FACSIMILE TRANSMISSION

To: Willard Hanks, FDEP

Fax Number: 904-922-6979

From: John Wolber

Date: May 6, 1996

Subject: Foamex Draft Permit Amendment

Project Number: 26005.F21.616

Number of pages (including this cover sheet): 4

Remarks:

Willard:

We have reviewed the draft permit amendment for Foamex and found a minor omission in Specific Condition No. 4. The requested increase in methylene chloride usage causes a small increase in the estimated houlry emissions from the Foam Fabrication Operations from 5.1 lb/hr to 5.32 lh/hr. This also increases the facility emissions from 2,222.43 lb/hr to 2.222.65 lb/hr. The draft permit amendment included the change in the hourly emissions from the foam fabrication operations but did not inlcude the change in facility hourly emissions. Since, this change does not affect the Public Notice of Intent to Issue Permit and we will go ahead and publish the notice. Please make the corrections to the final permit amendment, as is noted on the attached pages of the draft permit amendment.

Please call me or Kay Rykowski if you have questions.

Thanks,

JOHN

cc: Tom Burghardt, Foamex; Jack Wanat, Foamex; Kay Rykowski, HLA

Transmitted by: JMW

If you do not receive all pages, please call (407) 851-1484

Harding Lawson Associates
Engineering and Environmental Services
4763 South Conway
Orlando, Florida 32812 - (407) 851-1484

FAX (407) 855-0369

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DRAFT

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.

SPECIFIC CONDITION NO. 4

From:

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

AVERAGE EMISSIONS FROM FACILITY OPERATIONS:

Chemicals	Emissions lbs/hr	TPY
methylene chloride	2,222.43	261.03
1,1,1-trichloroethane	2.5	1.86
toluene diisocyanate	0.3746	0.424

MAXIMUM POTENTIAL EMISSIONS FROM INDIVIDUAL OPERATIONS ARE ESTIMATED TO BE:

	Operation/chemical	Emissions lbs/hr	TPY
I.	Slabstock Polyurethane Foam Production/toluene diisocyanate	0.37	0.404
II.	Foam Line Stack/ methylene chloride	1,400	153.93
III.	Long Bun Storage Room Stack/ methylene chloride	816.67	89.79
IV.	Foam Fabrication Operations/ methylene chloride	5.1	14.41
	1,1,1-trichloroethane	2.5	1.86
V.	Rebond Polyurethane Foam Production/ toluene diisocyanate	0.0046	0.02

DRAFT

VI.	Tank Storage (Tank No. 10) methylene chloride	0 .66	2.92
VII.	Steam Boiler	Trace amounts of the normal products of combustion (Less than 1 lb/hr of all pollutants)	
VIII.	Environmental Heating	Trace amounts of the normal products of combustion (less than 1 lb/hr of all pollutants)	

To:

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

AVERAGE EMISSIONS FROM FACILITY OPERATIONS:

Chemicals	Emissions lbs/hr	TPY
methylene chloride	2,222.~~43~~ 65 (Bold?)	280.13
1,1,1-trichloroethane	2.5	1.86
toluene diisocyanate	0.3746	0.424

MAXIMUM POTENTIAL EMISSIONS FROM INDIVIDUAL OPERATIONS ARE ESTIMATED TO BE:

	Operation/chemical	Emissions lbs/hr	TPY
I.	Slabstock Polyurethane Foam Production/toluene diisocyanate	0.37	0.404
II.	Foam Line Stack/ methylene chloride	1,400	165.36
III.	Long Bun Storage Room Stack/ methylene chloride	816.67	96.46
IV.	Foam Fabrication Operations/ methylene chloride	5.32 (Bold?)	15.39
	1,1,1-trichloroethane	2.5	1.86

V.	Rebond Polyurethane Foam Production/ toluene diisocyanate	0.0046	0.02
VI.	Tank Storage (Tank No. 10) methylene chloride	0.66	2.92
VII.	Steam Boiler	Trace amounts of the normal products of combustion (Less than 1 lb/hr of all pollutants)	
VIII.	Environmental Heating	Trace amounts of the normal products of combustion (less than 1 lb/hr of all pollutants)	

Specific Condition No. 8

From:

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 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.)

To:

The permittee shall comply with the application requirements in Rule 62-213.420, F.A.C., for Title V operation permits.

A copy of this letter shall be attached to permit No. AC 48-214902 and shall become a part of that permit.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION

Howard L. Rhodes, Director
Division of Air Resources
Management

0950225-002-AC **TRANSMITTAL**

To: Mr. Willard Hanks
Mr. C.H. Fancy, Jr.
FDEP - Tallahassee

From: Joe Tessitore
Kay Rykowski
HLA Orlando

Date: March 5, 1996

Subject: Foamex, Orlando Facility

Project Number: 26005.F21.816

Please find enclosed:

- A letter request for amendment to Permit AC48-214902 for the Foamex foam manufacturing facility in Orlando;
- Attachment A - Revised Pages to Volume I of the Original Permit Application (1 copy);
- Attachment B - Revised Pages to Volume II: Dispersion Modeling Analysis, of the Original Permit Application (1 copy)
- Attachment C - Output Listings from Revised Modeling (Appendixes D,E,F,I and J of Volume II of Original Permit Application) (1 copy)
- Check No. 487130 in the amount of $1000.00 for applicaton processing fee.

As we discussed during our meeting on February 22, this amendment is requested to allow an increase in production at the facility, in preparation for installation of a new manufacturing technology. The proposed increase in methylene chloride usage results in an increase in the maximum annual groundlevel concentration of approximately 10%, however this maximum concentration does not exceed the FDEP Acceptable Ambient Concentration.

If you have any questions regarding this submittal, please do not hesitate to contact Kay Rykowski or Joe Tessitore at (407) 851-1484.

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Attachments

cc: Doug Terrill, Foamex; Orlando, Florida
Tom Burghardt, Foamex; Linwood, Pennsylvania

cc: W. Hanks
CD
Orange Co

Harding Lawson Associates
Engineering and Environmental Services
4763 South Conway Road
Orlando, Florida 32812 - (407) 851-1484

Harding Lawson Associates

March 4, 1996

26005.F21.816

Mr. C. H. Fancy, P.E.
Chief
Bureau of Air Regulation
Florida Department of Environmental Protection
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Request for Permit Amendment
Foamex, L.P.
Permit No. AC48-214902

Dear Mr. Fancy:

INTRODUCTION

This letter is to request an amendment to Construction Permit AC48-214902, issued to Foamex, L.P. This letter presents a summary of the requested changes to Specific Conditions 1, 2, and 4 issued by FDEP. As discussed with you during our meeting on February 22, the requested changes include an increase in the annual methylene chloride usage and a modification to the enhanced exhaust system for the foam fabrication operations. This amendment is requested to allow Foamex to increase production at their Orlando facility in the short term, in preparation for future installation of an alternate manufacturing technology that will greatly reduce methylene chloride emissions.

As discussed in the following comments and supported by the attachments, the predicted maximum ground level concentration for methylene chloride and 1,1,1-trichloroethane do not exceed the FDEP Acceptable Ambient Air Concentrations (AAAC) as a result of the requested changes to Specific Conditions 1, 2, and 4.

COMMENT 1

Foamex requests a change to reduce the number of exhaust fans for the foam fabrication operations from seventeen exhaust fans to three exhaust fans. As discussed in Foamex's First and Second Progress Reports (June 30, 1995 and January 31, 1996, respectively), this change is requested to minimize energy consumption and capital and operating costs. The foam fabrication operations will be isolated to smaller areas, thereby reducing the number of exhaust fans required to exhaust the foam fabrication emissions to only three fans rather than seventeen as outlined in the original permit application. The fourteen existing roof exhaust fans which will not be used for the foam fabrication exhaust system will be blocked off. The three fans to be used for the foam fabrication operations exhaust system are source numbers 7, 12, and 19 as identified in the original permit application and in the attached supporting documentation.

The new exhaust fan configuration has the minimal effect on the dispersion modeling analysis of slightly concentrating the foam fabrication operations emissions to the area of the three exhaust fans

as opposed to these emission being spread out over the area of the seventeen fans as originally proposed. The dispersion modeling has been revised to account for the new exhaust fan configuration. This change only impacts the modeling results for methylene chloride and 1,1,1-trichloroethane, the only pollutants emitted from the foam fabrication exhaust fans. The results of the revised modeling analysis, presented below, show that the 8-hour and 24-hour maximum ground level concentrations for methylene chloride and 1,1,1-trichloroethane are below the applicable FDEP AAAC's. The annual methylene chloride ground level concentration will be discussed in Comment 2.

Compound	Averaging Time	Revised Maximum ISCST2 Ground Level Concentration ($\mu g/m^3$)	FDEP AAAC ($\mu g/m^3$)
Methylene Chloride	8-hour 24-hour	1,538.9 250.8	1,740 417.6
1,1,1-Trichloroethane	8-hour 24-hour	10.1 6.7	38,200 9,168

The revised pages, based on the requested changes, of Volume I and Volume II: Dispersion Modeling Analysis of the permit application along with the output listings from the revised modeling analysis are attached.

The requested change in Specific Condition 1 is given below.

From:

1. 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, 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.

To:

1. 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, each handling 30,000 acfm of air; three 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.

COMMENT 2

Foamex requests a change in the limits on the annual quantity of methylene chloride used at the facility stated in Specific Condition 2. An increase in the annual usage rate of methylene chloride from 513,090 lbs/yr (256.6 TPY) to 551,192 lbs/yr (275.6 TPY) is requested to maximize foam production without exceeding the FDEP annual AAAC for methylene chloride of 2.1 $\mu g/m^3$. The dispersion modeling analysis has been revised based on the requested increase in the annual methylene chloride usage limit and the requested change in the foam fabrication operations exhaust system as discussed in Comment 1. The requested annual increase only affects the annual average emission rates and does not affect the maximum hourly or daily emissions of methylene chloride. The results of the revised modeling analysis, presented below, show that the maximum annual ground level concentration for methylene chloride does not exceed the FDEP annual AAAC for methylene chloride.

Compound	Averaging Time	Revised Maximum ISCST2 Ground Level Concentration ($\mu g/m^3$)	FDEP AAAC ($\mu g/m^3$)
Methylene Chloride	Annual	2.09998	2.1

The revised pages, based on the requested change, of Volume I and Volume II: Dispersion Modeling Analysis of the permit application along with the output listings from the revised modeling analysis are attached.

The requested change in Specific Condition 2 is given below.

From:

2. The chemicals used at the facility shall not exceed the following quantities during any twelve 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: 20 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.

To:

2. The chemicals used at the facility shall not exceed the following quantities during any twelve month period: 551,192 lbs/yr (275.6 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: 20 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.

COMMENT 3

As a result of the requested increase in annual methylene chloride usage discussed in Comment 2 above, Foamex requests a modification of the estimated emissions stated in Specific Condition 4. The calculations supporting this change are provided in the attached revised pages of Volume I of the permit application. The requested change in Specific Condition 4 is given below.

From:

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

   AVERAGE EMISSIONS FROM FACILITY OPERATIONS:

Chemicals	Emissions lbs/hr	TPY
methylene chloride	2,222.43	261.03
1,1,1-trichloroethane	2.5	1.86
toluene diisocyanate	0.3746	0.424

MAXIMUM POTENTIAL EMISSIONS FROM INDIVIDUAL OPERATIONS ARE ESTIMATED TO BE:

	Operation/chemical	Emissions lbs/hr	TPY
I.	Slabstock Polyurethane Foam Production/ toluene diisocyanate	0.37	0.404
II.	Foam Line Stack/ methylene chloride	1,400	153.93
III.	Long Bun Storage Room Stack/ methylene chloride	816.67	89.79
IV.	Foam Fabrication Operations/ methylene chloride	5.1	14.41
	1,1,1-trichloroethane	2.5	1.86
V.	Rebond Polyurethane Foam Production/ toluene diisocyanate	0.0046	0.02
VI.	Tank Storage (Tank No. 10)/ methylene chloride	0.66	2.92
VII.	Steam Boiler	Trace amounts of the normal products of combustion (less than 1 lb/hr of all pollutants)	
VIII.	Environmental Heating	Trace amounts of the normal products of combustion (less than 1 lb/hr of all pollutants)	

To:

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

AVERAGE EMISSIONS FROM FACILITY OPERATIONS:

Chemicals	Emissions lbs/hr	TPY
methylene chloride	2,222.65	280.13
1,1,1-trichloroethane	2.5	1.86
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	Operation/chemical	Emissions lbs/hr	TPY
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VI.	Tank Storage (Tank No. 10)/ methylene chloride	0.66	2.92
VII.	Steam Boiler	Trace amounts of the normal products of combustion (less than 1 lb/hr of all pollutants)	
VIII.	Environmental Heating	Trace amounts of the normal products of combustion (less than 1 lb/hr of all pollutants)	

CLOSING

Should you require any additional information or have any questions regarding these issues please contact Kay Rykowski at (407)851-1484.

Yours very truly,

HARDING LAWSON ASSOCIATES

John Wolber
Project Scientist

Joseph L. Tessitore, P.E.
Managing Principal
State of Florida P.E. Registration Number 23374

JMW/JLT/jmw
26005W02.DOC/

Attachments:
A. Revised pages to Volume I of Original Permit Application
B. Revised pages to Volume II: Dispersion Modeling Analysis of Original Permit Application
C. Output Listings from Revised Modeling (Appendixes D, E, F, I, and J of Volume II of Original Permit Application)

cc: Mr. Doug Terrill, Foamex, L.P., Orlando, Florida
Mr. Tom Burghardt, Foamex, L.P., Linville, Pennsylvania

Attachment A

Revised Pages to Volume I of Original Permit Application

a conveyor. After exiting the tunnel the foam slab is cut into sections, referred to as buns. The buns continue down the conveyor and enter the Long Bun Storage Room. The foam continues to release methylene chloride as it travels down the conveyor to the Long Bun Storage Room. The buns are then removed from the conveyor and placed in the room for temporary storage during completion of a twelve hour cure period, continuing to release methylene chloride at a diminishing rate.

Currently, the Slabstock process is equipped with an exhaust system and tunnel which covers part of the mixing head, trough and conveyor line to vent the emissions which occur during the initial stages of the process. This system maintains a negative pressure along the covered portion of the process and vents the methylene chloride emissions to the atmosphere through an existing stack. Emissions of methylene chloride which occur outside of the foam line tunnel, inside the Long Bun Storage Room and in isolated areas of the facility during foam fabrication operations, are currently released into the interior of the facility and discharged to the atmosphere through general ventilation fans (50,000 CFM each) located in the ceiling throughout the facility.

The proposed enhanced collection system requires the complete enclosure of the mixing head, trough, and conveyor line in a tunnel. The foam line enclosure will extend from the mixing head to the Long Bun Storage Room. The system will be designed to maintain negative pressure within the foam line enclosure. The foam line enclosure exhaust will be vented to the atmosphere by a 30,000 CFM exhaust fan, or combination of fans totaling 30,000 CFM, via an exhaust stack with a height of 125 feet above ground level. In addition to the foam line enclosure, the proposed enhanced collection system requires the Long Bun Storage Room to be maintained under negative pressure and the exhaust vented to the atmosphere by a 30,000 CFM exhaust fan, or combination of fans totaling 30,000 CFM, via an exhaust stack with a height of 125 feet above ground level. As part the proposed system, the existing ceiling exhaust fans in the Long Bun Storage Room will not be operational. Emissions from foam fabrication operations, which do not occur within the foam line enclosure or Long Bun Storage Room, will be vented to the atmosphere through three 50,000 CFM general exhaust fans located in the ceiling in the areas of the facility isolated for foam fabrication operations. To provide enhanced dispersion, these three exhaust fans will be fitted with extensions to increase the their stack heights to 53 feet above ground level. As part of the proposed system the remaining fourteen ceiling exhaust fans not used as part of the foam fabrication operations exhaust system will not be operational.

Based on industry and product information, it is assumed for this permit application, that 60% of the methylene chloride is released from the foam in the foam line enclosure before it reaches the Long Bun Storage Room and 35% is released during the twelve hour cure period in the Long Bun Storage Room. The remaining 5% of the methylene chloride is released during subsequent foam fabrication and processing operations throughout the rest of the facility before shipment of the final product. Also, all TDI emissions associated with the Slabstock production occur within the foam line enclosure and are emitted to the atmosphere via the foam line stack.

2.2.2 Rebond Polyurethane Foam Production

In the Rebond process, scrap polyurethane foam, either purchased or recovered from the slabstock manufacturing process, is granulated into small pieces approximately 3/4 to one inch in size. This granulated foam is stored by grade, density, and/or by composition in large storage bins. The scrap pieces of polyurethane foam are mixed with an adhesive binder in a blend tank. The binder is a mixture of TDI and polyol. The mixture of scrap foam and binder is then transferred from the blend tank to the mold where it is

compressed under an air cylinder to a designated size. The product is steamed from the bottom of the mold, which cures the foam . The resulting cylinder of foam is referred to as a log. The foam log is then peeled into a continuous sheet with a thickness of 1/4 to 3/4 inch, per customer specifications. The foam sheet product is then bonded to a polyethylene film. Finally the foam sheet product is cut to length and packaged into rolls, per customer order.

The TDI emissions from the Rebond process are currently vented to the atmosphere through two identical 1,000 CFM exhaust fans located in the ceiling directly above the process. These two exhaust fans will be increased in size to 15,000 CFM each and will be fitted with extensions to increase the their stack heights to 53 feet above ground level.

2.2.3 Tank Storage

The Foamex facility includes eleven above ground storage tanks for receiving and holding of the various raw materials used in the foam production processes. Table 3.3 provides a summary of the tanks, dimensions and products stored. Only one tank, Tank 10, is used for storage of methylene chloride. Foamex proposes to install a pressure relief valve on Tank 10 to minimize standing losses of methylene chloride. No physical or operational changes to the remaining storage tanks are proposed.

2.2.4 Steam Boiler

Foamex operates a natural gas fired industrial boiler rated at 100 HP. This boiler is used to convert an average of 1,570 gallons of water to steam each day for use in the Rebond process. No changes to the operation of the steam boiler are proposed.

2.2.5 Environmental Heating

There are thirteen indirect natural gas fired heaters existing at the Foamex facility. Of these, nine are used as needed during the winter months for heating the manufacturing and administrative areas of the facility. It is estimated that these heaters operate less than 400 hours per year. The remaining four heaters are not operational. Table 3.4 provides a listing of the individual heaters and the rated capacity of each heater.

2.2.6 Foam Fabrication Operations

During foam fabrication operations, the foam buns manufactured during the Slabstock process are cut to size, assembled, and glued according to customer specifications. The fabrication operations take place only in those areas of the facility isolated for foam fabrication operations. Approximately 3.1 lbs/hr of glue is used during these operations. Foamex primarily uses methylene chloride based glue in the foam fabrication operations, but may also occasionally use 1,1,1-trichloroethane based glue. The methylene chloride based glue has a maximum methylene chloride content of 70% by weight. The 1,1,1-trichloroethane based glue has a maximum concentration of 1,1,1-trichloroethane of 81% by weight. The emissions from the gluing process are vented to the atmosphere through the three ceiling exhaust fans located in the areas isolated for foam fabrication operations, which will be modified as part of the proposed enhanced collection and dispersion system as described in Section 2.2.1.

2.3 Requested Permitted Operating Time

For the processes and supporting operations discussed above, the requested hours of operation in the permit application are as follows:

- Slabstock Polyurethane Foam Production: 6 hrs/day; 7 days/wk; 52 wks/yr;
- Rebond Polyurethane Foam Production: 24 hrs/day, 7 days/wk, 52 wks/yr;
- Tank Storage: 24 hrs/day, 7 days/wk, 52 wks/yr;
- Steam Boiler: 24 hrs/day, 7 days/wk, 52 wks/yr;
- Environmental Heating: 400 hrs/yr; and
- Foam Fabrication Operations: 24 hrs/day, 7 days/wk, 52 wks/yr.

Table 2.1. Summary of Emission Sources
Foamex, L.P. - Orlando, Florida

Process Emission Source	Emission Point Number	Description
Slabstock Polyurethane Foam Production	1	Foam Line Stack
Slabstock Polyurethane Foam Production	2	Long Bun Storage Room Stack
Not operational as part of enhanced exhaust system	3	Exhaust Fan
Not operational as part of enhanced exhaust system	4	Exhaust Fan
Not operational as part of enhanced exhaust system	5	Exhaust Fan
Not operational as part of enhanced exhaust system	6	Exhaust Fan
Slabstock Foam Production/Foam Fabrication Operations	7	Exhaust Fan
Not operational as part of enhanced exhaust system	8	Exhaust Fan
Not operational as part of enhanced exhaust system	9	Exhaust Fan
Not operational as part of enhanced exhaust system	10	Exhaust Fan
Not operational as part of enhanced exhaust system	11	Exhaust Fan
Slabstock Foam Production/Foam Fabrication Operations	12	Exhaust Fan
Not operational as part of enhanced exhaust system	13	Exhaust Fan
Not operational as part of enhanced exhaust system	14	Exhaust Fan
Not operational as part of enhanced exhaust system	15	Exhaust Fan
Not operational as part of enhanced exhaust system	16	Exhaust Fan
Not operational as part of enhanced exhaust system	17	Exhaust Fan
Not operational as part of enhanced exhaust system	18	Exhaust Fan
Slabstock Foam Production/Foam Fabrication Operations	19	Exhaust Fan
Rebond Polyurethane Foam Production	20	Rebond Exhaust Fan
Rebond Polyurethane Foam Production	21	Rebond Exhaust Fan
Tank Storage	22	Tank #10
Steam Boiler	23	Boiler Stack
Environmental Heating	24	Natural Gas Heaters

To calculate the maximum hourly usage rate of methylene chloride it is necessary to define the "worst case" maximum daily usage of methylene chloride. The "worst case" maximum daily methylene chloride usage is 14,000 lb/day.

The maximum hourly usage rate of methylene chloride is then calculated as follows:

Maximum hourly usage = 14,000 lb/day ÷ 6 hr/day = 2,333.33 lb/hr

The maximum annual usage of methylene chloride at the facility will be limited to 551,192 lbs/yr.

3.1.2 Rebond Polyurethane Foam Production

A summary of the typical material input and production rates for the Rebond process are provided in Table 3.2.

Table 3.2. Rebond Polyurethane Foam Production Process Rates
Foamex, L.P. - Orlando, Florida

Substance	Process Input Rate (lbs/hr)	Production Rate (lbs/hr)
Raw Materials:		
Scrap Foam	5,608	0
Polyol	459	0
TDI	164	0
Product:		
Rebond Foam Product	0	6,231

3.1.3 Tank Storage

As stated previously in Section 2.2.3 of this application, the Foamex facility includes eleven above ground storage tanks. The current estimated maximum annual material throughput for each tank is shown in Table 3.3 below.

Table 3.3. Tanks Storage Process Rates
Foamex, L.P. - Orlando, Florida

Tank Number	Product	Height (feet)	Diameter (feet)	Throughput (lbs/yr)
1	Polyol	35	12	Note 1
2	Polyol	35	12	Note 1
3	TDI	35	12	Note 2
4	Polyol	35	12	Note 1
5	Polyol	35	12	Note 1
6	TDI	35	12	Note 2
7	Empty	16	10.5	0
8	Polymer	16	10.5	1,000,000
9	Empty	35	12	0
10	Methylene Chloride	37 (long)	7	551,192
11	Empty	30 (long)	7	0

Note 1: Total Polyol Throughput = 15,000,000 lbs/yr
Note 2: Total TDI Throughput = 10,000,000 lbs/yr

3.1.4 Steam Boiler

The industrial boiler used for steam production is rated at 100 hp and is fired by natural gas. The boiler is used to convert an average of 1,570 gallons of water to steam each day for the Rebond process. The maximum heat input for the boiler is 4.2 mmBtu/hr with a maximum natural gas consumption rate of 4,200 cf/hr. The maximum operating schedule for the boiler is 8760 hrs/yr.

3.1.5 Environmental Heating

There are thirteen indirect natural gas fired heaters at the Foamex facility. Of these, nine are used as needed during the winter months for heating the manufacturing and administrative areas of the facility. It is estimated that these heaters operate less than 400 hours per year. The total maximum heat input for the heaters is 1.85 mmBtu/hr, with a maximum natural gas usage rate of 1850 cf/hr. On an average basis, the natural gas usage rate is 200 cf/hr. Table 3.4 provides a listing of the individual heaters and heat input rates.

Table 3.4. Indirect Fired Heaters Process Rates
Foamex, L.P. - Orlando, Florida

Heater Number	Manufacturer	Model Number	Operational?	Maximum Heat Input (Btu/hr)
1	Bryant	200-341	Yes	200,000
2	Bryant	200-341	No	200,000
3	Hastings	GF200XE	Yes	200,000
4	Hastings	GF200XE	No	200,000
5	Hastings	GF200XE	Yes	200,000
6	Hastings	GF200XE	Yes	200,000
7	Hastings	GF200XE	Yes	200,000
8	Hastings	GF200XE	Yes	200,000
9	Hastings	GF200XE	Yes	200,000
10	Hastings	GF200XE	Yes	200,000
11	Bryant	200-341	No	200,000
12	Bryant	200-341	No	200,000
13	Peereless	1067	Yes	250,000
TOTAL (operational heaters only)				1,850,000

3.1.6 Foam Fabrication Operations

During Foam Fabrication Operations, the foam buns manufactured during the Slabstock process are cut and glued according to customer specifications. Approximately 3.1 lbs/hr of glue is used during these operations. The maximum annual usage rate of glue at the facility is 4,600 lb/yr, or 2.3 tons/yr.

3.2 Emissions Calculations

3.2.1 Slabstock Polyurethane Foam Production

3.2.1.1 Methylene Chloride

As stated in Section 3.1.1 of this application, methylene chloride represents the only significant emissions associated with this process. Currently, it is the only blowing agent used. In this process, all of the blowing agent used is emitted to the atmosphere and does not end up in the foam product. Based on industry and product information, it is assumed for this permit application, that 60% of the methylene chloride is released from the foam in the foam line enclosure before it reaches the Long Bun Storage Room and 35% is released during the twelve hour cure period in the Long Bun Storage Room. The remaining 5% of the methylene chloride is released during subsequent foam fabrication operations prior to shipment of the final product. The total uncontrolled process emissions of methylene chloride on an annual basis can, therefore, be estimated directly from the annual methylene chloride usage rate in Section 3.1.1.

Maximum annual methylene chloride usage = 551,192 lbs/yr

Maximum annual methylene chloride emissions = 551,192 lbs/yr ÷ 2,000 lbs/ton
= 275.6 tons/yr

The values shown above represent the total methylene chloride emissions from the slabstock foam production process. However, these emissions are distributed between each of the two stacks serving the process, the Foam Line Stack and the Long Bun Storage Room Stack, and the three exhaust ceiling exhaust fans serving the Foam Fabrication Operations area. Both short term and long term emission rates must be calculated for the Foam Line Stack and Long Bun Storage Room Stack. Emissions calculations for the Foam Fabrication Operations are included under that heading in Section 3.2.6. Long term or annual emissions from the Foam Line and Long Bun Storage Room can be calculated by multiplying the distribution factors for each (60% and 35%, respectively) by the total maximum annual emissions specified above.

