

217/782-2113

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT - NSPS SOURCE

PERMITTEE

Leggett & Platt Urethane Foam Division
Attn: Joseph Progar
1750 West Downs Drive
West Chicago, Illinois 60185

Application No.: 85060009 I.D. No.: 043090ABS
Applicant's Designation: FOAM&REBOND Date Received: May 30, 2003
Subject: Urethane Foam Products Manufacturing Plant
Date Issued: Expiration Date:
Location: 1750 West Downs Drive, West Chicago

This permit is hereby granted to the above-designated Permittee to OPERATE emission source(s) and/or air pollution control equipment consisting of one polyurethane foam pouring line; one foam gluing line; one scrap foam reprocessing line (rebond line) comprised of a scrap shredder/grinder controlled by cyclone/baghouse and a blender; two toluene diisocyanate (TDI) storage tanks controlled by carbon adsorber, eleven polyol, two process oil, two polymethylene polyphenyl isocyanate (MDI), one fire retardant, three binding mixture and two glue storage tanks; one natural gas fired boiler and space heaters as described in 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., 25 tons per year of volatile organic material (VOM), 10 tons/year for a single hazardous air pollutant (HAP) and 25 tons/year for totalled HAP). As a result the source is excluded from the requirement 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.
- 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. 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 applicable reporting and recordkeeping requirements of 40 CFR 60.48c(g).

- c. The three storage tanks with capacity more than 10,000 gallons are subject to New Source Performance Standards (NSPS) for Volatile Organic Liquid Storage Vessels, 40 CFR 60, Subparts A and Kb. The Illinois EPA is administering these standards in Illinois on behalf of the United States EPA under a delegation agreement.
 - d. The Permittee shall fulfill the monitoring of operations requirements of the New Source Performance Standards, 40 CFR 60.116b(a) and (b) for these tanks. That is, records showing the dimensions of the storage vessel and an analysis showing the capacity of the storage vessels, shall be maintained and readily accessible for the life of the source.
 - e. At all times the Permittee shall also maintain and operate the boiler and storage tanks, including associated air pollution control equipment, in a manner consistent with good air pollution control practice for minimizing emissions, pursuant to the NSPS, 40 CFR 60.11(d).
3. 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.
 4. No person shall cause or allow the discharge of more than 3.6 kg/hr (8 lb/hr) 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 the limitation of 35 IAC 218 Subpart G 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 1.5 ton/week and 24.0 tons/year. Emissions shall be calculated using the following equation:

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

E - VOM emissions (ton);

P - Polyol usage (ton);

EF_P - VOM emission factor for polyol (wt. fraction), EF_P = 34 x 10⁻⁶;

T - TDI usage (ton);

EF_T - VOM emission factor for TDI (wt. fraction), EF_T = 50 x 10⁻⁶;

CS - foam line cleaning solution usage (ton);

V_{CS} - VOM content of cleaning solution (wt. fraction);

G - glue usage (ton);

V_G - VOM content of glue (wt. 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:

Natural Gas Usage: 20 mmscf/mo, 100 mmscf/yr

<u>Pollutant</u>	<u>Emission Factor (lb/mmscf)</u>	<u>Emissions</u>	
		<u>(Ton/Mo)</u>	<u>(Ton/Yr)</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 and rebond line. For this purpose emissions shall not exceed nominal emission rates of 0.1 lb/hour and 0.44 ton/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 lb/hour and 0.44 ton/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 weekly records of the following items:
- a. Polyol and TDI usage (ton/week, ton/year);
 - b. Foam line cleaning solvent usage (ton/week, ton/year) and its VOM and HAP content (wt. fraction);
 - c. Glue usage (ton/week, ton/year) and its VOM and HAP content (wt. fraction);
 - d. VOM and HAP emissions calculations (ton/week, ton/year).
11. The Permittee shall maintain monthly records of the following items:
- a. Natural gas usage (mmscf/mo, mmscf/yr);
 - b. Combustion emissions (ton/mo, ton/yr).

12. 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 the course of a source inspection.
13. 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 recordkeeping requirements, a copy of the relevant records, and a description of the exceedance or violation and efforts to reduce emissions and future occurrences.
14. The Permittee shall submit the following additional information with the Annual Emissions Report, due May 1st of each year: annual polyol, TDI, cleaning solvent and glue usage (ton/yr) and natural gas usage (mmscf/yr) and glue VOM and HAP content.
15. 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)
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
9511 West Harrison
Des Plaines, Illinois 60016

If you have any questions on this, 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
Illinois EPA, Compliance Section
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., 25 tons per year of VOM, 10 tons per year of a single HAP and 25 tons/year for totalled 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.

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or such lesser quantity as USEPA may establish in a 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.

VJB: