

Department of Environmental Protection

Lawton Chiles
Governor

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Virginia B. Wetherell
Secretary

November 10, 1994

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

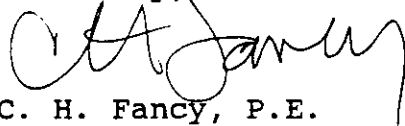
Mr. Douglas L. Terrill, Plant Manager
Foamex, L.P.
1351 Gemini Boulevard
Orlando, Florida 32821

Dear Mr. Terrill:

Attached is a copy of a Revised Technical Evaluation and Preliminary Determination and proposed permit for your existing facility. The draft permit also includes the proposal to modify the exhaust/dispersion system for your existing flexible polyurethane foam manufacturing facility located in Orlando, Orange County, Florida. Please replace the Department's Intent to Issue Permit Package dated August 22, 1994, with this one.

Please submit any written comments you wish to have considered concerning the Department's proposed action to Mr. John Brown of the Department's Bureau of Air Regulation.

Sincerely,

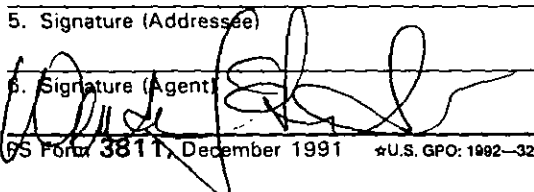

C. H. Fancy, P.E.
Chief
Bureau of Air Regulation

CHF/WH/bjb

Attachment

cc: Charles Collins, CD
Dennis Nester, Orange Co.
Joe Tessitore, P.E.

Is your RETURN ADDRESS completed on the reverse side?

SENDER: <ul style="list-style-type: none"> • Complete items 1 and/or 2 for additional services. • Complete items 3, and 4a & b. • Print your name and address on the reverse of this form so that we can return this card to you. • Attach this form to the front of the mailpiece, or on the back if space does not permit. • Write "Return Receipt Requested" on the mailpiece below the article number. • The Return Receipt will show to whom the article was delivered and the date delivered. 		I also wish to receive the following services (for an extra fee): 1. <input type="checkbox"/> Addressee's Address 2. <input type="checkbox"/> Restricted Delivery Consult postmaster for fee.	
3. Article Addressed to: Mr. Douglas L. Terrill Plant Manager Foamex, L.P. 1351 Gemini Blvd. Orlando, FL 32821		4a. Article Number P 872 562 685	
		4b. Service Type <input type="checkbox"/> Registered <input type="checkbox"/> Insured <input checked="" type="checkbox"/> Certified <input type="checkbox"/> COD <input type="checkbox"/> Express Mail <input type="checkbox"/> Return Receipt for Merchandise	
		7. Date of Delivery 11-21-94	
5. Signature (Addressee) 		8. Addressee's Address (Only if requested and fee is paid)	
6. Signature (Agent)			

Thank you for using Return Receipt Service.

PS Form 3811, December 1991 U.S. GPO: 1992-323-402 **DOMESTIC RETURN RECEIPT**

P 872 562 685



Receipt for Certified Mail
 No Insurance Coverage Provided
 Do not use for International Mail
 (See Reverse)

PS Form 3800, JUNE 1991

Sent to	
Mr. Douglas L. Terrill	
Street and No.	
1351 Gemini Blvd.	
P.O., State and ZIP Code	
Orlando, FL 32821	
Postage	\$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, and Addressee's Address	
TOTAL Postage & Fees	\$
Postmark or Date	
Mailed: 11-17-94	
Permit: AC48-214902	

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

CERTIFIED MAIL

In the Matter of an
Application for Permit by:

DEP File No. AC 48-214902
Orange County

Mr. Douglas L. Terrill, Plant Manager
Foamex, L.P.
1351 Gemini Boulevard
Orlando, Florida 32821

INTENT TO ISSUE

The Department of Environmental Protection (Department) hereby gives notice of its intent to issue an after-the-fact construction permit (copy attached) for the proposed project as detailed in the application specified above for the reasons stated in the attached Revised Technical Evaluation and Preliminary Determination.