Foam Line Stack:

Maximum annual methylene chloride emissions = 551,192 lbs/yr x 0.60
= 330,715.2 lb/yr

Maximum annual methylene chloride emissions = 330,715.2 lbs/yr ÷ 2,000 lbs/ton
= 165.36 tons/yr

Long Bun Storage Room Stack:

Maximum annual methylene chloride emissions = 551,192 lbs/yr x 0.35
= 192,916.85 lb/yr

Maximum annual methylene chloride emissions = 192,916.85 lbs/yr ÷ 2,000 lbs/ton
= 96.46 tons/yr

The first step in developing an estimate of the maximum hourly emission rate for the Foam Line and Long Bun Storage Room is to define the "worst case" maximum daily methylene chloride usage. For this purpose, the "worst case" daily usage of methylene chloride, as defined in Section 3.1.1 of this application, is 14,000 lbs/day over six hours of operation (2,333.33 lb/hr). Assuming that 60% of this quantity is released during the pour period in the foam line enclosure as the foam travels along the process line conveyor before it reaches the Long Bun Storage Room, the Foam Line Stack emits a total of 8,400 pounds of methylene chloride over the six hour pour period. As the buns enter the Long Bun Storage Room, the remaining methylene chloride which is contained in the foam material begins to be released. Assuming that 35% of the methylene chloride used during the pour is released in the Long Bun Storage Room during the cure period, a total of 4,900 pounds of methylene chloride is emitted from the Long Bun Storage Room Stack. The 5% (700 pounds) of the methylene chloride remaining after the cure period in the foam product after it is removed from the Long Bun Storage Room is emitted during the foam fabrication operations through the three ceiling exhaust fans located in the foam fabrication areas.

As stated previously, the Long Bun Storage Room emissions decay at an exponential rate over the foam cure period. Appendix A provides a detailed analysis of the actual emission rate profile for the Long Bun Storage Room. However, for emission calculation purposes, a more simple approach representing a worst case scenario is used. This approach ignores the decay profile and the foam cure period and instead assumes that the total quantity of emissions is released at a steady rate during the pour period only. Because the length of the pour period is shorter than the cure period, the resulting maximum short term emission rate is higher. Thus, this approach represents a worst case scenario. The following provides a simple summary of this mass balance.

Maximum methylene chloride usage	= 14,000 lbs
Maximum Foam Line Stack methylene chloride emissions	= 8,400 lbs
Maximum Long Bun Storage Room Stack methylene chloride emissions	= 4,900 lbs
Maximum methylene chloride emissions from three exhaust fans	= 700 lbs
Maximum Total methylene chloride emissions	= 14,000 lbs

Using the worst case assumption that the total emissions for both the Foam Line Stack and Long Bun Storage Room Stack occur during the six hour pour period, the maximum hourly emission rates are calculated as follows:

Foam Line Stack:

Maximum hourly methylene chloride emissions	= 8,400 lbs ÷ 6 hrs = 1,400 lb/hr

Long Bun Storage Room Stack:

Maximum hourly methylene chloride emissions	= 4,900 lbs ÷ 6 hrs = 816.67 lb/hr

As stated above, emissions from the three exhaust fans during foam fabrication operations are included under the heading Foam Fabrication Operations in Section 3.2.6.

3.2.1.2 Toluene Diisocyanate

As stated above, the Slabstock process involves the mixture of various process chemicals along with an auxiliary blowing agent to produce polyurethane foam. The calculations presented above provide an estimate of the emissions of the auxiliary blowing agent, methylene chloride. All of the methylene chloride used is volatilized and thus emitted from the process. The remaining process chemicals listed in the mass balance, shown in Section 3.1.1, combine to form the foam product. In 1991, Foamex conducted a stack test for emissions of methylene chloride and toluene diisocyanate (TDI). The test results, included in Appendix B, revealed that a small quantity of TDI is emitted from the process. Table 3.5 provides a summary of the test results.

version 1.0, which is based on the calculation procedures specified in AP-42 section 12. The calculations were conducted based on the maximum annual methylene chloride throughput for the facility of 551,192 lb/yr. The calculations represented in Appendix C were conducted based on the existing tank design, which includes a breather vent with no pressure setting. Thus breathing losses, also referred to as standing losses, are not limited in any way. The following provides a summary of the results of the calculations. However Foamex proposes to install a pressure relief vent for this tank such that standing losses would be minimized.

Total standing losses	=	4992.73 lbs/yr
Total working losses	=	844.16 lbs/yr
Maximum annual emissions	=	(4992.73 lbs/yr) + (844.16 lbs/yr)
	=	5836.89 lbs/yr
	=	(5836.89 lbs/yr) ÷ (2000 lbs/ton)
	=	2.9 tons/yr
Annual average emission rate	=	(5836.89 lbs/yr) ÷ (8760 hrs/yr)
	=	0.66 lbs/hr

3.2.4 Steam Boiler

Emissions from the Steam Boiler are generated through natural gas combustion. Appendix D provides calculations of the fuel combustion emissions based on the procedures specified in AP-42 section 1.4. A copy of this AP-42 section is also included in Appendix D. Table 3.6 provides a summary of the results of these calculations.

Table 3.6. Steam Boiler Emission Rates
Foamex, L.P. - Orlando, Florida

Compound	Maximum Hourly Emission Rate (lbs/hr)	Maximum Annual Emissions (tons/yr)
Particulate	0.021	0.092
Sulfur dioxide	0.0025	0.011
Nitrogen oxide	0.59	2.58
Carbon monoxide	0.147	0.64
Total hydrocarbons	0.013	0.055

3.2.5 Environmental Heating

Emissions from Environmental Heating are generated through natural gas combustion. Appendix E provides calculations of the fuel combustion emissions based on the procedures specified in AP-42 section 1.4. A copy of this AP-42 section is also included in Appendix D. Table 3.7 provides a summary of the results of these calculations.

Table 3.7. Environmental Heating Emission Rates
Foamex, L.P. - Orlando, Florida

Compound	Maximum Hourly Emission Rate (lbs/hr)	Maximum Annual Emissions (tons/yr)
Particulate	0.00925	0.00185
Sulfur dioxide	0.00111	0.000222
Nitrogen oxide	0.259	0.0518
Carbon monoxide	0.06475	0.01295
Total hydrocarbons	0.00555	0.00111

3.2.6 Foam Fabrication Operations

3.2.6.1 Methylene Chloride

As stated above, after the foam bun cure period ends 5% of the total methylene chloride used is still retained in the foam buns. This quantity is not released until the buns leave the Long Bun Storage Room and are cut or processed during Foam Fabrication operations. This remaining 5% is emitted from the foam into the areas isolated for foam fabrication operations and discharged to the atmosphere through the three ceiling exhaust fans located in these areas. Further, since an inventory of foam product is always present in the foam fabrication areas, these emissions are released at a constant rate throughout the year. The maximum annual emissions and maximum hourly emission rates for these emissions from the three foam fabrication operations exhaust fans are calculated as follows.

Maximum annual emissions = 551,192 lbs/yr x 0.05
= 27,559.6 lbs/yr
= 13.78 tons/yr

Maximum hourly emissions = 27,559.6 lbs/yr ÷ 8,760 hr/yr
= 3.15 lb/hr

In the gluing process Foamex uses a methylene chloride based glue, therefore, methylene chloride emissions must be calculated for the gluing process. In section 3.1.6, the annual and hourly usage rates of glue used in these operations are presented. Based on the Material Safety Data Sheet (MSDS) for this glue, the maximum methylene chloride content of the glue is 70% by weight. Copies of relevant MSDS are provided in Appendix F. Using the glue usage rates of 3.1 lbs/hr and 4,600 lb/yr the methylene chloride emissions are calculated as follows:

Maximum hourly emissions = 3.1 lbs/hr x 0.70
= 2.17 lbs/hr

Maximum annual emissions = 4,600 lbs/yr x 0.70 ÷ 2,000 lbs/ton
= 1.61 tons/yr

The total methylene chloride emissions from the foam fabrication operations are calculated as follows:

Maximum hourly emissions = 3.15 lb/hr + 2.17 lbs/hr

	=	5.32 lbs/hr
Maximum annual emissions	=	13.78 tons/yr + 1.61 tons/yr
	=	15.39 tons/yr

3.2.6.2 1,1,1-Trichloroethane

In the gluing process Foamex may also use a 1,1,1-trichloroethane based glue, therefore, 1,1,1-trichloroethane emissions must be calculated for the gluing process. In section 3.1.6, the annual and hourly usage rates of glue used in these operations are presented. Based on the Material Safety Data Sheet (MSDS) for this glue, the maximum 1,1,1-trichloroethane content of the glue is 81% by weight. Copies of relevant MSDS are provided in Appendix F. Using the glue usage rates of 3.1 lbs/hr and 4,600 lb/yr the 1,1,1-trichloroethane emissions are calculated as follows:

Maximum hourly emissions	=	3.1 lbs/hr x 0.81
	=	2.5 lbs/hr
Maximum annual emissions	=	4,600 lbs/yr x 0.81 ÷ 2,000 lbs/ton
	=	1.86 tons/yr

3.2.7 Emissions Summary

A summary of the maximum hourly and annual emission rates for each process is provided in Table 3.8. Emission rates calculated on an 8-hour average and 24-hour average are also provided in Volume II of this application, the Dispersion Modeling Analysis, which is submitted under separate cover.

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

Contaminant	Emission Source	Emissions[1] Maximum (lbs/hr)	Emissions[1] Actual (T/yr)	Allowed[2] Emission Rate per Rule 17-2	Allowable[3] Emissions (lbs/hr)	Potential[4] Emissions (lbs/hr)	Potential[4] Emissions (T/yr)
Methylene Chloride	Slabstock Process	2216.67	261.82	N/A	N/A	2216.67	261.82
	Tank Storage	0.66	2.92	N/A	N/A	0.66	2.92
	Foam Fabrication	5.32	15.39	N/A	N/A	5.32	15.39
	Subtotal	2222.65	280.13	N/A	N/A	2222.65	280.13
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	0.404	N/A	N/A	0.37	0.404
	Rebond Process	0.0046	0.02	N/A	N/A	0.0046	0.02
	Subtotal	0.3746	0.424	N/A	N/A	0.3746	0.424
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 17-2.6000(5)(b)2. Table II, E. (1) - 0.1 pounds per million BTU heat input).
3. Calculated from operating data and applicable standard.
4. Emission, if source operated without control (See Section V, Item 3).

3.3 Emission Stack Data

Table 3.9 provides a summary of the geometry and flow characteristics for each stack located at the Foamex, L.P. facility.

Table 3.9. Stack and Exhaust Fan Stack Parameters
Foamex, L.P. - Orlando, Florida

Source Number	Description	Stack Height[a] Above Ground Level (feet)	Stack Inside Diameter (inches)	Stack Gas Flow Rate (ACFM)	Stack Gas Exit Temp. (°F)	Stack Gas Exit Velocity (ft/sec)	Water Vapor Content
1	Foam Line Stack	125	33.75	30,000	80	80.481	Ambient
2	Long Bun Storage Room Stack	125	33.75	30,000	80	80.481	Ambient
3	Exhaust Fan	Not operational as part of enhanced exhaust system					
4	Exhaust Fan	Not operational as part of enhanced exhaust system					
5	Exhaust Fan	Not operational as part of enhanced exhaust system					
6	Exhaust Fan	Not operational as part of enhanced exhaust system					
7	Exhaust Fan	53	43.5	50,000	80	80.744	Ambient
8	Exhaust Fan	Not operational as part of enhanced exhaust system					
9	Exhaust Fan	Not operational as part of enhanced exhaust system					
10	Exhaust Fan	Not operational as part of enhanced exhaust system					
11	Exhaust Fan	Not operational as part of enhanced exhaust system					
12	Exhaust Fan	53	43.5	50,000	80	80.744	Ambient
13	Exhaust Fan	Not operational as part of enhanced exhaust system					
14	Exhaust Fan	Not operational as part of enhanced exhaust system					
15	Exhaust Fan	Not operational as part of enhanced exhaust system					
16	Exhaust Fan	Not operational as part of enhanced exhaust system					
17	Exhaust Fan	Not operational as part of enhanced exhaust system					
18	Exhaust Fan	Not operational as part of enhanced exhaust system					
19	Exhaust Fan	53	43.5	50,000	80	80.744	Ambient
20	Rebond Exhaust Fan	53	24	15,000	80	79.577	Ambient
21	Rebond Exhaust Fan	53	24	15,000	80	79.577	Ambient

a. Elevation of top of stack above ground level. Stack base elevation = 0 feet.

Attachment B

Revised Pages to Volume II: Dispersion Modeling Analysis of Original Permit Application

2.0 PROJECT DESCRIPTION

Two basic processes are used at the Foamex facility to manufacture polyurethane foam product: Slabstock Polyurethane Foam Production and Rebond Polyurethane Foam Production. These processes are used to manufacture foam products of various density, color and thickness. While the basic processes remain the same, the proportions of raw materials are modified slightly for each batch to achieve the desired product specifications. In addition to the two manufacturing processes, support operations at the facility include tank storage of process chemicals, steam boiler operation, environmental heating, and foam fabrication operations.

2.1 Slabstock Polyurethane Foam Production

In the Slabstock process, a high pressure mixing head and metering pumps are used to mix the specific raw materials required for each product. These raw materials include toluene diisocyanate (TDI), polyol, water, catalysts, surfactants, additives (such as pigments or flame retardants), and methylene chloride, an auxiliary blowing agent. The mixed raw materials are discharged into a trough where the mixture begins to react and flows down a tunnel area. Heat generated by the exothermic reaction volatilizes the methylene chloride thus allowing the foam to reach a predetermined density. The foam begins releasing methylene chloride at this point. The methylene chloride serves to reduce the foam density, or soften it, and to provide cooling of the mixture as it discharges energy during the exothermic reaction. The foam slab travels through the tunnel via a conveyor. After exiting the tunnel the foam slab is cut into sections, referred to as buns. The buns continue down the conveyor and enter the Long Bun Storage Room. The foam continues to release methylene chloride as it travels down the conveyor to the Long Bun Storage Room. The buns are then removed from the conveyor and placed in the room for temporary storage during completion of a twelve hour cure period, continuing to release methylene chloride at a diminishing rate.

Currently, the Slabstock process is equipped with an exhaust system and tunnel which covers part of the mixing head, trough and conveyor line to vent the emissions which occur during the initial stages of the process. This system maintains a negative pressure along the covered portion of the process and vents the methylene chloride emissions to the atmosphere through an existing stack. Emissions of methylene chloride which occur outside of the foam line tunnel, inside the Long Bun Storage Room and in isolated areas of the facility during foam fabrication operations, are currently released into the interior of the facility and discharged to the atmosphere through general ventilation fans (50,000 CFM each) located in the ceiling throughout the facility.

The proposed enhanced collection system requires the complete enclosure of the mixing head, trough, and conveyor line in a tunnel. The foam line enclosure will extend from the mixing head to the Long Bun Storage Room. The system will be designed to maintain negative pressure within the foam line enclosure. The foam line enclosure exhaust will be vented to the atmosphere by a 30,000 CFM exhaust fan, or combination of fans totaling 30,000 CFM, via an exhaust stack with a height of 125 feet above ground level. In addition to the foam line enclosure, the proposed enhanced collection system requires the Long Bun Storage Room to be maintained under negative pressure and the exhaust vented to the atmosphere by a 30,000 CFM exhaust fan, or combination of fans totaling 30,000 CFM, via an exhaust stack with a height of 125 feet above ground level. As part the proposed system, the existing ceiling exhaust fans in the Long Bun Storage Room will not be operational. Emissions from foam fabrication operations, which do not occur within the foam line enclosure or Long Bun Storage Room, will be vented to the atmosphere through three

50,000 CFM general exhaust fans located in the ceiling in the areas of the facility isolated for foam fabrication operations. To provide enhanced dispersion, these three exhaust fans will be fitted with extensions to increase the their stack heights to 53 feet above ground level. As part of the proposed system the remaining fourteen ceiling exhaust fans not used as part of the foam fabrication operations exhaust system will not be operational.

Based on industry and product information, it is assumed for this analysis and the permit application, that 60% of the methylene chloride is released from the foam in the foam line enclosure before it reaches the Long Bun Storage Room and 35% is released during the twelve hour cure period in the Long Bun Storage Room. The remaining 5% of the methylene chloride is released during subsequent foam fabrication operations prior to shipment of the final product. Also, all TDI emissions associated with the Slabstock production occur within the foam line enclosure and are emitted to the atmosphere via the foam line stack.

2.2 Rebond Polyurethane Foam Production

In the Rebond process, scrap polyurethane foam, either purchased or recovered from the slabstock manufacturing process, is granulated into small pieces approximately 3/4 to one inch in size. This granulated foam is stored by grade, density, and/or by composition in large storage bins. The scrap pieces of polyurethane foam are mixed with an adhesive binder in a blend tank. The binder is a mixture of TDI and polyol. The mixture of scrap foam and binder is then transferred from the blend tank to the mold where it is compressed under an air cylinder to a designated size. The product is steamed from the bottom of the mold, which cures the foam . The resulting cylinder of foam is referred to as a log. The foam log is then peeled into a continuous sheet with a thickness of 1/4 to 3/4 inch, per customer specifications. The foam sheet product is then bonded to a polyethylene film. Finally the foam sheet product is cut to length and packaged into rolls, per customer order.

The TDI emissions from the Rebond process are currently vented to the atmosphere through two identical 1,000 CFM exhaust fans located in the ceiling directly above the process. These two exhaust fans will be increased in size to 15,000 CFM each and will be fitted with extensions to increase the their stack heights to 53 feet above ground level.

2.3 Tank Storage

The Foamex facility includes eleven above ground storage tanks for receiving and holding of the various raw materials used in the foam production processes. Table 1 provides a summary of the tanks, dimensions and products stored. Only one tank, Tank 10, is used for storage of methylene chloride. Methylene chloride emissions from Tank 10 were calculated using EPA's Storage Tank Emissions Calculation program, TANKS version 1.0, and are presented in the permit application. Foamex proposes to install a pressure relief valve on Tank 10 to minimize standing losses of methylene chloride. No physical or operational changes to the remaining storage tanks are proposed. Based on previous submittals to FDEP, methylene chloride emissions from Tank 10 are not addressed in this dispersion modeling analysis.

2.4 Steam Boiler

Foamex operates a natural gas fired industrial boiler rated at 100 HP. This boiler is used to convert an average of 1,570 gallons of water to steam each day for use in the Rebond process. No changes to the

operation of the steam boiler are proposed. Emissions from the steam boiler are not addressed in this dispersion modeling analysis.

2.5 Environmental Heating

There are thirteen indirect natural gas fired heaters existing at the Foamex facility. Of these, nine are used as needed during the winter months for heating the manufacturing and administrative areas of the facility. It is estimated that these heaters operate less than 400 hours per year. The remaining four heaters are not operational. Table 2 provides a listing of the individual heaters and the rated capacity of each heater. Emissions from the heaters are not addressed in this dispersion modeling analysis.

2.6 Foam Fabrication Operations

During foam fabrication operations, the foam buns manufactured during the Slabstock process are cut to size, assembled, and glued according to customer specifications. The fabrication operations take place only in those areas of the facility isolated for foam fabrication operations. Approximately 3.1 lbs/hr of glue is used during these operations. Foamex primarily uses methylene chloride based glue in the foam fabrication operations, but may also occasionally use 1,1,1-trichloroethane based glue. The methylene chloride based glue has a maximum methylene chloride content of 70% by weight. The 1,1,1-trichloroethane based glue has a maximum concentration of 1,1,1-trichloroethane of 81% by weight. The emissions of methylene chloride and 1,1,1-trichloroethane from the gluing process are analyzed in this dispersion modeling analysis. The emissions from the gluing process are vented to the atmosphere through the three ceileing exhaust fans located in areas isolated for foam fabrication operations, which will be modified as part of the proposed enhanced collection and dispersion system as described in Section 2.1.

2.7 Requested Permitted Operating Time

For the processes and supporting operations discussed above, the requested hours of operation in the permit application are as follows:

- Slabstock Polyurethane Foam Production: 6 hrs/day; 7 days/wk; 52 wks/yr;
- Rebond Polyurethane Foam Production: 24 hrs/day, 7 days/wk, 52 wks/yr;
- Tank Storage: 24 hrs/day, 7 days/wk, 52 wks/yr;
- Steam Boiler: 24 hrs/day, 7 days/wk, 52 wks/yr;
- Environmental Heating: 400 hrs/yr; and
- Foam Fabrication Operations: 24 hrs/day, 7 days/wk, 52 wks/yr.

3.0 DISPERSION MODELING METHODOLOGY

As previously stated, the dispersion modeling analysis presented in this report only addresses the following emissions from the Foamex facility:

- Methylene Chloride from the slabstock foam manufacturing process and from the gluing process during foam fabrication operations;
- Toluene Diisocyanate from the slabstock foam manufacturing process and rebond foam manufacturing process; and
- 1,1,1-Trichloroethane from the gluing process during foam fabrication operations.

The methodology followed in the dispersion modeling analysis is as follows:

1) A downwash/Good Engineering Practice (GEP) stack height analysis was conducted utilizing EPA's new Building Profile Input Program (BPIP), dated 94074.
2) Emission rates for each compound and process were calculated based on maximum daily and annual usage of each compound.
3) The EPA Industrial Source Complex - Short Term model (ISCST2), dated 93109, was used to predict the 8-hour and 24-hour impacts of each compound and annual impacts of methylene chloride from the facility.
4) The resulting concentrations were then compared with FDEP's AAAC's for each compound to determine if they are below the AAAC's.

4.0 SOURCE DATA

The source data used in the dispersion modeling analysis are presented in Table 3 below. The location of each source is shown in Figure 2.

Table 3. Stack and Exhaust Fan Stack Parameters
Foamex, L.P. - Orlando, Florida

Source Number	Description	Stack Height[a] Above Ground Level (feet)	Stack Inside Diameter (inches)	Stack Gas Flow Rate (ACFM)	Stack Gas Exit Temp. (°F)	Stack Gas Exit Velocity (ft/sec)	Stack Location Coordinates[b] (feet) East	North
1	Foam Line Stack	125	33.75	30,000	80	80.481	577	393
2	Long Bun Storage Room Stack	125	33.75	30,000	80	80.481	500	56
3	Exhaust Fan	Not operational as part of enhanced exhaust system					356	319
4	Exhaust Fan	Not operational as part of enhanced exhaust system					356	363
5	Exhaust Fan	Not operational as part of enhanced exhaust system					356	393
6	Exhaust Fan	Not operational as part of enhanced exhaust system					356	445
7	Exhaust Fan	53	43.5	50,000	80	80.744	356	501
8	Exhaust Fan	Not operational as part of enhanced exhaust system					356	554
9	Exhaust Fan	Not operational as part of enhanced exhaust system					356	603
10	Exhaust Fan	Not operational as part of enhanced exhaust system					356	633
11	Exhaust Fan	Not operational as part of enhanced exhaust system					484	319
12	Exhaust Fan	53	43.5	50,000	80	80.744	484	363
13	Exhaust Fan	Not operational as part of enhanced exhaust system					484	393
14	Exhaust Fan	Not operational as part of enhanced exhaust system					484	445
15	Exhaust Fan	Not operational as part of enhanced exhaust system					484	501
16	Exhaust Fan	Not operational as part of enhanced exhaust system					484	554
17	Exhaust Fan	Not operational as part of enhanced exhaust system					484	603
18	Exhaust Fan	Not operational as part of enhanced exhaust system					484	633
19	Exhaust Fan	53	43.5	50,000	80	80.744	600	336.5
20	Rebond Exhaust Fan	53	24	15,000	80	79.577	464	534
21	Rebond Exhaust Fan	53	24	15,000	80	79.577	464	546

a. Elevation of top of stack above ground level. Stack base elevation = 0 feet.

b. See Figure 2 for stack locations.

Table 5. GEP Stack Heights and Modeled Stack Heights
Foamex, L.P. - Orlando Facility

Source Number	Description	Stack Heights Above Ground Level	
		GEP (feet)	Modeled (feet)
1	Foam Line Stack	125	125
2	Long Bun Storage Room Stack	125	125
3	Exhaust Fan	Not modeled[a]	
4	Exhaust Fan	Not modeled[a]	
5	Exhaust Fan	Not modeled[a]	
6	Exhaust Fan	Not modeled[a]	
7	Exhaust Fan	125	53
8	Exhaust Fan	Not modeled[a]	
9	Exhaust Fan	Not modeled[a]	
10	Exhaust Fan	Not modeled[a]	
11	Exhaust Fan	Not modeled[a]	
12	Exhaust Fan	125	53
13	Exhaust Fan	Not modeled[a]	
14	Exhaust Fan	Not modeled[a]	
15	Exhaust Fan	Not modeled[a]	
16	Exhaust Fan	Not modeled[a]	
17	Exhaust Fan	Not modeled[a]	
18	Exhaust Fan	Not modeled[a]	
19	Exhaust Fan	125	53
20	Rebond Exhaust Fan	100	53
21	Rebond Exhaust Fan	100	53

a. Exhaust fans 3 - 6, 8 - 11, and 13 - 17 are not operational as part of enhanced exhaust system and therefore were not modeled.

11.0 COMPOUNDS AND APPLICABLE STANDARDS

The impacts of the compounds listed in Table 6 below were examined in this dispersion modeling analysis. The resulting concentrations were then compared with the listed applicable FDEP AAAC's to determine if they are below the AAAC's.

Table 6. Compounds Analyzed and AAAC's
Foamex, L.P. - Orlando, Florida

Compound	Averaging Time	FDEP AAAC ($\mu g/m^3$)
Methylene Chloride	8-hour	1,740
	24-hour	417.6
	Annual	2.1
Toluene Diisocyanate	8-hour	0.36
	24-hour	0.0864
1,1,1-Trichloroethane	8-hour	38,200
	24-hour	9,168

12.0 CONCENTRATIONS CALCULATED

For comparison with the FDEP AAAC's the maximum concentrations were calculated for each compound by the ISCST2 model for the 8-hour and 24-hour averaging times. The annual average concentration was also calculated for methylene chloride by the ISCST2 model by using the PERIOD keyword in the averaging times parameter list.

13.0 EMISSION RATES

Maximum hourly and daily usage rates were used to calculate the 8-hour and 24-hour average emission rates for each compound listed in Table 6. The maximum annual usage of methylene chloride was used to calculate the annual average emission rates of methylene chloride from the facility. The calculation of the emission rates used in the analysis is shown below and summarized in Table 7.

Compounds modeled:

Methylene Chloride
Toluene Diisocyanate (TDI)
1,1,1-Trichloroethane

Slabstock Foam Production Methylene Chloride emission distribution:

Foam Line Stack	=	60%
Long Bun Storage Room Stack	=	35%
3 Exhaust Fans	=	5%

It is assumed that the 3 exhaust fans' emissions are equally distributed among all 3 exhaust fans.

