

The value of C_i for each type of products shall be determined by the testing specified in the Condition 7. Before stack test is completed the following values of C_i derived from the stack tests performed at the similar plant shall be used:

<u>Product Family</u>	<u>VOM Emission Factor C_i Fraction</u>
Thermax/Tuff-R (< 1")	0.04
Thermax/Tuff-R (1" - 3")	0.05
Thermax/Tuff-R (> 3")	0.055
Sturdy-R/Quik-R (< 0.75")	0.12
Sturdy-R/Quik-R (> 0.75")	0.125

These limits are based on the maximum board production rate of 290,000,000 board-feet/year and blowing agent usage of 1,500 tons/year. Compliance with annual limits shall be determined from a running total of 52 weeks of data.

3. This permit is issued based on negligible emissions of particulate matter from the board trimming/cutting operations. For this purpose emission shall not exceed nominal emission rates of 0.1 lb/hour and 0.44 ton/year.
4. The Permittee shall maintain monthly records of the following items:
 - a. Production rate of each type of insulation boards (10^3 board-feet/mo, 10^3 board-feet/yr);
 - b. Blowing agent usage (ton/mo, ton/yr); and
 - c. VOM emission calculations (tons/mo, tons/yr).
5. 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 the Illinois EPA request for records during the course of a source inspection.
6. 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.
- 7a. Within 90 days upon receipt of this permit VOM emissions from foam header, two curing ovens, board cutting operations and product storage operations for each type of product shall be measured by an approved testing service, during conditions which are representative of the maximum performance.

- b. The following methods and procedures shall be used for testing of VOM emissions from foam header, two curing ovens and board cutting operations, unless another method is approved by the Illinois EPA:

Location of Sample Points	40 CFR 60, Appendix A, Method 1
Gas Flow and Velocity	40 CFR 60, Appendix A, Method 2
Flue Gas Weight	40 CFR 60, Appendix A, Method 3
Moisture	40 CFR 60, Appendix A, Method 4
Volatile Organic Material	40 CFR 60, Appendix A, Method 18
Capture Efficiency	40 CFR 51, Appendix M, Method 204

VOM emissions from product storage operations may be determined as a weight loss during the normal storage time period.

- c. At least 30 days prior to the actual date of testing a written test plan shall be submitted to the Illinois EPA for review. This plan shall describe the specific procedures for testing, including as a minimum:
 - i. The person(s) who will be performing sampling and analysis and their experience with similar tests.
 - ii. The specific conditions under which testing will be performed, including a discussion of why these conditions will be representative of maximum emissions and the means by which the operating parameters for the source and any control equipment will be determined.
 - iii. The specific determinations of emissions and operations which are intended to be made, including sampling and monitoring locations.
 - iv. The test method(s) which will be used, with the specific analysis method, if the method can be used with different analysis methods. The specific sampling, analytical and quality control procedures which will be used, with an identification of the standard methods upon which they are based.
 - v. Any minor changes in standard methodology proposed to accommodate the specific circumstances of testing, with justifications.
 - vi. Any proposed use of an alternative test method, with detailed justification.
 - vii. The format and content of the Source Test Report.
- d. Copies of the Final Report(s) for these tests shall be submitted to the Illinois EPA within 30 days after the test results are compiled and finalized.
- e. The Final Report shall include as a minimum:
 - i. A summary of results.
 - ii. General information.
 - iii. Description of test method(s), including description of sampling points, sampling train, analysis equipment, and test schedule.

- iv. Detailed description of test conditions, including:
 - A. Process information, i.e., mode(s) of operation, process rate, e.g. fuel or raw material consumption;
 - B. Control equipment information, i.e., equipment condition and operating parameters during testing; and
 - C. A discussion of any preparatory actions taken, i.e., inspections, maintenance and repair.
 - v. Data and calculations, including copies of all raw data sheets and records of laboratory analyses, sample calculations, and data on equipment calibration.
 - vi. An explanation of any discrepancies among individual tests or anomalous data.
 - vii. The results of all quality control evaluation, including a copy of all quality control data.
8. 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
2009 Mall Street
Collinsville, Illinois 62234

9. The Permittee shall submit the following additional information with the Annual Emissions Report, due May 1st of each year:
- a. Insulation boards production rate of each type (board-feet/yr).
 - b. Blowing agent usage (tons/yr).

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:jar

cc: Illinois EPA, FOS Region 1
Illinois EPA, Compliance Section
Lotus Notes

Attachment A - Emissions Summary

This attachment provides a summary of the maximum emission from the Insulated Foam Panels 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 from the plant. This is production of 290,000,000 board-feet of insulation boards and use of 1,500 tons of blowing agent per year. The resulting maximum emissions are well below the levels, e.g., 100 tons/year of volatile organic materials, 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.

1. VOM emissions from insulated boards manufacturing process shall not exceed 10.0 tons/month and 88.0 tons/year.

Emission should be calculated using the following equation:

$$E_i = \sum (L_j \times D_j \times B_i \times C_i)$$

Where

E_i - VOM Emissions (lb)

L_j - Foam Board I-Type Production (Board-Feet)

D_j - Foam Board I-Type Density (Lb/Board-Foot)

B_i - Blowing Agent Usage In I-Type Product (Fraction)

C_i - Blowing Agent Emission Factor For I-Type Product (Fraction)

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2. This permit is issued based on negligible emissions of particulate matter from the board trimming/cutting operations. For this purpose emission shall not exceed nominal emission rates of 0.1 lb/hour and 0.44 ton/year.

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