The applicant, Foamex, L.P., applied on May 28, 1992, for an after-the-fact air construction permit for an existing flexible polyurethane foam manufacturing facility located at 1351 Gemini Blvd., Orlando, Orange County, Florida 32821. After meeting with the Department to discuss control options and regulatory requirements, the application was revised and resubmitted on July 1, 1994. The revised permit application includes a modification of the existing exhaust/dispersion system. The application was amended again by a letter dated September 30, 1994, from Harding Lawson Associates. The requested amendment increases the annual quantity of raw material used and the operation time of the facility. The modification will reduce the ambient air impact of the methylene chloride, trichloroethane, and toluene diisocyanate emissions from the facility.

The Department has permitting jurisdiction under the provisions of Chapter 403, Florida Statutes (F.S.), and Chapters 62-212 and 62-4, Florida Administrative Code (F.A.C.). The project is not exempt from permitting procedures. The Department has determined that a construction permit is required for the proposed work.

Pursuant to Section 403.815, F.S., and Rule 62-103.150, F.A.C., you (the applicant) are required to publish at your own expense the enclosed Notice of Intent to Issue Permit. The notice shall be published one time only within 30 days in the legal ad section of a newspaper of general circulation in the area affected. For the purpose of this rule, "publication in a newspaper of general circulation in the area affected" means publication in a newspaper meeting the requirements of Sections 50.011 and 50.031, F.S., in

the county where the activity is to take place. The applicant shall provide proof of publication to the Department's Bureau of Air Regulation, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, within seven days of publication. Failure to publish the notice and provide proof of publication within the allotted time may result in the denial of the permit.

The Department will issue the permit with the attached conditions unless a petition for an administrative proceeding (hearing) is filed pursuant to the provisions of Section 120.57, F.S.

A person whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative proceeding (hearing) in accordance with Section 120.57, F.S. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 2600 Blair Stone Road, Tallahassee, Florida 32399-2400. Petitions filed by the permit applicant and the parties listed below must be filed within 14 days of receipt of this intent. Petitions filed by other persons must be filed within 14 days of publication of the public notice or within 14 days of their receipt of this intent, whichever first occurs. Petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, F.S.

The Petition shall contain the following information;

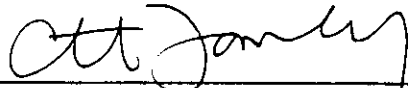
- (a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Department Permit File Number and the county in which the project is proposed;
- (b) A statement of how and when each petitioner received notice of the Department's action or proposed action;
- (c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action;
- (d) A statement of the material facts disputed by Petitioner, if any;
- (e) A statement of facts which petitioner contends warrant reversal or modification of the Department's action or proposed action;
- (f) A statement of which rules or statutes petitioner contends require reversal or modification of the Department's action or proposed action; and,
- (g) A statement of the relief sought by petitioner, stating precisely the action petitioner wants the Department to take with respect to the Department's action or proposed action.

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in this intent. Persons whose substantial interests will be affected by

any decision of the Department with regard to the application have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 14 days of receipt of this intent in the Office of General Counsel at the above address of the Department. Failure to petition within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, F.S., and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, F.A.C.

Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION



C. H. Fancy, P.E., Chief
Bureau of Air Regulation
2600 Blair Stone Road
Tallahassee, Florida 32399
904-488-1344

CERTIFICATE OF SERVICE

The undersigned duly designated deputy clerk hereby certifies that this INTENT TO ISSUE and all copies were mailed by certified mail before the close of business on 11-17-94 to the listed persons.

Clerk Stamp

FILING AND ACKNOWLEDGMENT

FILED, on this date, pursuant to §120.52(11), Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.


Clerk

11-17-94
Date

Copies furnished to:

cc: Charles Collins, CD
Dennis Nester, Orange Co.
Joe Tessitore, P.E.