Maximum daily slabstock foam production hours of operation = 6.0 hr/day

Maximum daily slabstock foam production methylene chloride usage = 14,000 lb/day

8-hour average slabstock foam production methylene chloride emission rate = 14,000 lb/day ÷ 8 hr/day
= 1,750.0 lb/hr

Distributed 8-hour average slabstock foam production methylene chloride emission rates:

Foam Line Stack	=	1,750.0 lb/hr x 60%	=	1,050.0 lb/hr
Long Bun Storage Room Stack	=	1,750.0 lb/hr x 35%	=	612.5 lb/hr
3 Exhaust Fans	=	1,750.0 lb/hr x 5%	=	87.5 lb/hr

Maximum hourly glue usage rate = 3.1 lb/hr

Maximum methylene chloride content of glue = 70%

Maximum hourly gluing process methylene chloride emission rate = 3.1 lb/hr x 70% = 2.17 lb/hr

Maximum daily foam fabrication hours of operation = 24.0 hr/day

8-hour average gluing process methylene chloride emission rate:

3 Exhaust Fans	=	2.17 lb/hr x 8 hr/day ÷ 8 hr/day	=	2.17 lb/hr

Distributed 8-hour average total methylene chloride emission rates:

Foam Line Stack	=	1,050.0 lb/hr		
Long Bun Storage Room Stack	=	612.5 lb/hr		
3 Exhaust Fans	=	87.5 lb/hr + 2.17 lb/hr	=	89.67 lb/hr
Each Exhaust Fan	=	89.67 lb/hr ÷ 3	=	29.89 lb/hr

24-hour average slabstock foam production methylene chloride emission rate = 14,000 lb/day ÷ 24 hr/day
= 583.333 lb/hr

Distributed 24-hour average slabstock foam production methylene chloride emission rates:

Foam Line Stack	=	583.333 lb/hr x 60%	=	350.0 lb/hr
Long Bun Storage Room Stack	=	583.333 lb/hr x 35%	=	204.167 lb/hr
3 Exhaust Fans	=	583.333 lb/hr x 5%	=	29.167 lb/hr

24-hour average gluing process methylene chloride emission rate:

3 Exhaust Fans	=	2.17 lb/hr x 24 hr/day ÷ 24 hr/day	=	2.17 lb/hr

Distributed 24-hour average total methylene chloride emission rates:

Foam Line Stack	=	350.0 lb/hr		
Long Bun Storage Room Stack	=	204.167 lb/hr		
3 Exhaust Fans	=	29.167 lb/hr + 2.17 lb/hr	=	31.337 lb/hr
Each Exhaust Fan	=	31.337 lb/hr ÷ 3	=	10.4457 lb/hr

Maximum annual slabstock foam production methylene chloride usage = 551,192 lb/yr

Annual slabstock foam production average methylene chloride emission rate = 551,192 lb/yr ÷ 8,760 hr/yr
= 62.921 lb/hr

Distributed annual slabstock foam production average methylene chloride emission rates:

Foam Line Stack	=	62.921 lb/hr x 60%	=	37.7526 lb/hr
Long Bun Storage Room Stack	=	62.921 lb/hr x 35%	=	22.02235 lb/hr
3 Exhaust Fans	=	62.921 lb/hr x 5%	=	3.14605 lb/hr

Maximum annual glue usage = 4,600 lb/yr

Annual gluing process average methylene chloride emission rate = 4,600 lb/yr x 70% ÷ 8,760 hr/yr
= 0.3676 lb/hr

Distributed annual average total methylene chloride emission rates:

Foam Line Stack	=	37.7526 lb/hr		
Long Bun Storage Room Stack	=	22.02235 lb/hr		
3 Exhaust Fans	=	3.14605 lb/hr + 0.3676 lb/hr	=	3.51365 lb/hr
Each Exhaust Fan	=	3.51365 lb/hr ÷ 3	=	1.171217 lb/hr

Maximum slabstock foam production TDI emission rate = 0.37 lb/hr

Maximum daily slabstock foam production hours of operation = 6.0 hr/day

Maximum daily slabstock foam production TDI emissions = 0.37 lb/hr x 6.0 hr/day = 2.22 lb/day

TDI emission factor = 0.000028 lb emitted/lb used

Maximum hourly rebond process TDI usage rate = 164 lb/hr

Maximum hourly rebond process TDI emission rate = 164 lb/hr x 0.000028 lb/lb = 0.0046 lb/hr

Maximum daily rebond process hours of operation = 24.0 hr/day

8-hour average TDI emission rates:

Foam Line Stack	=	2.22 lb/day ÷ 8 hr/day	=	0.2775 lb/hr
2 Rebond Exhaust Fans	=	0.0046 lb/hr x 8 hr/day ÷ 8 hr/day	=	0.0046 lb/hr
Each Rebond Exhaust Fan	=	0.0046 lb/hr ÷ 2	=	0.0023 lb/hr

24-hour average TDI emission rates:

Foam Line Stack	=	2.22 lb/day ÷ 24 hr/day	=	0.0925 lb/hr
2 Rebond Exhaust Fans	=	0.0046 lb/hr x 24 hr/day ÷ 24 hr/day	=	0.0046 lb/hr
Each Rebond Exhaust Fan	=	0.0023 lb/hr ÷ 2	=	0.0023 lb/hr

Maximum hourly glue usage rate = 3.1 lb/hr

Maximum 1,1,1-trichloroethane content of glue = 81%

Maximum hourly 1,1,1-trichloroethane emission rate = 3.1 lb/hr x 81% = 2.5 lb/hr

Maximum daily foam fabrication hours of operation = 24.0 hr/day

8-hour average 1,1,1-trichloroethane emission rates:

3 Exhaust Fans	=	2.5 lb/hr x 8 hr/day ÷ 8 hr/day	=	2.5 lb/hr
Each Exhaust Fan	=	2.5 lb/hr ÷ 3	=	0.83333 lb/hr

24-hour average 1,1,1-trichloroethane emission rates:

3 Exhaust Fans	=	2.5 lb/hr x 24 hr/day ÷ 24 hr/day	= 2.5 lb/hr
Each Exhaust Fan	=	2.5 lb/hr ÷ 3	= 0.83333 lb/hr

Table 7. Emission Rates
Foamex, L.P. - Orlando, Florida

		Emission Rates for Compounds Modeled						
		Methylene Chloride			Toluene Diisocyanate		1,1,1-Trichloroethane	
Source Number	Source Description	8-hour (lb/hr)	24-hour (lb/hr)	Annual (lb/hr)	8-hour (lb/hr)	24-hour (lb/hr)	8-hour (lb/hr)	24-hour (lb/hr)
1	Foam Line Stack	1,050.0	350.0	37.7526	0.2775	0.0925	0.0	0.0
2	Long Bun Storage Room Stack	612.5	204.167	22.02235	0.0	0.0	0.0	0.0
3	Exhaust Fan[a]	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	Exhaust Fan[a]	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	Exhaust Fan[a]	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	Exhaust Fan[a]	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	Exhaust Fan	29.89	10.4457	1.171217	0.0	0.0	0.83333	0.83333
8	Exhaust Fan[a]	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9	Exhaust Fan[a]	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	Exhaust Fan[a]	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11	Exhaust Fan[a]	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	Exhaust Fan	29.89	10.4457	1.171217	0.0	0.0	0.83333	0.83333
13	Exhaust Fan[a]	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	Exhaust Fan[a]	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	Exhaust Fan[a]	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16	Exhaust Fan[a]	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17	Exhaust Fan[a]	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18	Exhaust Fan[a]	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19	Exhaust Fan	29.89	10.4457	1.171217	0.0	0.0	0.83333	0.83333
20	Rebond Exhaust Fan	0.0	0.0	0.0	0.0023	0.0023	0.0	0.0
21	Rebond Exhaust Fan	0.0	0.0	0.0	0.0023	0.0023	0.0	0.0

a. Exhaust fans 3 - 6, 8 - 11, and 13 - 17 are not operational as part of enhanced exhaust system and therefore were not modeled.

14.0 RESULTS

The ISCST2 modeling was conducted for each compound and each averaging using the emission rates presented in Section 13.0. The overall maximum ground level concentrations from the ISCST2 modeling for each case are presented in Table 8 below. The output listings for each case are presented in Appendixes D through J. For comparison, Table 8 also shows the applicable FDEP AAAC's for each compound and averaging time. For the 8-hour and 24-hour averaging times for each compound the maximum ground level concentrations are less than 90% of the applicable FDEP AAAC's. The resulting maximum annual ground level concentration for methylene chloride is 2.09998 $\mu g/m^3$, which is below the FDEP annual AAAC for methylene chloride of 2.1 $\mu g/m^3$. Therefore, based on the results of this dispersion modeling analysis, the emissions from the Foamex facility comply with FDEP's AAAC's.

Table 8. ISCST2 Modeling Results and Comparison with FDEP AAAC's
Foamex, L.P. - Orlando, Florida

Compound	Averaging Time	Maximum ISCST2 Ground Level Concentration ($\mu g/m^3$)	FDEP AAAC ($\mu g/m^3$)
Methylene Chloride	8-hour	1,538.9	1,740
	24-hour	250.8	417.6
	Annual	2.09998	2.1
Toluene Diisocyanate	8-hour	0.29	0.36
	24-hour	0.04	0.0864
1,1,1-Trichloroethane	8-hour	10.1	38,200
	24-hour	6.7	9,168

Foamex

Attachment C

Output Listings from Revised Modeling
(Appendixes D, E, F, I, and J of Volume II of Original Permit Application)

APPENDIX D

ISCST2 OUTPUT LISTING

METHYLENE CHLORIDE 8-HOUR AVERGAGE EMISSSION

RUN: FMXMC8

```
                    ISCST2 - (DATED 93109)

                    IBM-PC VERSION (2.11 ) ISCST2F
                    (C) COPYRIGHT 1992, TRINITY CONSULTANTS, INC.
                    SERIAL NUMBER 10573 SOLD TO CROSS, TESSITORE & ASSOC.

Run Began on  2/29/1996 at  8:31:38


*** TRINITY SOURCE FILE NAME: C:\PROJECT\26005\MODELDAT\FMXSRCA.PNT
*** TRINITY DOWNWASH FILE NAME: C:\PROJECT\26005\MODELDAT\FMXBPIP.WAK
*** TRINITY RECEPTOR FILE NAME: C:\PROJECT\26005\MODELDAT\FMXREC.REC
CO STARTING
CO TITLEONE Foamex;125' Foam Line & LBSR Stacks(GEP);53' Exhaust Fan Stacks (3)
CO TITLETWO Methlyene Chloride 8-hr Average Emissions
CO MODELOPT DFAULT CONC RURAL
CO AVERTIME 8
CO POLLUTID MC_8
CO TERRHGTS FLAT
CO ELEVUNIT FEET
CO RUNORNOT RUN
CO FINISHED
SO STARTING
SO LOCATION FOAMLINE POINT     175.87     119.79       0.00
SO SRCPARAM FOAMLINE 132.2976      38.10     299.82    24.5307      0.857
SO LOCATION LONGBUN POINT      152.40      17.07       0.00
SO SRCPARAM LONGBUN 77.17362       38.10     299.82    24.5307      0.857
SO LOCATION EXFAN_7 POINT      108.51     152.71       0.00
SO SRCPARAM EXFAN_7 3.766073       16.15     299.82    24.6109      1.105
SO LOCATION EXFAN_12 POINT     147.52     110.64       0.00
SO SRCPARAM EXFAN_12 3.766073      16.15     299.82    24.6109      1.105
SO LOCATION EXFAN_19 POINT     182.88     102.56       0.00
SO SRCPARAM EXFAN_19 3.766073      16.15     299.82    24.6109      1.105
SO BUILDHGT FOAMLINE    15.24    15.24    15.24    15.24    15.24    15.24
SO BUILDHGT FOAMLINE    12.19    12.19    12.19    12.19    12.19    12.19
SO BUILDHGT FOAMLINE    12.19    12.19    15.24    15.24    15.24    12.19
SO BUILDHGT FOAMLINE    12.19    15.24    15.24    15.24    15.24    15.24
SO BUILDHGT FOAMLINE    12.19    12.19    12.19    12.19    12.19    12.19
SO BUILDHGT FOAMLINE    12.19    12.19    15.24    15.24    15.24    15.24
SO BUILDWID FOAMLINE    80.42    88.29    93.48    95.83    95.26    91.81
SO BUILDWID FOAMLINE    39.97    39.64    38.10    39.64    39.97    39.09
SO BUILDWID FOAMLINE    37.02    33.83    93.48    88.29    80.42    12.19
SO BUILDWID FOAMLINE    18.62    88.29    93.48    95.83    95.26    91.81
SO BUILDWID FOAMLINE    39.97    39.64    38.10    39.64    39.97    39.09
SO BUILDWID FOAMLINE    37.02    33.83    93.48    88.29    80.42    70.11
SO BUILDHGT LONGBUN     15.24    15.24    15.24    15.24    15.24    15.24
SO BUILDHGT LONGBUN     15.24    15.24    15.24    15.24    15.24    15.24
SO BUILDHGT LONGBUN     15.24    15.24    15.24    15.24    15.24    15.24
SO BUILDHGT LONGBUN     15.24    15.24    15.24    15.24    15.24    15.24
SO BUILDHGT LONGBUN     15.24    15.24    15.24    15.24    15.24    15.24
SO BUILDHGT LONGBUN     15.24    15.24    15.24    15.24    15.24    15.24
SO BUILDWID LONGBUN     80.42    88.29    93.48    95.83    95.26    91.81
SO BUILDWID LONGBUN     85.56    76.71    65.53    76.71    85.56    91.81
SO BUILDWID LONGBUN     95.26    95.83    93.48    88.29    80.42    70.11
SO BUILDWID LONGBUN     80.42    88.29    93.48    95.83    95.26    91.81
SO BUILDWID LONGBUN     85.56    76.71    65.53    76.71    85.56    91.81
SO BUILDWID LONGBUN     95.26    95.83    93.48    88.29    80.42    70.11
SO BUILDHGT EXFAN_7     10.67    10.67    10.67    10.67    10.67    10.67
SO BUILDHGT EXFAN_7     10.67    10.67    10.67    10.67    10.67    10.67
SO BUILDHGT EXFAN_7     10.67    10.67    10.67    10.67    10.67    10.67
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SO BUILDHGT EXFAN_7    10.67    10.67    10.67    10.67    10.67    10.67
SO BUILDHGT EXFAN_7    10.67    10.67    10.67    10.67    10.67    10.67
SO BUILDHGT EXFAN_7    15.24    15.24    15.24    15.24    15.24    10.67
SO BUILDWID EXFAN_7   116.96   132.83   144.67   152.11   154.93   153.04
SO BUILDWID EXFAN_7   146.50   135.51   120.40   129.50   140.77   147.76
SO BUILDWID EXFAN_7   150.26   148.19   141.62   130.75   115.90    97.54
SO BUILDWID EXFAN_7   116.96   132.83   144.67   152.11   154.93   153.04
SO BUILDWID EXFAN_7   146.50   135.51   120.40   129.50   140.77   147.76
SO BUILDWID EXFAN_7    95.26    95.83    93.48    88.29    80.42    97.54
SO BUILDHGT EXFAN_12   15.24    15.24    15.24    15.24    15.24    12.19
SO BUILDHGT EXFAN_12   12.19    12.19    12.19    12.19    12.19    15.24
SO BUILDHGT EXFAN_12   15.24    15.24    15.24    15.24    15.24    15.24
SO BUILDHGT EXFAN_12   15.24    15.24    15.24    15.24    15.24    12.19
SO BUILDHGT EXFAN_12   12.19    12.19    12.19    12.19    12.19    15.24
SO BUILDHGT EXFAN_12   15.24    15.24    15.24    15.24    15.24    15.24
SO BUILDWID EXFAN_12   80.42    88.29    93.48    95.83    95.26    39.09
SO BUILDWID EXFAN_12   39.97    39.64   103.63   114.23    39.97    91.81
SO BUILDWID EXFAN_12   95.26    95.83    93.48    88.29    80.42    70.11
SO BUILDWID EXFAN_12   80.42    88.29    93.48    95.83    95.26    39.09
SO BUILDWID EXFAN_12   39.97    39.64    38.10    39.64    39.97    91.81
SO BUILDWID EXFAN_12   95.26    95.83    93.48    88.29    80.42    70.11
SO BUILDHGT EXFAN_19   15.24    15.24    15.24    15.24    15.24    15.24
SO BUILDHGT EXFAN_19   15.24    12.19    12.19    12.19    12.19    12.19
SO BUILDHGT EXFAN_19   12.19    15.24    15.24    15.24    15.24    15.24
SO BUILDHGT EXFAN_19   15.24    15.24    15.24    15.24    15.24    15.24
SO BUILDHGT EXFAN_19   15.24    12.19    12.19    12.19    12.19    12.19
SO BUILDHGT EXFAN_19   12.19    15.24    15.24    15.24    15.24    15.24
SO BUILDWID EXFAN_19   80.42    88.29    93.48    95.83    95.26    91.81
SO BUILDWID EXFAN_19   85.56    39.64    38.10    39.64    39.97    39.09
SO BUILDWID EXFAN_19   37.02    95.83    93.48    88.29    80.42    70.11
SO BUILDWID EXFAN_19   80.42    88.29    93.48    95.83    95.26    91.81
SO BUILDWID EXFAN_19   85.56    39.64    38.10    39.64    39.97    39.09
SO BUILDWID EXFAN_19   37.02    95.83    93.48    88.29    80.42    70.11
SO EMISUNIT 1000000.000000 GRAMS/SEC MICROGRAMS/M**3
SO SRCGROUP ALL
SO FINISHED
RE STARTING
RE GRIDPOLR POLAR_1  STA
RE GRIDPOLR POLAR_1  ORIG 106.68 110.64
RE GRIDPOLR POLAR_1  DIST 150.00 200.00 250.00 300.00
RE GRIDPOLR POLAR_1  DIST 350.00 400.00 450.00 500.00
RE GRIDPOLR POLAR_1  DIST 550.00 600.00 650.00 700.00
RE GRIDPOLR POLAR_1  DIST 750.00 800.00 850.00 900.00
RE GRIDPOLR POLAR_1  DIST 950.00 1000.00
RE GRIDPOLR POLAR_1  GDIR 36 10.00 10.00
RE GRIDPOLR POLAR_1  END
RE DISCCART 0.00 0.00
RE DISCCART 15.24 0.00
RE DISCCART 30.48 0.00
RE DISCCART 45.72 0.00
RE DISCCART 60.96 0.00
RE DISCCART 76.20 0.00
RE DISCCART 91.44 0.00
RE DISCCART 106.68 0.00
RE DISCCART 121.92 0.00
RE DISCCART 137.16 0.00
RE DISCCART 152.40 0.00
RE DISCCART 167.64 0.00
RE DISCCART 182.88 0.00
RE DISCCART 198.12 0.00
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RE DISCCART 213.36 0.00
RE DISCCART 213.36 15.24
RE DISCCART 213.36 30.48
RE DISCCART 213.36 45.72
RE DISCCART 213.36 60.96
RE DISCCART 213.36 76.20
RE DISCCART 213.36 91.44
RE DISCCART 213.36 106.68
RE DISCCART 213.36 121.92
RE DISCCART 213.36 137.16
RE DISCCART 213.36 152.40
RE DISCCART 213.36 167.64
RE DISCCART 213.36 182.88
RE DISCCART 213.36 198.12
RE DISCCART 213.36 213.36
RE DISCCART 213.36 220.98
RE DISCCART 198.12 220.98
RE DISCCART 182.88 220.98
RE DISCCART 167.64 220.98
RE DISCCART 152.40 220.98
RE DISCCART 137.16 220.98
RE DISCCART 121.92 220.98
RE DISCCART 106.68 220.98
RE DISCCART 91.44 220.98
RE DISCCART 76.20 220.98
RE DISCCART 60.96 220.98
RE DISCCART 45.72 220.98
RE DISCCART 30.48 220.98
RE DISCCART 15.24 220.98
RE DISCCART 0.00 220.98
RE DISCCART 0.00 213.36
RE DISCCART 0.00 198.12
RE DISCCART 0.00 182.88
RE DISCCART 0.00 167.64
RE DISCCART 0.00 152.40
RE DISCCART 0.00 137.16
RE DISCCART 0.00 121.92
RE DISCCART 0.00 106.68
RE DISCCART 0.00 91.44
RE DISCCART 0.00 76.20
RE DISCCART 0.00 60.96
RE DISCCART 0.00 45.72
RE DISCCART 0.00 30.48
RE DISCCART 0.00 15.24
RE FINISHED
ME STARTING
ME INPUTFIL C:\PROJECT\26005\MODELDAT\ORLPRE86.BIN UNFORM
ME ANEMHGHT   10.000 METERS
ME SURFDATA 12815 1986 ORLANDO
ME UAIRDATA 12842 1986 TAMPA
ME STARTEND 1986 1 1 1 1986 12 31 24
ME FINISHED
OU STARTING
OU RECTABLE 8 FIRST
OU FINISHED

************************************
*** SETUP Finishes Successfully ***
************************************
```

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** MODEL SETUP OPTIONS SUMMARY ***

- -

**Model Is Setup For Calculation of Average CONCentration Values.

**Model Uses RURAL Dispersion.

**Model Uses Regulatory DEFAULT Options:
1. Final Plume Rise.
2. Stack-tip Downwash.
3. Buoyancy-induced Dispersion.
4. Use Calms Processing Routine.
5. Not Use Missing Data Processing Routine.
6. Default Wind Profile Exponents.
7. Default Vertical Potential Temperature Gradients.
8. "Upper Bound" Values for Supersquat Buildings.
9. No Exponential Decay for RURAL Mode

**Model Assumes Receptors on FLAT Terrain.

**Model Assumes No FLAGPOLE Receptor Heights.

**Model Calculates 1 Short Term Average(s) of: 8-HR

**This Run Includes: 5 Source(s); 1 Source Group(s); and 706 Receptor(s)

**The Model Assumes A Pollutant Type of: MC_8

**Model Set To Continue RUNning After the Setup Testing.

**Output Options Selected:
Model Outputs Tables of Highest Short Term Values by Receptor (RECTABLE Keyword)

**NOTE: The Following Flags May Appear Following CONC Values: c for Calm Hours
m for Missing Hours
b for Both Calm and Missing Hours

**Misc. Inputs: Anem. Hgt. (m) = 10.00 ; Decay Coef. = 0.0000 ; Rot. Angle = 0.0
Emission Units = GRAMS/SEC ; Emission Rate Unit Factor = 0.10000E+07
Output Units = MICROGRAMS/M**3

**Input Runstream File: C:\PROJECT\26005\MODELDAT\FMXMC8.DAT ; **Output Print File: C:\PROJECT\26005\MODELDAT\FMXMC8.LST

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** POINT SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (USER UNITS)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	STACK HEIGHT (METERS)	STACK TEMP. (DEG.K)	STACK EXIT VEL. (M/SEC)	STACK DIAMETER (METERS)	BUILDING EXISTS	EMISSION RATE SCALAR VARY BY
FOAMLINE	0	0.13230E+03	175.9	119.8	0.0	38.10	299.82	24.53	0.86	YES	
LONGBUN	0	0.77174E+02	152.4	17.1	0.0	38.10	299.82	24.53	0.86	YES	
EXFAN_7	0	0.37661E+01	108.5	152.7	0.0	16.15	299.82	24.61	1.11	YES	
EXFAN_12	0	0.37661E+01	147.5	110.6	0.0	16.15	299.82	24.61	1.11	YES	
EXFAN_19	0	0.37661E+01	182.9	102.6	0.0	16.15	299.82	24.61	1.11	YES	

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** SOURCE IDs DEFINING SOURCE GROUPS ***

GROUP ID	SOURCE IDs
ALL	FOAMLINE, LONGBUN , EXFAN_7 , EXFAN_12, EXFAN_19,

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** DIRECTION SPECIFIC BUILDING DIMENSIONS ***

SOURCE ID: FOAMLINE

IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK
1	15.2,	80.4,	0	2	15.2,	88.3,	0	3	15.2,	93.5,	0	4	15.2,	95.8,	0	5	15.2,	95.3,	0	6	15.2,	91.8,	0
7	12.2,	40.0,	0	8	12.2,	39.6,	0	9	12.2,	38.1,	0	10	12.2,	39.6,	0	11	12.2,	40.0,	0	12	12.2,	39.1,	0
13	12.2,	37.0,	0	14	12.2,	33.8,	0	15	15.2,	93.5,	0	16	15.2,	88.3,	0	17	15.2,	80.4,	0	18	12.2,	12.2,	0
19	12.2,	18.6,	0	20	15.2,	88.3,	0	21	15.2,	93.5,	0	22	15.2,	95.8,	0	23	15.2,	95.3,	0	24	15.2,	91.8,	0
25	12.2,	40.0,	0	26	12.2,	39.6,	0	27	12.2,	38.1,	0	28	12.2,	39.6,	0	29	12.2,	40.0,	0	30	12.2,	39.1,	0
31	12.2,	37.0,	0	32	12.2,	33.8,	0	33	15.2,	93.5,	0	34	15.2,	88.3,	0	35	15.2,	80.4,	0	36	15.2,	70.1,	0

SOURCE ID: LONGBUN

IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK
1	15.2,	80.4,	0	2	15.2,	88.3,	0	3	15.2,	93.5,	0	4	15.2,	95.8,	0	5	15.2,	95.3,	0	6	15.2,	91.8,	0
7	15.2,	85.6,	0	8	15.2,	76.7,	0	9	15.2,	65.5,	0	10	15.2,	76.7,	0	11	15.2,	85.6,	0	12	15.2,	91.8,	0
13	15.2,	95.3,	0	14	15.2,	95.8,	0	15	15.2,	93.5,	0	16	15.2,	88.3,	0	17	15.2,	80.4,	0	18	15.2,	70.1,	0
19	15.2,	80.4,	0	20	15.2,	88.3,	0	21	15.2,	93.5,	0	22	15.2,	95.8,	0	23	15.2,	95.3,	0	24	15.2,	91.8,	0
25	15.2,	85.6,	0	26	15.2,	76.7,	0	27	15.2,	65.5,	0	28	15.2,	76.7,	0	29	15.2,	85.6,	0	30	15.2,	91.8,	0
31	15.2,	95.3,	0	32	15.2,	95.8,	0	33	15.2,	93.5,	0	34	15.2,	88.3,	0	35	15.2,	80.4,	0	36	15.2,	70.1,	0

SOURCE ID: EXFAN_7

IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK
1	10.7,	117.0,	0	2	10.7,	132.8,	0	3	10.7,	144.7,	0	4	10.7,	152.1,	0	5	10.7,	154.9,	0	6	10.7,	153.0,	0
7	10.7,	146.5,	0	8	10.7,	135.5,	0	9	10.7,	120.4,	0	10	10.7,	129.5,	0	11	10.7,	140.8,	0	12	10.7,	147.8,	0
13	10.7,	150.3,	0	14	10.7,	148.2,	0	15	10.7,	141.6,	0	16	10.7,	130.8,	0	17	10.7,	115.9,	0	18	10.7,	97.5,	0
19	10.7,	117.0,	0	20	10.7,	132.8,	0	21	10.7,	144.7,	0	22	10.7,	152.1,	0	23	10.7,	154.9,	0	24	10.7,	153.0,	0
25	10.7,	146.5,	0	26	10.7,	135.5,	0	27	10.7,	120.4,	0	28	10.7,	129.5,	0	29	10.7,	140.8,	0	30	10.7,	147.8,	0
31	15.2,	95.3,	0	32	15.2,	95.8,	0	33	15.2,	93.5,	0	34	15.2,	88.3,	0	35	15.2,	80.4,	0	36	10.7,	97.5,	0

SOURCE ID: EXFAN_12

IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK
1	15.2,	80.4,	0	2	15.2,	88.3,	0	3	15.2,	93.5,	0	4	15.2,	95.8,	0	5	15.2,	95.3,	0	6	12.2,	39.1,	0
7	12.2,	40.0,	0	8	12.2,	39.6,	0	9	12.2,	103.6,	0	10	12.2,	114.2,	0	11	12.2,	40.0,	0	12	15.2,	91.8,	0
13	15.2,	95.3,	0	14	15.2,	95.8,	0	15	15.2,	93.5,	0	16	15.2,	88.3,	0	17	15.2,	80.4,	0	18	15.2,	70.1,	0
19	15.2,	80.4,	0	20	15.2,	88.3,	0	21	15.2,	93.5,	0	22	15.2,	95.8,	0	23	15.2,	95.3,	0	24	12.2,	39.1,	0
25	12.2,	40.0,	0	26	12.2,	39.6,	0	27	12.2,	38.1,	0	28	12.2,	39.6,	0	29	12.2,	40.0,	0	30	15.2,	91.8,	0
31	15.2,	95.3,	0	32	15.2,	95.8,	0	33	15.2,	93.5,	0	34	15.2,	88.3,	0	35	15.2,	80.4,	0	36	15.2,	70.1,	0

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** DIRECTION SPECIFIC BUILDING DIMENSIONS ***

