INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
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Mitchell E. Daniels, Jr.
Governor

Thomas W. Easterly
Commissioner

100 North Senate Avenue
Indianapolis, Indiana 46204
(317) 232-8603
(800) 451-6027
www.IN.gov/idem

TO: Interested Parties / Applicant

DATE: October 25, 2005

RE: Foamex, L.P. / 033-20970-00047

FROM: Paul Dubenetzky
Chief, Permits Branch
Office of Air Quality

Notice of Decision: Approval - Effective Immediately

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to IC 13-15-5-3, this permit is effective immediately, unless a petition for stay of effectiveness is filed and granted according to IC 13-15-6-3, and may be revoked or modified in accordance with the provisions of IC 13-15-7-1.

If you wish to challenge this decision, IC 4-21.5-3 and IC 13-15-6-1 require that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Room 1049, Indianapolis, IN 46204, **within eighteen (18) calendar days of the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

(1) the date the document is delivered to the Office of Environmental Adjudication (OEA);
(2) the date of the postmark on the envelope containing the document, if the document is mailed to OEA by U.S. mail; or
(3) The date on which the document is deposited with a private carrier, as shown by receipt issued by the carrier, if the document is sent to the OEA by private carrier.

The petition must include facts demonstrating that you are either the applicant, a person aggrieved or adversely affected by the decision or otherwise entitled to review by law. Please identify the permit, decision, or other order for which you seek review by permit number, name of the applicant, location, date of this notice and all of the following:

(1) the name and address of the person making the request;
(2) the interest of the person making the request;
(3) identification of any persons represented by the person making the request;
(4) the reasons, with particularity, for the request;
(5) the issues, with particularity, proposed for considerations at any hearing; and
(6) identification of the terms and conditions which, in the judgment of the person making the request, would be appropriate in the case in question to satisfy the requirements of the law governing documents of the type issued by the Commissioner.

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178. Callers from within Indiana may call toll-free at 1-800-451-6027, ext. 3-0178.

Enclosures
FNPER.dot 1/10/05

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October 25, 2005

Ms. Catherine Mowery
Foamex, L.P.
2211 South Wayne Street
Auburn, Indiana 46706

Re: 033-20970-00047
Significant Source Modification to:
Part 70 permit No.:T033-17552-00047

Dear Ms. Mowery:

Foamex, L.P. was issued a Part 70 operating permit renewal No. 033-17552-00047 on October 13, 2004 for a stationary flexible polyurethane foam production plant. An application to modify the source was received on March 21, 2004. Pursuant to the provisions of 326 IAC 2-7-10.5 the following emission units are approved for modification at the source:.

(d) One (1) Variable Pressure Foaming (VPF) line with a maximum production rate of 1.02 billion board feet of foam per year, using a carbon adsorber as control and exhausting at stacks Nos. 39 and 40. Alternately, the VPF line can operate to produce a small amount of foam by pouring at a maximum production rate of 4,000,000 pounds of MDI per year and 447,329 pounds of Methylene Chloride per year. This line was constructed in 2001 and modified in 2005.

Note: The emission unit description is written and numbered as it appears in the Sections A and D of the revised permit.

The following construction conditions are applicable to the proposed project:

General Construction Conditions

1. The data and information supplied with the application shall be considered part of this source modification approval. Prior to any proposed change in construction which may affect the potential to emit (PTE) of the proposed project, the change must be approved by the Office of Air Quality (OAQ).

2. This approval to construct does not relieve the permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

3. Effective Date of the Permit
Pursuant to IC 13-15-5-3, this approval becomes effective upon its issuance.

4. Pursuant to 326 IAC 2-1.1-9 and 326 IAC 2-7-10.5(i), the Commissioner may revoke this approval if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.

5. All requirements and conditions of this construction approval shall remain in effect unless modified in a manner consistent with procedures established pursuant to 326 IAC 2.

6. Pursuant to 326 IAC 2-7-10.5(l) the emission units constructed under this approval shall not be placed into operation prior to revision of the source=s Part 70 Operating Permit to incorporate the required operation conditions.

This significant source modification authorizes the modification of the existing emission unit (VPF line). Operating conditions shall be incorporated into the Part 70 operating permit as a significant permit modification in accordance with 326 IAC 2-7-10.5(l)(2) and 326 IAC 2-7-12. Operation is not approved until the significant permit modification has been issued.

Pursuant to Contract No. A305-5-65, IDEM, OAQ has assigned the processing of this application to Eastern Research Group, Inc., (ERG). Therefore, questions should be directed to Sanober Durrani, ERG, 1600 Perimeter Park Drive, Morrisville, North Carolina 27560, or call (919) 468-7810 to speak directly to Ms. Durrani. Questions may also be directed to Duane Van Laningham at IDEM, OAQ, 100 North Senate Avenue, Indianapolis, Indiana, 46204, or call (800) 451-6027, and ask for Duane Van Laningham, or extension 3-6878, or dial (317) 233-6878.

Sincerely,
Original signed by

Paul Dubenetzky, Chief
Permits Branch
Office of Air Quality

Attachments
ERG/SD

cc: File - DeKalb County
DeKalb County Health Department
Northern Regional Office
Air Compliance Section Inspector – Doyle Houser
Compliance Data Section
Administrative and Development
Technical Support and Modeling - Michele Boner

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PART 70 OPERATING PERMIT RENEWAL
OFFICE OF AIR QUALITY

Foamex, L.P.
2211 South Wayne Street
Auburn, Indiana 46706

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

The Permittee must comply with all conditions of this permit. Noncompliance with any provisions of this permit is grounds for enforcement action; permit termination, revocation and reissuance, or modification; or denial of a permit renewal application. Noncompliance with any provision of this permit, except any provision specifically designated as not federally enforceable, constitutes a violation of the Clean Air Act. It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. An emergency does constitute an affirmative defense in an enforcement action provided the Permittee complies with the applicable requirements set forth in Section B, Emergency Provisions.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Operation Permit No.: T033-17552-00047	
Issued by: Original Signed by Janet G. McCabe, Assistant Commissioner Office of Air Quality	Issuance Date: October 13, 2004 Expiration Date: October 13, 2009

First Significant Source Modification No.: 033-20970-00047	
Original signed by: Paul Dubenetzky, Chief Permits Branch Office of Air Quality	Issuance Date: October 25, 2005

SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)] [326 IAC 2-7-1(22)]

The Permittee owns and operates a stationary Flexible Polyurethane Foam Production plant.

Responsible Official:	Plant Manager
Source Address:	2211 South Wayne Street, Auburn, Indiana 46706
Mailing Address:	2211 South Wayne Street, Auburn, Indiana 46706
General Source Phone Number:	(260) 925-1073
SIC Code:	3086
County Location:	DeKalb
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Part 70 Permit Program Minor Source, under PSD Rules; Major Source, Section 112 of the Clean Air Act

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

This stationary source consists of the following emission units and pollution control devices:

(a) Four (4) rebond mold units, identified as EU-R1, EU-R2, EU-R3, and EU-R4, with EU-R1 and EU-R2 constructed in 1980 and EU-R3 and EU-R4 constructed in 1995, with a total maximum capacity of bonding 9.6 tons per hour of scrap foam, exhausted through four (4) stacks (S/V ID 28, 29, 35, 36), respectively;

(b) One (1) source-wide adhesive application operation, with emissions venting inside the plant;

(c) One (1) source-wide chemical cleaning solvent usage operation, with emissions venting inside the plant;

(d) One (1) Variable Pressure Foaming (VPF) line, constructed in 2001 and modified in 2005, with a maximum production rate of 1.02 billion board feet of foam per year and a maximum Methylene Chloride (blowing agent) usage of 447,329 pounds per year, using a carbon adsorber as control, and exhausting at stacks Nos. 39 and 40. The flexible form is produced by the mix of TDI (or MDI) with amine (catalyst). The blowing agent is not always required; and

(e) Three (3) natural gas-fired industrial boilers identified as Boilers #1, #2 and #3 (EU-B1, EU-B2, EU-B3), each rated at 10.5 million (MM) British thermal units (Btu) per hour and exhausted through three (3) stacks (S/V ID 31,32,33), respectively. Boilers #1 and #2 were installed in 1978 and Boiler #3 was installed in 1986.

A.3 Specifically Regulated Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]

This stationary source also includes the following insignificant activities which are specifically regulated, as defined in 326 IAC 2-7-1(21):

(a) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6 (one (1) 100% petroleum distillate Safety-Kleen parts washer, installed in 2002, with a remote solvent reservoir). [326 IAC 8-3-2]

(b) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment. [326 IAC 6-3-2]

(c) The following units emitting greater than 1 pound per day but less than 5 pounds per day or 1 ton per year of a single HAP:

(1) TDI/MDI Storage Tanks [40 CFR 63, Subpart III].

A.4 Part 70 Permit Applicability [326 IAC 2-7-2]

This stationary source is required to have a Part 70 permit by 326 IAC 2-7-2 (Applicability) because:

(a) It is a major source, as defined in 326 IAC 2-7-1(22);

(b) It is a source in a source category designated by the United States Environmental Protection Agency (U.S. EPA) under 40 CFR 70.3 (Part 70 - Applicability).

SECTION B GENERAL CONDITIONS

B.1 Definitions [326 IAC 2-7-1]

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, the applicable definitions found in the statutes or regulations (IC 13-11, 326 IAC 1-2 and 326 IAC 2-7) shall prevail.

B.2 Permit Term [326 IAC 2-7-5(2)] [326 IAC 2-1.1-9.5]

This permit is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date.

B.3 Enforceability [326 IAC 2-7-7]

Unless otherwise stated, all terms and conditions in this permit, including any provisions designed to limit the source's potential to emit, are enforceable by IDEM, the United States Environmental Protection Agency (U.S. EPA) and by citizens in accordance with the Clean Air Act.

B.4 Termination of Right to Operate [326 IAC 2-7-10] [326 IAC 2-7-4(a)]

The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least nine (9) months prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-7-3 and 326 IAC 2-7-4(a).

B.5 Severability [326 IAC 2-7-5(5)]

The provisions of this permit are severable; a determination that any portion of this permit is invalid shall not affect the validity of the remainder of the permit.

B.6 Property Rights or Exclusive Privilege [326 IAC 2-7-5(6)(D)]

This permit does not convey any property rights of any sort or any exclusive privilege.

B.7 Duty to Provide Information [326 IAC 2-7-5(6)(E)]

(a) The Permittee shall furnish to IDEM, OAQ within a reasonable time, any information that IDEM, OAQ, may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34). Upon request, the Permittee shall also furnish to IDEM, OAQ, copies of records required to be kept by this permit.

(b) For information furnished by the Permittee to IDEM, OAQ, the Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

B.8 Certification [326 IAC 2-7-4(f)] [326 IAC 2-7-6(1)] [326 IAC 2-7-5(3)(C)]

(a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by a responsible official of truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

(b) One (1) certification shall be included, using the attached Certification Form, with each submittal requiring certification.

(c) A responsible official is defined at 326 IAC 2-7-1(34).

B.9 Annual Compliance Certification [326 IAC 2-7-6(5)]

(a) The Permittee shall annually submit a compliance certification report which addresses the status of the source's compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. All certifications shall cover

the time period from January 1 to December 31 of the previous year, and shall be submitted in letter form no later than July 1 of each year to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue
Indianapolis, Indiana 46204

and

United States Environmental Protection Agency, Region V
Air and Radiation Division, Air Enforcement Branch - Indiana (AE-17J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

(b) The annual compliance certification report required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.

(c) The annual compliance certification report shall include the following:

(1) The appropriate identification of each term or condition of this permit that is the basis of the certification;

(2) The compliance status;

(3) Whether compliance was continuous or intermittent;

(4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-7-5(3); and

(5) Such other facts, as specified in Sections D of this permit, as IDEM, OAQ, may require to determine the compliance status of the source.