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
NOTICE OF INTENT TO ISSUE PERMIT

AC48-214902

The Department of Environmental Protection gives notice of its intent to issue an after-the-fact construction permit to permit the existing facility and to modify the exhaust/dispersion system for Foamex, L.P.'s flexible polyurethane foam manufacturing plant located at 1351 Gemini Blvd., Orlando, Orange County, FL 32821. The plant will emit approximately 1,519 lbs/hr (261 TPY) methylene chloride, 2.5 lbs/hr (1.9 TPY) 1,1,1-trichloroethane, 0.37 lbs/hr (0.16 TPY) toluene diisocyanate, and trace amounts of criteria pollutants from the combustion of natural gas in the boiler and comfort heaters. No criteria pollutant is emitted at a rate that would subject the plant to the Prevention of Significant Deterioration (PSD) regulations and require a Best Available Control Technology determination. The ambient air impact of the emissions from the facility will not exceed the Acceptable Ambient Concentrations.

A person whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative proceeding (hearing) in accordance with Section 120.57, Florida Statutes (F.S.). The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, within 14 days of publication of this notice. Petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, F.S.

The Petition shall contain the following information; (a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Department Permit File Number and the county in which the project is proposed; (b) A statement of how and when each petitioner received notice of the Department's action or proposed action; (c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action; (d) A statement of the material facts disputed by Petitioner, if any; (e) A statement of facts which petitioner contends warrant reversal or modification of the Department's action or proposed action; (f) A statement of which rules or statutes petitioner contends require reversal or modification of

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in this Notice. Persons whose substantial interests will be affected by any decision of the Department with regard to the application have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 14 days of publication of this notice in the Office of General Counsel at the above address of the Department. Failure to petition within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, F.S., and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, Florida Administrative Code.

The application is available for public inspection during normal business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at:

Department of Environmental Protection
Bureau of Air Regulation
111 S. Magnolia Drive, Suite 4
Tallahassee, Florida 32301

Department of Environmental Protection
Central District
3319 Maguire Boulevard, Suite 232
Orlando, Florida 32803-3767

Orange County Environmental Protection Department
2002 East Michigan Avenue
Orlando, Florida 32806

Any person may send written comments on the proposed action to Mr. John Brown at the Department of Environmental Protection, Bureau of Air Regulation, Mail Station 5505, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400. All comments received within 14 days of the publication of this notice will be considered in the Department's final determination.

Revised
Technical Evaluation
and
Preliminary Determination

Foamex, L.P.
Orange County
Orlando, Florida

Flexible Polyurethane Foam Manufacturing Plant
Department File No. AC 48-214902

Department of Environmental Protection
Division of Air Resources Management
Bureau of Air Regulation

November 10, 1994

I. GENERAL INFORMATION

A. Applicant

Foamex, L.P.
1351 Gemini Blvd.
Orlando, FL 32821

B. Request

On May 28, 1992, Foamex, L.P., submitted an application for an after-the-fact air construction permit for an existing flexible polyurethane foam manufacturing plant (SIC 3021). After meeting with the Department to discuss the control options and regulatory requirements, the application was revised and resubmitted on July 1, 1994, to include an exhaust/dispersion system to reduce the ambient air impact of the methylene chloride, 1,1,1-trichloroethane, and toluene diisocyanate emissions. The application was amended again by a letter dated September 30, 1994. The amendment increases the annual quantity of raw material used and the operation time of the facility. The existing plant is located at 1351 Gemini Blvd., Orlando, Orange County, FL 32831. The UTM coordinates of this site are Zone 17, 461.0 km E and 3142.9 km N.

C. Process

The six operations at this facility are slabstock polyurethane foam production, rebond polyurethane foam production, foam fabrication, tank storage, steam boiler, and environmental heating.

In the slabstock polyurethane foam production operation, meter pumps transfer raw materials (glue, polyol, water, catalyst, surfactants, additives for color and flame retardant, and methylene chloride for the blowing agent) to a high pressure mixing head. The reacting chemicals are discharged to a trough and then flow down a tunnel area where the heat of reaction evaporates the methylene chloride to produce a polyurethane slab called a bun. The bun is conveyed to the long bun storage room for curing. It is estimated that 60 percent of the methylene chloride used in the process is emitted before the bun reaches the long bun storage room. Another 35 percent of the methylene chloride is discharged while the bun is in the storage room. The remaining 5 percent of the methylene chloride escapes during the foam fabrication operation.