SOURCE ID: EXFAN_19

IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK
1	15.2,	80.4,	0	2	15.2,	88.3,	0	3	15.2,	93.5,	0	4	15.2,	95.8,	0	5	15.2,	95.3,	0	6	15.2,	91.8,	0
7	15.2,	85.6,	0	8	12.2,	39.6,	0	9	12.2,	38.1,	0	10	12.2,	39.6,	0	11	12.2,	40.0,	0	12	12.2,	39.1,	0
13	12.2,	37.0,	0	14	15.2,	95.8,	0	15	15.2,	93.5,	0	16	15.2,	88.3,	0	17	15.2,	80.4,	0	18	15.2,	70.1,	0
19	15.2,	80.4,	0	20	15.2,	88.3,	0	21	15.2,	93.5,	0	22	15.2,	95.8,	0	23	15.2,	95.3,	0	24	15.2,	91.8,	0
25	15.2,	85.6,	0	26	12.2,	39.6,	0	27	12.2,	38.1,	0	28	12.2,	39.6,	0	29	12.2,	40.0,	0	30	12.2,	39.1,	0
31	12.2,	37.0,	0	32	15.2,	95.8,	0	33	15.2,	93.5,	0	34	15.2,	88.3,	0	35	15.2,	80.4,	0	36	15.2,	70.1,	0

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** GRIDDED RECEPTOR NETWORK SUMMARY ***

*** NETWORK ID: POLAR_1 ; NETWORK TYPE: GRIDPOLR ***

*** ORIGIN FOR POLAR NETWORK ***

X-ORIG = 106.68 ; Y-ORIG = 110.64 (METERS)

*** DISTANCE RANGES OF NETWORK ***
(METERS)

150.0, 200.0, 250.0, 300.0, 350.0, 400.0, 450.0, 500.0, 550.0, 600.0,
650.0, 700.0, 750.0, 800.0, 850.0, 900.0, 950.0, 1000.0,

*** DIRECTION RADIALS OF NETWORK ***
(DEGREES)

10.0, 20.0, 30.0, 40.0, 50.0, 60.0, 70.0, 80.0, 90.0, 100.0,
110.0, 120.0, 130.0, 140.0, 150.0, 160.0, 170.0, 180.0, 190.0, 200.0,
210.0, 220.0, 230.0, 240.0, 250.0, 260.0, 270.0, 280.0, 290.0, 300.0,
310.0, 320.0, 330.0, 340.0, 350.0, 360.0,

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZFLAG)
(METERS)

(0.0,	0.0,	0.0,	0.0);	(15.2,	0.0,	0.0,	0.0);
(30.5,	0.0,	0.0,	0.0);	(45.7,	0.0,	0.0,	0.0);
(61.0,	0.0,	0.0,	0.0);	(76.2,	0.0,	0.0,	0.0);
(91.4,	0.0,	0.0,	0.0);	(106.7,	0.0,	0.0,	0.0);
(121.9,	0.0,	0.0,	0.0);	(137.2,	0.0,	0.0,	0.0);
(152.4,	0.0,	0.0,	0.0);	(167.6,	0.0,	0.0,	0.0);
(182.9,	0.0,	0.0,	0.0);	(198.1,	0.0,	0.0,	0.0);
(213.4,	0.0,	0.0,	0.0);	(213.4,	15.2,	0.0,	0.0);
(213.4,	30.5,	0.0,	0.0);	(213.4,	45.7,	0.0,	0.0);
(213.4,	61.0,	0.0,	0.0);	(213.4,	76.2,	0.0,	0.0);
(213.4,	91.4,	0.0,	0.0);	(213.4,	106.7,	0.0,	0.0);
(213.4,	121.9,	0.0,	0.0);	(213.4,	137.2,	0.0,	0.0);
(213.4,	152.4,	0.0,	0.0);	(213.4,	167.6,	0.0,	0.0);
(213.4,	182.9,	0.0,	0.0);	(213.4,	198.1,	0.0,	0.0);
(213.4,	213.4,	0.0,	0.0);	(213.4,	221.0,	0.0,	0.0);
(198.1,	221.0,	0.0,	0.0);	(182.9,	221.0,	0.0,	0.0);
(167.6,	221.0,	0.0,	0.0);	(152.4,	221.0,	0.0,	0.0);
(137.2,	221.0,	0.0,	0.0);	(121.9,	221.0,	0.0,	0.0);
(106.7,	221.0,	0.0,	0.0);	(91.4,	221.0,	0.0,	0.0);
(76.2,	221.0,	0.0,	0.0);	(61.0,	221.0,	0.0,	0.0);
(45.7,	221.0,	0.0,	0.0);	(30.5,	221.0,	0.0,	0.0);
(15.2,	221.0,	0.0,	0.0);	(0.0,	221.0,	0.0,	0.0);
(0.0,	213.4,	0.0,	0.0);	(0.0,	198.1,	0.0,	0.0);
(0.0,	182.9,	0.0,	0.0);	(0.0,	167.6,	0.0,	0.0);
(0.0,	152.4,	0.0,	0.0);	(0.0,	137.2,	0.0,	0.0);
(0.0,	121.9,	0.0,	0.0);	(0.0,	106.7,	0.0,	0.0);
(0.0,	91.4,	0.0,	0.0);	(0.0,	76.2,	0.0,	0.0);
(0.0,	61.0,	0.0,	0.0);	(0.0,	45.7,	0.0,	0.0);
(0.0,	30.5,	0.0,	0.0);	(0.0,	15.2,	0.0,	0.0);

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

* SOURCE-RECEPTOR COMBINATIONS LESS THAN 1.0 METER OR 3*ZLB *
IN DISTANCE. CALCULATIONS MAY NOT BE PERFORMED.

SOURCE ID	- - RECEPTOR LOCATION - - XR (METERS)	YR (METERS)	DISTANCE (METERS)
LONGBUN	121.9	0.0	34.93
LONGBUN	137.2	0.0	22.88
LONGBUN	152.4	0.0	17.07
LONGBUN	167.6	0.0	22.88
LONGBUN	182.9	0.0	34.93
EXFAN_19	213.4	91.4	32.45
EXFAN_19	213.4	106.7	30.76
EXFAN_19	213.4	121.9	36.11

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***
(1=YES; 0=NO)

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1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1 1
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1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1
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METEOROLOGICAL DATA PROCESSED BETWEEN START DATE: 86 1 1 1
AND END DATE: 86 12 31 24

NOTE: METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA FILE.

*** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***
(METERS/SEC)

1.54, 3.09, 5.14, 8.23, 10.80,

*** WIND PROFILE EXPONENTS ***

STABILITY CATEGORY	WIND SPEED CATEGORY 1	2	3	4	5	6
A	.70000E-01	.70000E-01	.70000E-01	.70000E-01	.70000E-01	.70000E-01
B	.70000E-01	.70000E-01	.70000E-01	.70000E-01	.70000E-01	.70000E-01
C	.10000E+00	.10000E+00	.10000E+00	.10000E+00	.10000E+00	.10000E+00
D	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00
E	.35000E+00	.35000E+00	.35000E+00	.35000E+00	.35000E+00	.35000E+00
F	.55000E+00	.55000E+00	.55000E+00	.55000E+00	.55000E+00	.55000E+00

*** VERTICAL POTENTIAL TEMPERATURE GRADIENTS ***
(DEGREES KELVIN PER METER)

STABILITY CATEGORY	WIND SPEED CATEGORY 1	2	3	4	5	6
A	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
B	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
C	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
D	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
E	.20000E-01	.20000E-01	.20000E-01	.20000E-01	.20000E-01	.20000E-01
F	.35000E-01	.35000E-01	.35000E-01	.35000E-01	.35000E-01	.35000E-01

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

FILE: C:\PROJECT\26005\MODELDAT\ORLPRE86.BIN FORMAT: UNFORM
SURFACE STATION NO.: 12815 UPPER AIR STATION NO.: 12842
NAME: ORLANDO NAME: TAMPA
YEAR: 1986 YEAR: 1986

YEAR	MONTH	DAY	HOUR	FLOW VECTOR	SPEED (M/S)	TEMP (K)	STAB CLASS	MIXING HEIGHT (M) RURAL	URBAN
86	1	1	1	1.0	3.60	289.3	4	639.0	639.0
86	1	1	2	168.0	5.14	288.7	4	639.0	639.0
86	1	1	3	124.0	3.09	288.2	4	639.0	639.0
86	1	1	4	353.0	2.57	288.2	4	639.0	639.0
86	1	1	5	333.0	2.57	288.7	4	639.0	639.0
86	1	1	6	332.0	2.57	288.7	4	639.0	639.0
86	1	1	7	335.0	3.09	288.7	4	639.0	639.0
86	1	1	8	3.0	3.60	289.3	4	639.0	639.0
86	1	1	9	347.0	3.60	289.8	4	639.0	639.0
86	1	1	10	1.0	5.14	292.0	4	639.0	639.0
86	1	1	11	14.0	4.63	292.6	4	639.0	639.0
86	1	1	12	16.0	4.12	294.3	4	639.0	639.0
86	1	1	13	73.0	3.09	295.4	4	639.0	639.0
86	1	1	14	49.0	3.60	297.0	4	639.0	639.0
86	1	1	15	142.0	2.06	296.5	4	639.0	639.0
86	1	1	16	144.0	2.06	295.9	4	639.0	639.0
86	1	1	17	261.0	2.06	295.4	4	639.0	639.0
86	1	1	18	257.0	2.06	292.6	4	644.0	644.0
86	1	1	19	274.0	3.60	291.5	4	655.0	655.0
86	1	1	20	227.0	3.09	290.9	4	666.0	666.0
86	1	1	21	230.0	3.09	290.9	4	678.0	678.0
86	1	1	22	252.0	2.57	290.4	5	689.0	477.0
86	1	1	23	290.0	2.06	290.4	4	700.0	700.0
86	1	1	24	290.0	1.00	290.4	4	712.0	712.0

*** NOTES: STABILITY CLASS 1=A, 2=B, 3=C, 4=D, 5=E AND 6=F.
FLOW VECTOR IS DIRECTION TOWARD WHICH WIND IS BLOWING.

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** THE 1ST HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): FOAMLINE, LONGBUN , EXFAN_7 , EXFAN_12, EXFAN_19,

*** NETWORK ID: POLAR_1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF MC_8 IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 150.00	200.00	250.00	300.00	350.00
10.0	541.41797 (86071316)	906.06580 (86071316)	1231.45642 (86071316)	1399.31384 (86071316)	1412.07251 (86071316)
20.0	464.54211 (86071316)	720.37073 (86071316)	907.73639 (86071316)	954.66180 (86071316)	890.43536 (86071316)
30.0	325.27582 (86080216)	543.43939 (86060816)	691.83496 (86060816)	731.66309 (86010216)	827.84399 (86010216)
40.0	283.77786 (86060816)	398.96536 (86053116)	676.36145 (86053116)	929.86151 (86080416)	1144.57898 (86080416)
50.0	249.41042 (86072916)	408.81265 (86053116)	617.11633 (86053116)	857.70691 (86072616)	1055.02930 (86072616)
60.0	167.21275 (86053116)	298.49039 (86072616)	527.96118 (86072616)	746.03027 (86072616)	871.73438 (86072616)
70.0	141.60065 (86022716)	269.77798 (86072016)	511.06812 (86072016)	805.42230 (86072016)	1034.03369 (86072016)
80.0	174.39946 (86022716)	249.29211 (86042124)	382.98206 (86072016)	673.63947 (86091216)	926.63318 (86091216)
90.0	73.88563 (86012724)	135.36348 (86071516)	337.57886 (86071516)	572.44788 (86091216)	799.04834 (86091216)
100.0	105.22960 (86012724)	135.81477 (86012724)	280.88474 (86050816)	497.75745 (86050816)	717.33270 (86071916)
110.0	144.69057 (86012724)	182.18542 (86052216)	354.92358 (86052216)	594.84442 (86050816)	845.85901 (86042916)
120.0	130.36067 (86042616)	284.71774 (86042616)	495.67276 (86042616)	739.30438 (86090216)	931.58124 (86090216)
130.0	132.17268 (86012808)	263.98941 (86042616)	505.95404 (86042616)	819.43561 (86042616)	1081.75330 (86042616)
140.0	145.17877 (86011116)	219.90291 (86042316)	341.97260 (86050316)	579.68774 (86042816)	843.31348 (86042816)
150.0	277.29117 (86032216)	248.44438 (86101616)	468.42072 (86101616)	757.07013 (86101616)	1053.83411 (86101616)
160.0	243.82092 (86032216)	350.68317c(86082316)	531.83148 (86110316)	697.86511 (86110316)	777.88025 (86110316)
170.0	228.07793 (86032216)	485.86124c(86082316)	761.28119c(86082316)	959.66931c(86082316)	1180.67920 (86110316)
180.0	239.67088c(86082316)	507.74619c(86082316)	812.01025c(86082316)	1095.23792c(86082316)	1247.89734c(86082316)
190.0	333.72534c(86082316)	570.31866c(86082316)	814.56537c(86082316)	1013.19055c(86082316)	1116.99487c(86082316)
200.0	449.41110c(86082316)	749.42395c(86082316)	1029.68872c(86082316)	1204.53088c(86082316)	1237.34729c(86082316)
210.0	482.73926c(86082316)	838.92267c(86082316)	1159.57458c(86082316)	1375.61450c(86082316)	1447.96301c(86082316)
220.0	421.23071 (86051116)	712.91644c(86082316)	982.22443c(86082316)	1168.65637c(86082316)	1258.80542c(86082316)
230.0	424.85019 (86051116)	675.63373 (86051116)	907.84717 (86062616)	1066.43726 (86062616)	1117.91333 (86062616)
240.0	447.19080 (86051716)	647.15985 (86062616)	905.97375 (86062616)	1090.60205 (86062616)	1170.03296 (86062616)
250.0	429.55945 (86051716)	621.04370 (86062616)	834.20148 (86062616)	989.75226 (86062616)	1084.82336 (86062616)
260.0	365.28897 (86051716)	495.74280 (86062616)	675.82343 (86051316)	804.01349 (86051316)	863.86511 (86051316)
270.0	474.33411 (86043016)	687.98560 (86043016)	816.82318 (86043016)	873.76862 (86043016)	915.80176 (86070716)
280.0	576.68811 (86043016)	862.83221 (86043016)	1024.78442 (86043016)	1069.36133 (86043016)	1041.46655 (86043016)
290.0	554.29187 (86043016)	854.61536 (86040616)	1108.97534 (86040616)	1224.70703 (86040616)	1242.66394 (86040616)
300.0	525.27606 (86081016)	945.25073 (86040616)	1268.27063 (86040616)	1436.93823 (86040616)	1485.97742 (86040616)
310.0	531.81158 (86071716)	921.29517 (86040616)	1188.39661 (86040616)	1291.75317 (86040616)	1282.89075 (86040616)
320.0	548.55035 (86071716)	837.36920 (86052916)	1050.72937 (86052916)	1107.24683 (86052916)	1075.29773 (86112516)
330.0	496.11340 (86071716)	701.76703 (86052916)	836.61566 (86082516)	1006.28729 (86082516)	1116.91638 (86082516)
340.0	518.67346 (86080516)	742.95801 (86080516)	917.63458 (86082716)	1063.04810 (86082716)	1114.69702 (86082716)
350.0	575.62305 (86080516)	864.82635 (86080516)	1033.00928 (86071316)	1184.43396 (86071316)	1289.91541 (86100916)
360.0	536.41193 (86071316)	899.32031 (86071316)	1236.65503 (86071316)	1430.85315 (86071316)	1480.27246 (86071316)

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** THE 1ST HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): FOAMLINE, LONGBUN , EXFAN_7 , EXFAN_12, EXFAN_19,

*** NETWORK ID: POLAR_1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF MC_8 IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 400.00	450.00	500.00	550.00	600.00
10.0	1327.47461 (86071316)	1201.52039 (86071316)	1063.67981 (86071316)	984.59729 (86080316)	937.20831 (86080316)
20.0	970.15033 (86010216)	1016.74664 (86010216)	1025.16138 (86010216)	1005.63324 (86010216)	968.77997 (86010216)
30.0	856.84052 (86080416)	896.41351 (86080416)	897.53699 (86080416)	868.24481 (86080416)	822.27234 (86080416)
40.0	1233.77686 (86080416)	1226.12073 (86080416)	1168.10364 (86080416)	1078.86584 (86080416)	979.44403 (86080416)
50.0	1139.59875 (86072616)	1138.67407 (86072616)	1091.08289 (86072616)	1015.28009 (86072616)	928.72791 (86072616)
60.0	1167.57202 (86100416)	1378.61780 (86100416)	1499.64575 (86100416)	1538.88159 (86100416)	1518.36035 (86100416)
70.0	1155.09473 (86072016)	1191.47180 (86072016)	1225.74634 (86081816)	1301.58069 (86081816)	1325.67615 (86081816)
80.0	1052.22461 (86091216)	1069.82739 (86091216)	1025.04138 (86091216)	957.21930 (86022616)	917.09113 (86022616)
90.0	932.46490 (86091216)	979.80933 (86091216)	972.13708 (86091216)	927.75769 (86091216)	874.32983 (86071916)
100.0	871.50800 (86071916)	949.70856 (86071916)	975.01306 (86071916)	959.61700 (86071916)	919.03540 (86071916)
110.0	1092.73474 (86042916)	1272.95813 (86042916)	1380.94556 (86042916)	1424.09717 (86042916)	1419.16370 (86042916)
120.0	1057.39990 (86042816)	1135.39978 (86042816)	1228.11084 (86042916)	1284.02600 (86042916)	1285.60229 (86042916)
130.0	1234.36609 (86042616)	1284.96289 (86042616)	1266.49353 (86042616)	1218.48242 (86012816)	1259.73157 (86012816)
140.0	1003.33917 (86042816)	1061.81946 (86042816)	1050.55310 (86042816)	1001.13031 (86042616)	934.89795 (86042616)
150.0	1292.00549 (86101616)	1444.82471 (86101616)	1513.81348 (86101616)	1517.72412 (86101616)	1476.74463 (86101616)
160.0	946.02136 (86101616)	1143.93005 (86101616)	1282.38928 (86101616)	1365.91235 (86101616)	1402.50586 (86101616)
170.0	1345.92053 (86110316)	1406.22607 (86110316)	1384.78674 (86110316)	1318.98486 (86110316)	1227.34900 (86110316)
180.0	1255.35718c(86082316)	1243.74365 (86110316)	1330.50220 (86110316)	1362.15601 (86110316)	1351.71008 (86110316)
190.0	1124.93665c(86082316)	1058.60510c(86082316)	953.25635c(86082316)	917.58618 (86102116)	882.57935 (86102116)
200.0	1167.59888c(86082316)	1254.12390 (86120416)	1332.62097 (86120416)	1356.70129 (86120416)	1340.62598 (86120416)
210.0	1399.03259c(86082316)	1275.00806c(86082316)	1119.65125c(86082316)	1067.66589 (86111316)	1018.05957 (86111316)
220.0	1263.38123c(86082316)	1203.71191c(86082316)	1130.80090 (86060516)	1169.91162 (86060516)	1184.10767 (86060516)
230.0	1100.11438 (86062616)	1041.66968 (86062616)	995.63269 (86091616)	946.78265 (86091616)	885.71368 (86091616)
240.0	1164.91968 (86062616)	1106.49573 (86062616)	1082.64832 (86091516)	1034.54089 (86091516)	969.19452 (86091516)
250.0	1123.78674 (86062616)	1136.87219 (86091516)	1162.32153 (86091516)	1161.92078 (86091516)	1141.92053 (86091516)
260.0	888.98706 (86062616)	883.99310 (86062616)	858.66187 (86121416)	862.01379 (86121416)	853.41840 (86121416)
270.0	949.12280 (86062316)	940.85565 (86062316)	899.70795 (86062316)	841.23248 (86062316)	782.19189 (86040416)
280.0	1112.70215 (86062316)	1160.31738 (86062316)	1179.36401 (86062316)	1177.52441 (86062316)	1160.67529 (86062316)
290.0	1200.48938 (86040616)	1121.79175 (86040616)	1028.96594 (86040616)	1008.02332 (86062316)	988.89471 (86062316)
300.0	1459.62390 (86040616)	1382.92859 (86040616)	1283.78809 (86040616)	1178.44348 (86040616)	1075.52734 (86040616)
310.0	1218.25879 (86040616)	1119.93201 (86040616)	1083.23364 (86112516)	1063.67969 (86112516)	1029.38525 (86112516)
320.0	1131.32202 (86112516)	1132.73706 (86112516)	1098.68433 (86112516)	1044.48535 (86112516)	980.57031 (86112516)
330.0	1173.31677 (86082516)	1184.33325 (86082516)	1161.02478 (86082516)	1116.06580 (86082516)	1058.80249 (86082516)
340.0	1179.80884 (86031216)	1285.06494 (86031216)	1348.64917 (86031216)	1377.37476 (86031216)	1379.10449 (86031216)
350.0	1362.91333 (86100916)	1372.42651 (86100916)	1335.19519 (86100916)	1271.19385 (86100916)	1194.48010 (86100916)
360.0	1430.51538 (86071316)	1331.69153 (86071316)	1339.31348 (86112616)	1380.46375 (86112616)	1391.75928 (86112616)

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** THE 1ST HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): FOAMLINE, LONGBUN , EXFAN_7 , EXFAN_12, EXFAN_19,

*** NETWORK ID: POLAR_1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF MC_8 IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 650.00	700.00	750.00	800.00	850.00
10.0	883.62494 (86080316)	827.87079 (86080316)	772.56403 (86080316)	719.29883 (86080316)	713.80249 (86073008)
20.0	932.22485 (86072316)	942.08429 (86072316)	937.32208 (86072316)	922.01044 (86072316)	899.39832 (86072316)
30.0	768.52484 (86080416)	755.42798 (86062916)	735.42627 (86062916)	722.48346 (86021116)	730.39374 (86021116)
40.0	881.26801 (86080416)	789.73151 (86080416)	772.19336 (86030416)	771.45178 (86030416)	761.64429 (86030416)
50.0	882.40771 (86100416)	855.50244 (86100416)	819.68060 (86100416)	805.73431 (86112016)	814.73810 (86112016)
60.0	1461.28052 (86100416)	1384.23108 (86100416)	1298.16284 (86100416)	1209.92200 (86100416)	1123.57776 (86100416)
70.0	1313.26196 (86081816)	1276.95764 (86081816)	1226.17712 (86081816)	1167.53748 (86081816)	1105.50525 (86081816)
80.0	863.05939 (86022616)	803.92468 (86022616)	744.65179 (86022616)	687.86438 (86022616)	634.81543 (86022616)
90.0	811.86346 (86071916)	747.47546 (86071916)	685.22278 (86071916)	631.62744 (86041616)	605.45496 (86041616)
100.0	865.67670 (86071916)	807.26880 (86071916)	748.38141 (86071916)	691.57245 (86071916)	638.16028 (86071916)
110.0	1382.65918 (86042916)	1327.12915 (86042916)	1261.36877 (86042916)	1191.23804 (86042916)	1120.48877 (86042916)
120.0	1252.23584 (86042916)	1198.48450 (86042916)	1134.27917 (86042916)	1066.01355 (86042916)	997.62024 (86042916)
130.0	1262.51697 (86012816)	1238.79614 (86012816)	1198.05420 (86012816)	1147.26074 (86012816)	1091.29529 (86012816)
140.0	860.10669 (86042616)	785.22876 (86042616)	714.40009 (86042616)	649.36859 (86042616)	610.75647 (86090316)
150.0	1408.53113 (86101616)	1325.98328 (86101616)	1237.69214 (86101616)	1149.08057 (86101616)	1063.38867 (86101616)
160.0	1405.07849 (86101616)	1384.52820 (86101616)	1348.99048 (86101616)	1304.26233 (86101616)	1254.36475 (86101616)
170.0	1126.49609 (86110316)	1025.97070 (86110316)	930.73254 (86110316)	920.14020 (86012408)	959.96979 (86012408)
180.0	1314.24023 (86110316)	1260.71924 (86110316)	1198.66113 (86110316)	1133.03015 (86110316)	1067.00793 (86110316)
190.0	836.36615 (86102116)	785.57672 (86102116)	734.22833 (86102116)	684.58777 (86102116)	647.35236 (86111324)
200.0	1298.04565 (86120416)	1239.64807 (86120416)	1173.06470 (86120416)	1103.42590 (86120416)	1034.01819 (86120416)
210.0	960.69080 (86111316)	900.48663 (86111316)	840.53198 (86111316)	796.57764 (86032716)	792.16699 (86032716)
220.0	1178.60950 (86060516)	1158.18311 (86060516)	1126.93042 (86060516)	1088.24707 (86060516)	1045.09644 (86060516)
230.0	871.81342 (86102216)	866.66406 (86102216)	857.07288 (86102216)	844.42285 (86102216)	830.77344 (86102216)
240.0	908.98871 (86033116)	915.53723 (86033116)	947.75842 (86111416)	990.70770 (86111416)	1024.46118 (86111416)
250.0	1108.12866 (86091516)	1065.39014 (86091516)	1017.46289 (86091516)	967.10663 (86091516)	916.26404 (86091516)
260.0	836.29999 (86121416)	813.28955 (86121416)	786.37396 (86121416)	757.06091 (86121416)	726.43536 (86121416)
270.0	814.09192 (86040416)	833.81213 (86040416)	842.52301 (86040416)	841.87823 (86040416)	833.63751 (86040416)
280.0	1133.29041 (86062316)	1098.77148 (86062316)	1059.69312 (86062316)	1017.98535 (86062316)	975.07660 (86062316)
290.0	962.29510 (86062316)	931.06732 (86062316)	897.19220 (86062316)	862.04907 (86062316)	826.59430 (86062316)
300.0	979.20099 (86040616)	891.13544 (86040616)	860.47510 (86030916)	849.22534 (86030916)	845.44958 (86122316)
310.0	986.36536 (86112516)	938.82593 (86112516)	889.60553 (86112516)	840.55780 (86112516)	792.84845 (86112516)
320.0	913.53320 (86112516)	847.29901 (86112516)	784.05048 (86112516)	724.88232 (86112516)	670.22900 (86112516)
330.0	995.72205 (86082516)	931.09570 (86082516)	867.60425 (86082516)	806.83124 (86082516)	749.63129 (86082516)
340.0	1360.99780 (86031216)	1328.94788 (86031216)	1287.56018 (86031216)	1240.32043 (86031216)	1189.80627 (86031216)
350.0	1113.97705 (86100916)	1034.88440 (86100916)	959.96478 (86100916)	890.48083 (86100916)	826.82068 (86100916)
360.0	1381.08789 (86112616)	1354.75159 (86112616)	1317.62109 (86112616)	1273.39441 (86112616)	1225.10962 (86112616)

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** THE 1ST HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): FOAMLINE, LONGBUN , EXFAN_7 , EXFAN_12, EXFAN_19,