The submittal by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

B.10 Preventive Maintenance Plan [326 IAC 2-7-5(1),(3) and (13)] [326 IAC 2-7-6(1) and (6)] [326 IAC 1-6-3]

(a) If required by specific condition(s) in Section D of this permit, the Permittee shall maintain and implement Preventive Maintenance Plans (PMPs) including the following information on each facility:

(1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;

(2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and

(3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

(b) The Permittee shall implement the PMPs, including any required record keeping as necessary to ensure that failure to implement a PMP does not cause or contribute to an exceedance of any limitation on emissions or potential to emit.

(c) A copy of the PMPs shall be submitted to IDEM, OAQ, upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ, may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions or potential to emit. The PMP does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(d) To the extent the Permittee is required by 40 CFR Part 60/63 to have an Operation Maintenance, and Monitoring (OMM) Plan for a unit, such Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.

B.11 Emergency Provisions [326 IAC 2-7-16]

(a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation.

(b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describe the following:

(1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;

(2) The permitted facility was at the time being properly operated;

(3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;

(4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ, and the IDEM Northern Regional Office within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone Number: 1-800-451-6027 (ask for Office of Air Quality, Compliance Section), or
Telephone Number: 317-233-5674 (ask for Compliance Section)
Facsimile Number: 317-233-5967
Northern Regional Office Telephone Number: 574-245-4870
Northern Regional Office Facsimile Number: 574-245-4877

(5) For each emergency lasting one (1) hour or more, the Permittee submitted the attached Emergency Occurrence Report Form or its equivalent, either by mail or facsimile to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue
Indianapolis, Indiana 46204

within two (2) working days of the time when emission limitations were exceeded due to the emergency.

The notice fulfills the requirement of 326 IAC 2-7-5(3)(C)(ii) and must contain the following:

(A) A description of the emergency;

(B) Any steps taken to mitigate the emissions; and

(C) Corrective actions taken.

The notification which shall be submitted by the Permittee does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(6) The Permittee immediately took all reasonable steps to correct the emergency.

(c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.

(d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.

(e) IDEM, OAQ, may require that the Preventive Maintenance Plans required under 326 IAC 2-7-4(c)(9) be revised in response to an emergency.

(f) Failure to notify IDEM, OAQ, by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-7 and any other applicable rules.

(g) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.

(h) The Permittee shall include all emergencies in the Quarterly Deviation and Compliance Monitoring Report.

B.12 Permit Shield [326 IAC 2-7-15] [326 IAC 2-7-20] [326 IAC 2-7-12]

(a) Pursuant to 326 IAC 2-7-15, the Permittee has been granted a permit shield. The permit shield provides that compliance with the conditions of this permit shall be deemed in compliance with any applicable requirements as of the date of permit issuance, provided that either the applicable requirements are included and specifically identified in this permit or the permit contains an explicit determination or concise summary of a determination that other specifically identified requirements are not applicable. The Indiana statutes from IC 13 and rules from 326 IAC, referenced in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a Part 70 permit under 326 IAC 2-7 or for applicable requirements for which a permit shield has been granted.

This permit shield does not extend to applicable requirements which are promulgated after the date of issuance of this permit unless this permit has been modified to reflect such new requirements.

(b) If, after issuance of this permit, it is determined that the permit is in nonconformance with an applicable requirement that applied to the source on the date of permit issuance, IDEM, OAQ, shall immediately take steps to reopen and revise this permit and issue a compliance order to the Permittee to ensure expeditious compliance with the applicable requirement until the permit is reissued. The permit shield shall continue in effect so long as the Permittee is in compliance with the compliance order.

(c) No permit shield shall apply to any permit term or condition that is determined after issuance of this permit to have been based on erroneous information supplied in the permit application. Erroneous information means information that the Permittee knew to

be false, or in the exercise of reasonable care should have been known to be false, at the time the information was submitted.

(d) Nothing in 326 IAC 2-7-15 or in this permit shall alter or affect the following:

(1) The provisions of Section 303 of the Clean Air Act (emergency orders), including the authority of the U.S. EPA under Section 303 of the Clean Air Act;

(2) The liability of the Permittee for any violation of applicable requirements prior to or at the time of this permit's issuance;

(3) The applicable requirements of the acid rain program, consistent with Section 408(a) of the Clean Air Act; and

(4) The ability of U.S. EPA to obtain information from the Permittee under Section 114 of the Clean Air Act.

(e) This permit shield is not applicable to any change made under 326 IAC 2-7-20(b)(2) (Sections 502(b)(10) of the Clean Air Act changes) and 326 IAC 2-7-20(c)(2) (trading based on State Implementation Plan (SIP) provisions).

(f) This permit shield is not applicable to modifications eligible for group processing until after IDEM, OAQ, has issued the modifications. [326 IAC 2-7-12(c)(7)]

(g) This permit shield is not applicable to minor Part 70 permit modifications until after IDEM, OAQ, has issued the modification. [326 IAC 2-7-12(b)(8)]

B.13 Prior Permits Superseded [326 IAC 2-1.1-9.5]

(a) All terms and conditions of previous permits issued pursuant to permitting programs approved into the state implementation plan have been either

(1) incorporated as originally stated,

(2) revised, or

(3) deleted

by this permit.

(b) All previous registrations and permits are superseded by this permit.

B.14 Deviations from Permit Requirements and Conditions [326 IAC 2-7-5(3)(C)(ii)]

(a) Deviations from any permit requirements (for emergencies see Section B - Emergency Provisions), the probable cause of such deviations, and any response steps or preventive measures taken shall be reported to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue
Indianapolis, Indiana 46204

using the attached Quarterly Deviation and Compliance Monitoring Report, or its equivalent. A deviation required to be reported pursuant to an applicable requirement that exists independent of this permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report.

The Quarterly Deviation and Compliance Monitoring Report does require the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).

(b) A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.

B.15 Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-7-5(6)(C)] [326 IAC 2-7-8(a)] [326 IAC 2-7-9]

(a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Part 70 permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-7-5(6)(C)] The notification by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ, determines any of the following:

(1) That this permit contains a material mistake.

(2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.

(3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-7-9(a)(3)]

(c) Proceedings by IDEM, OAQ, to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-7-9(b)]

(d) The reopening and revision of this permit, under 326 IAC 2-7-9(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ, at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ, may provide a shorter time period in the case of an emergency. [326 IAC 2-7-9(c)]

B.16 Permit Renewal [326 IAC 2-7-4]

(a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ, and shall include the information specified in 326 IAC 2-7-4. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(40). The renewal application does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue
Indianapolis, Indiana 46204

(b) Timely Submittal of Permit Renewal [326 IAC 2-7-4(a)(1)(D)]

(1) A timely renewal application is one that is:

(A) Submitted at least nine (9) months prior to the date of the expiration of this permit; and

(B) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be

considered timely if received by IDEM, OAQ, on or before the date it is due.

(2) If IDEM, OAQ, upon receiving a timely and complete permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect, including any permit shield provided in 326 IAC 2-7-15, until the renewal permit has been issued or denied.

(c) Right to Operate After Application for Renewal [326 IAC 2-7-3]
If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-7 until IDEM, OAQ, takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAQ, any additional information identified as being needed to process the application.

(d) United States Environmental Protection Agency Authority [326 IAC 2-7-8(e)]
If IDEM, OAQ, fails to act in a timely way on a Part 70 permit renewal, the U.S. EPA may invoke its authority under Section 505(e) of the Clean Air Act to terminate or revoke and reissue a Part 70 permit.

B.17 Permit Amendment or Modification [326 IAC 2-7-11] [326 IAC 2-7-12]

(a) Permit amendments and modifications are governed by the requirements of 326 IAC 2-7-11 or 326 IAC 2-7-12 whenever the Permittee seeks to amend or modify this permit.

(b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue
Indianapolis, Indiana 46204

Any such application shall be certified by the "responsible official" as defined by 326 IAC 2-7-1(34).

(c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]

(d) No permit amendment or modification is required for the addition, operation or removal of a nonroad engine, as defined in 40 CFR 89.2.

B.18 Permit Revision Under Economic Incentives and Other Programs [326 IAC 2-7-5(8)] [326 IAC 2-7-12 (b)(2)]

(a) No Part 70 permit revision shall be required under any approved economic incentives, marketable Part 70 permits, emissions trading, and other similar programs or processes for changes that are provided for in a Part 70 permit.

(b) Notwithstanding 326 IAC 2-7-12(b)(1) and 326 IAC 2-7-12(c)(1), minor Part 70 permit modification procedures may be used for Part 70 modifications involving the use of economic incentives, marketable Part 70 permits, emissions trading, and other similar approaches to the extent that such minor Part 70 permit modification procedures are explicitly provided for in the applicable State Implementation Plan (SIP) or in applicable requirements promulgated or approved by the U.S. EPA.

B.19 Operational Flexibility [326 IAC 2-7-20] [326 IAC 2-7-10.5]

(a) The Permittee may make any change or changes at the source that are described in 326 IAC 2-7-20(b), (c), or (e), without a prior permit revision, if each of the following conditions is met:

(1) The changes are not modifications under any provision of Title I of the Clean Air Act;

(2) Any preconstruction approval required by 326 IAC 2-7-10.5 has been obtained;

(3) The changes do not result in emissions which exceed the emissions allowable under this permit (whether expressed herein as a rate of emissions or in terms of total emissions);

(4) The Permittee notifies the:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue
Indianapolis, Indiana 46204

and

United States Environmental Protection Agency, Region V
Air and Radiation Division, Regulation Development Branch - Indiana (AR-18J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

in advance of the change by written notification at least ten (10) days in advance of the proposed change. The Permittee shall attach every such notice to the Permittee's copy of this permit; and

(5) The Permittee maintains records on-site which document, on a rolling five (5) year basis, all such changes and emissions trading that are subject to 326 IAC 2-7-20(b), (c), or (e) and makes such records available, upon reasonable request, for public review.

Such records shall consist of all information required to be submitted to IDEM, OAQ, in the notices specified in 326 IAC 2-7-20(b)(1), (c)(1), and (e)(2).

(b) The Permittee may make Section 502(b)(10) of the Clean Air Act changes (this term is defined at 326 IAC 2-7-1(36)) without a permit revision, subject to the constraint of 326 IAC 2-7-20(a). For each such Section 502(b)(10) of the Clean Air Act change, the required written notification shall include the following:

(1) A brief description of the change within the source;

(2) The date on which the change will occur;

(3) Any change in emissions; and

(4) Any permit term or condition that is no longer applicable as a result of the change.

The notification which shall be submitted is not considered an application form, report or compliance certification. Therefore, the notification by the Permittee does not require the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).

(c) Emission Trades [326 IAC 2-7-20(c)]

The Permittee may trade increases and decreases in emissions in the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-7-20(c).

(d) Alternative Operating Scenarios [326 IAC 2-7-20(d)]
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-7-5(9). No prior notification of IDEM, OAQ, or U.S. EPA is required.

B.20 Source Modification Requirement [326 IAC 2-7-10.5]

A modification, construction, or reconstruction is governed by the requirements of 326 IAC 2 and 326 IAC 2-7-10.5.

B.21 Inspection and Entry [326 IAC 2-7-6] [IC 13-14-2-2] [IC 13-30-3-1] [IC 13-17-3-2]

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee's right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAQ, U.S. EPA, or an authorized representative to perform the following:

(a) Enter upon the Permittee's premises where a Part 70 source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;

(b) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, have access to and copy any records that must be kept under the conditions of this permit;

(c) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, inspect any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;

(d) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, sample or monitor substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and

(e) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

B.22 Transfer of Ownership or Operational Control [326 IAC 2-7-11]

(a) The Permittee must comply with the requirements of 326 IAC 2-7-11 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.

(b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue
Indianapolis, Indiana 46204

The application which shall be submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]

B.23 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-7-5(7)][326 IAC 2-1.1-7]

(a) The Permittee shall pay annual fees to IDEM, OAQ, within thirty (30) calendar days of receipt of a billing. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ, the applicable fee is due April 1 of each year.

(b) Except as provided in 326 IAC 2-7-19(e), failure to pay may result in administrative enforcement action or revocation of this permit.