Proposed modifications to the exhaust system for the slabstock polyurethane foam production operation (production and storage) include:

1. Enclose the mixing head, trough, and conveyer line in the tunnel to the long bun storage room.

2. Install exhaust fan(s) with 30,000 acfm exhaust capacity (total) to maintain negative pressure in the new enclosure.
3. Discharge the fumes from the enclosure through a new 2.8 ft. diameter by 125 foot elevation stack.
4. Install 30,000 acfm exhaust fans to maintain negative pressure in the long bun storage room.
5. Discharge the fumes from the long bun storage room through a new 2.8 ft. diameter by 124 ft. elevation stack.
6. Add 3.6 ft. diameter extensions to the existing seventeen 50,000 acfm general exhaust fans located in the remainder of the facility; and, they will all be extended to become 53 ft. above grade.

Maximum allowable usage of methylene chloride by the slabstock polyurethane foam production operation is 513,090 lbs/yr (256.55 TPY), all of which is emitted to the atmosphere. Maximum emissions from the slabstock polyurethane foam production stacks are estimated to be: 1513.35 lbs/hr (243.72 TPY) methylene chloride and 0.37 lbs/hr (0.14 TPY) toluene diisocyanate (TDI). The slabstock polyurethane foam production process operates 3 hrs/day, 5 days/week, and 52 weeks/yr or 780 hrs/yr.

In the foam fabrication operation, the buns (slabstock process product) are cut and glued together. The remaining 5 percent of the methylene chloride from the production operation along with small amounts from the glue escape to the atmosphere during this operation. Emissions from this operation are 5.1 lbs/hr (14.41 TPY) methylene chloride and 2.5 lbs/hr (1.86 TPY) 1,1,1-trichloroethane. Emissions are discharged to the atmosphere through 17 rooftop vents. As noted in 6 above, the stack height for the 17 fans will be increased to achieve better dispersion of the air pollutant emissions. The foam fabrication process operates 16 hrs/day, 6 days/week, and 52 weeks/yr or 4,992 hrs/yr.

In the rebond polyurethane foam production operation, scrap foam is ground and transferred to storage bins. It is sent from the bins to a blend tank and mixed with TDI and polyether polyol. The mixture is then compressed in a mold that is heated by steam from the boiler. The product is a cylinder of foam called a log. The log is peeled into a thin sheet and bonded to polyethylene film for packaging into smaller rolls. The capacity of the two exhaust fans serving this section will be increased to 15,000 acfm and the stack height will be increased to 53 ft. elevation. Emissions are estimated to be 0.0046 lbs/hr (0.017 TPY) TDI. The process operates 24 hrs/day, 6 days/week, and 52 weeks/year or 7,488 hrs/yr.

The 11 above ground storage tanks, up to 12 ft. in diameter and 35 ft. high, store polyol, TDI, polymer, and methylene chloride. All tanks are equipped with small vents.

Tank No. 10 contains methylene chloride. The existing methylene chloride vent installed on tank No. 10 is 7 ft. high and 1.25 inches in diameter. A pressure/vacuum relief valve will be installed on the methylene chloride tank (tank No. 10) as part of this project. Primary emissions of concern from the tank storage area are 0.66 lbs/hr (2.9 TPY) methylene chloride. The storage tanks are in service continuously.

The natural gas fired 4.2 MMBtu/hr steam boiler and the thirteen 1.85 MMBtu/hr (total heat input) natural gas fired space heaters at this facility are exempt from permitting pursuant to Rule 62-210.300(3), Florida Administrative Code (F.A.C.).

The boiler and heaters emit the normal products of combustion of natural gas. These emissions are insignificant. The boiler may operate continuously. The space heaters operate approximately 400 hrs/yr.

