

Harding Lawson Associates

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Air Regulation

June 30, 1995

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Mr. Alan D. Zahm, P.E.  
Supervisor, Permitting  
Florida Department of Environmental Protection  
Central District  
3319 Maguire Boulevard, Suite 232  
Orlando, Florida 32803-3767

**First Progress Report**  
**Foamex L.P.**  
**FDEP File No. AC48-214902**

Dear Mr. Zahm:

Please find enclosed the First Progress Report as required by Specific Condition 6 of Permit AC48-214902 for the Foamex, L.P. Flexible Polyurethane Foam Manufacturing facility in Orlando.

Should you have any questions or comments regarding the information submitted, please do not hesitate to contact Kay Rykowski.

Yours very truly,

HARDING LAWSON ASSOCIATES

A handwritten signature in cursive script that reads "Patricia Kay Rykowski".

Patricia Kay Rykowski  
Senior Engineer

A handwritten signature in cursive script that reads "Joseph L. Tessitore".

Joseph L. Tessitore, P.E.  
Managing Principal

PKR/pkr

foamex20.doc/

cc: Mr. Willard Hanks, FDEP - Tallahassee  
Mr. Dennis Nester, OCEPD  
Mr. Doug Terrill, Foamex, L.P.  
Orlando, Florida  
Mr. Arthur Pereira, Foamex, L.P.  
East Providence, Rhode Island  
Mr. Tom Burghardt, Foamex, L.P.  
Linville, Pennsylvania

**ATTACHMENT 1**

**First Progress Report  
Foamex, L.P.**

**First Progress Report  
June 30, 1995  
Foamex, L.P.**

**1.0. Introduction**

The purpose of this report is to describe the activities completed to date by Foamex, L.P. (Foamex) to implement the enhanced exhaust systems required by the Specific Conditions of Permit AC48-214902, and to work toward replacement of the existing manufacturing process technology or installation of air pollution equipment to meet MACT. This report is submitted to the Florida Department of Environmental Protection (FDEP) and the Orange County Environmental Protection Department (OCEPD) to comply with Specific Condition 6 of Permit AC48-214902. The sections below provide a description of the activities conducted to date by Foamex and Harding Lawson Associates (HLA), relating to installation of the enhanced exhaust systems, modification and/or replacement of the manufacturing process, and the status of the MACT requirements.

**2.0. Installation of Enhanced Exhaust Systems**

The requirements established in Permit AC48-214902 Specific Condition 1 are stated as follows::

The enhanced exhaust systems shall be completed by February 15, 1996. The systems shall include: two 2.8 ft. diameter by 125 ft. high stacks (serving the Foam Line and Long Bun Storage Room) each handling 30,000 acfm of air; seventeen roof exhaust fans with 3.6 ft. diameter 53 ft. high stacks (serving the Foam Fabrication areas) each handling 50,000 acfm of air; and two roof exhaust fans with 2 ft. diameter by 53 ft. high stacks (serving the Rebond area) 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.

As of this date, Foamex has entered into contractual obligations with a mechanical contractor for engineering and installation of the Foam Line enclosure and enhanced exhaust system serving the Foam Line and Long Bun Storage Rooms, and extension of roof vents and stacks. Design and engineering drawings are expected to be submitted to Foamex for approval by July 10, 1995.

In finalizing the design requirements and installation details, one change has been made in the approach to achieving the enhanced exhaust system as represented in the Construction Permit Application. In order to minimize the energy consumption, capital cost and operating costs Foamex is isolating the Foam Fabrication operations to the areas shown on the attached Figure 1. As shown on this figure, by limiting the operations to the smaller area, only six roof fans will be required for exhaust of Foam Fabrication emissions rather than seventeen as anticipated in the Construction Permit application.

Figure 2 attached provides a schedule for completion of design and installation of the enhanced exhaust system. A review of this schedule shows that Compliance Stack testing is anticipated to be conducted by November 27, and submittal of the Certificate of Completion of Construction is anticipated to be submitted by December 15, 1995. This schedule provides for completion of the enhanced exhaust systems well prior to the February 15, 1996 deadline as required by Specific Condition 1.