(c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4230 (ask for OAQ, Billing, Licensing, and Training Section), to determine the appropriate permit fee.

B.24 Credible Evidence [326 IAC 2-7-5(3)][326 IAC 2-7-6][62 FR 8314][326 IAC 1-1-6]

For the purpose of submitting compliance certifications or establishing whether or not the Permittee has violated or is in violation of any condition of this permit, nothing in this permit shall preclude the use, including the exclusive use, of any credible evidence or information relevant to whether the Permittee would have been in compliance with the condition of this permit if the appropriate performance or compliance test or procedure had been performed.

SECTION D.1 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]:

(a) Four (4) rebond mold units, identified as EU-R1, EU-R2, EU-R3, and EU-R4, with EU-R1 and EU-R2 constructed in 1980 and EU-R3 and EU-R4 constructed in 1995, with a total maximum capacity of bonding 9.6 tons per hour of scrap foam, exhausted through four (4) stacks (S/V ID 28, 29, 35, 36), respectively;

(b) One (1) source-wide adhesive application operation, with emissions venting inside the plant;

(c) One (1) source-wide chemical cleaning solvent usage operation, with emissions venting inside the plant;

(d) One (1) Variable Pressure Foaming (VPF) line, constructed in 2001 and modified in 2005, with a maximum production rate of 1.02 billion board feet of foam per year and a maximum Methylene Chloride (blowing agent) usage of 447,329 pounds per year, using a carbon adsorber as control, and exhausting at stacks Nos. 39 and 40. The flexible form is produced by the mix of TDI (or MDI) with amine (catalyst). The blowing agent is not always required; and

Insignificant Activity:

(a) The following units emitting greater than 1 pound per day but less than 5 pounds per day or 1 ton per year of a single HAP:

(1) TDI/MDI Storage Tanks [40 CFR 63, Subpart III].

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.1.1 General Provisions Relating to HAPs [326 IAC 20-1-1][40 CFR Part 63, Subpart A]

The provisions of 40 CFR Part 63, Subpart A - General Provisions, which are incorporated as 326 IAC 20-1-1, apply to the four (4) Rebond mold units (EU-R1, EU-R2, EU-R3, and EU-R4), the Variable Pressure Foaming Line (VPF), and the TDI/MDI storage tanks described in this section except when otherwise specified in 40 CFR Part 63, Subpart III.

D.1.2 Flexible Polyurethane Foam Production NESHAP Compliance Dates [326 IAC 2-7-5] [40 CFR Part 63.1291, Subpart III] [326 IAC 20-22-1]

(a) The foam manufacturing process at this source is a slabstock polyurethane foam manufacturing operation.

(b) Pursuant to 40 CFR 63.1291(a), the VPF line, the four (4) Rebond mold units, and the TDI/MDI storage tanks were required to be in compliance with all provisions of this rule no later than October 8, 2001.

D.1.3 Flexible Polyurethane Foam Production NESHAP [326 IAC 2-7-5] [40 CFR Part 63.1294, Subpart III][326 IAC 20-22-1]

Pursuant to 40 CFR 63.1294, the Permittee shall comply with the provisions of the section which are as follows:

(a) Diisocyanate storage vessels.
Diisocyanate storage vessels shall be equipped with either a system meeting the requirements in paragraph (a)(1) below, or a carbon adsorption system meeting the requirements of paragraph (a)(2) below.

(1) The storage vessel shall be equipped with a vapor return line from the storage vessel to the tank truck or rail car that is connected during unloading.

(A) During each unloading event, the vapor return line shall be inspected for leaks by visual, audible, or any other detection method.

(B) When a leak is detected, it shall be repaired as soon as practicable, but not later than the subsequent unloading event.

(2) The storage vessel shall be equipped with a carbon adsorption system, meeting the monitoring requirements of 40 CFR 63.1303(a), that routes displaced vapors through activated carbon before being discharged to the atmosphere. The Permittee shall replace the existing carbon with fresh carbon upon indication of breakthrough before the next unloading event.

(b) Transfer pumps in diisocyanate service.
Each transfer pump in diisocyanate service shall meet the requirements of paragraph (b)(1) or (b)(2) below.

(1) The pump shall be a seal less pump; or

(2) The pump shall be a submerged pump system meeting the requirements in paragraphs (b)(2)(A) through (C) listed below.

(A) The pump shall be completely immersed in bis(2-ethylhexyl)phthalate (DEHP, CAS #118-81-7), 2(methyloctyl)phthalate (DINP, CAS #68515-48-0), or another neutral oil.

(B) The pump shall be visually monitored weekly to detect leaks,

(C) When a leak is detected, it shall be repaired in accordance with the procedures in paragraphs (b)(2)(C)(i) and (ii) below, except as provided in paragraph (d) below.

(i) The leak shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected.

(ii) A first attempt at repair shall be made no later than 5 calendar days after the leak is detected. First attempts at repair include, but are not limited to, the following practices where practicable:

(a) Tightening of packing gland nuts.

(b) Ensuring that the seal flush is operating at design pressure and temperature.

(c) Other components in diisocyanate service.
If evidence of a leak is found by visual, audible, or any other detection method, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in paragraph (d) below. The first attempt at repair shall be made no later than 5 calendar days after each leak is detected.

(d) Delay of repair.

(1) Delay of repair of equipment for which leaks have been detected is allowed for equipment that is isolated from the process and that does not remain in diisocyanate service.

(2) Delay of repair for valves and connectors is also allowed if:

(A) The owner or operator determines that diisocyanate emissions of purged material resulting from immediate repair are greater than the fugitive emissions likely to result from delay of repair, and

(B) The purged material is collected and destroyed or recovered in a control device when repair procedures are effected.

(3) Delay of repair for pumps is also allowed if repair requires replacing the existing seal design with a seal less pump, and repair is completed as soon as practicable, but not later than 6 months after the leak was detected.

D.1.4 Flexible Polyurethane Foam Production NESHAP [326 IAC 2-7-5] [40 CFR Part 63.1299, Subpart III][326 IAC 20-22-1]

Pursuant to 40 CFR 63.1299, the Permittee shall comply with the source-wide emission limitation option provided in 40 CFR 63.1293(b) and shall control HAP ABA storage and equipment leak emissions, HAP ABA emissions from the production line (which includes the VPF line), and equipment cleaning HAP emissions in accordance with the provisions in 40 CFR 63.1299. Compliance shall be determined on a rolling annual basis in accordance with 40 CFR 63.1299(a).

(a) Rolling annual compliance.
Under the rolling annual compliance provisions, actual source-wide HAP ABA storage and equipment leak emissions, HAP ABA emissions from the production line, and equipment cleaning HAP emissions are compared to allowable source-wide emissions for each consecutive 12-month period. The allowable source-wide HAP emission level is calculated based on the production for the 12-month period, resulting in a potentially different allowable level for each 12-month period. While compliance is on an annual basis, compliance shall be determined monthly for the preceding 12-month period. The actual source-wide HAP emission level for a consecutive 12-month period shall be determined using the procedures in 40 CFR 63.1299(c)(1) through (4), listed in paragraphs (b)(1) through (4) below. The allowable HAP emission level for a consecutive 12-month period shall be determined using the procedures in 40 CFR 63.1299(d), listed in paragraph (c) below.

(b) Procedures for determining actual source-wide HAP emissions.
The actual source-wide HAP ABA storage and equipment leak emissions, HAP ABA emissions from the production line, and equipment cleaning HAP emissions shall be determined using the procedures in 40 CFR 63.1299. Actual source-wide HAP emissions for each individual month shall be determined using the procedures specified in paragraphs (b)(1) through (3) below.

(1) Actual source-wide HAP emissions for a month shall be determined using Equation 5 and the information determined in accordance with paragraphs (b)(2) and (3) below.

$$PWE_{actual} = \sum_{i}^{n} (ST_{i,begin} - ST_{i,end} + ADD_i) \qquad \text{(Equation 5)}$$

Where:

PWE_{actual} = Actual source-wide HAP ABA and equipment cleaning HAP emissions for a month, pounds/month.

n = Number of HAP ABA storage vessels.

$ST_{i,\ begin}$ = Amount of HAP ABA in storage vessel i at the beginning of the month, pounds, determined in accordance with the procedures listed in paragraph (b)(2) below.

$ST_{i, end}$ = Amount of HAP ABA in storage vessel i at the end of the month, pounds, determined in accordance with the procedures listed in paragraph (b)(2) below.

ADD_i = Amount of HAP ABA added to storage vessel i during the month, pounds, determined in accordance with the procedures listed in paragraph (b)(3) below.

(2) The amount of HAP ABA in a storage vessel shall be determined by monitoring the HAP ABA level in the storage vessel in accordance with 40 CFR 63.1303(d).

(3) The amount of HAP ABA added to a storage vessel for a given month shall be the sum of the amounts of all individual HAP ABA deliveries that occur during the month. The amount of each individual HAP ABA delivery shall be determined in accordance with 40 CFR 63.1303(e).

(4) Actual source-wide HAP emissions for each consecutive 12-month period shall be calculated as the sum of actual monthly source-wide HAP emissions for each of the individual 12 months in the period, calculated in accordance with paragraphs (b)(1) through (3) above.

(c) Allowable source-wide HAP emissions for a consecutive 12-month period shall be calculated as the sum of allowable monthly source-wide HAP emissions for each of the individual 12 months in the period. Allowable source-wide HAP emissions for each individual month shall be calculated using Equation 6.

$$emiss_{allow,\ month} = \sum_{j=1}^{m}\left(\sum_{i=1}^{n}\frac{(limit_i)(polyol_i)}{100}\right)j \qquad \text{(Equation 6)}$$

Where:

$emiss_{allow, month}$ = Allowable HAP ABA storage and equipment leak emissions, HAP ABA emissions from the production line, and equipment cleaning HAP emissions from the slabstock foam production source for the month, pounds.

m = Number of slabstock foam production lines.

$polyol_i$ = Amount of polyol used in the month in the production of foam grade i on foam production line j, determined in accordance with 40 CFR 63.1303(b), pounds.

n = Number of foam grades produced in the month on foam production line j.

$limit_i$ = HAP ABA formulation limit for foam grade i, parts HAP ABA per 100 parts polyol. The HAP ABA formulation limits are determined in accordance with 40 CFR 63.1297(d).

D.1.5 Flexible Polyurethane Foam Production NESHAP [326 IAC 2-7-5] [40 CFR Part 63.1301, Subpart III][326 IAC 20-22-1]

The requirements of 40 CFR 63.1301 apply to the four (4) Rebond mold units. Pursuant to 40 CFR 63.1301, the Permittee shall comply with the provisions in paragraphs (a) and (b) below.

(a) A HAP or HAP-based material shall not be used as an equipment cleaner at a rebond foam source.

(b) A HAP-based mold release agent shall not be used in a rebond foam source.

D.1.6 Monitoring Requirements [40 CFR 63.1303, Subpart III][326 IAC 20-22-1]

Pursuant to 40 CFR 63.1303, the Permittee shall comply with each applicable monitoring provision of 40 CFR 63.1303 as listed below.

(a) Monitoring requirements for storage vessel carbon adsorption systems.
The Permittee using a carbon adsorption system to meet the requirements of 40 CFR 63.1294(a) shall monitor the concentration level of the HAP or the organic compounds in the exhaust vent stream (or outlet stream exhaust) from the carbon adsorption system at the frequency specified in (a)(1) or (2) below in accordance with either (a)(3) or (4) below.

(1) The concentration level of HAP or organic compounds shall be monitored during each unloading event, or once per month during an unloading event if multiple unloading events occur in a month.

(2) As an alternative to monthly monitoring, the Permittee can set the monitoring frequency at an interval no greater than 20 percent of the carbon replacement interval, which is established using a design analysis described below in paragraphs (a)(2)(A) through (C).

(A) The design analysis shall consider the vent stream composition, constituent concentration, flow rate, relative humidity, and temperature.