*** NETWORK ID: POLAR_1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF MC_8 IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 900.00	950.00	1000.00
10.0	712.07330 (86113016)	721.58691 (86113016)	725.22064 (86113016)
20.0	871.98346 (86072316)	841.11627 (86072316)	808.46448 (86072316)
30.0	730.87604 (86021116)	725.56659 (86021116)	714.68799 (86021116)
40.0	745.90466 (86030416)	725.28357 (86030416)	699.22040 (86030416)
50.0	815.07715 (86112016)	808.33374 (86112016)	794.06702 (86112016)
60.0	1041.39819 (86100416)	964.51758 (86100416)	893.37457 (86100416)
70.0	1042.99512 (86081816)	981.84186 (86081816)	923.14398 (86081816)
80.0	585.97888 (86022616)	541.40051 (86022616)	539.42126 (86020716)
90.0	590.80402 (86070316)	584.45361 (86070316)	576.19989 (86070316)
100.0	588.71948 (86071916)	543.39093 (86071916)	502.07141 (86071916)
110.0	1051.42517 (86042916)	985.38513 (86042916)	923.07605 (86042916)
120.0	931.40479 (86042916)	868.62524 (86042916)	812.29565 (86012816)
130.0	1033.45142 (86012816)	975.87921 (86012816)	919.93011 (86012816)
140.0	590.12677 (86090316)	568.27826 (86090316)	555.18207 (86122916)
150.0	982.41113 (86101616)	907.39911 (86101616)	837.82886 (86101616)
160.0	1202.03979 (86101616)	1155.05750 (86111508)	1205.41870 (86111508)
170.0	984.00519 (86012408)	994.63690 (86012408)	994.40082 (86012408)
180.0	1002.56281 (86110316)	940.85413 (86110316)	882.50836 (86110316)
190.0	638.16254 (86111324)	622.85474 (86111324)	607.14154 (86122616)
200.0	966.84241 (86120416)	903.03546 (86120416)	860.57874 (86020908)
210.0	784.75891 (86032716)	774.62683 (86032716)	758.73792 (86032716)
220.0	999.88934 (86060516)	952.66217 (86060516)	904.33923 (86060516)
230.0	814.56903 (86102216)	807.95392 (86101916)	809.52014 (86050924)
240.0	1047.23047 (86111416)	1060.22388 (86111416)	1062.42200 (86111416)
250.0	866.24664 (86091516)	817.90039 (86091516)	771.73608 (86091516)
260.0	695.33087 (86121416)	667.62683 (86020916)	654.34363 (86020916)
270.0	819.49176 (86040416)	807.50299 (86031008)	810.73920 (86031008)
280.0	932.00555 (86062316)	888.91266 (86062316)	845.68860 (86062316)
290.0	822.79681 (86030924)	821.36633 (86030924)	810.56354 (86030924)
300.0	859.35272 (86122316)	863.46301 (86122316)	857.63501 (86122316)
310.0	747.17236 (86112516)	703.90771 (86112516)	663.22449 (86112516)
320.0	620.14032 (86112516)	584.02856c(86083116)	560.01001c(86083116)
330.0	696.38544 (86082516)	658.24286 (86031308)	647.14502 (86031308)
340.0	1138.23914 (86031216)	1086.05127 (86031216)	1034.36743 (86031216)
350.0	807.03033 (86052008)	798.59552 (86052008)	785.06976 (86052008)
360.0	1174.87256 (86112616)	1122.24939 (86112616)	1070.17090 (86112616)

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** THE 1ST HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): FOAMLINE, LONGBUN , EXFAN_7 , EXFAN_12, EXFAN_19,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF MC_8 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
0.00	0.00	459.71237	(86051116)	15.24	0.00	389.49719	(86051116)
30.48	0.00	347.71576c	(86082316)	45.72	0.00	317.44687c	(86082316)
60.96	0.00	271.23529c	(86082316)	76.20	0.00	253.67317	(86010824)
91.44	0.00	189.26393	(86010816)	106.68	0.00	237.15665	(86111324)
121.92	0.00	208.09010	(86101924)	137.16	0.00	223.05246	(86032216)
152.40	0.00	185.58484	(86111324)	167.64	0.00	240.04150	(86032216)
182.88	0.00	237.21071	(86032216)	198.12	0.00	127.83493	(86032108)
213.36	0.00	229.92097	(86011116)	213.36	15.24	192.57123	(86011116)
213.36	30.48	94.83038	(86012808)	213.36	45.72	103.40688	(86022516)
213.36	60.96	110.27122	(86012724)	213.36	76.20	145.21114	(86012724)
213.36	91.44	69.72610	(86012724)	213.36	106.68	72.27760	(86012724)
213.36	121.92	55.57755	(86012724)	213.36	137.16	91.66653	(86022716)
213.36	152.40	112.41174	(86022716)	213.36	167.64	146.38264	(86042116)
213.36	182.88	212.50775	(86072916)	213.36	198.12	254.06845	(86072916)
213.36	213.36	229.05138	(86060816)	213.36	220.98	257.55319	(86060816)
198.12	220.98	267.22388	(86060816)	182.88	220.98	270.36105	(86121116)
167.64	220.98	257.11224	(86071316)	152.40	220.98	289.81400	(86071316)
137.16	220.98	302.26682	(86071316)	121.92	220.98	300.82031	(86071316)
106.68	220.98	300.00314	(86080516)	91.44	220.98	333.57956	(86080516)
76.20	220.98	346.99677	(86080516)	60.96	220.98	343.74380	(86080516)
45.72	220.98	359.75900	(86071716)	30.48	220.98	437.63000	(86071716)
15.24	220.98	508.93411	(86071716)	0.00	220.98	568.97375	(86071716)
0.00	213.36	534.29504	(86071716)	0.00	198.12	468.85440	(86062416)
0.00	182.88	414.25021	(86062416)	0.00	167.64	353.47974	(86062416)
0.00	152.40	316.40311	(86043016)	0.00	137.16	306.17462	(86043016)
0.00	121.92	280.64832	(86043016)	0.00	106.68	230.73425	(86043016)
0.00	91.44	221.09087	(86051716)	0.00	76.20	267.95572	(86051716)
0.00	60.96	318.41165	(86051716)	0.00	45.72	352.34811	(86051716)
0.00	30.48	371.14661	(86051716)	0.00	15.24	396.99011	(86051116)

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** THE SUMMARY OF HIGHEST 8-HR RESULTS ***

** CONC OF MC_8 IN MICROGRAMS/M**3 **

GROUP ID	AVERAGE CONC	DATE (YYMMDDHH)	RECEPTOR (XR, YR, ZELEV, ZFLAG)	OF TYPE	NETWORK GRID-ID
ALL HIGH 1ST HIGH VALUE IS	1538.88159	ON 86100416:	AT (582.99, 385.64, 0.00, 0.00)	GP	POLAR_1

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR
BD = BOUNDARY

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** Message Summary For ISC2 Model Execution ***

--------- Summary of Total Messages --------

A Total of 0 Fatal Error Message(s)
A Total of 0 Warning Message(s)
A Total of 328 Informational Message(s)

A Total of 328 Calm Hours Identified

******** FATAL ERROR MESSAGES ********
*** NONE ***

******** WARNING MESSAGES ********
*** NONE ***

****
*** ISCST2 Finishes Successfully ***
****

APPENDIX E

ISCST2 OUTPUT LISTING

METHYLENE CHLORIDE 24-HOUR AVERGAGE EMISSSION

RUN: FMXMC24

```
                    ISCST2 - (DATED 93109)

                    IBM-PC VERSION (2.11 ) ISCST2F
                    (C) COPYRIGHT 1992, TRINITY CONSULTANTS, INC.
                    SERIAL NUMBER 10573 SOLD TO CROSS, TESSITORE & ASSOC.

Run Began on  2/29/1996 at  8:50:30


*** TRINITY SOURCE FILE NAME: C:\PROJECT\26005\MODELDAT\FMXSRCA.PNT
*** TRINITY DOWNWASH FILE NAME: C:\PROJECT\26005\MODELDAT\FMXBPIP.WAK
*** TRINITY RECEPTOR FILE NAME: C:\PROJECT\26005\MODELDAT\FMXREC.REC
CO STARTING
CO TITLEONE Foamex;125' Foam Line & LBSR Stacks(GEP);53' Exhaust Fan Stacks (3)
CO TITLETWO Methlyene Chloride 24-hr Average Emissions
CO MODELOPT DFAULT CONC RURAL
CO AVERTIME 24
CO POLLUTID MC_24
CO TERRHGTS FLAT
CO ELEVUNIT FEET
CO RUNORNOT RUN
CO FINISHED
SO STARTING
SO LOCATION FOAMLINE POINT     175.87     119.79       0.00
SO SRCPARAM FOAMLINE 44.09920      38.10     299.82    24.5307      0.857
SO LOCATION LONGBUN POINT     152.40      17.07       0.00
SO SRCPARAM LONGBUN 25.72458      38.10     299.82    24.5307      0.857
SO LOCATION EXFAN_7 POINT     108.51     152.71       0.00
SO SRCPARAM EXFAN_7 1.316135      16.15     299.82    24.6109      1.105
SO LOCATION EXFAN_12 POINT     147.52     110.64       0.00
SO SRCPARAM EXFAN_12 1.316135      16.15     299.82    24.6109      1.105
SO LOCATION EXFAN_19 POINT     182.88     102.56       0.00
SO SRCPARAM EXFAN_19 1.316135      16.15     299.82    24.6109      1.105
SO BUILDHGT FOAMLINE    15.24    15.24    15.24    15.24    15.24    15.24
SO BUILDHGT FOAMLINE    12.19    12.19    12.19    12.19    12.19    12.19
SO BUILDHGT FOAMLINE    12.19    12.19    15.24    15.24    15.24    12.19
SO BUILDHGT FOAMLINE    12.19    15.24    15.24    15.24    15.24    15.24
SO BUILDHGT FOAMLINE    12.19    12.19    12.19    12.19    12.19    12.19
SO BUILDHGT FOAMLINE    12.19    12.19    15.24    15.24    15.24    15.24
SO BUILDWID FOAMLINE    80.42    88.29    93.48    95.83    95.26    91.81
SO BUILDWID FOAMLINE    39.97    39.64    38.10    39.64    39.97    39.09
SO BUILDWID FOAMLINE    37.02    33.83    93.48    88.29    80.42    12.19
SO BUILDWID FOAMLINE    18.62    88.29    93.48    95.83    95.26    91.81
SO BUILDWID FOAMLINE    39.97    39.64    38.10    39.64    39.97    39.09
SO BUILDWID FOAMLINE    37.02    33.83    93.48    88.29    80.42    70.11
SO BUILDHGT LONGBUN    15.24    15.24    15.24    15.24    15.24    15.24
SO BUILDHGT LONGBUN    15.24    15.24    15.24    15.24    15.24    15.24
SO BUILDHGT LONGBUN    15.24    15.24    15.24    15.24    15.24    15.24
SO BUILDHGT LONGBUN    15.24    15.24    15.24    15.24    15.24    15.24
SO BUILDHGT LONGBUN    15.24    15.24    15.24    15.24    15.24    15.24
SO BUILDHGT LONGBUN    15.24    15.24    15.24    15.24    15.24    15.24
SO BUILDWID LONGBUN    80.42    88.29    93.48    95.83    95.26    91.81
SO BUILDWID LONGBUN    85.56    76.71    65.53    76.71    85.56    91.81
SO BUILDWID LONGBUN    95.26    95.83    93.48    88.29    80.42    70.11
SO BUILDWID LONGBUN    80.42    88.29    93.48    95.83    95.26    91.81
SO BUILDWID LONGBUN    85.56    76.71    65.53    76.71    85.56    91.81
SO BUILDWID LONGBUN    95.26    95.83    93.48    88.29    80.42    70.11
SO BUILDHGT EXFAN_7    10.67    10.67    10.67    10.67    10.67    10.67
SO BUILDHGT EXFAN_7    10.67    10.67    10.67    10.67    10.67    10.67
SO BUILDHGT EXFAN_7    10.67    10.67    10.67    10.67    10.67    10.67
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SO BUILDHGT EXFAN_7    10.67    10.67    10.67    10.67    10.67    10.67
SO BUILDHGT EXFAN_7    10.67    10.67    10.67    10.67    10.67    10.67
SO BUILDHGT EXFAN_7    15.24    15.24    15.24    15.24    15.24    10.67
SO BUILDWID EXFAN_7   116.96   132.83   144.67   152.11   154.93   153.04
SO BUILDWID EXFAN_7   146.50   135.51   120.40   129.50   140.77   147.76
SO BUILDWID EXFAN_7   150.26   148.19   141.62   130.75   115.90    97.54
SO BUILDWID EXFAN_7   116.96   132.83   144.67   152.11   154.93   153.04
SO BUILDWID EXFAN_7   146.50   135.51   120.40   129.50   140.77   147.76
SO BUILDWID EXFAN_7    95.26    95.83    93.48    88.29    80.42    97.54
SO BUILDHGT EXFAN_12   15.24    15.24    15.24    15.24    15.24    12.19
SO BUILDHGT EXFAN_12   12.19    12.19    12.19    12.19    12.19    15.24
SO BUILDHGT EXFAN_12   15.24    15.24    15.24    15.24    15.24    15.24
SO BUILDHGT EXFAN_12   15.24    15.24    15.24    15.24    15.24    12.19
SO BUILDHGT EXFAN_12   12.19    12.19    12.19    12.19    12.19    15.24
SO BUILDHGT EXFAN_12   15.24    15.24    15.24    15.24    15.24    15.24
SO BUILDWID EXFAN_12   80.42    88.29    93.48    95.83    95.26    39.09
SO BUILDWID EXFAN_12   39.97    39.64   103.63   114.23    39.97    91.81
SO BUILDWID EXFAN_12   95.26    95.83    93.48    88.29    80.42    70.11
SO BUILDWID EXFAN_12   80.42    88.29    93.48    95.83    95.26    39.09
SO BUILDWID EXFAN_12   39.97    39.64    38.10    39.64    39.97    91.81
SO BUILDWID EXFAN_12   95.26    95.83    93.48    88.29    80.42    70.11
SO BUILDHGT EXFAN_19   15.24    15.24    15.24    15.24    15.24    15.24
SO BUILDHGT EXFAN_19   15.24    12.19    12.19    12.19    12.19    12.19
SO BUILDHGT EXFAN_19   12.19    15.24    15.24    15.24    15.24    15.24
SO BUILDHGT EXFAN_19   15.24    15.24    15.24    15.24    15.24    15.24
SO BUILDHGT EXFAN_19   15.24    12.19    12.19    12.19    12.19    12.19
SO BUILDHGT EXFAN_19   12.19    15.24    15.24    15.24    15.24    15.24
SO BUILDWID EXFAN_19   80.42    88.29    93.48    95.83    95.26    91.81
SO BUILDWID EXFAN_19   85.56    39.64    38.10    39.64    39.97    39.09
SO BUILDWID EXFAN_19   37.02    95.83    93.48    88.29    80.42    70.11
SO BUILDWID EXFAN_19   80.42    88.29    93.48    95.83    95.26    91.81
SO BUILDWID EXFAN_19   85.56    39.64    38.10    39.64    39.97    39.09
SO BUILDWID EXFAN_19   37.02    95.83    93.48    88.29    80.42    70.11
SO EMISUNIT 1000000.000000 GRAMS/SEC MICROGRAMS/M**3
SO SRCGROUP ALL
SO FINISHED
RE STARTING
RE GRIDPOLR POLAR_1  STA
RE GRIDPOLR POLAR_1  ORIG 106.68 110.64
RE GRIDPOLR POLAR_1  DIST 150.00 200.00 250.00 300.00
RE GRIDPOLR POLAR_1  DIST 350.00 400.00 450.00 500.00
RE GRIDPOLR POLAR_1  DIST 550.00 600.00 650.00 700.00
RE GRIDPOLR POLAR_1  DIST 750.00 800.00 850.00 900.00
RE GRIDPOLR POLAR_1  DIST 950.00 1000.00
RE GRIDPOLR POLAR_1  GDIR 36 10.00 10.00
RE GRIDPOLR POLAR_1  END
RE DISCCART 0.00 0.00
RE DISCCART 15.24 0.00
RE DISCCART 30.48 0.00
RE DISCCART 45.72 0.00
RE DISCCART 60.96 0.00
RE DISCCART 76.20 0.00
RE DISCCART 91.44 0.00
RE DISCCART 106.68 0.00
RE DISCCART 121.92 0.00
RE DISCCART 137.16 0.00
RE DISCCART 152.40 0.00
RE DISCCART 167.64 0.00
RE DISCCART 182.88 0.00
RE DISCCART 198.12 0.00
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RE DISCCART 213.36 0.00
RE DISCCART 213.36 15.24
RE DISCCART 213.36 30.48
RE DISCCART 213.36 45.72
RE DISCCART 213.36 60.96
RE DISCCART 213.36 76.20
RE DISCCART 213.36 91.44
RE DISCCART 213.36 106.68
RE DISCCART 213.36 121.92
RE DISCCART 213.36 137.16
RE DISCCART 213.36 152.40
RE DISCCART 213.36 167.64
RE DISCCART 213.36 182.88
RE DISCCART 213.36 198.12
RE DISCCART 213.36 213.36
RE DISCCART 213.36 220.98
RE DISCCART 198.12 220.98
RE DISCCART 182.88 220.98
RE DISCCART 167.64 220.98
RE DISCCART 152.40 220.98
RE DISCCART 137.16 220.98
RE DISCCART 121.92 220.98
RE DISCCART 106.68 220.98
RE DISCCART 91.44 220.98
RE DISCCART 76.20 220.98
RE DISCCART 60.96 220.98
RE DISCCART 45.72 220.98
RE DISCCART 30.48 220.98
RE DISCCART 15.24 220.98
RE DISCCART 0.00 220.98
RE DISCCART 0.00 213.36
RE DISCCART 0.00 198.12
RE DISCCART 0.00 182.88
RE DISCCART 0.00 167.64
RE DISCCART 0.00 152.40
RE DISCCART 0.00 137.16
RE DISCCART 0.00 121.92
RE DISCCART 0.00 106.68
RE DISCCART 0.00 91.44
RE DISCCART 0.00 76.20
RE DISCCART 0.00 60.96
RE DISCCART 0.00 45.72
RE DISCCART 0.00 30.48
RE DISCCART 0.00 15.24
RE FINISHED
ME STARTING
ME INPUTFIL C:\PROJECT\26005\MODELDAT\ORLPRE86.BIN UNFORM
ME ANEMHGHT   10.000 METERS
ME SURFDATA 12815 1986 ORLANDO
ME UAIRDATA 12842 1986 TAMPA
ME STARTEND 1986 1 1 1 1986 12 31 24
ME FINISHED
OU STARTING
OU RECTABLE 24 FIRST
OU FINISHED

**************************************
*** SETUP Finishes Successfully ***
**************************************
```

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** MODEL SETUP OPTIONS SUMMARY ***

- -

**Model Is Setup For Calculation of Average CONCentration Values.

**Model Uses RURAL Dispersion.

**Model Uses Regulatory DEFAULT Options:
1. Final Plume Rise.
2. Stack-tip Downwash.
3. Buoyancy-induced Dispersion.
4. Use Calms Processing Routine.
5. Not Use Missing Data Processing Routine.
6. Default Wind Profile Exponents.
7. Default Vertical Potential Temperature Gradients.
8. "Upper Bound" Values for Supersquat Buildings.
9. No Exponential Decay for RURAL Mode

**Model Assumes Receptors on FLAT Terrain.

**Model Assumes No FLAGPOLE Receptor Heights.

**Model Calculates 1 Short Term Average(s) of: 24-HR

**This Run Includes: 5 Source(s); 1 Source Group(s); and 706 Receptor(s)

**The Model Assumes A Pollutant Type of: MC_24

**Model Set To Continue RUNning After the Setup Testing.

**Output Options Selected:
Model Outputs Tables of Highest Short Term Values by Receptor (RECTABLE Keyword)

**NOTE: The Following Flags May Appear Following CONC Values: c for Calm Hours
m for Missing Hours
b for Both Calm and Missing Hours

**Misc. Inputs: Anem. Hgt. (m) = 10.00 ; Decay Coef. = 0.0000 ; Rot. Angle = 0.0
Emission Units = GRAMS/SEC ; Emission Rate Unit Factor = 0.10000E+07
Output Units = MICROGRAMS/M**3

**Input Runstream File: C:\PROJECT\26005\MODELDAT\FMXMC24.DAT ; **Output Print File: C:\PROJECT\26005\MODELDAT\FMXMC24.LST

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** POINT SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (USER UNITS)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	STACK HEIGHT (METERS)	STACK TEMP. (DEG.K)	STACK EXIT VEL. (M/SEC)	STACK DIAMETER (METERS)	BUILDING EXISTS	EMISSION RATE SCALAR VARY BY
FOAMLINE	0	0.44099E+02	175.9	119.8	0.0	38.10	299.82	24.53	0.86	YES	
LONGBUN	0	0.25725E+02	152.4	17.1	0.0	38.10	299.82	24.53	0.86	YES	
EXFAN_7	0	0.13161E+01	108.5	152.7	0.0	16.15	299.82	24.61	1.11	YES	
EXFAN_12	0	0.13161E+01	147.5	110.6	0.0	16.15	299.82	24.61	1.11	YES	
EXFAN_19	0	0.13161E+01	182.9	102.6	0.0	16.15	299.82	24.61	1.11	YES	

ok

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** SOURCE IDs DEFINING SOURCE GROUPS ***

GROUP ID	SOURCE IDs
ALL	FOAMLINE, LONGBUN , EXFAN_7 , EXFAN_12, EXFAN_19,

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** DIRECTION SPECIFIC BUILDING DIMENSIONS ***

SOURCE ID: FOAMLINE

IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK
1	15.2,	80.4,	0	2	15.2,	88.3,	0	3	15.2,	93.5,	0	4	15.2,	95.8,	0	5	15.2,	95.3,	0	6	15.2,	91.8,	0
7	12.2,	40.0,	0	8	12.2,	39.6,	0	9	12.2,	38.1,	0	10	12.2,	39.6,	0	11	12.2,	40.0,	0	12	12.2,	39.1,	0
13	12.2,	37.0,	0	14	12.2,	33.8,	0	15	15.2,	93.5,	0	16	15.2,	88.3,	0	17	15.2,	80.4,	0	18	12.2,	12.2,	0
19	12.2,	18.6,	0	20	15.2,	88.3,	0	21	15.2,	93.5,	0	22	15.2,	95.8,	0	23	15.2,	95.3,	0	24	15.2,	91.8,	0
25	12.2,	40.0,	0	26	12.2,	39.6,	0	27	12.2,	38.1,	0	28	12.2,	39.6,	0	29	12.2,	40.0,	0	30	12.2,	39.1,	0
31	12.2,	37.0,	0	32	12.2,	33.8,	0	33	15.2,	93.5,	0	34	15.2,	88.3,	0	35	15.2,	80.4,	0	36	15.2,	70.1,	0

SOURCE ID: LONGBUN

IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK
1	15.2,	80.4,	0	2	15.2,	88.3,	0	3	15.2,	93.5,	0	4	15.2,	95.8,	0	5	15.2,	95.3,	0	6	15.2,	91.8,	0
7	15.2,	85.6,	0	8	15.2,	76.7,	0	9	15.2,	65.5,	0	10	15.2,	76.7,	0	11	15.2,	85.6,	0	12	15.2,	91.8,	0
13	15.2,	95.3,	0	14	15.2,	95.8,	0	15	15.2,	93.5,	0	16	15.2,	88.3,	0	17	15.2,	80.4,	0	18	15.2,	70.1,	0
19	15.2,	80.4,	0	20	15.2,	88.3,	0	21	15.2,	93.5,	0	22	15.2,	95.8,	0	23	15.2,	95.3,	0	24	15.2,	91.8,	0
25	15.2,	85.6,	0	26	15.2,	76.7,	0	27	15.2,	65.5,	0	28	15.2,	76.7,	0	29	15.2,	85.6,	0	30	15.2,	91.8,	0
31	15.2,	95.3,	0	32	15.2,	95.8,	0	33	15.2,	93.5,	0	34	15.2,	88.3,	0	35	15.2,	80.4,	0	36	15.2,	70.1,	0

SOURCE ID: EXFAN_7

IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK
1	10.7,	117.0,	0	2	10.7,	132.8,	0	3	10.7,	144.7,	0	4	10.7,	152.1,	0	5	10.7,	154.9,	0	6	10.7,	153.0,	0
7	10.7,	146.5,	0	8	10.7,	135.5,	0	9	10.7,	120.4,	0	10	10.7,	129.5,	0	11	10.7,	140.8,	0	12	10.7,	147.8,	0
13	10.7,	150.3,	0	14	10.7,	148.2,	0	15	10.7,	141.6,	0	16	10.7,	130.8,	0	17	10.7,	115.9,	0	18	10.7,	97.5,	0
19	10.7,	117.0,	0	20	10.7,	132.8,	0	21	10.7,	144.7,	0	22	10.7,	152.1,	0	23	10.7,	154.9,	0	24	10.7,	153.0,	0
25	10.7,	146.5,	0	26	10.7,	135.5,	0	27	10.7,	120.4,	0	28	10.7,	129.5,	0	29	10.7,	140.8,	0	30	10.7,	147.8,	0
31	15.2,	95.3,	0	32	15.2,	95.8,	0	33	15.2,	93.5,	0	34	15.2,	88.3,	0	35	15.2,	80.4,	0	36	10.7,	97.5,	0

SOURCE ID: EXFAN_12

IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK
1	15.2,	80.4,	0	2	15.2,	88.3,	0	3	15.2,	93.5,	0	4	15.2,	95.8,	0	5	15.2,	95.3,	0	6	12.2,	39.1,	0
7	12.2,	40.0,	0	8	12.2,	39.6,	0	9	12.2,	103.6,	0	10	12.2,	114.2,	0	11	12.2,	40.0,	0	12	15.2,	91.8,	0
13	15.2,	95.3,	0	14	15.2,	95.8,	0	15	15.2,	93.5,	0	16	15.2,	88.3,	0	17	15.2,	80.4,	0	18	15.2,	70.1,	0
19	15.2,	80.4,	0	20	15.2,	88.3,	0	21	15.2,	93.5,	0	22	15.2,	95.8,	0	23	15.2,	95.3,	0	24	12.2,	39.1,	0
25	12.2,	40.0,	0	26	12.2,	39.6,	0	27	12.2,	38.1,	0	28	12.2,	39.6,	0	29	12.2,	40.0,	0	30	15.2,	91.8,	0
31	15.2,	95.3,	0	32	15.2,	95.8,	0	33	15.2,	93.5,	0	34	15.2,	88.3,	0	35	15.2,	80.4,	0	36	15.2,	70.1,	0

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** DIRECTION SPECIFIC BUILDING DIMENSIONS ***

SOURCE ID: EXFAN_19

IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK
1	15.2,	80.4,	0	2	15.2,	88.3,	0	3	15.2,	93.5,	0	4	15.2,	95.8,	0	5	15.2,	95.3,	0	6	15.2,	91.8,	0
7	15.2,	85.6,	0	8	12.2,	39.6,	0	9	12.2,	38.1,	0	10	12.2,	39.6,	0	11	12.2,	40.0,	0	12	12.2,	39.1,	0
13	12.2,	37.0,	0	14	15.2,	95.8,	0	15	15.2,	93.5,	0	16	15.2,	88.3,	0	17	15.2,	80.4,	0	18	15.2,	70.1,	0
19	15.2,	80.4,	0	20	15.2,	88.3,	0	21	15.2,	93.5,	0	22	15.2,	95.8,	0	23	15.2,	95.3,	0	24	15.2,	91.8,	0
25	15.2,	85.6,	0	26	12.2,	39.6,	0	27	12.2,	38.1,	0	28	12.2,	39.6,	0	29	12.2,	40.0,	0	30	12.2,	39.1,	0
31	12.2,	37.0,	0	32	15.2,	95.8,	0	33	15.2,	93.5,	0	34	15.2,	88.3,	0	35	15.2,	80.4,	0	36	15.2,	70.1,	0

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** GRIDDED RECEPTOR NETWORK SUMMARY ***

*** NETWORK ID: POLAR_1 ; NETWORK TYPE: GRIDPOLR ***

*** ORIGIN FOR POLAR NETWORK ***
X-ORIG = 106.68 ; Y-ORIG = 110.64 (METERS)

*** DISTANCE RANGES OF NETWORK ***
(METERS)

150.0, 200.0, 250.0, 300.0, 350.0, 400.0, 450.0, 500.0, 550.0, 600.0,
650.0, 700.0, 750.0, 800.0, 850.0, 900.0, 950.0, 1000.0,

*** DIRECTION RADIALS OF NETWORK ***
(DEGREES)

10.0, 20.0, 30.0, 40.0, 50.0, 60.0, 70.0, 80.0, 90.0, 100.0,
110.0, 120.0, 130.0, 140.0, 150.0, 160.0, 170.0, 180.0, 190.0, 200.0,
210.0, 220.0, 230.0, 240.0, 250.0, 260.0, 270.0, 280.0, 290.0, 300.0,
310.0, 320.0, 330.0, 340.0, 350.0, 360.0,

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZFLAG)
(METERS)

(0.0,	0.0,	0.0,	0.0);	(15.2,	0.0,	0.0,	0.0);
(30.5,	0.0,	0.0,	0.0);	(45.7,	0.0,	0.0,	0.0);
(61.0,	0.0,	0.0,	0.0);	(76.2,	0.0,	0.0,	0.0);
(91.4,	0.0,	0.0,	0.0);	(106.7,	0.0,	0.0,	0.0);
(121.9,	0.0,	0.0,	0.0);	(137.2,	0.0,	0.0,	0.0);
(152.4,	0.0,	0.0,	0.0);	(167.6,	0.0,	0.0,	0.0);
(182.9,	0.0,	0.0,	0.0);	(198.1,	0.0,	0.0,	0.0);
(213.4,	0.0,	0.0,	0.0);	(213.4,	15.2,	0.0,	0.0);
(213.4,	30.5,	0.0,	0.0);	(213.4,	45.7,	0.0,	0.0);
(213.4,	61.0,	0.0,	0.0);	(213.4,	76.2,	0.0,	0.0);
(213.4,	91.4,	0.0,	0.0);	(213.4,	106.7,	0.0,	0.0);
(213.4,	121.9,	0.0,	0.0);	(213.4,	137.2,	0.0,	0.0);
(213.4,	152.4,	0.0,	0.0);	(213.4,	167.6,	0.0,	0.0);
(213.4,	182.9,	0.0,	0.0);	(213.4,	198.1,	0.0,	0.0);
(213.4,	213.4,	0.0,	0.0);	(213.4,	221.0,	0.0,	0.0);
(198.1,	221.0,	0.0,	0.0);	(182.9,	221.0,	0.0,	0.0);
(167.6,	221.0,	0.0,	0.0);	(152.4,	221.0,	0.0,	0.0);
(137.2,	221.0,	0.0,	0.0);	(121.9,	221.0,	0.0,	0.0);
(106.7,	221.0,	0.0,	0.0);	(91.4,	221.0,	0.0,	0.0);
(76.2,	221.0,	0.0,	0.0);	(61.0,	221.0,	0.0,	0.0);
(45.7,	221.0,	0.0,	0.0);	(30.5,	221.0,	0.0,	0.0);
(15.2,	221.0,	0.0,	0.0);	(0.0,	221.0,	0.0,	0.0);
(0.0,	213.4,	0.0,	0.0);	(0.0,	198.1,	0.0,	0.0);
(0.0,	182.9,	0.0,	0.0);	(0.0,	167.6,	0.0,	0.0);
(0.0,	152.4,	0.0,	0.0);	(0.0,	137.2,	0.0,	0.0);
(0.0,	121.9,	0.0,	0.0);	(0.0,	106.7,	0.0,	0.0);
(0.0,	91.4,	0.0,	0.0);	(0.0,	76.2,	0.0,	0.0);
(0.0,	61.0,	0.0,	0.0);	(0.0,	45.7,	0.0,	0.0);
(0.0,	30.5,	0.0,	0.0);	(0.0,	15.2,	0.0,	0.0);

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

* SOURCE-RECEPTOR COMBINATIONS LESS THAN 1.0 METER OR 3*ZLB *
IN DISTANCE. CALCULATIONS MAY NOT BE PERFORMED.