D. Emissions

The uncontrolled emissions from the six operations at the facility are summarized in Table A (Table 3-8 in the application). Total facility emissions are 1519.11 lbs/hr (261.03 TPY) methylene chloride, 2.5 lbs/hr (1.86 TPY) 1,1,1-trichloroethane, 0.37 lbs/hr (0.16 TPY) TDI, and trace amounts of criteria pollutants from the natural gas fired in the boiler and environmental heating operations.

II. Rule Applicability

The proposed project, modifications to an existing flexible polyurethane foam manufacturing plant (SIC 3021) in Orange County, is subject to the preconstruction review requirements under the provisions of Chapter 403, Florida Statutes, and Chapters 62-4, 62-210, 62-212, 62-272, 62-275, 62-296, and 62-297, F.A.C.

The facility is located in an air quality area designated maintenance for ozone, (Rule 62-275.600, F.A.C.), and attainment for the other criteria pollutants (Rule 62-275.400, F.A.C.).

The facility is a minor source of criteria air pollutants (Rule 62-296.200, F.A.C.). It is a major source of non-criteria organic compounds that cause negligible photochemical reactivity.

The existing facility is not subject to the Prevention of Significant Deterioration regulations (Rule 62-212.400, F.A.C.) because it is a minor source for the criteria air pollutants. It is subject to Rule 62-296.320, F.A.C., General Pollutant Emission Limiting Standards, which require controls for organic solvents as deemed necessary and ordered by the Department.

III. Technical Evaluation

The existing facility is an uncontrolled source of photochemically nonreactive organic solvents. The application is for the after-the-fact permitting of the existing facility and the alteration of the existing exhaust system to improve the capture and dispersal of the air pollutants. The altered duct system will result in better capture and dispersion of the chemicals used in the process. The emissions of the chemicals used at this plant can be reduced by major changes to the process and/or the addition of air pollution control equipment. The applicant is not proposing a reduction of air pollutant emissions as part of this application. The applicant is committed to submitting periodic reports on the control of air pollutants from this process until a maximum achievable control technology (MACT) standard for this industry group is issued by EPA or the Department. The system or equipment to reduce air pollution to meet the MACT will then, if applicable, be installed on a schedule approved by the Department.

IV. Air Quality

The applicant modeled the emissions of methylene chloride, 1,1,1-trichloroethane, and TDI to determine the predicted off-property ambient air impacts. The EPA and Department-approved Industrial Source Complex - Short Term (ISCST2) model was run with one year of meteorological data (1986 Orlando surface and 1986 Tampa upper air). Downwash parameters generated by EPA's Building Profile Input Program were input into the ISCST2 model. A polar receptor grid with the origin at the center of the Foamex facility property was used. This grid consists of eighteen rings, one every 50 meters, starting at 150 meters from the origin and extending out to 1000 meters. Each ring consists of 36 radials, one every 10°, for a total of 648 receptors. An additional 58 discrete receptors placed along the property boundaries were used. The modeling results are given below and show that maximum predicted off-property concentrations for each pollutant are less than the applicable Acceptable Ambient Concentrations:

Pollutant	Maximum Predicted Concentration (ug/m ³)			Acceptable Ambient Concentration (ug/m ³)		
	8-hr	24-hr	Annual	8-hr	24-hr	Annual
Methylene Chloride	517.4	85.3	1.9	1740	417.6	2.1
1,1,1-Tri-chloroethane	7.5	3.1	---	38,200	9,168	---
Toluene Diisocyanate	0.15	0.02	---	0.36	0.0864	---

V. Conclusion

Based on the information provided by Foamex, L.P., the Department has reasonable assurance that the proposed construction of the exhaust/dispersion system at this existing flexible polyurethane foam manufacturing plant, as described in this evaluation, and subject to the conditions proposed herein, will not cause a violation of any air quality standard, PSD increment, or any other technical provision of Chapter 62-212 of the Florida Administrative Code.