(B) The design analysis shall establish the outlet organic concentration level, the capacity of the carbon bed, and the working capacity of activated carbon used for the carbon bed, and

(C) The design analysis shall establish the carbon replacement interval based on the total carbon working capacity of the carbon adsorption system and the schedule for filling the storage vessel.

(3) Measurements of HAP concentration shall be made using 40 CFR part 60, appendix A, Method 18. The measurement shall be conducted over at least one 5-minute interval during which the storage vessel is being filled.

(4) Measurements of organic compounds shall be made using 40 CFR part 60, Appendix A, Method 25A. The measurement shall be conducted over at least one 5-minute interval during which the storage vessel is being filled.

(b) Monitoring for HAP ABA and polyol added to the foam production line (which includes the existing flat block pour line and the new VPF line) at the mixhead.

(1) The Permittee shall comply with the provisions in paragraph (b)(1)(A) below.

(A) The Permittee shall continuously monitor the amount of polyol added at the mixhead when foam is being poured, in accordance with paragraphs (b)(2) through (4) below.

(2) The owner or operator shall monitor either:

(A) Pump revolutions; or

(B) Flow rate.

(3) The device used to monitor the parameter from paragraph (b)(2) shall have an accuracy to within +/- 2.0 percent of the HAP ABA being measured, and shall be calibrated initially, and periodically, in accordance with paragraph (b)(3)(A) or (B) below.

(A) For polyol pumps, the device shall be calibrated at least once each 6 months.

(B) For HAP ABA pumps, the device shall be calibrated at least once each month.

(4) Measurements must be recorded at the beginning and end of the production of each grade of foam within a run of foam.

(c) Monitoring of HAP ABA in a storage vessel.
The amount of HAP ABA in a storage vessel shall be determined weekly by monitoring the HAP ABA level in the storage vessel using a level measurement device that meets the criteria described in paragraphs (c)(1) and either (c)(2) or (c)(3) below.

(1) The level measurement device must be calibrated initially and at least once per year thereafter.

(2) With the exception of visually-read level measurement devices (i.e., gauge glass), the device must have either a digital or printed output.

(3) If the level measurement device is a visually-read device, the device must be equipped with permanent graduated markings to indicate HAP ABA level in the storage tank.

(d) Monitoring of HAP ABA added to a storage vessel.
The amount of HAP ABA added to a storage vessel during a delivery shall be determined in accordance with either paragraphs (d)(1), (2), or (3) of this section.

(1) The volume of HAP ABA added to the storage vessel shall be determined by recording the volume in the storage vessel prior to the delivery and the volume after the delivery, provided that the storage tank level measurement device used to determine the levels meets the criteria in paragraph (c) above.

(2) The volume of HAP ABA added to the storage vessel shall be determined by monitoring the flow rate using a device with an accuracy of +/- 2.0 percent, and calibrated initially and at least once each six months thereafter.

(3) The weight of HAP ABA added to the storage vessel shall be calculated as the difference of the full weight of the transfer vehicle prior to unloading into the storage vessel and the empty weight of the transfer vehicle after unloading into the storage vessel. The weight shall be determined using a scale meeting the requirements of either paragraph (d)(3)(A) or (B) below.

(A) A scale approved by the State or local agencies using the procedures contained in Handbook 44, Specifications, Tolerances, and Other Technical Requirements for Weighing and Measuring Devices 1998 (incorporation by reference--see 40 CFR 63.14).

(B) A scale determined to be in compliance with the requirements of the National Institute of Standards and Technology Handbook 44 at least once per year by a registered scale technician.

D.1.7 Volatile Organic Compounds (VOCs) [326 IAC 8-1-6]

Pursuant to 326 IAC 8-1-6 (New Facilities, General Reduction Requirements), the Best Available Control Technology (BACT) for the VPF line shall be the following:

(a) The Permittee shall operate the carbon adsorber to control total VOC emissions from the VPF line at all times that the VPF line is in operation.

(b) The carbon adsorber shall operate at a minimum overall control efficiency of 51% for total VOC (including TDI, MDI, and tertiary amine VOC).

(c) VOC emissions from the carbon adsorber shall not exceed 38.5 lbs/hr.

(d) The production of polyurethane foam in the VPF line shall be limited to a maximum of 1.2 billion board feet per twelve (12) consecutive month period with compliance determined at the end of each month.

D.1.8 Particulate [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the four (4) rebond mold unit facilities (EU-R1, EU-R2, EU-R3, EU-R4) shall not exceed a total of 18.66 pounds per hour when operating at a total process weight rate of 9.6 tons per hour.

The pounds per hour limitation was calculated with the following equation:

Interpolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

D.1.9 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for the VPF line and any control devices.

Compliance Determination Requirements

D.1.10 Testing Requirements [40 CFR 63.1304, Subpart III][326 IAC 2-7-6(1),(6)][326 IAC 20-22-1]

Pursuant to 40 CFR 63.1304, the Permittee shall use the test methods listed below, as applicable, to demonstrate compliance with Subpart III.

(a) Test method to determine foam properties.
The IFD and density of each grade of foam produced during each run of foam shall be determined using ASTM D3574-91, Standard Test Methods for Flexible Cellular Materials--Slab, Bonded, and Molded (incorporation by reference--see 40 CFR 63.14), using a sample of foam cut from the center of the foam bun. The maximum sample size for which the IFD and density is determined shall not be larger than 24 inches by 24 inches by 4 inches. For grades of foam where the Permittee has designated the HAP ABA formulation limitation as zero, the Permittee is not required to determine the IFD and density in accordance with this paragraph.

D.1.11 Compliance Demonstrations [40 CFR 63.1308, Subpart III][326 IAC 20-22-1]

Pursuant to 40 CFR 63.1308,

(a) For the Permittee, compliance with the requirements listed in paragraphs (a)(1) through (a)(2) below shall mean compliance with the requirements contained in 40 CFR 63.1293 through 63.1301, absent any credible evidence to the contrary.

(1) The requirements described in Tables 3, 4, and 5 of Subpart III; and

(2) The requirement to submit a compliance certification annually as required under 40 CFR 63.1306(g).

(b) All slabstock affected sources.
For slabstock affected sources, failure to meet the requirements contained in 40 CFR 63.1294 shall be considered a violation of this subpart. Violation of each item listed in the paragraphs (b)(1) through (b)(6) below, as applicable, shall be considered a separate violation.

(1) For the Permittee complying with 40 CFR 63.1294(a) in accordance with 40 CFR 63.1294(a)(1), each unloading event that occurs when the diisocyanate storage vessel is not equipped with a vapor return line from the storage vessel to the tank truck or rail car, each unloading event that occurs when the vapor line is not connected, each unloading event that the vapor line is not inspected for leaks as described in 40 CFR 63.1294(a)(1)(i), each unloading event that occurs after a leak has been detected and not repaired, and each calendar day after a leak is detected, but not repaired as soon as practicable;

(2) For the Permittee complying with 40 CFR 63.1294(a) in accordance with 40 CFR 63.1294(a)(2), each unloading event that the diisocyanate storage vessel is not equipped with a carbon adsorption system, each unloading event (or each month if more than one unloading event occurs in a month) that the carbon adsorption system is not monitored for breakthrough in accordance with 40 CFR 63.1303(a)(3) or (4), and each unloading event that occurs when the carbon is not replaced after an indication of breakthrough;

(3) For the Permittee complying with 40 CFR 63.1294(a) in accordance with 40 CFR 63.1294(a)(2) through the alternative monitoring procedures in 40 CFR 63.1303(a)(2), each unloading event that the diisocyanate storage vessel is not equipped with a carbon adsorption system, each time that the carbon adsorption system is not monitored for breakthrough in accordance with 40 CFR 63.1303(a)(3) or (4) at the interval established in the design analysis, and each unloading event that occurs when the carbon is not replaced after an indication of breakthrough;

(4) For the Permittee complying with 40 CFR 63.1294(b) in accordance with 40 CFR 63.1294(b)(1), each calendar day that a transfer pump in diisocyanate service is not a seal less pump;

(5) For the Permittee complying with 40 CFR 63.1294(b) in accordance with 40 CFR 63.1294(b)(2), each calendar day that a transfer pump in diisocyanate service is not submerged as described in 40 CFR 63.1294(b)(2)(i), each week that the pump is not visually monitored for leaks, each calendar day after 5 calendar days after detection of a leak that a first attempt at repair has not been made in accordance with 40 CFR 63.1294(b)(2)(iii)(B), and the earlier of each calendar day after 15 calendar days after detection of a leak that a leak is not repaired, or a leak is not repaired as soon as practicable, each subsequent calendar day (with the exception of situations meeting the criteria of 40 CFR 63.1294(d));

(6) For each affected source complying with 40 CFR 63.1294(c), each calendar day after 5 calendar days after detection of a leak that a first attempt at repair has not been made, and the earlier of each calendar day after 15 calendar days after detection of a leak that a leak is not repaired, or if a leak is not repaired as soon as practicable, each subsequent calendar day (with the exception of situations meeting the criteria of 40 CFR 63.1296(f)).

(c) Slabstock affected sources complying with the source-wide emission limitation. For the Permittee complying with the source-wide emission limitation as provided in 40 CFR 63.1293(b), failure to meet the requirements contained in 40 CFR 63.1299 shall be considered a violation of this subpart. Violation of each item listed in paragraph (c)(1) below, as applicable, shall be considered a separate violation.

(1) For each affected source complying with 40 CFR 63.1299 in accordance with the rolling annual compliance option in 40 CFR 63.1299(a), each calendar day in the 12-month period for which the actual HAP ABA emissions exceeded the allowable HAP ABA emissions level, each calendar day in which foam is being poured where the amount of polyol added at the mixhead is not monitored (as required) in accordance with 40 CFR 63.1303(b)(1)(i), each calendar day in a

week in which the amount of HAP ABA in a storage vessel is not determined in accordance with 40 CFR 63.1303(d), each delivery of HAP ABA in which the amount of HAP ABA added to the storage vessel is not determined in accordance with 40 CFR 63.1303(e), each calendar day in a 6-month period in which the polyol pumps are not calibrated in accordance with 40 CFR 63.1303(b)(3)(i), and each calendar day after 10 working days after production where the IFD and density of a foam grade are not determined (where required) in accordance with 40 CFR 63.1304(b);

(d) Molded and rebond foam affected sources.
For the Permittee, a rebond foam affected source, failure to meet the requirements contained in 40 CFR 63.1301 shall be considered a violation of this subpart. Violation of each item listed in the following paragraphs shall be considered a separate violation.

(1) For each rebond foam affected source subject to the provisions of 40 CFR 63.1301(a), each calendar day that a HAP-based material is used as an equipment cleaner; and

(2) For each rebond foam affected source complying with 40 CFR 63.1301(b), each calendar day that a HAP-based mold release agent is used.

D.1.12 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

(a) During the period between January, 2007 and June, 2007, the Permittee shall perform VOC testing on the four (4) rebond molding units (EU-R1, EU-R2, EU-R3, EU-R4), to confirm the VOC emissions, utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing.

(b) During the period between January, 2007 and June, 2007, in order to demonstrate compliance with condition D.1.8, the Permittee shall perform PM testing on the four (4) rebond molding units (EU-R1, EU-R2, EU-R3, EU-R4) utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing.

(c) In order to demonstrate compliance with Conditions D.1.7(b) and (c), the Permittee shall perform VOC testing by no later than May, 2007, on the carbon adsorber controlling VOC emissions from the VPF line utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing.

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.1.13 Record Keeping Requirements [40 CFR 63.1307, Subpart III][326 IAC 20-22-1]

Pursuant to 40 CFR 63.1307, the applicable records designated in paragraphs (a) through (c) below shall be maintained by the Permittee.

(a) Storage vessel records.

(1) A list of diisocyanate storage vessels, along with a record of the type of control utilized for each storage vessel.

(2) For storage vessels complying through the use of a carbon adsorption system, the records listed in paragraphs (a)(2)(A) or (B), and paragraph (a)(2)(C) of this section.