SOURCE ID	- - RECEPTOR LOCATION - - XR (METERS)	YR (METERS)	DISTANCE (METERS)
LONGBUN	121.9	0.0	34.93
LONGBUN	137.2	0.0	22.88
LONGBUN	152.4	0.0	17.07
LONGBUN	167.6	0.0	22.88
LONGBUN	182.9	0.0	34.93
EXFAN_19	213.4	91.4	32.45
EXFAN_19	213.4	106.7	30.76
EXFAN_19	213.4	121.9	36.11

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***
(1=YES; 0=NO)

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1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
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1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1
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METEOROLOGICAL DATA PROCESSED BETWEEN START DATE: 86 1 1 1
AND END DATE: 86 12 31 24

NOTE: METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA FILE.

*** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***
(METERS/SEC)

1.54, 3.09, 5.14, 8.23, 10.80,

*** WIND PROFILE EXPONENTS ***

STABILITY	WIND SPEED CATEGORY					
CATEGORY	1	2	3	4	5	6
A	.70000E-01	.70000E-01	.70000E-01	.70000E-01	.70000E-01	.70000E-01
B	.70000E-01	.70000E-01	.70000E-01	.70000E-01	.70000E-01	.70000E-01
C	.10000E+00	.10000E+00	.10000E+00	.10000E+00	.10000E+00	.10000E+00
D	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00
E	.35000E+00	.35000E+00	.35000E+00	.35000E+00	.35000E+00	.35000E+00
F	.55000E+00	.55000E+00	.55000E+00	.55000E+00	.55000E+00	.55000E+00

*** VERTICAL POTENTIAL TEMPERATURE GRADIENTS ***
(DEGREES KELVIN PER METER)

STABILITY	WIND SPEED CATEGORY					
CATEGORY	1	2	3	4	5	6
A	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
B	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
C	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
D	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
E	.20000E-01	.20000E-01	.20000E-01	.20000E-01	.20000E-01	.20000E-01
F	.35000E-01	.35000E-01	.35000E-01	.35000E-01	.35000E-01	.35000E-01

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

FILE: C:\PROJECT\26005\MODELDAT\ORLPRE86.BIN FORMAT: UNFORM
SURFACE STATION NO.: 12815 UPPER AIR STATION NO.: 12842
NAME: ORLANDO NAME: TAMPA
YEAR: 1986 YEAR: 1986

YEAR	MONTH	DAY	HOUR	FLOW VECTOR	SPEED (M/S)	TEMP (K)	STAB CLASS	MIXING HEIGHT (M) RURAL	URBAN
86	1	1	1	1.0	3.60	289.3	4	639.0	639.0
86	1	1	2	168.0	5.14	288.7	4	639.0	639.0
86	1	1	3	124.0	3.09	288.2	4	639.0	639.0
86	1	1	4	353.0	2.57	288.2	4	639.0	639.0
86	1	1	5	333.0	2.57	288.7	4	639.0	639.0
86	1	1	6	332.0	2.57	288.7	4	639.0	639.0
86	1	1	7	335.0	3.09	288.7	4	639.0	639.0
86	1	1	8	3.0	3.60	289.3	4	639.0	639.0
86	1	1	9	347.0	3.60	289.8	4	639.0	639.0
86	1	1	10	1.0	5.14	292.0	4	639.0	639.0
86	1	1	11	14.0	4.63	292.6	4	639.0	639.0
86	1	1	12	16.0	4.12	294.3	4	639.0	639.0
86	1	1	13	73.0	3.09	295.4	4	639.0	639.0
86	1	1	14	49.0	3.60	297.0	4	639.0	639.0
86	1	1	15	142.0	2.06	296.5	4	639.0	639.0
86	1	1	16	144.0	2.06	295.9	4	639.0	639.0
86	1	1	17	261.0	2.06	295.4	4	639.0	639.0
86	1	1	18	257.0	2.06	292.6	4	644.0	644.0
86	1	1	19	274.0	3.60	291.5	4	655.0	655.0
86	1	1	20	227.0	3.09	290.9	4	666.0	666.0
86	1	1	21	230.0	3.09	290.9	4	678.0	678.0
86	1	1	22	252.0	2.57	290.4	5	689.0	477.0
86	1	1	23	290.0	2.06	290.4	4	700.0	700.0
86	1	1	24	290.0	1.00	290.4	4	712.0	712.0

*** NOTES: STABILITY CLASS 1=A, 2=B, 3=C, 4=D, 5=E AND 6=F.
FLOW VECTOR IS DIRECTION TOWARD WHICH WIND IS BLOWING.

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** THE 1ST HIGHEST 24-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): FOAMLINE, LONGBUN , EXFAN_7 , EXFAN_12, EXFAN_19,

*** NETWORK ID: POLAR_1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF MC_24 IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 150.00	200.00	250.00	300.00	350.00
10.0	64.62398c(86071324)	110.45632c(86071324)	153.77820c(86071324)	180.98230c(86071324)	191.08554c(86071324)
20.0	56.07521c(86071324)	89.63417c(86071324)	114.88485c(86071324)	122.03212c(86071324)	115.79297c(86071324)
30.0	41.68173c(86060824)	64.71577c(86060824)	81.93478c(86060824)	87.77052c(86053124)	96.61325c(86010224)
40.0	34.08523c(86060824)	53.74473c(86053124)	90.93136c(86053124)	111.77843c(86053124)	141.49129 (86080424)
50.0	34.29264 (86072924)	55.03418c(86053124)	82.93037c(86053124)	104.89309 (86072624)	133.50468 (86072624)
60.0	30.91954 (86022724)	39.54100c(86072024)	70.14522c(86072024)	104.43174c(86072024)	132.90935c(86072024)
70.0	31.61823 (86022724)	39.22813 (86022724)	68.45165c(86072024)	106.97662c(86072024)	137.38144c(86072024)
80.0	30.51965 (86022724)	40.18287 (86011924)	52.05294c(86072024)	76.24372c(86072024)	103.79783 (86091224)
90.0	17.97727 (86012724)	25.08934 (86012724)	49.63270c(86071524)	82.00921c(86071524)	104.13966c(86071524)
100.0	18.23339 (86012724)	26.34756 (86012724)	35.17340c(86050824)	69.10752c(86071524)	94.54184c(86071924)
110.0	23.05102 (86012724)	25.09401 (86011324)	46.38017 (86042824)	77.55309 (86042924)	113.07825 (86042924)
120.0	23.66829c(86012824)	33.28165 (86042624)	57.33330 (86042624)	90.60683c(86090224)	114.36475 (86042824)
130.0	27.72893 (86011124)	41.64555c(86012824)	60.97499 (86042624)	99.32565 (86042624)	132.96111 (86042624)
140.0	38.75807 (86011124)	60.72610 (86011124)	50.50911 (86032124)	70.78880 (86050324)	101.84143 (86042824)
150.0	56.30822 (86011124)	58.25737 (86011124)	66.29906 (86011124)	94.18443 (86101624)	129.45226 (86101624)
160.0	44.31867 (86032224)	48.11505 (86032224)	67.00051 (86110324)	90.48270 (86110324)	105.03558 (86110324)
170.0	37.61950 (86032224)	52.09204c(86082324)	81.27655c(86082324)	105.70969 (86110324)	139.97513 (86110324)
180.0	42.31581c(86111324)	54.49638c(86082324)	86.76553c(86082324)	116.74517c(86082324)	132.85365c(86082324)
190.0	45.39690c(86111324)	61.77560c(86111324)	87.04076c(86082324)	108.04263c(86082324)	118.97469c(86082324)
200.0	62.36171 (86010824)	80.22354c(86082324)	109.91673c(86082324)	128.41046c(86082324)	138.09479c(86111324)
210.0	64.11866 (86010824)	89.89091c(86082324)	123.81360c(86082324)	146.63852c(86082324)	154.27757c(86082324)
220.0	51.02184c(86051124)	77.06342c(86051124)	105.88123c(86082324)	126.31975c(86082324)	136.41356c(86082324)
230.0	55.87620c(86051724)	83.16846c(86051124)	115.21424 (86062624)	137.05043 (86062624)	146.48972 (86062624)
240.0	60.77233c(86051724)	77.90916 (86062624)	110.62742 (86062624)	134.73198 (86062624)	146.68100 (86062624)
250.0	59.50095c(86051724)	79.08665c(86051724)	99.58491 (86062624)	118.62089 (86062624)	132.91573 (86091524)
260.0	51.74401c(86051724)	74.28932c(86051324)	105.69244c(86051324)	126.63688c(86051324)	138.12056c(86051324)
270.0	57.08998 (86043024)	82.68748 (86043024)	104.21466c(86051324)	124.32312c(86051324)	134.85971c(86051324)
280.0	67.07754 (86043024)	99.61904 (86043024)	118.47159 (86043024)	124.22488 (86043024)	138.83681 (86062324)
290.0	67.62952c(86051724)	101.65933 (86040624)	134.60994 (86040624)	151.83740 (86040624)	157.40453 (86040624)
300.0	68.94825c(86051724)	114.55441 (86040624)	155.15292 (86040624)	178.79646 (86040624)	188.31665 (86040624)
310.0	67.23714 (86071724)	113.33025 (86040624)	146.72090 (86040624)	160.61310 (86040624)	160.40991 (86040624)
320.0	67.37908 (86071724)	107.26949c(86052924)	134.75529c(86052924)	142.69684c(86052924)	136.57605c(86052924)
330.0	62.58248 (86071724)	91.07554c(86052924)	105.92369c(86052924)	122.89561c(86082524)	136.27124c(86082524)
340.0	84.21647 (86031324)	86.67995 (86031324)	108.56568c(86082724)	125.51842c(86082724)	140.21443 (86031224)
350.0	76.42229 (86031324)	97.23291 (86080524)	124.01017c(86071324)	141.79665c(86071324)	147.82486c(86071324)
360.0	65.00793c(86071324)	107.39388c(86071324)	149.37723c(86071324)	176.91907c(86071324)	189.62596c(86071324)

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** THE 1ST HIGHEST 24-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): FOAMLINE, LONGBUN , EXFAN_7 , EXFAN_12, EXFAN_19,

*** NETWORK ID: POLAR_1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF MC_24 IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 400.00	450.00	500.00	550.00	600.00
10.0	189.50717c(86071324)	182.13489c(86071324)	172.23225c(86071324)	161.62694c(86071324)	151.56819c(86071324)
20.0	114.26035 (86080224)	118.52618c(86010224)	119.72932 (86080224)	121.89883 (86072324)	131.66916 (86072324)
30.0	101.04980 (86080424)	108.00483 (86080424)	110.70713 (86080424)	113.74290c(86081924)	119.24237c(86081924)
40.0	159.64919 (86080424)	166.26613 (86080424)	165.44011 (86080424)	159.10132 (86080424)	152.61945 (86072824)
50.0	149.05653 (86072624)	153.50902 (86072624)	151.20490 (86072624)	144.67499 (86072624)	136.31789 (86072624)
60.0	150.63130c(86072024)	158.19418c(86072024)	170.44640 (86100424)	176.03447 (86100424)	174.85170 (86100424)
70.0	153.58101c(86072024)	173.77444c(86081824)	198.93478c(86081824)	214.32581c(86081824)	221.56711c(86081824)
80.0	118.06305 (86091224)	125.73129c(86081824)	136.92818c(86081824)	141.43137c(86081824)	141.57492c(86081824)
90.0	122.58560c(86071924)	139.82129c(86071924)	149.66510c(86071924)	153.46454c(86071924)	153.12465c(86071924)
100.0	118.89106c(86071924)	134.74606c(86071924)	144.31093c(86071924)	148.63292c(86071924)	149.28679c(86071924)
110.0	145.28368 (86042924)	169.35477 (86042924)	184.78764 (86042924)	192.66125 (86042924)	194.96928 (86042924)
120.0	140.94542c(86052224)	159.63985c(86052224)	169.48048c(86052224)	172.19678 (86042924)	175.86778 (86042924)
130.0	154.08044 (86042624)	162.59824 (86042624)	162.01323 (86042624)	172.04623c(86012824)	179.21986c(86012824)
140.0	125.38773 (86042824)	138.69565 (86042824)	143.87802 (86042824)	143.32130 (86042824)	138.90150 (86042824)
150.0	157.85861 (86101624)	176.64946 (86101624)	186.09624 (86101624)	188.12927 (86101624)	184.82007 (86101624)
160.0	127.13855 (86101624)	155.66537 (86101624)	179.60930 (86101624)	199.34247 (86101624)	215.05663 (86101624)
170.0	163.28490 (86110324)	175.58549 (86110324)	178.49194 (86110324)	175.79597 (86110324)	169.43623 (86110324)
180.0	133.56131c(86082324)	145.14294 (86110324)	158.67174 (86110324)	167.03777 (86110324)	171.28792 (86110324)
190.0	119.74009c(86082324)	112.63388c(86082324)	111.07122 (86102124)	111.43865 (86102124)	109.75504 (86102124)
200.0	144.40506c(86111324)	145.67754 (86120424)	154.50560 (86120424)	157.18129 (86120424)	155.28706 (86120424)
210.0	154.46950c(86111324)	160.86835c(86111324)	163.09747c(86111324)	162.17200c(86111324)	159.12810c(86111324)
220.0	137.33086c(86082324)	152.33519 (86060524)	164.26672 (86060524)	172.27039 (86060524)	176.89952 (86060524)
230.0	147.70779 (86062624)	143.54507 (86062624)	137.22942c(86051124)	131.08014c(86051124)	136.84892 (86010924)
240.0	148.67685 (86062624)	144.17012 (86062624)	141.15758 (86091524)	135.39302 (86091524)	127.31747 (86091524)
250.0	145.47490 (86091524)	153.34969 (86091524)	157.20714 (86091524)	157.82948 (86091524)	156.03432 (86091524)
260.0	143.21989c(86051324)	143.13191c(86051324)	139.91348c(86051324)	135.07378c(86051324)	129.56343c(86051324)
270.0	138.81320c(86051324)	137.58722c(86051324)	133.56813c(86051324)	128.30191c(86051324)	122.66740c(86051324)
280.0	152.02995 (86062324)	159.71965 (86062324)	163.09004 (86062324)	163.22908 (86062324)	161.03569 (86062324)
290.0	155.59383 (86040624)	149.14017 (86040624)	140.66321 (86040624)	135.86876 (86062324)	134.96613 (86062324)
300.0	188.20068 (86040624)	181.26341 (86040624)	170.82994 (86040624)	164.07802 (86030924)	173.49176 (86030924)
310.0	152.81133 (86040624)	140.79059 (86040624)	134.27992c(86100324)	131.10580c(86100324)	125.84645c(86100324)
320.0	132.56732 (86081124)	135.90782 (86081124)	134.96552 (86081124)	131.35600 (86081124)	126.28226 (86081124)
330.0	143.04784c(86082524)	144.31160c(86082524)	144.27307 (86031324)	156.62418 (86031324)	167.44228 (86031324)
340.0	163.16235 (86031224)	180.24648 (86031224)	191.36169 (86031224)	197.19777 (86031224)	198.74951 (86031224)
350.0	155.69490 (86100924)	158.98613 (86100924)	157.74959 (86100924)	154.00854 (86100924)	149.08852 (86100924)
360.0	192.07825c(86071324)	189.20903c(86071324)	183.37962c(86071324)	176.26341c(86071324)	169.13719c(86071324)

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** THE 1ST HIGHEST 24-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): FOAMLINE, LONGBUN , EXFAN_7 , EXFAN_12, EXFAN_19,

*** NETWORK ID: POLAR_1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF MC_24 IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 650.00	700.00	750.00	800.00	850.00
10.0	153.92349 (86082024)	163.25174 (86082024)	170.66173 (86082024)	176.22516 (86082024)	180.09346 (86082024)
20.0	138.21376 (86072324)	141.98116 (86072324)	143.43230 (86072324)	143.10750 (86072324)	141.42171 (86072324)
30.0	121.73094c(86081924)	121.84637c(86081924)	120.19240c(86081924)	117.29845c(86081924)	113.59102c(86081924)
40.0	147.55176 (86072824)	141.23293 (86072824)	134.24240 (86072824)	128.61775 (86070224)	127.54722 (86070224)
50.0	127.59241 (86072624)	119.20779 (86072624)	112.24872 (86112024)	117.59003 (86112024)	121.48153 (86112024)
60.0	169.43997 (86100424)	161.57588 (86100424)	152.48929 (86100424)	142.98045 (86100424)	133.54640 (86100424)
70.0	222.95300c(86081824)	220.41573c(86081824)	215.39934c(86081824)	208.91531c(86081824)	201.64380c(86081824)
80.0	139.39011c(86081824)	136.09744c(86081824)	132.33253c(86081824)	128.38785c(86081824)	124.38220c(86081824)
90.0	150.42670c(86071924)	146.57884c(86071924)	142.22176c(86071924)	137.98856c(86071924)	134.03355c(86071924)
100.0	147.58180c(86071924)	144.35870c(86071924)	140.15582c(86071924)	135.32655c(86071924)	130.11469c(86071924)
110.0	193.56586 (86042924)	189.80876 (86042924)	184.50990 (86042924)	178.45311 (86042924)	172.02989 (86042924)
120.0	174.36444 (86042924)	169.45538 (86042924)	162.46939 (86042924)	154.37233 (86042924)	145.79880 (86042924)
130.0	181.49670c(86012824)	180.27420c(86012824)	176.67763c(86012824)	171.54158c(86012824)	165.46117c(86012824)
140.0	134.27116 (86042624)	128.93599 (86042624)	123.31144 (86042624)	117.69027 (86042624)	112.21796 (86042624)
150.0	178.04610 (86101624)	169.24306 (86101624)	159.42070 (86101624)	149.25854 (86101624)	139.19466 (86101624)
160.0	227.33405 (86101624)	236.63496 (86101624)	243.32056 (86101624)	247.71040 (86101624)	250.10368 (86101624)
170.0	161.26888 (86110324)	175.11559 (86120524)	186.81941 (86120524)	195.20494 (86120524)	200.54424 (86120524)
180.0	172.67982 (86110324)	172.07619 (86110324)	170.05992 (86110324)	177.50146 (86122824)	186.35081 (86122824)
190.0	107.00928 (86102124)	104.91246c(86111324)	103.31490c(86111324)	100.88451c(86111324)	100.71613c(86122624)
200.0	150.38628 (86120424)	143.71568 (86120424)	136.15508 (86120424)	135.03429 (86102824)	140.12117 (86102824)
210.0	154.63295c(86111324)	149.14806c(86111324)	143.03258c(86111324)	136.59012c(86111324)	129.98715c(86111324)
220.0	178.72626 (86060524)	178.28149 (86060524)	176.04376 (86060524)	173.29907 (86010824)	177.54553 (86010824)
230.0	150.70518 (86010924)	161.99614 (86010924)	170.66261 (86010924)	176.92650 (86010924)	181.03215 (86010924)
240.0	132.50056 (86010924)	142.39343 (86010924)	150.36559 (86010924)	156.57524 (86010924)	161.27388 (86010924)
250.0	152.56844 (86091524)	148.04904 (86091524)	142.94936 (86091524)	137.61113 (86091524)	132.26729 (86091524)
260.0	123.95714c(86051324)	118.57361c(86051324)	113.58294c(86051324)	109.05421c(86051324)	105.24193c(86091024)
270.0	119.26530 (86051624)	120.21228 (86051624)	121.71647 (86051524)	122.98852 (86051524)	123.34345 (86051524)
280.0	157.21877 (86062324)	152.31990 (86062324)	146.74582 (86062324)	140.79614 (86062324)	134.68712 (86062324)
290.0	134.14864 (86052624)	132.42317 (86052624)	129.79167 (86052624)	126.55731 (86052624)	126.13226 (86030924)
300.0	179.86804 (86030924)	183.53807 (86030924)	184.92015 (86030924)	184.44371 (86030924)	182.69597 (86030924)
310.0	123.61481 (86122324)	130.39119 (86122324)	135.31152 (86122324)	138.54240 (86122324)	140.30577 (86122324)
320.0	120.55167 (86081124)	114.66821 (86081124)	108.92567 (86081124)	103.48194 (86081124)	98.40801 (86081124)
330.0	176.40205 (86031324)	183.38300 (86031324)	188.42729 (86031324)	191.85864 (86031324)	193.71547 (86031324)
340.0	197.03001 (86031224)	192.93750 (86031224)	187.21104 (86031224)	180.43004 (86031224)	173.03345 (86031224)
350.0	143.76445 (86100924)	138.44673 (86100924)	133.32330 (86100924)	128.46510 (86100924)	123.87992 (86100924)
360.0	162.99318 (86112624)	161.38985 (86112624)	158.56340 (86112624)	155.98015 (86082024)	165.47153 (86082024)

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** THE 1ST HIGHEST 24-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): FOAMLINE, LONGBUN , EXFAN_7 , EXFAN_12, EXFAN_19,

*** NETWORK ID: POLAR_1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF MC_24 IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 900.00	950.00	1000.00
10.0	182.45668 (86082024)	183.12144 (86082024)	182.57524 (86082024)
20.0	138.74904 (86072324)	135.24834 (86072324)	134.43564 (86011024)
30.0	111.23856 (86072824)	110.78739 (86071024)	110.45576 (86071024)
40.0	125.47529 (86070224)	122.77652 (86070224)	120.60612 (86021024)
50.0	124.19659 (86112024)	125.88150 (86112024)	126.33078 (86112024)
60.0	124.47635 (86100424)	115.93738 (86100424)	107.98435 (86100424)
70.0	194.02921c(86081824)	186.35461c(86081824)	178.79543c(86081824)
80.0	120.35863c(86081824)	116.33376c(86081824)	112.31881c(86081824)
90.0	130.47958c(86071924)	127.35487c(86071924)	124.64201c(86071924)
100.0	124.69489c(86071924)	119.19632c(86071924)	113.71558c(86071924)
110.0	165.48753 (86042924)	159.00887 (86042924)	152.70840 (86042924)
120.0	137.16907 (86042924)	133.70116 (86022024)	133.17726 (86022024)
130.0	158.88222c(86012824)	152.13120c(86012824)	145.30568c(86012824)
140.0	109.77746 (86032124)	112.16880 (86122924)	115.09214 (86122924)
150.0	129.49774 (86101624)	124.03290 (86032124)	122.76264 (86032124)
160.0	250.78723 (86101624)	249.93355 (86101624)	248.02727 (86101624)
170.0	203.36232 (86120524)	204.14587 (86120524)	202.90446 (86120524)
180.0	192.92377 (86122824)	197.05626 (86122824)	198.93182 (86122824)
190.0	106.57166c(86122624)	111.28461c(86122624)	114.54167c(86122624)
200.0	144.12993 (86102824)	147.21315 (86102824)	148.66817 (86102824)
210.0	125.54034 (86101924)	126.53357 (86010724)	127.96084 (86010724)
220.0	179.99907 (86010824)	180.52034 (86010824)	179.02599 (86010824)
230.0	183.35246 (86010924)	183.87410 (86010924)	182.28729 (86010924)
240.0	164.45146 (86010924)	166.00986 (86010924)	165.87379 (86010924)
250.0	127.06695 (86091524)	122.01395 (86091524)	117.06204 (86091524)
260.0	106.83766c(86091024)	107.47818c(86091024)	106.79547c(86091024)
270.0	122.94906 (86051524)	121.80856 (86051524)	119.69334 (86051524)
280.0	128.57199 (86062324)	122.48333 (86062324)	116.40439 (86062324)
290.0	125.69578 (86030924)	124.04952 (86030924)	121.27930 (86030924)
300.0	179.69731 (86030924)	175.60631 (86030924)	170.26385 (86030924)
310.0	140.88272 (86122324)	140.32785 (86122324)	137.99538 (86122324)
320.0	96.72839 (86031324)	95.62400 (86031324)	93.93064 (86031324)
330.0	194.34076 (86031324)	193.22185 (86031324)	190.70581 (86031324)
340.0	165.38535 (86031224)	157.60889 (86031224)	149.87074 (86031224)
350.0	119.54764 (86100924)	115.24587 (86100924)	111.27637 (86052024)
360.0	173.36354 (86082024)	178.96797 (86082024)	183.13148 (86082024)