John Brown Jr
Nov 10, 1984

**Table 3.8. Emissions Summary
Foamex, L.P. - Orlando Facility**

Contaminant	Emission Source	Emissions ¹		Allowed ² Emission Rate per Rule 17-2	Allowable ³ Emissions (lbs/hr)	Potential ⁴ Emissions	
		Maximum (lbs/hr)	Actual (T/yr)			(lbs/hr)	(T/yr)
Methylene Chloride	Slabstock Process	1513.35	243.72	N/A	N/A	1513.35	243.72
	Tank Storage	0.66	2.9	N/A	N/A	0.69	3
	Foam Fabrication	5.1	14.41	N/A	N/A	5.1	14.41
	Subtotal	1519.11	261.03	N/A	N/A	1519.14	261.13
1,1,1 Trichloroethane	Foam Fabrication	2.5	1.86	N/A	N/A	2.5	1.86
	Subtotal	2.5	1.86	N/A	N/A	2.5	1.86
Toluene Diisocyanate	Slabstock Process	0.37	0.14	N/A	N/A	0.37	0.14
	Rebond Process	0.0046	0.017	N/A	N/A	0.0046	0.017
	Subtotal	0.3746	0.157	N/A	N/A	0.3746	0.157
Particulate	Steam Boiler	0.021	0.092	N/A	N/A	0.021	0.092
	Environmental Heating	0.00925	0.00185	N/A	N/A	0.00925	0.00185
	Subtotal	0.03025	0.09385	N/A	N/A	0.03025	0.09385
Sulfur Dioxide	Steam Boiler	0.0025	0.011	N/A	N/A	0.0025	0.011
	Environmental Heating	0.00111	0.000222	N/A	N/A	0.00111	0.000222
	Subtotal	0.00361	0.011222	N/A	N/A	0.00361	0.011222
Nitrogen Oxides	Steam Boiler	0.59	2.58	N/A	N/A	0.59	2.58
	Environmental Heating	0.259	0.0518	N/A	N/A	0.259	0.0518
	Subtotal	0.849	2.6318	N/A	N/A	0.849	2.6318
Carbon Monoxide	Steam Boiler	0.147	0.64	N/A	N/A	0.147	0.64
	Environmental Heating	0.06475	0.01295	N/A	N/A	0.06475	0.01295
	Subtotal	0.21175	0.65295	N/A	N/A	0.21175	0.65295
Total Hydrocarbons	Steam Boiler	0.013	0.055	N/A	N/A	0.013	0.055
	Environmental Heating	0.00555	0.00111	N/A	N/A	0.00555	0.00111
	Subtotal	0.01855	0.05611	N/A	N/A	0.01855	0.05611

1. See Section V, Item 2 (Application Section 3.2)
2. Reference applicable emission standards and units (e.g. Rule 17-2.600(5)(b)2. Table II, E. (1) - 0.1 pounds per million BTU heat input)
3. Calculated from operating rate and applicable standard.
4. Emission, if source operated without control (See Section V, Item 3).



Department of Environmental Protection

Lawton Chiles
Governor

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Virginia B. Wetherell
Secretary

PERMITTEE:
Foamex, L.P.
1351 Gemini Blvd.
Orlando, Florida 32821

Permit Number: AC48-214902
Expiration Date: January 15,
1996

County: Orange
Latitude/Longitude: 28°24'15"N
81°23'40"W

Project: Flexible Polyurethane
Foam Manufacturing
Plant

This after-the-fact permit is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-212 and 62-4. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawings, plans, and other documents attached hereto and specifically described as follows:

Modification to the exhaust/dispersion system at an existing flexible polyurethane foam manufacturing facility located at 1351 Gemini Blvd., Orlando, Orange County, Florida 32821. The six operations at this facility are an 18.1 TPH slabstock polyurethane foam production unit, an 18.1 TPH foam fabrication operation, a 3.1 TPH rebond polyurethane foam production unit, 11 above ground storage tanks, a 4.2 MMBtu/hr natural gas fired boiler, and a total 1.85 MMBtu/hr natural gas fired environmental space heating system.

The modified facility will have: a foam line stack that is 125 ft. high and 2.8 ft. in diameter and handling 30,000 acfm of air; a long bun storage room stack that is 125 ft. high and 2.8 ft. in diameter and handling 30,000 acfm of air; seventeen 50,000 acfm exhaust fans venting through 3.6 ft. diameter stacks with an elevation of 53 feet; and, two 15,000 acfm exhaust fans venting through 2 ft. diameter stacks with an elevation of 53 feet. The methylene chloride storage tank (No. 10) will be equipped with a pressure/vacuum relief valve.