(A) Records of dates and times when the carbon adsorption system is monitored for carbon breakthrough and the monitoring device reading, when the device is monitored in accordance with 40 CFR 63.1303(a); or

(B) For affected sources monitoring at an interval no greater than 20 percent of the carbon replacement interval, in accordance with 40 CFR 63.1303(a)(2), the records listed in paragraphs (a)(2)(B)(i) and (ii) below.

(i) Records of the design analysis, including all the information listed in 40 CFR 63.1303(a)(2)(i) through (iii), and

(ii) Records of dates and times when the carbon adsorption system is monitored for carbon breakthrough and the monitoring device reading.

(C) Date when the existing carbon in the carbon adsorption system is replaced with fresh carbon.

(3) For storage vessels complying through the use of a vapor return line, paragraphs (a)(3)(A) through (C) below.

(A) Dates and times when each unloading event occurs and each inspection of the vapor return line for leaks occurs.

(B) Records of dates and times when a leak is detected in the vapor return line.

(C) Records of dates and times when a leak is repaired.

(b) Equipment leak records.

(1) A list of components as specified below in paragraph (b)(1)(A).

(A) For all affected sources, a list of components in diisocyanate service,

(2) For transfer pumps in diisocyanate service, a record of the type of control utilized for each transfer pump and the date of installation.

(3) When a leak is detected as specified in 40 CFR 63.1294(b)(2)(B) and 40 CFR 63.1294(c), the requirements listed in paragraphs (b)(3)(A) and (B) below apply:

(A) Leaking equipment shall be identified in accordance with the requirements in paragraphs (b)(3)(A)(i) and (ii) below.

(i) A readily visible identification, marked with the equipment identification number, shall be attached to the leaking equipment.

(ii) The identification on equipment, other than a valve, may be removed after it has been repaired.

(B) The information in paragraphs (b)(3)(B)(i) through (viii) shall be recorded for leaking components.

(i) The instrument and operator identification numbers and the equipment identification number.

(ii) The date the leak was detected and the dates of each attempt to repair the leak.

(iii) Repair methods applied in each attempt to repair the leak.

(iv) The words “above leak definition" if the maximum instrument reading measured by the methods specified in 40 CFR 63.1304(a) after each repair attempt is equal or greater than the leak definitions for the specified equipment.

(v) The words “repair delayed" and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak.

(vi) The expected date of the successful repair of the leak if a leak is not repaired within 15 calendar days.

(vii) The date of successful repair of the leak.

(viii) The date the identification is removed.

(c) HAP ABA records.

(1) Source-wide limitations - rolling annual compliance and monthly compliance alternative records.

The Permittee complying with the source-wide limitations of 40 CFR 63.1299, and the rolling annual compliance provisions in 40 CFR 63.1299(a), shall maintain the records listed in paragraphs (c)(1)(A) through (c)(1)(G) below.

(A) Daily records of the information listed in paragraphs (c)(1)(A)(i) through (iii) of this section.

(i) A log of foam runs each day. For each run, the log shall include a list of the grades produced during the run.

(ii) Results of the density and IFD testing for each grade of foam produced during each run of foam, conducted in accordance with the procedures in 40 CFR 63.1304(b). The results of this testing shall be recorded within 10 working days of the production of the foam. For grades of foam where the Permittee has designated the HAP ABA formulation limitation as zero, the Permittee is not required to keep records of the IFD and density.

(iii) With the exception of those grades for which the Permittee has designated zero as the HAP ABA formulation limitation, the amount of polyol added to the slabstock foam production line at the mixhead for each grade produced during each run of foam, determined in accordance with 40 CFR 63.1303(b).

(B) For sources complying with the source-wide emission limitation, weekly records of the storage tank level, determined in accordance with 40 CFR 63.1303(d).

(C) Monthly records of the information listed below in paragraphs (c)(1)(C)(i) through (v).

(i) A listing of all foam grades produced during the month,

(ii) For each foam grade produced, the residual HAP formulation limitation, calculated in accordance with 40 CFR 63.1297(d).

(iii) With the exception of those grades for which the Permittee has designated zero as the HAP ABA formulation limitation, the total

amount of polyol used in the month for each foam grade produced.

(iv) The total allowable HAP ABA and equipment cleaning emissions for the month, determined in accordance with 40 CFR 63.1297(b)(2).

(v) The total actual source-wide HAP ABA emissions for the month, determined in accordance with 40 CFR 63.1299(c)(1), along with the information listed in paragraphs (c)(1)(C)(v)(a) and (b) below.

(a) The amounts of HAP ABA in the storage vessel at the beginning and end of the month, determined in accordance with 40 CFR 63.1299(c)(2); and

(b) The amount of each delivery of HAP ABA to the storage vessel, determined in accordance with 40 CFR 63.1299(c)(3).

(D) Each source complying with the rolling annual compliance provisions of 40 CFR 63.1299(a) shall maintain the records listed in paragraphs (c)(1)(D)(i) and (ii) below.

(i) The sum of the total allowable HAP ABA and equipment cleaning HAP emissions for the month and the previous 11 months.

(ii) The sum of the total actual HAP ABA and equipment cleaning HAP emissions for the month and the previous 11 months.

(E) Records of all calibrations for each device used to measure polyol added at the mixhead, conducted in accordance with 40 CFR 63.1303(b)(3).

(F) Records of all calibrations for each device used to measure the amount of HAP ABA in the storage vessel, conducted in accordance with 40 CFR 63.1303(d)(1).

(G) Records to verify that all scales used to measure the amount of HAP ABA added to the storage vessel meet the requirements of 40 CFR 63.1303(e)(3). For scales meeting the criteria of 40 CFR 63.1303(e)(3)(i), this documentation shall be in the form of written confirmation of the State or local approval. For scales complying with 40 CFR 63.1303(e)(3)(ii), this documentation shall be in the form of a report provided by the registered scale technician.

(d) The Permittee following the compliance methods in 40 CFR 63.1308(b)(1) and (c)(1) shall maintain records of each use of a vapor return line during unloading, of any leaks detected during unloading, and of repairs of leaks detected during unloading.

(e) The Permittee subject to 40 CFR 63.1300 or 40 CFR 63.1301 of this subpart shall maintain a product data sheet for each compound other than diisocyanates used to flush the mixhead and associated piping during periods of startup or maintenance, which includes the HAP content, in kg of HAP/kg solids (lb HAP/lb solids), of each solvent other than diisocyanates used to flush the mixhead and associated piping during periods of startup or maintenance.

(f) The Permittee subject to 40 CFR 63.1300 or Sec. 63.1301 of this subpart shall maintain a product data sheet for each mold release agent used that includes the HAP content, in kg of HAP/kg solids (lb HAP/lb solids), of each mold release agent.

D.1.14 Record Keeping Requirements

(a) To document compliance with Condition D.1.7(d), the Permittee shall maintain records of the amount of polyurethane foam produced in the VPF line. -

(b) To document compliance with Condition D.1.9, the Permittee shall maintain of records of any additional inspections prescribed by the Preventive Maintenance Plan.

(c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.1.15 Reporting Requirements [40 CFR 63.1306, Subpart III][326 IAC 20-22-1]

Pursuant to 40 CFR 63.1306, the Permittee shall comply with each applicable reporting provision in this section.

(a) Initial notification.
The Permittee shall submit an initial notification in accordance with 40 CFR 63.9(b).

(b) Application for approval of construction or reconstruction.
The Permittee shall submit an application for approval of construction or reconstruction in accordance with the provisions of 40 CFR 63.5(d).

(c) Precompliance report.
The Permittee shall submit a precompliance report no later than 12 months before the compliance date. This report shall contain the information listed in paragraphs (c)(1) through (c)(8) below, as applicable.

(1) Whether the source will comply with the emission point specific limitations described in 40 CFR 63.1293(a), or with the source-wide emission limitation described in 40 CFR 63.1293(b).

(2) For a source complying with the emission point specific limitations, whether the source will comply on a rolling annual basis in accordance with 40 CFR 63.1297(b), or will comply with the monthly alternative for compliance contained in 40 CFR 63.1297(c).

(3) For a source complying with the source-wide emission limitation, whether the source will comply on a rolling annual basis in accordance with 40 CFR 63.1299(a), or will comply with the monthly alternative for compliance contained in 40 CFR 63.1299(b).

(4) A description of how HAP ABA and/or polyol added at the mixhead will be monitored. If the owner or operator is developing an alternative monitoring program, the alternative monitoring program containing the information in 40 CFR 63.1303(b)(5)(i) through (iv) shall be submitted.

(5) Notification of the intent to use a recovery device to comply with the provisions of 40 CFR 63.1297 or 40 CFR 63.1299.

(6) For slabstock affected sources complying with 40 CFR 63.1297 or 40 CFR 63.1299 using a recovery device, the continuous recovered HAP ABA monitoring and record keeping program, developed in accordance with 40 CFR 63.1303(c).

(7) For sources complying with the source-wide emission limitation, a description of how the amount of HAP ABA in a storage vessel shall be determined.

(8) For sources complying with the source-wide emission limitation, a description of how the amount of HAP ABA added to a storage vessel during a delivery will be monitored. If the owner or operator is developing an alternative monitoring

program, the alternative monitoring program containing the information in 40 CFR 63.1303(e)(4)(i) through (iv) shall be submitted.

(9) If the Administrator does not notify the owner or operator of objections to an alternative monitoring program submitted in accordance with (c)(4) or (c)(6) above, or a recovered HAP ABA monitoring and record keeping program submitted in accordance with (c)(7) above, the program shall be deemed approved 45 days after its receipt by the Administrator.

(d) Notification of compliance status.
The Permittee shall submit a notification of compliance status report no later than 180 days after the compliance date. For slabstock affected sources, this report shall contain the information listed in paragraphs (d)(1) and (2) below, as applicable. This report shall contain the information listed in paragraph (d)(3) for rebond foam processes.

(1) A list of diisocyanate storage vessels, along with a record of the type of control utilized for each storage vessel.

(2) For transfer pumps in diisocyanate service, a record of the type of control utilized for each transfer pump.

(3) A statement that the rebond foam affected source is in compliance with 40 CFR 63.1301, or that rebond processes at an affected source are in compliance with 40 CFR 63.1301.

(e) Semiannual reports.
The Permittee shall submit a report containing the information specified in paragraphs (e)(1) through (4) below semiannually no later than 60 days after the end of each 180 day period. The first report shall be submitted no later than 240 days after the date that the Notification of Compliance Status is due and shall cover the 6-month period beginning on the date that the Notification of Compliance Status Report is due.

(1) For slabstock affected sources complying with the rolling annual compliance provisions of 40 CFR 63.1299, the allowable and actual HAP ABA emissions (or allowable and actual source-wide HAP emissions) for each of the 12-month periods ending on each of the six months in the reporting period. This information is not required to be included in the initial semi-annual compliance report.

(2) For sources complying with the storage vessel provisions of 40 CFR 63.1294(a) using a carbon adsorption system, unloading events that occurred after breakthrough was detected and before the carbon was replaced.

(3) Any equipment leaks that were not repaired in accordance with 40 CFR 63.1294(b)(2)(iii) and 40 CFR 63.1294(c).

(4) Any leaks in vapor return lines that were not repaired in accordance with 40 CFR 63.1294(a)(1)(ii).

(f) Other reports.

(1) Change in selected emission limitation.
The Permittee electing to change their slabstock flexible polyurethane foam emission limitation (from emission point specific limitations to a source-wide emission limitation, or vice versa), selected in accordance with 40 CFR 63.1293, shall notify the Administrator no later than 180 days prior to the change.

(2) Change in selected compliance method.

The Permittee changing the period of compliance for 40 CFR 63.1299 (between rolling annual and monthly) shall notify the Administrator no later than 180 days prior to the change.

(g) Annual compliance certifications.
The Permittee subject to the provisions in 40 CFR 63.1293 through 63.1301 shall submit a compliance certification annually.

(1) The compliance certification shall be based on information consistent with that contained in 40 CFR 63.1308 of this section, as applicable.