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** THE 1ST HIGHEST 24-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): FOAMLINE, LONGBUN , EXFAN_7 , EXFAN_12, EXFAN_19,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF MC_24 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
0.00	0.00	55.71948c	(86051124)	15.24	0.00	47.10822c	(86051124)
30.48	0.00	46.84210	(86101924)	45.72	0.00	55.31099	(86010824)
60.96	0.00	59.65804	(86010824)	76.20	0.00	54.98082	(86010824)
91.44	0.00	46.01421	(86010824)	106.68	0.00	38.79987c	(86111324)
121.92	0.00	28.63645c	(86111324)	137.16	0.00	35.49481	(86032224)
152.40	0.00	30.02495	(86032224)	167.64	0.00	38.23190	(86032224)
182.88	0.00	54.08197	(86011124)	198.12	0.00	32.51913	(86011124)
213.36	0.00	56.29692	(86011124)	213.36	15.24	45.93500	(86011124)
213.36	30.48	23.52442	(86011124)	213.36	45.72	14.94606c	(86012824)
213.36	60.96	20.06188	(86012724)	213.36	76.20	22.21465	(86012724)
213.36	91.44	11.70799	(86012724)	213.36	106.68	14.94157	(86012724)
213.36	121.92	10.27336	(86012724)	213.36	137.16	14.65028	(86022724)
213.36	152.40	17.51129	(86022724)	213.36	167.64	28.30229	(86022724)
213.36	182.88	28.05085	(86072924)	213.36	198.12	34.75030	(86072924)
213.36	213.36	32.89644	(86072924)	213.36	220.98	31.35760	(86072924)
198.12	220.98	32.01286c	(86060824)	182.88	220.98	36.24530c	(86121124)
167.64	220.98	36.18229	(86072924)	152.40	220.98	34.59229c	(86071324)
137.16	220.98	35.97842c	(86071324)	121.92	220.98	42.46001	(86031324)
106.68	220.98	57.97878	(86031324)	91.44	220.98	66.17210	(86031324)
76.20	220.98	72.59972	(86031324)	60.96	220.98	60.16291	(86031324)
45.72	220.98	45.47130	(86071724)	30.48	220.98	54.27116	(86071724)
15.24	220.98	62.37046	(86071724)	0.00	220.98	70.13430	(86071724)
0.00	213.36	66.19880	(86071724)	0.00	198.12	58.50073	(86071724)
0.00	182.88	52.09208c	(86051724)	0.00	167.64	48.34610c	(86051724)
0.00	152.40	42.24865c	(86051724)	0.00	137.16	36.49470c	(86051724)
0.00	121.92	34.42568c	(86051724)	0.00	106.68	30.78432c	(86051724)
0.00	91.44	30.82074c	(86051724)	0.00	76.20	36.78680c	(86051724)
0.00	60.96	43.54214c	(86051724)	0.00	45.72	47.90864c	(86051724)
0.00	30.48	50.20238c	(86051724)	0.00	15.24	51.51301c	(86051724)

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** THE SUMMARY OF HIGHEST 24-HR RESULTS ***

** CONC OF MC_24 IN MICROGRAMS/M**3 **

GROUP ID	AVERAGE CONC	DATE (YYMMDDHH)	RECEPTOR (XR, YR, ZELEV, ZFLAG)	OF TYPE	NETWORK GRID-ID
ALL	HIGH 1ST HIGH VALUE IS 250.78723	ON 86101624:	AT (414.50, -735.08, 0.00, 0.00)	GP	POLAR_1

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR
BD = BOUNDARY

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** Message Summary For ISC2 Model Execution ***

--------- Summary of Total Messages --------

A Total of 0 Fatal Error Message(s)
A Total of 0 Warning Message(s)
A Total of 328 Informational Message(s)

A Total of 328 Calm Hours Identified

******** FATAL ERROR MESSAGES ********
*** NONE ***

******** WARNING MESSAGES ********
*** NONE ***

****
*** ISCST2 Finishes Successfully ***
****

APPENDIX F

ISCST2 OUTPUT LISTING

METHYLENE CHLORIDE ANNUAL AVERGAGE EMISSSION

RUN: FMXMCAN

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                    ISCST2 - (DATED 93109)

                    IBM-PC VERSION (2.11 ) ISCST2F
                    (C) COPYRIGHT 1992, TRINITY CONSULTANTS, INC.
                    SERIAL NUMBER 10573 SOLD TO CROSS, TESSITORE & ASSOC.

Run Began on  2/28/1996 at 17:03:51


*** TRINITY SOURCE FILE NAME: C:\PROJECT\26005\MODELDAT\FMXSRCA.PNT
*** TRINITY DOWNWASH FILE NAME: C:\PROJECT\26005\MODELDAT\FMX8PIP.WAK
*** TRINITY RECEPTOR FILE NAME: C:\PROJECT\26005\MODELDAT\FMXREC.REC
CO STARTING
CO TITLEONE Foamex;125' Foam Line & LBSR Stacks(GEP);53' Exhaust Fan Stacks (3)
CO TITLETWO Methlyene Chloride Rolling Annual Average Emissions; 551,192 lb/yr
CO MODELOPT DFAULT CONC RURAL
CO AVERTIME PERIOD
CO POLLUTID MC_AN
CO TERRHGTS FLAT
CO ELEVUNIT FEET
CO RUNORNOT RUN
CO FINISHED
SO STARTING
SO LOCATION FOAMLINE POINT     175.87     119.79       0.00
SO SRCPARAM FOAMLINE 4.756741      38.10     299.82    24.5307      0.857
SO LOCATION LONGBUN POINT     152.40      17.07       0.00
SO SRCPARAM LONGBUN 2.774765      38.10     299.82    24.5307      0.857
SO LOCATION EXFAN_7 POINT     108.51     152.71       0.00
SO SRCPARAM EXFAN_7 0.147570      16.15     299.82    24.6109      1.105
SO LOCATION EXFAN_12 POINT     147.52     110.64       0.00
SO SRCPARAM EXFAN_12 0.147570      16.15     299.82    24.6109      1.105
SO LOCATION EXFAN_19 POINT     182.88     102.56       0.00
SO SRCPARAM EXFAN_19 0.147570      16.15     299.82    24.6109      1.105
SO BUILDHGT FOAMLINE    15.24    15.24    15.24    15.24    15.24    15.24
SO BUILDHGT FOAMLINE    12.19    12.19    12.19    12.19    12.19    12.19
SO BUILDHGT FOAMLINE    12.19    12.19    15.24    15.24    15.24    12.19
SO BUILDHGT FOAMLINE    12.19    15.24    15.24    15.24    15.24    15.24
SO BUILDHGT FOAMLINE    12.19    12.19    12.19    12.19    12.19    12.19
SO BUILDHGT FOAMLINE    12.19    12.19    15.24    15.24    15.24    15.24
SO BUILDWID FOAMLINE    80.42    88.29    93.48    95.83    95.26    91.81
SO BUILDWID FOAMLINE    39.97    39.64    38.10    39.64    39.97    39.09
SO BUILDWID FOAMLINE    37.02    33.83    93.48    88.29    80.42    12.19
SO BUILDWID FOAMLINE    18.62    88.29    93.48    95.83    95.26    91.81
SO BUILDWID FOAMLINE    39.97    39.64    38.10    39.64    39.97    39.09
SO BUILDWID FOAMLINE    37.02    33.83    93.48    88.29    80.42    70.11
SO BUILDHGT LONGBUN    15.24    15.24    15.24    15.24    15.24    15.24
SO BUILDHGT LONGBUN    15.24    15.24    15.24    15.24    15.24    15.24
SO BUILDHGT LONGBUN    15.24    15.24    15.24    15.24    15.24    15.24
SO BUILDHGT LONGBUN    15.24    15.24    15.24    15.24    15.24    15.24
SO BUILDHGT LONGBUN    15.24    15.24    15.24    15.24    15.24    15.24
SO BUILDHGT LONGBUN    15.24    15.24    15.24    15.24    15.24    15.24
SO BUILDWID LONGBUN    80.42    88.29    93.48    95.83    95.26    91.81
SO BUILDWID LONGBUN    85.56    76.71    65.53    76.71    85.56    91.81
SO BUILDWID LONGBUN    95.26    95.83    93.48    88.29    80.42    70.11
SO BUILDWID LONGBUN    80.42    88.29    93.48    95.83    95.26    91.81
SO BUILDWID LONGBUN    85.56    76.71    65.53    76.71    85.56    91.81
SO BUILDWID LONGBUN    95.26    95.83    93.48    88.29    80.42    70.11
SO BUILDHGT EXFAN_7    10.67    10.67    10.67    10.67    10.67    10.67
SO BUILDHGT EXFAN_7    10.67    10.67    10.67    10.67    10.67    10.67
SO BUILDHGT EXFAN_7    10.67    10.67    10.67    10.67    10.67    10.67
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SO BUILDHGT EXFAN_7    10.67    10.67    10.67    10.67    10.67    10.67
SO BUILDHGT EXFAN_7    10.67    10.67    10.67    10.67    10.67    10.67
SO BUILDHGT EXFAN_7    15.24    15.24    15.24    15.24    15.24    10.67
SO BUILDWID EXFAN_7   116.96   132.83   144.67   152.11   154.93   153.04
SO BUILDWID EXFAN_7   146.50   135.51   120.40   129.50   140.77   147.76
SO BUILDWID EXFAN_7   150.26   148.19   141.62   130.75   115.90    97.54
SO BUILDWID EXFAN_7   116.96   132.83   144.67   152.11   154.93   153.04
SO BUILDWID EXFAN_7   146.50   135.51   120.40   129.50   140.77   147.76
SO BUILDWID EXFAN_7    95.26    95.83    93.48    88.29    80.42    97.54
SO BUILDHGT EXFAN_12   15.24    15.24    15.24    15.24    15.24    12.19
SO BUILDHGT EXFAN_12   12.19    12.19    12.19    12.19    12.19    15.24
SO BUILDHGT EXFAN_12   15.24    15.24    15.24    15.24    15.24    15.24
SO BUILDHGT EXFAN_12   15.24    15.24    15.24    15.24    15.24    12.19
SO BUILDHGT EXFAN_12   12.19    12.19    12.19    12.19    12.19    15.24
SO BUILDHGT EXFAN_12   15.24    15.24    15.24    15.24    15.24    15.24
SO BUILDWID EXFAN_12   80.42    88.29    93.48    95.83    95.26    39.09
SO BUILDWID EXFAN_12   39.97    39.64   103.63   114.23    39.97    91.81
SO BUILDWID EXFAN_12   95.26    95.83    93.48    88.29    80.42    70.11
SO BUILDWID EXFAN_12   80.42    88.29    93.48    95.83    95.26    39.09
SO BUILDWID EXFAN_12   39.97    39.64    38.10    39.64    39.97    91.81
SO BUILDWID EXFAN_12   95.26    95.83    93.48    88.29    80.42    70.11
SO BUILDHGT EXFAN_19   15.24    15.24    15.24    15.24    15.24    15.24
SO BUILDHGT EXFAN_19   15.24    12.19    12.19    12.19    12.19    12.19
SO BUILDHGT EXFAN_19   12.19    15.24    15.24    15.24    15.24    15.24
SO BUILDHGT EXFAN_19   15.24    15.24    15.24    15.24    15.24    15.24
SO BUILDHGT EXFAN_19   15.24    12.19    12.19    12.19    12.19    12.19
SO BUILDHGT EXFAN_19   12.19    15.24    15.24    15.24    15.24    15.24
SO BUILDWID EXFAN_19   80.42    88.29    93.48    95.83    95.26    91.81
SO BUILDWID EXFAN_19   85.56    39.64    38.10    39.64    39.97    39.09
SO BUILDWID EXFAN_19   37.02    95.83    93.48    88.29    80.42    70.11
SO BUILDWID EXFAN_19   80.42    88.29    93.48    95.83    95.26    91.81
SO BUILDWID EXFAN_19   85.56    39.64    38.10    39.64    39.97    39.09
SO BUILDWID EXFAN_19   37.02    95.83    93.48    88.29    80.42    70.11
SO EMISUNIT 1000000.000000 GRAMS/SEC MICROGRAMS/M**3
SO SRCGROUP ALL
SO FINISHED
RE STARTING
RE GRIDPOLR POLAR_1  STA
RE GRIDPOLR POLAR_1  ORIG 106.68 110.64
RE GRIDPOLR POLAR_1  DIST 150.00 200.00 250.00 300.00
RE GRIDPOLR POLAR_1  DIST 350.00 400.00 450.00 500.00
RE GRIDPOLR POLAR_1  DIST 550.00 600.00 650.00 700.00
RE GRIDPOLR POLAR_1  DIST 750.00 800.00 850.00 900.00
RE GRIDPOLR POLAR_1  DIST 950.00 1000.00
RE GRIDPOLR POLAR_1  GDIR 36 10.00 10.00
RE GRIDPOLR POLAR_1  END
RE DISCCART 0.00 0.00
RE DISCCART 15.24 0.00
RE DISCCART 30.48 0.00
RE DISCCART 45.72 0.00
RE DISCCART 60.96 0.00
RE DISCCART 76.20 0.00
RE DISCCART 91.44 0.00
RE DISCCART 106.68 0.00
RE DISCCART 121.92 0.00
RE DISCCART 137.16 0.00
RE DISCCART 152.40 0.00
RE DISCCART 167.64 0.00
RE DISCCART 182.88 0.00
RE DISCCART 198.12 0.00
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RE DISCCART 213.36 0.00
RE DISCCART 213.36 15.24
RE DISCCART 213.36 30.48
RE DISCCART 213.36 45.72
RE DISCCART 213.36 60.96
RE DISCCART 213.36 76.20
RE DISCCART 213.36 91.44
RE DISCCART 213.36 106.68
RE DISCCART 213.36 121.92
RE DISCCART 213.36 137.16
RE DISCCART 213.36 152.40
RE DISCCART 213.36 167.64
RE DISCCART 213.36 182.88
RE DISCCART 213.36 198.12
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RE DISCCART 213.36 220.98
RE DISCCART 198.12 220.98
RE DISCCART 182.88 220.98
RE DISCCART 167.64 220.98
RE DISCCART 152.40 220.98
RE DISCCART 137.16 220.98
RE DISCCART 121.92 220.98
RE DISCCART 106.68 220.98
RE DISCCART 91.44 220.98
RE DISCCART 76.20 220.98
RE DISCCART 60.96 220.98
RE DISCCART 45.72 220.98
RE DISCCART 30.48 220.98
RE DISCCART 15.24 220.98
RE DISCCART 0.00 220.98
RE DISCCART 0.00 213.36
RE DISCCART 0.00 198.12
RE DISCCART 0.00 182.88
RE DISCCART 0.00 167.64
RE DISCCART 0.00 152.40
RE DISCCART 0.00 137.16
RE DISCCART 0.00 121.92
RE DISCCART 0.00 106.68
RE DISCCART 0.00 91.44
RE DISCCART 0.00 76.20
RE DISCCART 0.00 60.96
RE DISCCART 0.00 45.72
RE DISCCART 0.00 30.48
RE DISCCART 0.00 15.24
RE FINISHED
ME STARTING
ME INPUTFIL C:\PROJECT\26005\MODELDAT\ORLPRE86.BIN UNFORM
ME ANEMHGHT   10.000 METERS
ME SURFDATA 12815 1986 ORLANDO
ME UAIRDATA 12842 1986 TAMPA
ME STARTEND 1986 1 1 1 1986 12 31 24
ME FINISHED
OU STARTING
OU FINISHED

************************************
*** SETUP Finishes Successfully ***
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*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** MODEL SETUP OPTIONS SUMMARY ***

- -

**Model Is Setup For Calculation of Average CONCentration Values.

**Model Uses RURAL Dispersion.

**Model Uses Regulatory DEFAULT Options:
1. Final Plume Rise.
2. Stack-tip Downwash.
3. Buoyancy-induced Dispersion.
4. Use Calms Processing Routine.
5. Not Use Missing Data Processing Routine.
6. Default Wind Profile Exponents.
7. Default Vertical Potential Temperature Gradients.
8. "Upper Bound" Values for Supersquat Buildings.
9. No Exponential Decay for RURAL Mode

**Model Assumes Receptors on FLAT Terrain.

**Model Assumes No FLAGPOLE Receptor Heights.

**Model Calculates PERIOD Averages Only

**This Run Includes: 5 Source(s); 1 Source Group(s); and 706 Receptor(s)

**The Model Assumes A Pollutant Type of: MC_AN

**Model Set To Continue RUNning After the Setup Testing.

**Output Options Selected:
Model Outputs Tables of PERIOD Averages by Receptor

**NOTE: The Following Flags May Appear Following CONC Values: c for Calm Hours
m for Missing Hours
b for Both Calm and Missing Hours

**Misc. Inputs: Anem. Hgt. (m) = 10.00 ; Decay Coef. = 0.0000 ; Rot. Angle = 0.0
Emission Units = GRAMS/SEC ; Emission Rate Unit Factor = 0.10000E+07
Output Units = MICROGRAMS/M**3

**Input Runstream File: C:\PROJECT\26005\MODELDAT\FMXMCAN.DAT ; **Output Print File: C:\PROJECT\26005\MODELDAT\FMXMCAN.LST

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** POINT SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (USER UNITS)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	STACK HEIGHT (METERS)	STACK TEMP. (DEG.K)	STACK EXIT VEL. (M/SEC)	STACK DIAMETER (METERS)	BUILDING EXISTS	EMISSION RATE SCALAR VARY BY
FOAMLINE	0	0.47567E+01	175.9	119.8	0.0	38.10	299.82	24.53	0.86	YES	
LONGBUN	0	0.27748E+01	152.4	17.1	0.0	38.10	299.82	24.53	0.86	YES	
EXFAN_7	0	0.14757E+00	108.5	152.7	0.0	16.15	299.82	24.61	1.11	YES	
EXFAN_12	0	0.14757E+00	147.5	110.6	0.0	16.15	299.82	24.61	1.11	YES	
EXFAN_19	0	0.14757E+00	182.9	102.6	0.0	16.15	299.82	24.61	1.11	YES	

OK

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** SOURCE IDs DEFINING SOURCE GROUPS ***

GROUP ID	SOURCE IDs
ALL	FOAMLINE, LONGBUN , EXFAN_7 , EXFAN_12, EXFAN_19,

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** DIRECTION SPECIFIC BUILDING DIMENSIONS ***

SOURCE ID: FOAMLINE

IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK
1	15.2,	80.4,	0	2	15.2,	88.3,	0	3	15.2,	93.5,	0	4	15.2,	95.8,	0	5	15.2,	95.3,	0	6	15.2,	91.8,	0
7	12.2,	40.0,	0	8	12.2,	39.6,	0	9	12.2,	38.1,	0	10	12.2,	39.6,	0	11	12.2,	40.0,	0	12	12.2,	39.1,	0
13	12.2,	37.0,	0	14	12.2,	33.8,	0	15	15.2,	93.5,	0	16	15.2,	88.3,	0	17	15.2,	80.4,	0	18	12.2,	12.2,	0
19	12.2,	18.6,	0	20	15.2,	88.3,	0	21	15.2,	93.5,	0	22	15.2,	95.8,	0	23	15.2,	95.3,	0	24	15.2,	91.8,	0
25	12.2,	40.0,	0	26	12.2,	39.6,	0	27	12.2,	38.1,	0	28	12.2,	39.6,	0	29	12.2,	40.0,	0	30	12.2,	39.1,	0
31	12.2,	37.0,	0	32	12.2,	33.8,	0	33	15.2,	93.5,	0	34	15.2,	88.3,	0	35	15.2,	80.4,	0	36	15.2,	70.1,	0

SOURCE ID: LONGBUN

IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK
1	15.2,	80.4,	0	2	15.2,	88.3,	0	3	15.2,	93.5,	0	4	15.2,	95.8,	0	5	15.2,	95.3,	0	6	15.2,	91.8,	0
7	15.2,	85.6,	0	8	15.2,	76.7,	0	9	15.2,	65.5,	0	10	15.2,	76.7,	0	11	15.2,	85.6,	0	12	15.2,	91.8,	0
13	15.2,	95.3,	0	14	15.2,	95.8,	0	15	15.2,	93.5,	0	16	15.2,	88.3,	0	17	15.2,	80.4,	0	18	15.2,	70.1,	0
19	15.2,	80.4,	0	20	15.2,	88.3,	0	21	15.2,	93.5,	0	22	15.2,	95.8,	0	23	15.2,	95.3,	0	24	15.2,	91.8,	0
25	15.2,	85.6,	0	26	15.2,	76.7,	0	27	15.2,	65.5,	0	28	15.2,	76.7,	0	29	15.2,	85.6,	0	30	15.2,	91.8,	0
31	15.2,	95.3,	0	32	15.2,	95.8,	0	33	15.2,	93.5,	0	34	15.2,	88.3,	0	35	15.2,	80.4,	0	36	15.2,	70.1,	0

SOURCE ID: EXFAN_7

IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK
1	10.7,	117.0,	0	2	10.7,	132.8,	0	3	10.7,	144.7,	0	4	10.7,	152.1,	0	5	10.7,	154.9,	0	6	10.7,	153.0,	0
7	10.7,	146.5,	0	8	10.7,	135.5,	0	9	10.7,	120.4,	0	10	10.7,	129.5,	0	11	10.7,	140.8,	0	12	10.7,	147.8,	0
13	10.7,	150.3,	0	14	10.7,	148.2,	0	15	10.7,	141.6,	0	16	10.7,	130.8,	0	17	10.7,	115.9,	0	18	10.7,	97.5,	0
19	10.7,	117.0,	0	20	10.7,	132.8,	0	21	10.7,	144.7,	0	22	10.7,	152.1,	0	23	10.7,	154.9,	0	24	10.7,	153.0,	0
25	10.7,	146.5,	0	26	10.7,	135.5,	0	27	10.7,	120.4,	0	28	10.7,	129.5,	0	29	10.7,	140.8,	0	30	10.7,	147.8,	0
31	15.2,	95.3,	0	32	15.2,	95.8,	0	33	15.2,	93.5,	0	34	15.2,	88.3,	0	35	15.2,	80.4,	0	36	10.7,	97.5,	0

SOURCE ID: EXFAN_12

IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK
1	15.2,	80.4,	0	2	15.2,	88.3,	0	3	15.2,	93.5,	0	4	15.2,	95.8,	0	5	15.2,	95.3,	0	6	12.2,	39.1,	0
7	12.2,	40.0,	0	8	12.2,	39.6,	0	9	12.2,	103.6,	0	10	12.2,	114.2,	0	11	12.2,	40.0,	0	12	15.2,	91.8,	0
13	15.2,	95.3,	0	14	15.2,	95.8,	0	15	15.2,	93.5,	0	16	15.2,	88.3,	0	17	15.2,	80.4,	0	18	15.2,	70.1,	0
19	15.2,	80.4,	0	20	15.2,	88.3,	0	21	15.2,	93.5,	0	22	15.2,	95.8,	0	23	15.2,	95.3,	0	24	12.2,	39.1,	0
25	12.2,	40.0,	0	26	12.2,	39.6,	0	27	12.2,	38.1,	0	28	12.2,	39.6,	0	29	12.2,	40.0,	0	30	15.2,	91.8,	0
31	15.2,	95.3,	0	32	15.2,	95.8,	0	33	15.2,	93.5,	0	34	15.2,	88.3,	0	35	15.2,	80.4,	0	36	15.2,	70.1,	0

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** DIRECTION SPECIFIC BUILDING DIMENSIONS ***

SOURCE ID: EXFAN_19

IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK
1	15.2,	80.4,	0	2	15.2,	88.3,	0	3	15.2,	93.5,	0	4	15.2,	95.8,	0	5	15.2,	95.3,	0	6	15.2,	91.8,	0
7	15.2,	85.6,	0	8	12.2,	39.6,	0	9	12.2,	38.1,	0	10	12.2,	39.6,	0	11	12.2,	40.0,	0	12	12.2,	39.1,	0
13	12.2,	37.0,	0	14	15.2,	95.8,	0	15	15.2,	93.5,	0	16	15.2,	88.3,	0	17	15.2,	80.4,	0	18	15.2,	70.1,	0
19	15.2,	80.4,	0	20	15.2,	88.3,	0	21	15.2,	93.5,	0	22	15.2,	95.8,	0	23	15.2,	95.3,	0	24	15.2,	91.8,	0
25	15.2,	85.6,	0	26	12.2,	39.6,	0	27	12.2,	38.1,	0	28	12.2,	39.6,	0	29	12.2,	40.0,	0	30	12.2,	39.1,	0
31	12.2,	37.0,	0	32	15.2,	95.8,	0	33	15.2,	93.5,	0	34	15.2,	88.3,	0	35	15.2,	80.4,	0	36	15.2,	70.1,	0

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** GRIDDED RECEPTOR NETWORK SUMMARY ***

*** NETWORK ID: POLAR_1 ; NETWORK TYPE: GRIDPOLR ***

*** ORIGIN FOR POLAR NETWORK ***

X-ORIG = 106.68 ; Y-ORIG = 110.64 (METERS)

*** DISTANCE RANGES OF NETWORK ***
(METERS)

150.0, 200.0, 250.0, 300.0, 350.0, 400.0, 450.0, 500.0, 550.0, 600.0,
650.0, 700.0, 750.0, 800.0, 850.0, 900.0, 950.0, 1000.0,

*** DIRECTION RADIALS OF NETWORK ***
(DEGREES)

10.0, 20.0, 30.0, 40.0, 50.0, 60.0, 70.0, 80.0, 90.0, 100.0,
110.0, 120.0, 130.0, 140.0, 150.0, 160.0, 170.0, 180.0, 190.0, 200.0,
210.0, 220.0, 230.0, 240.0, 250.0, 260.0, 270.0, 280.0, 290.0, 300.0,
310.0, 320.0, 330.0, 340.0, 350.0, 360.0,

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZFLAG)
(METERS)

(0.0,	0.0,	0.0,	0.0);	(15.2,	0.0,	0.0,	0.0);
(30.5,	0.0,	0.0,	0.0);	(45.7,	0.0,	0.0,	0.0);
(61.0,	0.0,	0.0,	0.0);	(76.2,	0.0,	0.0,	0.0);
(91.4,	0.0,	0.0,	0.0);	(106.7,	0.0,	0.0,	0.0);
(121.9,	0.0,	0.0,	0.0);	(137.2,	0.0,	0.0,	0.0);
(152.4,	0.0,	0.0,	0.0);	(167.6,	0.0,	0.0,	0.0);
(182.9,	0.0,	0.0,	0.0);	(198.1,	0.0,	0.0,	0.0);
(213.4,	0.0,	0.0,	0.0);	(213.4,	15.2,	0.0,	0.0);
(213.4,	30.5,	0.0,	0.0);	(213.4,	45.7,	0.0,	0.0);
(213.4,	61.0,	0.0,	0.0);	(213.4,	76.2,	0.0,	0.0);
(213.4,	91.4,	0.0,	0.0);	(213.4,	106.7,	0.0,	0.0);
(213.4,	121.9,	0.0,	0.0);	(213.4,	137.2,	0.0,	0.0);
(213.4,	152.4,	0.0,	0.0);	(213.4,	167.6,	0.0,	0.0);
(213.4,	182.9,	0.0,	0.0);	(213.4,	198.1,	0.0,	0.0);
(213.4,	213.4,	0.0,	0.0);	(213.4,	221.0,	0.0,	0.0);
(198.1,	221.0,	0.0,	0.0);	(182.9,	221.0,	0.0,	0.0);
(167.6,	221.0,	0.0,	0.0);	(152.4,	221.0,	0.0,	0.0);
(137.2,	221.0,	0.0,	0.0);	(121.9,	221.0,	0.0,	0.0);
(106.7,	221.0,	0.0,	0.0);	(91.4,	221.0,	0.0,	0.0);
(76.2,	221.0,	0.0,	0.0);	(61.0,	221.0,	0.0,	0.0);
(45.7,	221.0,	0.0,	0.0);	(30.5,	221.0,	0.0,	0.0);
(15.2,	221.0,	0.0,	0.0);	(0.0,	221.0,	0.0,	0.0);
(0.0,	213.4,	0.0,	0.0);	(0.0,	198.1,	0.0,	0.0);
(0.0,	182.9,	0.0,	0.0);	(0.0,	167.6,	0.0,	0.0);
(0.0,	152.4,	0.0,	0.0);	(0.0,	137.2,	0.0,	0.0);
(0.0,	121.9,	0.0,	0.0);	(0.0,	106.7,	0.0,	0.0);
(0.0,	91.4,	0.0,	0.0);	(0.0,	76.2,	0.0,	0.0);
(0.0,	61.0,	0.0,	0.0);	(0.0,	45.7,	0.0,	0.0);
(0.0,	30.5,	0.0,	0.0);	(0.0,	15.2,	0.0,	0.0);

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

* SOURCE-RECEPTOR COMBINATIONS LESS THAN 1.0 METER OR 3*ZLB *
IN DISTANCE. CALCULATIONS MAY NOT BE PERFORMED.