The 4.2 MMBtu/hr natural gas fired boiler and 13 indirect natural gas fired heaters (1.85 MMBtu/hr total heat input) at this facility are exempt from air permitting pursuant to Rule 62-210.300(3), F.A.C.

The UTM coordinates of this facility are Zone 17, 461.0 km E and 3142.9 km N.

The proposed project shall be constructed in accordance with the permit application, plans, documents, amendments and drawings, except as otherwise noted in the General and Specific Conditions.

Attachments are listed below:

1. Application received July 1, 1994.
2. Harding Lawson Associates letter dated August 3, 1994.
3. Harding Lawson Associates letter dated September 30, 1994.

PERMITTEE:
Foamex, L.P.

Permit Number: AC48-214902
Expiration Date: January 15, 1996

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.161, 403.727, or 403.859 through 403.861, F.S. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.

2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.

3. As provided in Subsections 403.087(6) and 403.722(5), F.S., the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit is not a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.

4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgement of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.

5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of F.S. and Department rules, unless specifically authorized by an order from the Department.

6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.

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7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at a reasonable time, access to the premises, where the permitted activity is located or conducted to:

- a. Have access to and copy any records that must be kept under the conditions of the permit;
- b. Inspect the facility, equipment, practices, or operations regulated or required under this permit; and,
- c. Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

Reasonable time may depend on the nature of the concern being investigated.

8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:

- a. A description of and cause of non-compliance; and,
- b. The period of noncompliance, including dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance.

The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the F.S. or Department rules, except where such use is prescribed by Sections 403.73 and 403.111, F.S. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

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10. The permittee agrees to comply with changes in Department rules and F.S. after a reasonable time for compliance, provided, however, the permittee does not waive any other rights granted by F.S. or Department rules.

11. This permit is transferable only upon Department approval in accordance with Rules 17-4.120 and 17-730.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.

12. This permit or a copy thereof shall be kept at the work site of the permitted activity.

13. This permit also constitutes:

- () Determination of Best Available Control Technology (BACT)
- () Determination of Prevention of Significant Deterioration (PSD)
- () Compliance with New Source Performance Standards (NSPS)

14. The permittee shall comply with the following:

- a. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.
- b. The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.

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c. Records of monitoring information shall include:

- the date, exact place, and time of sampling or measurements;
- the person responsible for performing the sampling or measurements;
- the dates analyses were performed;
- the person responsible for performing the analyses;
- the analytical techniques or methods used; and
- the results of such analyses.

15. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

SPECIFIC CONDITIONS:

1. The enhanced exhaust systems shall be completed by September 1, 1995. The systems shall include: two 2.8 ft. diameter by 125 ft. high stacks, each handling 30,000 acfm of air; seventeen roof exhaust fans with 3.6 ft. diameter 53 ft. high stacks, each handling 50,000 acfm of air; and, two roof exhaust fans with 2 ft. diameter by 53 ft. high stacks, each handling 15,000 acfm of air. The two 125 ft. high stacks shall be equipped with stack sampling facilities meeting the specifications listed in Rule 62-297.345, F.A.C. Tank No. 10 shall be equipped with a pressure/vacuum relief valve.

2. The chemicals used at this facility shall not exceed the following quantities during any 12 month period: 513,090 lbs/yr (256.6 TPY) methylene chloride; 1,000,000 lbs/yr (500 TPY) polymer; 15,000,000 lbs/yr (7,500 TPY) polyol; and, 10,000,000 lbs/yr (5,000 TPY) toluene diisocyanate. Cleanup solvent losses shall not exceed: 2 gallons/month isopropyl alcohol; 5,770 lbs/yr 1,1,1-trichloroethane with silicone lubricant; and, 1,000 lbs/yr mineral spirits.