(2) A compliance certification required pursuant to a State or local operating permit program may be used to satisfy the requirements of this section, provided that the compliance certification is based on information consistent with that contained in 40 CFR 63.1308 of this section, and provided that the Administrator has approved the State or local operating permit program under part 70 of this chapter.

(3) Each compliance certification submitted pursuant to this section shall be signed by a responsible official of the company that owns or operates the affected source.

D.1.16 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.1.7(d) shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION

Part 70 Quarterly Report

Source Name: Foamex, L.P.
Source Address: 2211 South Wayne St., Auburn, IN 46706
Mailing Address: 2211 South Wayne St., Auburn, IN 46706
Part 70 Permit No.: T033-17552-00047
Facility: VPF Line
Parameter: Polyurethane Foam Production
Limit: Less than 1.2 billion board feet per twelve (12) consecutive month period with compliance determined at the end of each month.

YEAR:

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

☐ No deviation occurred in this quarter.

☐ Deviation/s occurred in this quarter.
Deviation has been reported on:

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

Attach a signed certification to complete this report.

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD) for a Significant Source Modification and a Significant Permit Modification to a Part 70 Permit

Source Background and Description

Source Name:	Foamex, L.P.
Source Location:	2211 South Wayne Street, Auburn, Indiana 46706
County:	DeKalb
SIC Code:	3086
Operation Permit No.:	T033-17552-00047
Operation Permit Issuance Date:	October 13, 2004
Significant Source Modification No.:	033-20970-00047
Significant Permit Modification No.:	033-21341-00047
Permit Reviewer:	ERG/SD

The Office of Air Quality (OAQ) has reviewed a modification application from Foamex, L.P. relating to the modification of the following emission units and pollution control devices:

(d) One (1) Variable Pressure Foaming (VPF) line, constructed in 2001 and modified in 2005, with a maximum production rate of 1.02 billion board feet of foam per year and a maximum Methylene Chloride (blowing agent) usage of 447,329 pounds per year, using a carbon adsorber as control, and exhausting at stacks Nos. 39 and 40. The flexible form is produced by the mix of TDI (or MDI) with amine (catalyst). The blowing agent is not always required.

Note: The emission unit description is written and numbered as it will appear in Sections A and D of the revised permit.

History

Foamex, L.P., is an existing stationary flexible polyurethane foam production plant. The existing Variable Pressure Foam (VPF) line allows for foam pouring under varying pressure or vacuum, as needed for specific foam type. A Part 70 permit renewal (T033-17552-00047) was issued to this source on October 13, 2004. On March 21, 2005, the Permittee submitted an application to IDEM, OAQ requesting the modification to the VPF line to increase its production rate from 800,000,000 board feet of foam per year to 1.02 billion board feet of foam per year and to use new foam formulations, which contain a lower VOC non-reactive fraction for the amine catalyst.

The flexible foam is produced by the mix of TDI (or MDI) with amine (catalyst). The blowing agent is not always required. The Permittee stated that their current products do not require the use of blowing agent and they do not plan to increase the usage of Methylene Chloride (blowing agent) in the future.

Enforcement Issue

There are no enforcement actions pending.

Recommendation

The staff recommends to the Commissioner that the Part 70 Significant Source Modification be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on March 21, 2005. Additional information was received on May 20, 2005, June 13, 2005, July 15, 2005, September 1, 2005, and September 2, 2005.

Emission Calculations

See Appendix A of this document for detailed emissions calculations (Appendix A, pages 1 through 3).

Potential to Emit of Modification

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as Athe maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA.@

This table reflects the PTE before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Pollutant	Potential To Emit (tons/year)
PM	0.00
PM-10	0.00
SO_2	0.00
VOC	344
CO	0.00
NO_x	0.00

HAPs*	Potential To Emit (tons/year)
TDI	1.05
MDI	0.72
Methylene Chloride ($MECl_2$)	224
TOTAL	225

*Note: Only TDI or MDI can be used at one time.

Potential to Emit of Modification after Issuance Reflecting Major PSD Applicability

The table below summarizes the potential to emit of emission unit involved in this modification project, reflecting all limits, of the emission units. Any control equipment is considered federally enforceable only after issuance of this Part 70 source modification and only to the extent that the effect of the control equipment is made practically enforceable in the permit.

	Potential to Emit (tons/year)						
Emission unit*	**PM**	**PM10**	**SO_2**	**VOC**	**CO**	**NO_X**	**HAPs**
Four (4) Rebond mold units (EU-R1, EU-R2, EU-R3, and EU-R4)	20.2	20.2	0.0	8.45	0.0	0.0	8.45
Adhesive Application and Cleaning Solvent Usage	0.0	0.0	0.0	8.94	0.0	0.0	4.12
Three (3) natural gas-fired industrial boilers (EU-B1, EU-B2, EU-B3)	0.26	1.05	0.08	0.76	11.6	13.8	0.26
VPF Line **	0.0	0.0	0.0	~~14.5~~ **169**	0.0	0.0	224
Baumer Loop Slitters	0.0	0.0	0.0	3.49	0.0	0.0	0.01
Total PTE	20.5	21.3	0.08	~~36.2~~ **190**	11.6	13.8	236
PSD Significant Thresholds	< 250	< 250	< 250	< 250	< 250	< 250	NA

* The PTE of the existing units is from the source's Part 70 permit (T033-17552-00047, issued on October 13, 2004.
** The VPF line is controlled by a carbon adsorber. The PTE of this unit is the worst case scenario between using TDI and MDI. The HAP emissions are mainly from the use of blowing agent (Methylene Chloride) which remains unchanged.

This modification to an existing minor stationary source is not major because the emissions increase is less than PSD significant levels and this source remains a PSD minor source after this modification. Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply.

Justification for Modification

This Part 70 Operating permit is being modified through a Part 70 Significant Source Modification pursuant to 326 IAC 2-7-10.5(f)(4)(d) because the potential to emit of VOC is greater than 25 tons per year. The permit modification is being performed through a Part 70 Significant Permit Modification pursuant to 326 IAC 2-7-12(d) because the modification requires a case-by-case determination of an emission limit.

County Attainment Status

The source is located in DeKalb County.

Pollutant	Status
PM2.5	Attainment or Unclassifiable
PM10	Attainment
SO_2	Attainment
NO_2	Attainment
1-hour Ozone	Attainment
8-hour Ozone	Attainment
CO	Attainment
Lead	Attainment

(a) Volatile organic compounds (VOC) and Nitrogen Oxides (NOx) emissions are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NOx emissions are considered when evaluating the rule applicability relating to ozone. DeKalb County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability for the source section under 326 IAC 2-2.

(b) DeKalb County has been classified as attainment or unclassifiable in Indiana for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability for the source section under 326 IAC 2-2.

(c) DeKalb County has been classified as unclassifiable or attainment for PM2.5. U.S.EPA has not yet established the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 for PM 2.5 emissions. Therefore, until the U.S.EPA adopts specific provisions for PSD review for PM2.5 emissions, it has directed states to regulate PM10 emissions as surrogate for PM2.5 emissions. See the State Rule Applicability for the entire source section under 326 IAC 2-2.

(d) Fugitive Emissions
Since this type of operation is not one of the 28 listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are not counted toward determination of PSD applicability.

Source Status

Existing Source PSD Definition (emissions after controls, based upon 8760 hours of operation per year at rated capacity and/or as otherwise limited):

Pollutant	Emissions (tons/year)
PM	21.3
PM10	21.3
SO_2	0.08
VOC	36.2
CO	11.5
NO_x	13.8

(a) This existing source is not a major stationary source because no attainment regulated pollutant is emitted at a rate of 250 tons per year or more, and it is not one of the 28 listed source categories.

(b) These emissions are based on the after control potential to emit calculations for T033-17552-00047, issued October 13, 2004.

Federal Rule Applicability

(a) This significant modification does involve a pollutant-specific emissions unit (VPF line):

(1) With the potential to emit before controls equal to or greater than one hundred (100) tons per year, and

(2) That is subject to an emission limit and has a control device that is necessary to meet that limit.

However, the existing VPF line is subject to the NESHAP for Flexible Polyurethane Foam Production (40 CFR 63, Subpart III) and this NESHAP was promulgated after November 15, 1990. Pursuant to 40 CFR 64.2(b)(i), this unit is exempt from the requirements of 40 CFR 64 (Compliance Assurance Monitoring).

(b) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this proposed modification.

(c) Pursuant to T033-17552-00047, issued October 13, 2004, the VPF line is subject to the National Emission Standards for Hazardous Air Pollutants for Flexible Polyurethane Foam Production, 40 CFR 63.1290 through 63.1309, Subpart III, (326 IAC 14) and shall continue to comply with the applicable standards as described in the revised permit.

State Rule Applicability – Entire Source

326 IAC 2-2 (Prevention of Significant Deterioration (PSD))

Foamex, L.P. was constructed in 1977 and is not in one of the 28 listed source categories. Pursuant to T033-17552-00047, issued October 13, 2004, it was not subject to the requirements of 326 IAC 2-2 (PSD) because the potential to emit of all regulated criteria pollutants were less than 250 tons per year. On March 21, 2005, the Permittee submitted an application to IDEM, OAQ requesting the modification to its existing VPF line to revise the production rate from 800,000,000 board feet of foam per year to 1.02 billion board feet of foam per year and to use new foam formulations. The VPF line is controlled by a carbon adsorber with 51 percent (%) control efficiency. The controlled potential to emit of VOC after this modification is equal to 169 tons per year. Therefore, the source continues to remain a minor existing source under PSD.

326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))

The modification to VPF line is not subject to the provisions of 326 IAC 2-4.1-1 (New Source Toxics Control) because pursuant to T033-17552-00047, issued October 13, 2004, this line is subject to the requirements of the National Emission Standards for Hazardous Air Pollutants for Flexible Polyurethane Foam Production, 40 CFR Part 63.1290 through 63.1309, Subpart III (326 IAC 14).

State Rule Applicability – VPF line

326 IAC 8-1-6 (New Facilities, General Reduction Requirements)

Pursuant to T033-17552-00047, issued October 13, 2004 and SSM No. 033-15727-00047, issued November 26, 2003, the VPF line is subject to the requirements of 326 IAC 8-1-6. On March 21, 2005, the Permittee submitted an application requesting a modification to the existing VPF line to revise its annual production rate from 800,000,000 board feet of foam to 1.02 billion board feet of foam and to use new foam formulations. The potential VOC emissions after the modification are equal to 344 tons per year. However, the VPF line is controlled by a carbon adsorber with a rated efficiency of 51%, which was previously determined to meet the requirements of BACT. After control VOC emissions are equal to 169 tons per year.

As described in Appendix B to the TSD, the VPF line shall continue to comply with the requirements of BACT as follows:

IDEM, OAQ has determined that the BACT for the modified VPL line at Foamex is as follows:

(a) The Permittee shall operate the carbon adsorber to control total VOC emissions from the VPF line at all times that the VPF line is in operation.

(b) The carbon adsorber shall operate at a minimum overall control efficiency of 51% for total VOC (including TDI, MDI, and tertiary amine VOC). The Permittee is required to perform a VOC stack test to demonstrate compliance with this limit.

(c) VOC emissions from the carbon adsorber shall not exceed 38.5 lbs/hr. This is equivalent to 169 tons/yr of VOC emissions from the VPF line.

(d) The production of polyurethane foam in the VPF line shall be limited to a maximum of 1.2 billion board feet per twelve (12) consecutive month period with compliance determined at the end of each month.

Testing Requirements

Testing requirements for the VPF line are as described in Section D.1, Condition D.1.10 and Condition D.1.12(c) of the permit No.: T033-17552-00047, issued October 13, 2004.

Compliance Requirements

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source=s failure to take the appropriate corrective actions within a specific time period.

The compliance monitoring requirements applicable to this modification are as described in Section D.1 of permit No.: T033-17552-00047, issued October 13, 2004, and the monitoring conditions ensure compliance with 40 CFR 63, Subpart III (NESHAP) and 326 IAC 8-1-6 (BACT)

Proposed Changes

Bold language has been added, language with a line through it has been deleted.