### **3.0 Manufacturing Process Modifications/Replacement**

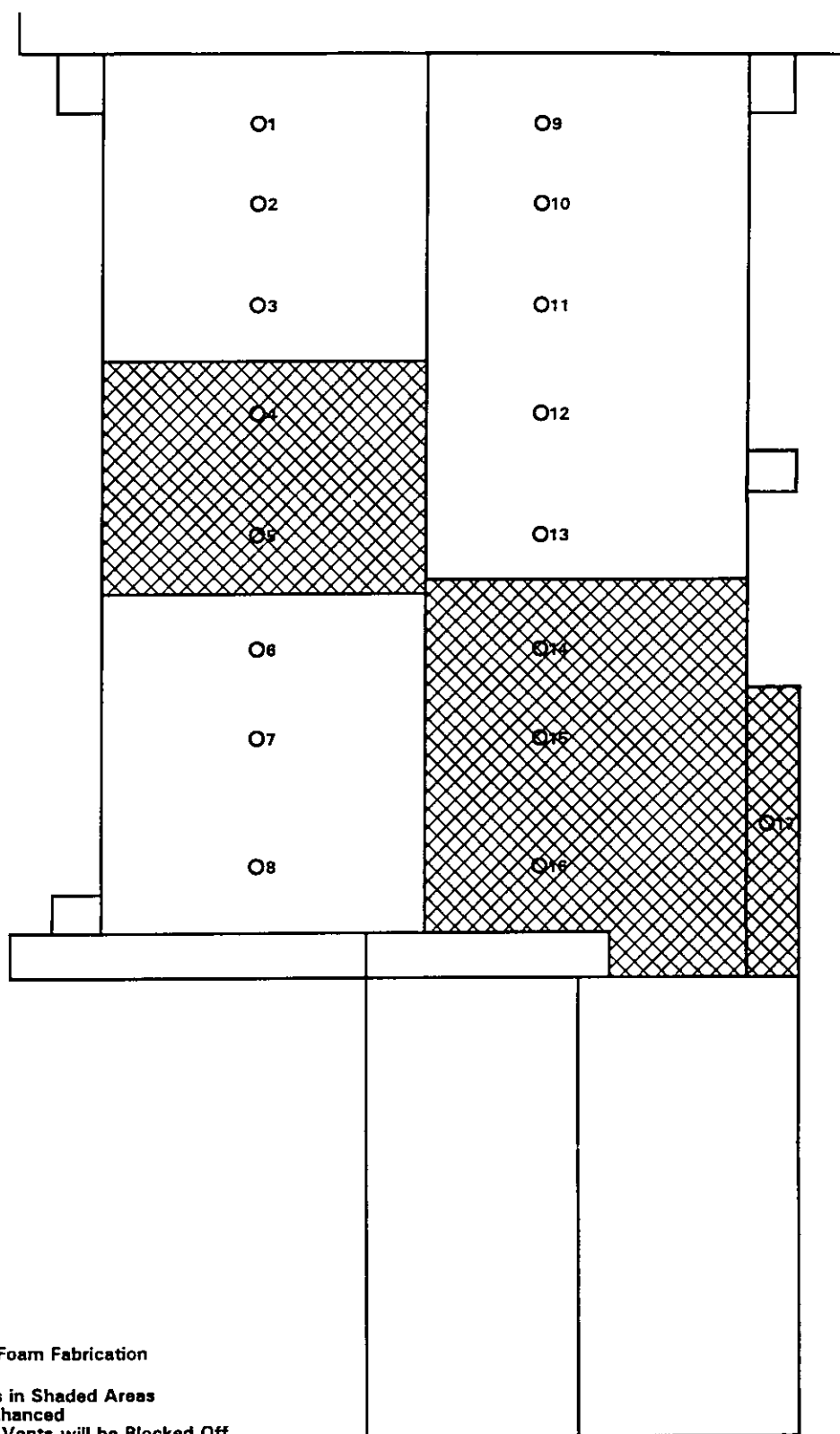
Foamex, L.P. is pursuing an ongoing effort to conduct periodic test pours using chemicals to reduce the amount of methylene chloride required as a blowing agent. Preliminary results have shown that methylene chloride may be reduced by as much as 50%, and acceptable product quality has been demonstrated using this approach for certain foam grades. Acceptable product quality has not yet been demonstrated for all foam grades, however research and development activity continues toward this objective.

In addition, Foamex is actively researching the use of Carbon Dioxide (CO<sub>2</sub>) as a blowing agent. Thus far, the prospects are encouraging.

### **4.0 Status of MACT Requirements**

Based on the current data available from USEPA's Bulletin Board System (BBS), the current anticipated date for issuance of the Draft MACT standard or NESHAP (National Emission Standard for Hazardous Air Pollutants) for Flexible Polyurethane Foam Manufacturing is February 1996. Promulgation of the final NESHAP for this source category is anticipated for January 1997.