Compliance with this condition shall be determined by records of purchases, inventory changes, and receipts for chemicals disposed of off site. The permittee shall maintain a log showing the amount of chemicals used each month to document compliance with these limitations.

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3. Maximum operation times for each operation at this facility are:

Operation	hrs/day	days/week	weeks/year	hrs/year
Slabstock Process	3	5	52	780
Rebond Process	24	6	52	7188
Foam Fabrication Operations	16	6	52	4992
Tank Storage	24	7	52	8760
Steam Boiler	24	7	52	8760
Environmental Heating				400

The permittee shall maintain a log to show compliance with this condition. The log shall be kept for a minimum of 5 years and made available for Department inspection upon request.

4. For inventory purposes, the estimated emissions from this facility (based on the emissions factors listed in the application, the limitations on operation time, and chemical usage) are:

AVERAGE EMISSIONS FROM SIX OPERATIONS:

	lbs/hr	TPY
methylene chloride	1519.11	261.03
1,1,1-trichloroethane	2.5	1.86
toluene diisocyanate	0.3746	0.157

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MAXIMUM POTENTIAL EMISSIONS FROM INDIVIDUAL OPERATIONS ARE ESTIMATED TO BE:

Operation/chemical	Emissions	
	lbs/hr	TPY
I. Slabstock Polyurethane Foam Production		
a) toluene diisocyanate	0.37	0.14
b) Foam Line Stack		
methylene chloride	955.8	153.93
c) Long Bun Storage Room Stack		
methylene chloride	557.55	89.79
II. Foam Fabric Operations		
methylene chloride	5.1	14.41
1,1,1-trichloroethane	2.5	1.86
III. Rebond Polyurethane Foam Production		
toluene diisocyanate	0.0046	0.017
IV. Tank Storage (Tank No. 10)		
methylene chloride	0.66	2.92
V. Steam Boiler	Trace amounts of the normal products of combustion (less than 1 lb/hr of all pollutants)	
VI. Environmental Heating	Trace amounts of the normal products of combustion (less than 1 lb/hr of all pollutants)	

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5. To confirm the emission factors used in the application, the permittee shall measure the emissions from both slabstock process stacks for methylene chloride by EPA Method 18, as described in 40 CFR 60, Appendix A. If the measured emission factors are significantly different from the ones used in the application, the applicant shall remodel the emissions from the facility using the emission factors established by the stack test to confirm that the Acceptable Ambient Concentration for methylene chloride is not exceeded. Testing of emissions shall be conducted with the source operating at permitted capacity. Permitted capacity is defined as 90-100 percent of the maximum operating rate allowed by the permit. If it is impracticable to test at permitted capacity, then sources may be tested at less than capacity (i.e. less than 90% of the maximum operating rate allowed by this permit); in this case, subsequent source operation is limited to 110 percent of the test load until a new test is conducted. Once the unit is so limited, then operation at higher capacities is allowed for no more than 15 consecutive days for the purposes of additional compliance testing to regain the permitted capacity in the permit. The stack test and modeling results shall be submitted to the Department with the application for permit to operate required by Specific Condition No. 8. (Rule 62-4.070, F.A.C.)

6. Progress reports on the replacement of the process and/or the installation of air pollution control equipment to meet MACT requirements shall be submitted to the Orange County Environmental Protection Department and the Department's Central District and Bureau of Air Regulation on or before the dates noted below.

First Progress Report	Due by January 31, 1995
Second Progress Report	Due by June 30, 1995
Third Progress Report	Due by January 31, 1996

7. The permittee, for good cause, may request that this construction permit be extended. Such a request shall be submitted to the Bureau of Air Regulation prior to 60 days before the expiration of the permit (Rule 62-4.090, F.A.C.).

8. An application for an operation permit shall be submitted to the Department's Central District office at least 90 days prior to the expiration date of this construction permit. To properly apply for an operation permit, the applicant shall submit the

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appropriate application form, fee, certification that construction was completed noting any deviations from the conditions in the construction permit, and compliance test reports as required by this permit (Rules 62-4.055 and 62-4.220, F.A.C.).

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION

Howard L. Rhodes, Director
Division of Air Resources
Management