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

This stationary source consists of the following emission units and pollution control devices:

(a) Four (4) ~~R~~**r**rebond mold units, identified as EU-R1, EU-R2, EU-R3, and EU-R4, with EU-R1 and EU-R2 constructed in 1980 and EU-R3 and EU-R4 constructed in 1995, with a total maximum capacity of bonding 9.6 tons per hour of scrap foam, exhausted through four (4) stacks (S/V ID 28, 29, 35, 36), respectively;

. . .

(d) **O**~~o~~ne (1) Variable Pressure Foaming (VPF) line, constructed in 2001 **and modified in 2005**, with a maximum **production rate of** ~~capacity of producing 800,000,000~~ **1.02 billion** board feet of foam per year **and a maximum Methylene Chloride (blowing agent) usage of 447,329 pounds per year**, **using** ~~with~~ a carbon adsorber **as** ~~to~~ control ~~VOC emissions~~, **and** exhaust~~ed~~**ing at** ~~through two (2)~~ stacks ~~(ID~~ Nos. 39 and 40~~).~~ **The flexible form is produced by the mix of TDI (or MDI) with amine (catalyst). The blowing agent is not always required** ~~Alternately, this line also has the capacity to produce a small amount of foam by pouring and using a maximum of 4,000,000 pounds per year of MDI and 447,329 pounds per year of methylene chloride~~; and

(e) **T**~~t~~hree (3) natural gas-fired industrial boilers identified as Boilers #1, #2 and #3 (EU-B1, EU-B2, EU-B3), each rated at 10.5 million (MM) British thermal units (Btu) per hour and exhausted through three (3) stacks (S/V ID 31,32,33), respectively. Boilers #1 and #2 were installed in 1978 and Boiler #3 was installed in 1986.

SECTION D.1 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]:

(a) Four (4) ~~R~~rebond mold units, identified as EU-R1, EU-R2, EU-R3, and EU-R4, with EU-R1 and EU-R2 constructed in 1980 and EU-R3 and EU-R4 constructed in 1995, with a total maximum capacity of bonding 9.6 tons per hour of scrap foam, exhausted through four (4) stacks (S/V ID 28, 29, 35, 36), respectively;

. . .

(d) **O**~~o~~ne (1) Variable Pressure Foaming (VPF) line, constructed in 2001 **and modified in 2005**, with a maximum **production rate of** ~~capacity of producing 800,000,000~~ **1.02 billion** board feet of foam per year **and a maximum Methylene Chloride (blowing agent) usage of 447,329 pounds per year**, **using** ~~with~~ a carbon adsorber **as** ~~to~~ control ~~VOC emissions~~, **and** exhaust~~ed~~**ing at** ~~through two (2)~~ stacks ~~(ID~~ Nos. 39 and 40~~).~~ **The flexible form is produced by the mix of TDI (or MDI) with amine (catalyst). The blowing agent is not always required** ~~Alternately, this line also has the capacity to produce a small amount of foam by pouring and using a maximum of 4,000,000 pounds per year of MDI and 447,329 pounds per year of methylene chloride~~; and

. . .

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

D.1.7 Volatile Organic Compounds (VOCs) [326 IAC 8-1-6]

Pursuant to 326 IAC 8-1-6 (New Facilities, General Reduction Requirements), ~~First Significant Source Modification No. 033-13706-00047, issued on June 25, 2001 and Second Significant Source Modification No. 033-15727-00047, issued on November 26, 2003~~ the Best Available Control Technology (BACT) for the VPF line shall be the following:

(a) ~~Operation of the~~ **The Permittee shall operate the** carbon adsorber to control total VOC emissions from the VPF line at all times that the VPF line is in operation. ~~The carbon adsorber shall operate at a minimum total VOC (including TDI, MDI, and tertiary amine VOC) overall control efficiency of 51%.~~

(b) The carbon adsorber shall operate at a minimum overall control efficiency of 51% for total VOC (including TDI, MDI, and tertiary amine VOC).

(c) VOC emissions from the carbon adsorber shall not exceed 38.5 lbs/hr.

(~~b~~**d**) The production of polyurethane foam in the VPF line shall be limited to a maximum of ~~800,000,000~~ **1.2 billion** board feet per ~~year~~ **twelve (12) consecutive month period with compliance determined at the end of each month**. ~~This production limit will limit the usage of tertiary amines and TDI such that the emissions of VOC will be limited to 14.6 tons per year after control by the carbon adsorber.~~

~~Emissions shall be calculated using the following:~~

~~(1) VOC emissions from amine catalyst usage in the VPF line shall be calculated using the following equation:~~
~~VOC emissions from VPF line (tons) =~~
~~Amine catalyst usage (gal) x density (lbs/gal) x tertiary amine % (weight) x 1 ton / 2000 lbs x (1 - overall tertiary amine control efficiency of carbon adsorber on VPF line)~~

~~(A) The amine catalyst is comprised of volatile organics and non-volatile~~

~~organics that are consumed in foam production process. Based on manufacturer's data, the volatile organic constituent of the amine catalyst is the tertiary amine. Therefore, VOC emissions from the amine catalyst shall be equivalent to the percent by weight of the tertiary amine constituent as shown above.~~

~~(B) VOC emissions from TDI and MDI usage in the VPF line shall be calculated using the following equation:~~

~~VOC emissions from VPF line (tons) =~~
~~TDI or MDI usage (lbs) x 0.0016% x 1 ton / 2000 lbs x (1 - overall VOC control efficiency of carbon adsorber on VPF line)~~

~~where:~~

~~TDI or MDI usage (lbs) = TDI or MDI containing pre-polymer usage (gal) x density (lbs/gal) x TDI or MDI % (weight)~~

~~(C) VOC emissions from the VPF line shall be calculated based on the use of a carbon adsorber with a minimum total VOC (including TDI, MDI, and tertiary amine VOC) overall control efficiency of 51%.~~

D.1.12 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

. . .

(c) In order to demonstrate compliance with Condition**s** D.1.7**(b) and (c)**, the Permittee shall perform VOC testing by no later than May, 2007, on the carbon adsorber controlling VOC emissions from the VPF line utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing.

~~D.1.13 Volatile Organic Compounds (VOC) [326 IAC 8-1-4] [326 IAC 8-1-2(a)]~~

~~Compliance with the VOC content and usage limitations contained in Condition D.1.7**(c)** shall be determined pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) by preparing or obtaining from the manufacturer the copies of the "as supplied" and "as applied" VOC data sheets. IDEM, OAQ, reserves the authority to determine compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.~~

~~D.1.14 VOC Emissions Control~~

~~(a) The carbon adsorber controlling VOC emissions from the VPF line shall be in operation at all times that the VPF line is in operation to ensure compliance with condition D.1.7.~~

~~(b) The carbon adsorber controlling VOC emissions from the VPF line shall maintain a minimum total VOC overall control efficiency of 51%.~~

D.1.~~15~~**13** Record Keeping Requirements [40 CFR 63.1307, Subpart III][326 IAC 20-22-1]

D.1.~~16~~**14** Record Keeping Requirements

(a) To document compliance with Condition D.1.7**(d)**, the Permittee shall maintain records **of the amount of polyurethane foam produced in the VPF line.** ~~in accordance with (1) through (4) below. Records maintained for (1) through (4) shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC usage limits and/or the VOC emission limits established in Condition D.1.7. Records necessary to demonstrate compliance shall be available within 30 days of the end of each compliance period.~~

~~(1) The amount and VOC (tertiary amine) content of each amine catalyst and other raw material used. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used.~~

~~(2) A log of the month of use;~~

~~(3) The total VOC usage, including tertiary amine usage, for each month; and~~

~~(4) The weight of VOCs emitted for each compliance period.~~

…

D.1.~~17~~**15** Reporting Requirements [40 CFR 63.1306, Subpart III][326 IAC 20-22-1]

D.1.~~18~~**16** Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.1.7**(d)** shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION

Part 70 Quarterly Report

Source Name: Foamex, L.P.
Source Address: 2211 South Wayne St., Auburn, IN 46706
Mailing Address: 2211 South Wayne St., Auburn, IN 46706
Part 70 Permit No.: T033-17552-00047
Parameter: **Polyurethane Foam Production** ~~VOC Emissions~~
Limit: ~~The production of polyurethane foam in the VPF line shall be limited to a maximum of 800,000,000 board feet per year. This production limit will limit the usage of tertiary amines and TDI such that the emissions of VOC will be limited to 169 tons per year after control by the carbon adsorber. VOC emissions shall be calculated using the methodology described in condition D.1.7.~~
Less than 1.2 billion board feet per twelve (12) consecutive month period with compliance determined at the end of each month.

YEAR:

Month	~~Total Board Ft. of Foam Produced this month~~	Column 1	Column 2	Column 1 + Column 2
		~~Total VOC Emissions~~ This Month ~~(tons)~~	~~Total VOC Emissions~~ Previous 11 Months ~~(tons)~~	12 Month Total ~~VOC Emissions (tons)~~
Month 1	_____			
Month 2	_____			

Month 3	_____			

Upon further review, IDEM, OAQ has decided to make the following revisions to the permit (bolded language has been added, the language with a line through it has been deleted).

1. The mailing address for IDEM, OAQ has been changed throughout the permit as follows:

Indiana Department of Environmental Management
100 North Senate Avenue~~, P.O. Box 6015~~
Indianapolis, Indiana ~~46206-6015~~ **46204**

2. Condition B.24 – Credible Evidence has been revised as follows to reflect the updated language for this condition.

B.24 Credible Evidence [326 IAC 2-7-5(3)][326 IAC 2-7-6][62 FR 8314] **[326 IAC 1-1-6]**

~~Notwithstanding the conditions of this permit that state specific methods that may be used to demonstrate compliance with, or a violation of, applicable requirements, any person (including the Permittee) may also use other credible evidence to demonstrate compliance with, or a violation of, any term or condition of this permit.~~

For the purpose of submitting compliance certifications or establishing whether or not the Permittee has violated or is in violation of any condition of this permit, nothing in this permit shall preclude the use, including the exclusive use, of any credible evidence or information relevant to whether the Permittee would have been in compliance with the condition of this permit if the appropriate performance or compliance test or procedure had been performed.

Conclusion

This proposed modification shall be subject to the conditions of the attached proposed Part 70 Significant Source Modification No. 033-20970-00047 and Significant Permit Modification No. 033-21341-00047.

Appendix A: Emissions Calculations
VOC and HAP Emissions
From VPF Line without the Use of Blowing Agent

Company Name: Foamex, L.P.
Address: 2211 South Wayne St. Auburn, Indiana 46706
SSM No: 033-20970-00047
SPM No: 033-21341-00047
Reviewer: ERG/SD
Date: September 2, 2005

Potential To Emit before Control

Material	Non-Reactive Fraction (%)	Weight % VOC (%)	Weight % HAP (%)	Max. Usage (lbs/min)	PTE of VOC (lbs/hr)	PTE of VOC (tons/yr)	PTE of HAP (tons/yr)
TDI 80/20*	0.0016%	100%	100%	250	0.24	1.05	1.05
MDI**	0.0011%	100%	100%	250	0.17	0.72	0.72
Amine (Catalyst)	27.5%	100%	0.00%	4.75	78.4	343	0.00
Total (worst case)					**78.6**	**344**	**1.05**

* TDI = 2, 4 -Toluene Diisocyanate.
** MDI = 4,4' Methylene Diphenyl Dissocyanate.
Note: Only TDI or MDI can be used at one time.

Potential To Emit after Control

Material	Overall Control Efficiency* (%)	Controlled PTE of VOC (lbs/hr)	Controlled PTE of VOC (tons/yr)	Controlled PTE of HAP (tons/yr)
Total	51.0%	38.5	169	0.52

* This unit is controlled by a carbon adsorber. The efficiency information is provided by the source and will be verified by stack tests.