HLA is maintaining an ongoing effort to track development of the Draft standard by USEPA. As the required control strategy or definition of MACT for this industry emerges, HLA will work with Foamex, L.P. to evaluate the requirements as they apply to the Orlando facility.



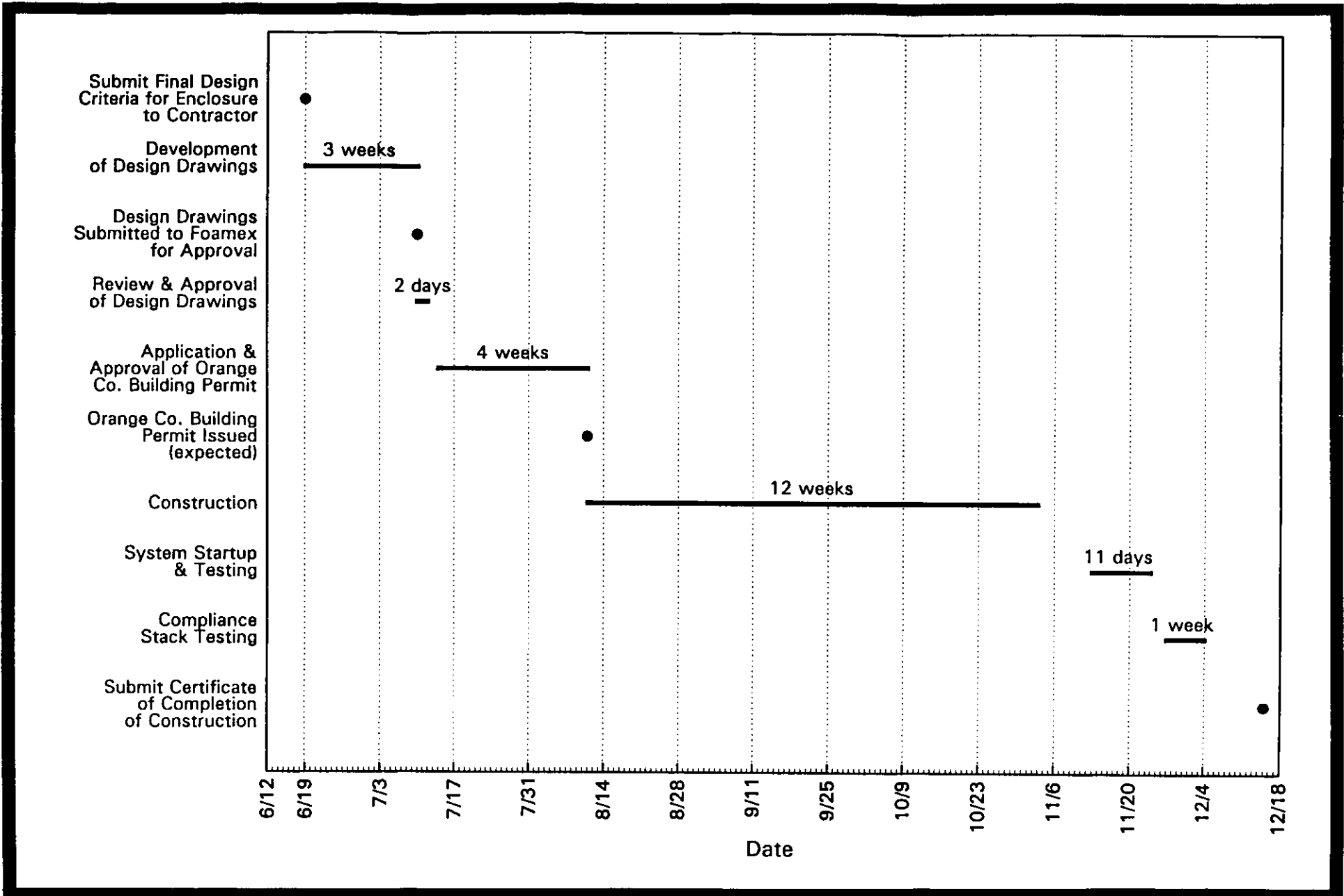
Foam Fabrication

Roof Vents in Shaded Areas  
 will be Enhanced  
 Remaining Vents will be Blocked Off



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**Figure 1. Roof Ventilation Plan AC48-214902**  
**Foamex, L.P. - Orlando, Florida**



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**Figure 2. Compliance Schedule FDEP Permit AC48-214902  
 Foamex, L.P. - Orlando, Florida**