. The Permittee shall notify the Illinois EPA within 30 days when the maximum true vapor pressure of the stored liquid exceeds the respective maximum true vapor pressure threshold value, pursuant to the New Source Performance Standards, 40 CFR 60.116b(d).
4. 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 IAC 218.302, 218.303, 218.304, and the following exception: If no odor nuisance exists this limitation shall apply only to photochemically reactive materials (35 Ill. Adm. Code 218.301).

5. Emissions of volatile organic materials (VOM) from foam pouring line and foam gluing line shall not exceed 2.5 ton/month and 24.0 tons/year. Emissions shall be calculated using the following equation:

$$E = \sum(P \times EF_P) + \sum(T \times EF_T) + \sum(CS \times V_{CS}) + \sum(G \times V_G);$$

where:

- E - VOM emissions (tons);
- P - Polyol usage (tons);
- EF_P - VOM emission factor for polyol (weight fraction), EF_P = 34 x 10⁻⁶;
- T - TDI usage (tons);
- EF_T - VOM emission factor for TDI (weight fraction), EF_T = 50 x 10⁻⁶;
- CS - Foam line cleaning solution usage (tons);
- V_{CS} - VOM content of cleaning solution (weight fraction);
- G - Glue usage (tons);
- V_G - VOM content of glue (weight fraction).

These limits are based on the maximum production rate and polyurethane industry emission factors. Compliance with annual limits shall be determined from a running total of 52 weeks of data.

6. Operation and emissions of the boilers and heaters (combined) shall not exceed the following limits:

<u>Pollutant</u>	Natural Gas Usage: mscf/month, 100 mmscf/year		
	<u>Emission Factor</u> <u>(Lbs/mmscf)</u>	<u>Emissions</u> <u>(Tons/Month) (Tons/Year)</u>	
Nitrogen Oxides (NO _x)	100	1.0	5.0
Carbon Monoxide (CO)	84	0.8	4.2
Particulate Matter (PM)	7.6	0.08	0.4
Volatile Organic Materials (VOM)	5.5	0.06	0.3

These limits are based on the maximum boiler and heaters operation and standard emission factors given by AP-42. Compliance with annual limits shall be determined on a monthly basis from a running total of 12 months of data.

7. This permit is issued based on negligible emissions of volatile organic materials from all storage tanks, rebond line and foam product curing area. For this purpose emissions shall not exceed nominal emission rates of 0.1 lbs/hour and 0.44 tons/year.
8. This permit is issued based on negligible emission of particulate matter from the rebond line. For this purpose emissions shall not exceed nominal emission rates of 0.1 lbs/hour and 0.44 tons/year.
9. The emissions of Hazardous Air Pollutants (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 in rule which would

require the Permittee to obtain a CAAPP permit from the Agency. 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 Agency.

10. The Permittee shall maintain monthly records of the following items:
 - a. Polyol and TDI usage (tons/month, tons/year);
 - b. Foam line cleaning solvent usage (tons/week, tons/year) and its VOM and HAP content (weight fraction);
 - c. Glue usage (tons/month, tons/year) and its VOM and HAP content (weight fraction);
 - d. Natural gas usage (mmscf/month, mmscf/year); and
 - e. VOM, HAP and combustion emissions with supporting calculations (tons/month, tons/year).
11. 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.
12. If there is an exceedance of or variation 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/variation. 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.
13. Two (2) copies of required reports and notifications shall be sent to:

Illinois Environmental Protection Agency
Division of Air Pollution Control
Compliance Section (#40)
1340 North Ninth Street
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

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9511 West Harrison
Des Plaines, Illinois 60016

This permit has been revised to include operation of prefilter/carbon absorber on foam product curing area described in Construction Permit #01110010.

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

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

ECB:VJB:cjc

cc: Illinois EPA, FOS Region 1
Lotus Notes

Attachment A - Emission Summary

This attachment provides a summary of the maximum emissions from this urethane foam products 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 below the levels, e.g., 100 tons per year of VOM, 10 tons per year of a single HAP and 25 tons/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 less material is handled, materials with lower VOM and HAP contents are used, and control measures are more effective than required in this permit.

<u>Emission Units</u>	E M I S S I O N S (Tons/Year)					
	<u>VOM</u>	<u>NO_x</u>	<u>CO</u>	<u>PM</u>	<u>Single HAP</u>	<u>Total HAP</u>
Foam Pouring/Gluing Lines	24.0					
Storage Tanks, Rebound Line, Foam Curing Area	0.44			0.44		
Gas Combustion Units	<u>0.3</u>	<u>5.0</u>	<u>4.2</u>	<u>0.44</u>		
Plant-wide total	24.7	5.0	4.2	0.9	<10	<25

VJB:cjc