METHODOLOGY

PTE of VOC before Control (lbs/hr) = Max. Usage (lbs/min) x 60 min/hr x Non-Reactive Fraction (%) x Weight % VOC
PTE of VOC/HAP before Control (tons/year) = PTE of VOC/HAP (lbs/hr) x 8760 hours/year x 1 ton/2000 lbs.
Controlled PTE of VOC (lbs/hr) = PTE of VOC before Control (lbs/hr) x (1-Overall Control Efficiency)
Controlled PTE of VOC/HAP (tons/yr) = PTE of VOC/HAP before Control (tons/yr) x (1-Overall Control Efficiency)

Appendix A: Emissions Calculations
HAP Emissions
From the Blowing Agent Usage in VPF Line

Company Name: Foamex, L.P.
Address: 2211 South Wayne St. Auburn, Indiana 46706
SSM No: 033-20970-00047
SPM No: 033-21341-00047
Reviewer: ERG/SD
Date: September 2, 2005

Blowing agent (Methylene Chloride) may be reqired to make certain products. Methylene Chloride can only be used while using MDI to make products.

Material	Non-Reactive Fraction (%)	Weight % HAP (%)	Max. Usage (lbs/hr)	PTE of HAP (tons/yr)	Control Efficiency** (%)	Controlled PTE of HAP (tons/yr)
Methylene Chloride*	100%	100%	447,329	224	0.0%	224
Total				**224**		**224**

* Methylene Chloride has negligible photochemical reactivity and is not considered a VOC, pursuant to 40 CFR 51.100(s)(1).
** The control efficiency for Methylene Chloride is unknown. Therefore, the source proposed to use 0% for PTE calculations.

METHODOLOGY

PTE of HAP before Control (tons/year) = Max. Usage (lbs/yr) x Non-Reactive Fraction x Weight % HAP x 1 ton/2000 lbs.
Controlled PTE of HAP (tons/yr) = PTE of HAP before Control (tons/yr) x (1- Control Efficiency)

Appendix A: Emission Calculations
Summary

Company Name: **Foamex, L.P.**
Address: **2211 South Wayne Street, Auburn, Indiana 46706**
SSM No: **033-20970-00047**
SPM No: **033-21341-00047**
Reviewer: **ERG/SD**
Date: **September 2, 2005**

Controlled Potential to Emit (tons/year)

	PM	PM10	SO_2	NOx	VOC	CO	HAP
PTE of the VPF line without blowing agent	0.00	0.00	0.00	0.00	169	0.00	0.52
PTE of the blowing agent	0.00	0.00	0.00	0.00	0.00	0.00	224
PTE of the VPF line	**0.00**	**0.00**	**0.00**	**0.00**	**169**	**0.00**	**224**

Appendix B
Best Available Control Technology (BACT) Determinations

Source Background and Description

Source Name:	Foamex, L.P.
Source Location:	2211 South Wayne Street, Auburn, Indiana 46706
County:	Dekalb
SIC Code:	3086
Part 70 No.:	033-17552-00047
Issued:	October 13, 2004
SSM No.:	033-20970-00047
SPM No.:	033-21341-00047
Permit Reviewer:	ERG/SD

The Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) has performed the following Best Available Control Technology (BACT) review for the modification to the existing flexible polyurethane foam production plant, owned and operated by Foamex, L.P. located at 2211 South Wayne Street, Auburn, Indiana 46706. The modification consists of changes to the existing Variable Pressure Line (VPF line) to revise its annual production rate from 800,000,000 board feet of foam to 1.02 billion board feet of foam and to use new foam formulations, which contain a lower VOC non-reactive fraction for the amine catalyst.

Pursuant to 326 IAC 8-1-6 (New Facilities; General Reduction Requirements), BACT is required for all facilities constructed after January 1, 1980 that have potential VOC emissions of equal to or greater than twenty-five (25) tons per year and are not regulated by other rules in 326 IAC 8. Based on the calculations (see Appendix A) and the analysis of applicable state regulations (see State Rule Applicability section of TSD), the modification at this source is subject to the requirements of 326 IAC 8-1-6.

IDEM, OAQ conducts BACT analyses in accordance with the *"Top-Down" Best Available Control Technology* process, which outlines the steps for conducting a top-down BACT analysis. Those steps are listed below:

(a) Identify all potentially available control options;

(b) Eliminate technically infeasible control options;

(c) Rank remaining control technologies by control effectiveness;

(d) Evaluate the most effective controls and document the results as necessary; and

(e) Select BACT.

In accordance with EPA guidance, the BACT analysis should take into account the energy, environmental, and economic impacts. Emission reductions may be achieved through the application of available control techniques, changes in process design, and/or operational limitations. This BACT determination is based on the following information:

(a) The BACT analysis information submitted by Foamex, L.P. on March 21, 2005;

(b) Information from vendors/suppliers;

(c) The EPA RACT/BACT/LAER (RBLC) Clearinghouse; and

(d) State and local air quality permits.

VOC BACT

Foamex, L.P. has proposed to revise its annual production capacity in its existing VPF line from 800,000,000 board feet of foam to 1.02 billion board feet of foam and to use new foam formulations. The potential to emit of VOC after the modification is equal to 344 tons per year. However, the VPF line is equipped with a carbon adsorber with a rated efficiency of 51% to control VOC emissions (including TDI, MDI and tertiary amine VOC), which was considered as BACT in the Part 70 Permit Renewal 17552, issued October 13, 2004. After control VOC emissions are equal to 169 tons per year. Since this process is not regulated by any other rule in 326 IAC 8, the Permittee is required to continue to control VOC emissions from the VPF line pursuant to the provisions of 326 IAC 8-1-6 (BACT).

Step 1 – Regulatory Database Review and Identify Control Options

The following databases and control technologies were reviewed to identify and evaluate the various BACT requirements currently in place to control VOC emissions from the polyurethane foam production plants:

(a) IDEM, OAQ searched EPA's RACT/BACT/LAER Clearinghouse (RBLC) for SIC code 3086. The search identified the following:

Company	PBLD ID or Permit #	Date Issued and State	Type of Operation	BACT Requirements
NOMACO, Inc.	OK-0108	12/03/04 (OK)	Foam Extrusion	Isobutane Usage < 800 tons/yr VOC < 0.6 lbs/ft^3 foam
NOMACO, Inc.	NC-0071	07/17/03 (NC)	Polyethylene Foam Extrusion	Isobutane Usage < 1,250 tons/yr VOC < 0.6 lbs/ft^3 foam
Dart Container Corp of PA	PA-0210	12/14/01 (PA)	Polystyrene Extrusion	Controlled by a boiler (95%) VOC < 3.67 pounds per 100 pounds of EPS
Dart Corp. of America	PA-0222	12/14/01 (PA)	Polystyrene Foam Production	Controlled by a boiler VOC < 314 tons/yr
Owens Corning	IL-0081	12/11/01 (IL)	Polystyrene Foam Extrusion	HCFC < 39.5 lbs/hr
Pactuco	CA-0987	11/28/01 (CA)	Polystyrene Extrusion	Controlled by a RTO (98.5%) VOC < 10 ppm and 36 lbs/day
Dart Container of KY	KY-0080	04/26/01 (KY)	Polystyrene Extruders	Controlled by a RTO (95%) VOC < 1.45 tons/day and 523 tons/yr
Fagerdala Pac-Lite Incorporated	MI-0322	12/01/01 (MI)	Polystyrene Extrusion	Controlled by a RTO (37%) VOC < 35 PPH
Voltek Div of Sekisui America Crop.	MI-0278	03/29/00 (MI)	Foam Production	Controlled by a Catalytic Afterburner (96%) VOC < 0.12 lbs/hr and 0.53 tons/yr
Dart Container Corp of California	CA-0909	09/10/99 (CA)	Polystyrene Foam Extrusion	Controlled by a RTO (98%)
Dart Container Corp of PA	PA-0164	04/30/99 (PA)	Polystyrene Extrusion	Controlled by a RTO (24%) VOC < 10 ppm and 586 tons/yr
Knauf USA Polystyrene, Inc.	OH-0234	08/13/97 (OH)	Polystyrene Foam Production	Controlled by a RTO (95%) VOC < 19.7 lbs/hr and 3.3 lbs per 1000 lbs product

Pactuco	CA-0724	12/09/96 (CA)	Polystyrene Extrusion	Controlled by a RTO (98.5%) VOC < 10 ppm

However, all the identified processes are related to the manufacturing of polystyrene foam and none of them are related to the flexible polyurethane foam production process.

(b) IDEM, OAQ and the Permittee identified and evaluated the following available technologies to control VOC emissions from flexible polyurethane foam production operations:

(1) Thermal Incineration;

(2) Condenser; and

(3) Carbon Adsorption.

Step 2 – Eliminate Technically Infeasible Control Options

Based on the results from the RBLC database search, vendor review, and an evaluation of the control technologies, IDEM, OAQ has determined that the use of thermal incineration and condenser are not technically feasible options for this source for the following reasons:

(a) Thermal incineration: A thermal incineration control system on an enclosed foam production line would cause an explosion hazard under negative (vacuum) pressure situations, since the combustion gas or flame could be pulled back into the foam enclosure. The VPF line allows for foam pouring under varying pressure or vacuum, as needed for specific foam type and uses a permanent enclosure to provide 100% capture efficiency of VOC emissions. Therefore, this option is considered technically infeasible.

(b) Condenser: A single condenser cannot operate as a VOC control device under both positive and negative pressures. The condenser would only be effective on the compounds that have condensation temperatures at or near the water temperature. Even with chilled water, the condenser would likely control emissions at or near 50% due to the low boiling points of many compounds present in the foam formulations used at this plant. In addition, the volume of water produced from a condenser on a foam line would severely reduce its VOC control efficiency and increase its operating costs. Therefore, this option is considered technically infeasible.

Step 3 – Rank Remaining Control Technologies by Control Effectiveness

The remaining technically feasible approach for controlling VOC emissions from the VPF line is as follows:

Carbon Adsorption: A carbon adsorption system allows for safe operation of the enclosed foam line under both positive and negative (vacuum) pressure situations. The VPF line allows for foam pouring under varying pressure or vacuum, as needed for specific foam type and uses a permanent enclosure to provide 100% capture efficiency of VOC emissions. The VPF uses carefully regulated airflow; and the smaller airflow can be directed to a reasonably sized carbon adsorption unit. The limiting control efficiency for the carbon unit depends on the affinity of the compounds emitted to the unit. For TDI emissions, the carbon unit is very effective (equivalent to 95%). However, the amine compounds have very diverse structures; some are controlled at only 20 to 30 percent, whereas other more polar compounds are controlled at 70 to 80 percent. The vendor specified an average of 50% for the amines, which when combined with the effectiveness of the TDI is equivalent to an overall 51% efficiency. Moreover, TDI and MDI emissions are less than 0.01% of the total VOC emissions from the VPF line. Since carbon adsorption is the only technically feasible option, and is already being used by the source to control VOC emissions from the VPF line, this has been chosen to satisfy the BACT requirements.

Step 4 – Evaluate the Most Effective Controls and Document Results

The source did not provide IDEM, OAQ with a thorough economic analysis of the control options at this time because the control option is already in place and is the only technically feasible option.

Step 5 – Select BACT

IDEM, OAQ has determined that the BACT for the modified VPL line at Foamex is as follows:

(a) The Permittee shall operate the carbon adsorber to control total VOC emissions from the VPF line at all times that the VPF line is in operation.

(b) The carbon adsorber shall operate at a minimum overall control efficiency of 51% for total VOC (including TDI, MDI, and tertiary amine VOC). The Permittee is required to perform a VOC stack test to demonstrate compliance with this limit.

(c) VOC emissions from the carbon adsorber shall not exceed 38.5 lbs/hr. This is equivalent to 169 tons/yr of VOC emissions from the VPF line.

(d) The production of polyurethane foam in the VPF line shall be limited to a maximum of 1.2 billion board feet per twelve (12) consecutive month period with compliance determined at the end of each month.