SOURCE ID	- - RECEPTOR LOCATION - - XR (METERS)	YR (METERS)	DISTANCE (METERS)
LONGBUN	121.9	0.0	34.93
LONGBUN	137.2	0.0	22.88
LONGBUN	152.4	0.0	17.07
LONGBUN	167.6	0.0	22.88
LONGBUN	182.9	0.0	34.93
EXFAN_19	213.4	91.4	32.45
EXFAN_19	213.4	106.7	30.76
EXFAN_19	213.4	121.9	36.11

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***
(1=YES; 0=NO)

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1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
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1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1
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METEOROLOGICAL DATA PROCESSED BETWEEN START DATE: 86 1 1 1
AND END DATE: 86 12 31 24

NOTE: METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA FILE.

*** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***
(METERS/SEC)

1.54, 3.09, 5.14, 8.23, 10.80,

*** WIND PROFILE EXPONENTS ***

STABILITY	WIND SPEED CATEGORY					
CATEGORY	1	2	3	4	5	6
A	.70000E-01	.70000E-01	.70000E-01	.70000E-01	.70000E-01	.70000E-01
B	.70000E-01	.70000E-01	.70000E-01	.70000E-01	.70000E-01	.70000E-01
C	.10000E+00	.10000E+00	.10000E+00	.10000E+00	.10000E+00	.10000E+00
D	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00
E	.35000E+00	.35000E+00	.35000E+00	.35000E+00	.35000E+00	.35000E+00
F	.55000E+00	.55000E+00	.55000E+00	.55000E+00	.55000E+00	.55000E+00

*** VERTICAL POTENTIAL TEMPERATURE GRADIENTS ***
(DEGREES KELVIN PER METER)

STABILITY	WIND SPEED CATEGORY					
CATEGORY	1	2	3	4	5	6
A	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
B	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
C	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
D	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
E	.20000E-01	.20000E-01	.20000E-01	.20000E-01	.20000E-01	.20000E-01
F	.35000E-01	.35000E-01	.35000E-01	.35000E-01	.35000E-01	.35000E-01

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

FILE: C:\PROJECT\26005\MODELDAT\ORLPRE86.BIN FORMAT: UNFORM
SURFACE STATION NO.: 12815 UPPER AIR STATION NO.: 12842
NAME: ORLANDO NAME: TAMPA
YEAR: 1986 YEAR: 1986

YEAR	MONTH	DAY	HOUR	FLOW VECTOR	SPEED (M/S)	TEMP (K)	STAB CLASS	MIXING HEIGHT (M) RURAL	URBAN
86	1	1	1	1.0	3.60	289.3	4	639.0	639.0
86	1	1	2	168.0	5.14	288.7	4	639.0	639.0
86	1	1	3	124.0	3.09	288.2	4	639.0	639.0
86	1	1	4	353.0	2.57	288.2	4	639.0	639.0
86	1	1	5	333.0	2.57	288.7	4	639.0	639.0
86	1	1	6	332.0	2.57	288.7	4	639.0	639.0
86	1	1	7	335.0	3.09	288.7	4	639.0	639.0
86	1	1	8	3.0	3.60	289.3	4	639.0	639.0
86	1	1	9	347.0	3.60	289.8	4	639.0	639.0
86	1	1	10	1.0	5.14	292.0	4	639.0	639.0
86	1	1	11	14.0	4.63	292.6	4	639.0	639.0
86	1	1	12	16.0	4.12	294.3	4	639.0	639.0
86	1	1	13	73.0	3.09	295.4	4	639.0	639.0
86	1	1	14	49.0	3.60	297.0	4	639.0	639.0
86	1	1	15	142.0	2.06	296.5	4	639.0	639.0
86	1	1	16	144.0	2.06	295.9	4	639.0	639.0
86	1	1	17	261.0	2.06	295.4	4	639.0	639.0
86	1	1	18	257.0	2.06	292.6	4	644.0	644.0
86	1	1	19	274.0	3.60	291.5	4	655.0	655.0
86	1	1	20	227.0	3.09	290.9	4	666.0	666.0
86	1	1	21	230.0	3.09	290.9	4	678.0	678.0
86	1	1	22	252.0	2.57	290.4	5	689.0	477.0
86	1	1	23	290.0	2.06	290.4	4	700.0	700.0
86	1	1	24	290.0	1.00	290.4	4	712.0	712.0

*** NOTES: STABILITY CLASS 1=A, 2=B, 3=C, 4=D, 5=E AND 6=F.
FLOW VECTOR IS DIRECTION TOWARD WHICH WIND IS BLOWING.

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** THE PERIOD (8760 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): FOAMLINE, LONGBUN , EXFAN_7 , EXFAN_12, EXFAN_19,

*** NETWORK ID: POLAR_1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF MC_AN IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 150.00	200.00	250.00	300.00	350.00	400.00	450.00	500.00	550.00
10.00	0.52424	0.84393	1.14506	1.40629	1.60546	1.73947	1.82701	1.87941	1.90768
20.00	0.51062	0.79367	1.06766	1.29977	1.47595	1.59557	1.67300	1.71981	1.74399
30.00	0.44166	0.68582	0.91019	1.12444	1.29070	1.39953	1.46388	1.49911	1.51306
40.00	0.36645	0.57283	0.80480	1.03407	1.22347	1.35714	1.44094	1.49238	1.51953
50.00	0.31277	0.52831	0.76633	0.99759	1.18266	1.31125	1.39120	1.43909	1.46342
60.00	0.25978	0.44565	0.66442	0.89078	1.09185	1.24616	1.35348	1.42633	1.47184
70.00	0.17419	0.34512	0.57545	0.82468	1.05613	1.23869	1.36907	1.45885	1.51587
80.00	0.15567	0.29246	0.48675	0.72330	0.95607	1.13521	1.25235	1.32058	1.35238
90.00	0.07335	0.18325	0.37996	0.62920	0.85370	1.01194	1.10563	1.15452	1.17072
100.00	0.06787	0.17804	0.38085	0.63763	0.86569	1.02073	1.10445	1.14062	1.14351
110.00	0.09899	0.22492	0.45931	0.76207	1.03811	1.23602	1.35477	1.41676	1.43639
120.00	0.12309	0.26508	0.50054	0.81708	1.12447	1.36314	1.52276	1.61977	1.66653
130.00	0.13673	0.27898	0.48859	0.78013	1.07277	1.29961	1.44670	1.52990	1.56435
140.00	0.15005	0.29293	0.44719	0.66995	0.90281	1.08614	1.20735	1.27580	1.30588
150.00	0.18340	0.31320	0.45984	0.63423	0.81028	0.95192	1.04981	1.11049	1.14520
160.00	0.21176	0.36189	0.52146	0.68019	0.82936	0.95268	1.04742	1.11494	1.16347
170.00	0.23755	0.40275	0.57959	0.76876	0.94803	1.09100	1.19514	1.26314	1.30725
180.00	0.26051	0.41967	0.59321	0.77434	0.94391	1.08320	1.19025	1.26951	1.33221
190.00	0.29069	0.43496	0.60406	0.77483	0.92380	1.03680	1.11524	1.16671	1.20112
200.00	0.34554	0.49322	0.66166	0.82497	0.96031	1.06022	1.12651	1.16813	1.19393
210.00	0.44222	0.62674	0.82915	1.01483	1.15618	1.25348	1.31256	1.34682	1.36618
220.00	0.54642	0.79416	1.06110	1.29535	1.46419	1.57380	1.63493	1.66404	1.67262
230.00	0.57426	0.90561	1.22832	1.49653	1.69389	1.83046	1.91767	1.96824	1.99444
240.00	0.56543	0.93170	1.27699	1.54900	1.74206	1.87512	1.96384	2.02103	2.05771
250.00	0.53106	0.89410	1.22915	1.48748	1.66470	1.78001	1.84754	1.88285	1.89837
260.00	0.53346	0.88535	1.20499	1.45083	1.62502	1.74539	1.82301	1.87088	1.89931
270.00	0.56042	0.92482	1.24717	1.49372	1.67105	1.79684	1.88161	1.93738	1.97348
280.00	0.57423	0.94530	1.26154	1.49089	1.64650	1.74958	1.81369	1.85203	1.87447
290.00	0.57991	0.94511	1.25262	1.46995	1.61142	1.69907	1.74777	1.77122	1.77970
300.00	0.61250	0.98750	1.29593	1.50879	1.64302	1.72400	1.76682	1.78570	1.79114
310.00	0.65211	1.02262	1.31908	1.51133	1.61863	1.66940	1.68015	1.66663	1.64129
320.00	0.62670	0.97948	1.24383	1.40557	1.48672	1.51655	1.51046	1.48398	1.44776
330.00	0.57075	0.90093	1.15413	1.31097	1.38999	1.41710	1.41018	1.38424	1.34947
340.00	0.53612	0.86255	1.12540	1.30340	1.41068	1.46872	1.49482	1.49958	1.49200
350.00	0.54898	0.89729	1.19289	1.41360	1.56168	1.65145	1.70079	1.72094	1.72264
360.00	0.53269	0.86261	1.16219	1.39634	1.56133	1.66668	1.73400	1.77328	1.79463

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** THE PERIOD (8760 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): FOAMLINE, LONGBUN , EXFAN_7 , EXFAN_12, EXFAN_19,

*** NETWORK ID: POLAR_1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF MC_AN IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 600.00	650.00	700.00	750.00	800.00	850.00	900.00	950.00	1000.00
10.00	1.91961	1.92015	1.91178	1.89645	1.87582	1.85053	1.82257	1.78918	1.75283
20.00	1.75277	1.75092	1.74094	1.72405	1.70210	1.67578	1.64681	1.61348	1.57675
30.00	1.51391	1.50740	1.49631	1.48172	1.46474	1.44586	1.42535	1.40261	1.37656
40.00	1.53039	1.53107	1.52448	1.51195	1.49511	1.47462	1.45143	1.42652	1.39635
50.00	1.47232	1.47183	1.46537	1.45425	1.43987	1.42279	1.40344	1.38248	1.35804
60.00	1.49788	1.51070	1.51478	1.51216	1.50452	1.49327	1.47868	1.46197	1.44232
70.00	1.54786	1.56253	1.56505	1.55831	1.54449	1.52563	1.50262	1.47705	1.44932
80.00	1.35886	1.35017	1.33293	1.31041	1.28493	1.25753	1.22917	1.20041	1.17164
90.00	1.16524	1.14718	1.12288	1.09504	1.06570	1.03562	1.00555	0.97590	0.94695
100.00	1.12595	1.09809	1.06637	1.03347	1.00097	0.96934	0.93897	0.90993	0.88220
110.00	1.42771	1.40288	1.36998	1.33293	1.29444	1.25567	1.21749	1.18036	1.14448
120.00	1.67736	1.66606	1.64214	1.61070	1.57511	1.53706	1.49816	1.45910	1.42024
130.00	1.56391	1.54264	1.50981	1.47046	1.42763	1.38304	1.33797	1.29316	1.24910
140.00	1.30866	1.29517	1.27280	1.24544	1.21572	1.18465	1.15308	1.12181	1.09104
150.00	1.16216	1.16823	1.16765	1.16237	1.15408	1.14254	1.12893	1.11400	1.09705
160.00	1.19945	1.22670	1.24744	1.26232	1.27269	1.27806	1.27937	1.27716	1.27151
170.00	1.33505	1.35163	1.36021	1.36258	1.36001	1.35267	1.34173	1.32799	1.31165
180.00	1.38288	1.42523	1.46079	1.49070	1.51471	1.53250	1.54553	1.55281	1.55374
190.00	1.22391	1.23929	1.24932	1.25611	1.25965	1.25994	1.25844	1.25420	1.24456
200.00	1.20914	1.21759	1.22116	1.22182	1.21970	1.21483	1.20839	1.20041	1.18623
210.00	1.37661	1.38199	1.38335	1.38231	1.37809	1.37139	1.36250	1.35171	1.33257
220.00	1.66849	1.65679	1.64010	1.62085	1.59914	1.57649	1.55321	1.52900	1.49738
230.00	2.00435	2.00317	1.99413	1.97958	1.96023	1.93853	1.91361	1.88546	1.84864
240.00	2.08091	2.09408	2.09998	2.09947	2.09359	2.08365	2.06914	2.04833	2.01732
250.00	1.90194	1.89746	1.88783	1.87401	1.85701	1.83746	1.81585	1.78925	1.75453
260.00	1.91415	1.91897	1.91587	1.90617	1.89121	1.87179	1.84879	1.81991	1.78062
270.00	1.99477	2.00427	2.00410	1.99570	1.98072	1.96025	1.93550	1.90430	1.86103
280.00	1.88581	1.88903	1.88598	1.87761	1.86497	1.84868	1.82940	1.80370	1.76731
290.00	1.77782	1.76831	1.75298	1.73273	1.70862	1.68138	1.65170	1.61643	1.57314
300.00	1.78774	1.77771	1.76238	1.74304	1.72009	1.69450	1.66636	1.63297	1.59109
310.00	1.61003	1.57554	1.53939	1.50265	1.46593	1.42974	1.39391	1.35655	1.31443
320.00	1.40792	1.36691	1.32627	1.28661	1.24832	1.21144	1.17560	1.13895	1.10072
330.00	1.31270	1.27667	1.24218	1.21024	1.18061	1.15305	1.12693	1.10004	1.07186
340.00	1.47825	1.46085	1.44083	1.41954	1.39709	1.37392	1.35015	1.32331	1.29469
350.00	1.71375	1.69805	1.67739	1.65373	1.62783	1.59985	1.57097	1.53796	1.50370
360.00	1.80494	1.80813	1.80565	1.79946	1.78957	1.77647	1.76171	1.74020	1.71657

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** THE PERIOD (8760 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): FOAMLINE, LONGBUN , EXFAN_7 , EXFAN_12, EXFAN_19,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF MC_AN IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
0.00	0.00	0.59094	15.24	0.00	0.51400
30.48	0.00	0.43418	45.72	0.00	0.35568
60.96	0.00	0.29188	76.20	0.00	0.22743
91.44	0.00	0.18337	106.68	0.00	0.15364
121.92	0.00	0.13568	137.16	0.00	0.13271
152.40	0.00	0.12919	167.64	0.00	0.13189
182.88	0.00	0.13847	198.12	0.00	0.13564
213.36	0.00	0.16056	213.36	15.24	0.12969
213.36	30.48	0.10066	213.36	45.72	0.08162
213.36	60.96	0.06819	213.36	76.20	0.04655
213.36	91.44	0.02714	213.36	106.68	0.02889
213.36	121.92	0.03028	213.36	137.16	0.07686
213.36	152.40	0.10912	213.36	167.64	0.16040
213.36	182.88	0.20709	213.36	198.12	0.26605
213.36	213.36	0.32578	213.36	220.98	0.35272
198.12	220.98	0.34779	182.88	220.98	0.33748
167.64	220.98	0.32785	152.40	220.98	0.33461
137.16	220.98	0.29865	121.92	220.98	0.28335
106.68	220.98	0.28150	91.44	220.98	0.30414
76.20	220.98	0.31309	60.96	220.98	0.34426
45.72	220.98	0.40794	30.48	220.98	0.49004
15.24	220.98	0.57738	0.00	220.98	0.66736
0.00	213.36	0.63331	0.00	198.12	0.56244
0.00	182.88	0.47857	0.00	167.64	0.39367
0.00	152.40	0.33946	0.00	137.16	0.30654
0.00	121.92	0.28807	0.00	106.68	0.27893
0.00	91.44	0.27806	0.00	76.20	0.29034
0.00	60.96	0.33394	0.00	45.72	0.40097
0.00	30.48	0.46549	0.00	15.24	0.53287

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** THE SUMMARY OF MAXIMUM PERIOD (8760 HRS) RESULTS ***

** CONC OF MC_AN IN MICROGRAMS/M**3 **

GROUP ID		AVERAGE CONC	RECEPTOR (XR, YR, ZELEV, ZFLAG)	OF TYPE	NETWORK GRID-ID
ALL	1ST HIGHEST VALUE IS	2.09998 AT (-499.54, -239.36, 0.00, 0.00)	GP	POLAR_1
	2ND HIGHEST VALUE IS	2.09947 AT (-542.84, -264.36, 0.00, 0.00)	GP	POLAR_1
	3RD HIGHEST VALUE IS	2.09408 AT (-456.24, -214.36, 0.00, 0.00)	GP	POLAR_1
	4TH HIGHEST VALUE IS	2.09359 AT (-586.14, -289.36, 0.00, 0.00)	GP	POLAR_1
	5TH HIGHEST VALUE IS	2.08365 AT (-629.44, -314.36, 0.00, 0.00)	GP	POLAR_1
	6TH HIGHEST VALUE IS	2.08091 AT (-412.94, -189.36, 0.00, 0.00)	GP	POLAR_1

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR
BD = BOUNDARY

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** Message Summary For ISC2 Model Execution ***

--------- Summary of Total Messages --------

A Total of 0 Fatal Error Message(s)
A Total of 0 Warning Message(s)
A Total of 328 Informational Message(s)

A Total of 328 Calm Hours Identified

******** FATAL ERROR MESSAGES ********
*** NONE ***

******** WARNING MESSAGES ********
*** NONE ***

****
*** ISCST2 Finishes Successfully ***
****

APPENDIX I

ISCST2 OUTPUT LISTING

1,1,1-TRICHLOROETHANE 8-HOUR AVERGAGE EMISSSION

RUN: FMX1118

```
                    ISCST2 - (DATED 93109)

                    IBM-PC VERSION (2.11 ) ISCST2F
                    (C) COPYRIGHT 1992, TRINITY CONSULTANTS, INC.
                    SERIAL NUMBER 10573 SOLD TO CROSS, TESSITORE & ASSOC.

Run Began on  2/29/1996 at  9:09:18


*** TRINITY SOURCE FILE NAME: C:\PROJECT\26005\MODELDAT\FMXSRCA.PNT
*** TRINITY DOWNWASH FILE NAME: C:\PROJECT\26005\MODELDAT\FMXBPIP.WAK
*** TRINITY RECEPTOR FILE NAME: C:\PROJECT\26005\MODELDAT\FMXREC.REC
CO STARTING
CO TITLEONE Foamex;125' Foam Line & LBSR Stacks(GEP);53' Exhaust Fan Stacks (3)
CO TITLETWO 1,1,1-Trichloroethane 8-hr Average Emissions
CO MODELOPT DFAULT CONC RURAL
CO AVERTIME 8
CO POLLUTID 111_8
CO TERRHGTS FLAT
CO ELEVUNIT FEET
CO RUNORNOT RUN
CO FINISHED
SO STARTING
SO LOCATION EXFAN_7 POINT     108.51     152.71       0.00
SO SRCPARAM EXFAN_7 0.104998      16.15     299.82    24.6109      1.105
SO LOCATION EXFAN_12 POINT     147.52     110.64       0.00
SO SRCPARAM EXFAN_12 0.104998      16.15     299.82    24.6109      1.105
SO LOCATION EXFAN_19 POINT     182.88     102.56       0.00
SO SRCPARAM EXFAN_19 0.104998      16.15     299.82    24.6109      1.105
SO BUILDHGT EXFAN_7    10.67    10.67    10.67    10.67    10.67    10.67
SO BUILDHGT EXFAN_7    10.67    10.67    10.67    10.67    10.67    10.67
SO BUILDHGT EXFAN_7    10.67    10.67    10.67    10.67    10.67    10.67
SO BUILDHGT EXFAN_7    10.67    10.67    10.67    10.67    10.67    10.67
SO BUILDHGT EXFAN_7    10.67    10.67    10.67    10.67    10.67    10.67
SO BUILDHGT EXFAN_7    15.24    15.24    15.24    15.24    15.24    10.67
SO BUILDWID EXFAN_7   116.96   132.83   144.67   152.11   154.93   153.04
SO BUILDWID EXFAN_7   146.50   135.51   120.40   129.50   140.77   147.76
SO BUILDWID EXFAN_7   150.26   148.19   141.62   130.75   115.90    97.54
SO BUILDWID EXFAN_7   116.96   132.83   144.67   152.11   154.93   153.04
SO BUILDWID EXFAN_7   146.50   135.51   120.40   129.50   140.77   147.76
SO BUILDWID EXFAN_7    95.26    95.83    93.48    88.29    80.42    97.54
SO BUILDHGT EXFAN_12    15.24    15.24    15.24    15.24    15.24    12.19
SO BUILDHGT EXFAN_12    12.19    12.19    12.19    12.19    12.19    15.24
SO BUILDHGT EXFAN_12    15.24    15.24    15.24    15.24    15.24    15.24
SO BUILDHGT EXFAN_12    15.24    15.24    15.24    15.24    15.24    12.19
SO BUILDHGT EXFAN_12    12.19    12.19    12.19    12.19    12.19    15.24
SO BUILDHGT EXFAN_12    15.24    15.24    15.24    15.24    15.24    15.24
SO BUILDWID EXFAN_12    80.42    88.29    93.48    95.83    95.26    39.09
SO BUILDWID EXFAN_12    39.97    39.64   103.63   114.23    39.97    91.81
SO BUILDWID EXFAN_12    95.26    95.83    93.48    88.29    80.42    70.11
SO BUILDWID EXFAN_12    80.42    88.29    93.48    95.83    95.26    39.09
SO BUILDWID EXFAN_12    39.97    39.64    38.10    39.64    39.97    91.81
SO BUILDWID EXFAN_12    95.26    95.83    93.48    88.29    80.42    70.11
SO BUILDHGT EXFAN_19    15.24    15.24    15.24    15.24    15.24    15.24
SO BUILDHGT EXFAN_19    15.24    12.19    12.19    12.19    12.19    12.19
SO BUILDHGT EXFAN_19    12.19    15.24    15.24    15.24    15.24    15.24
SO BUILDHGT EXFAN_19    15.24    15.24    15.24    15.24    15.24    15.24
SO BUILDHGT EXFAN_19    15.24    12.19    12.19    12.19    12.19    12.19
SO BUILDHGT EXFAN_19    12.19    15.24    15.24    15.24    15.24    15.24
SO BUILDWID EXFAN_19    80.42    88.29    93.48    95.83    95.26    91.81
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SO BUILDWID EXFAN_19    85.56    39.64    38.10    39.64    39.97    39.09
SO BUILDWID EXFAN_19    37.02    95.83    93.48    88.29    80.42    70.11
SO BUILDWID EXFAN_19    80.42    88.29    93.48    95.83    95.26    91.81
SO BUILDWID EXFAN_19    85.56    39.64    38.10    39.64    39.97    39.09
SO BUILDWID EXFAN_19    37.02    95.83    93.48    88.29    80.42    70.11
SO EMISUNIT 1000000.000000 GRAMS/SEC MICROGRAMS/M**3
SO SRCGROUP ALL
SO FINISHED
RE STARTING
RE GRIDPOLR POLAR_1  STA
RE GRIDPOLR POLAR_1  ORIG 106.68 110.64
RE GRIDPOLR POLAR_1  DIST 150.00 200.00 250.00 300.00
RE GRIDPOLR POLAR_1  DIST 350.00 400.00 450.00 500.00
RE GRIDPOLR POLAR_1  DIST 550.00 600.00 650.00 700.00
RE GRIDPOLR POLAR_1  DIST 750.00 800.00 850.00 900.00
RE GRIDPOLR POLAR_1  DIST 950.00 1000.00
RE GRIDPOLR POLAR_1  GDIR 36 10.00 10.00
RE GRIDPOLR POLAR_1  END
RE DISCCART 0.00 0.00
RE DISCCART 15.24 0.00
RE DISCCART 30.48 0.00
RE DISCCART 45.72 0.00
RE DISCCART 60.96 0.00
RE DISCCART 76.20 0.00
RE DISCCART 91.44 0.00
RE DISCCART 106.68 0.00
RE DISCCART 121.92 0.00
RE DISCCART 137.16 0.00
RE DISCCART 152.40 0.00
RE DISCCART 167.64 0.00
RE DISCCART 182.88 0.00
RE DISCCART 198.12 0.00
RE DISCCART 213.36 0.00
RE DISCCART 213.36 15.24
RE DISCCART 213.36 30.48
RE DISCCART 213.36 45.72
RE DISCCART 213.36 60.96
RE DISCCART 213.36 76.20
RE DISCCART 213.36 91.44
RE DISCCART 213.36 106.68
RE DISCCART 213.36 121.92
RE DISCCART 213.36 137.16
RE DISCCART 213.36 152.40
RE DISCCART 213.36 167.64
RE DISCCART 213.36 182.88
RE DISCCART 213.36 198.12
RE DISCCART 213.36 213.36
RE DISCCART 213.36 220.98
RE DISCCART 198.12 220.98
RE DISCCART 182.88 220.98
RE DISCCART 167.64 220.98
RE DISCCART 152.40 220.98
RE DISCCART 137.16 220.98
RE DISCCART 121.92 220.98
RE DISCCART 106.68 220.98
RE DISCCART 91.44 220.98
RE DISCCART 76.20 220.98
RE DISCCART 60.96 220.98
RE DISCCART 45.72 220.98
RE DISCCART 30.48 220.98
```

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RE DISCCART 15.24 220.98
RE DISCCART 0.00 220.98
RE DISCCART 0.00 213.36
RE DISCCART 0.00 198.12
RE DISCCART 0.00 182.88
RE DISCCART 0.00 167.64
RE DISCCART 0.00 152.40
RE DISCCART 0.00 137.16
RE DISCCART 0.00 121.92
RE DISCCART 0.00 106.68
RE DISCCART 0.00 91.44
RE DISCCART 0.00 76.20
RE DISCCART 0.00 60.96
RE DISCCART 0.00 45.72
RE DISCCART 0.00 30.48
RE DISCCART 0.00 15.24
RE FINISHED
ME STARTING
ME INPUTFIL C:\PROJECT\26005\MODELDAT\ORLPRE86.BIN UNFORM
ME ANEMHGHT   10.000 METERS
ME SURFDATA 12815 1986 ORLANDO
ME UAIRDATA 12842 1986 TAMPA
ME STARTEND 1986 1 1 1 1986 12 31 24
ME FINISHED
OU STARTING
OU RECTABLE 8 FIRST
OU FINISHED

************************************
*** SETUP Finishes Successfully ***
************************************
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*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** MODEL SETUP OPTIONS SUMMARY ***

- -

**Model Is Setup For Calculation of Average CONCentration Values.

**Model Uses RURAL Dispersion.

**Model Uses Regulatory DEFAULT Options:
1. Final Plume Rise.
2. Stack-tip Downwash.
3. Buoyancy-induced Dispersion.
4. Use Calms Processing Routine.
5. Not Use Missing Data Processing Routine.
6. Default Wind Profile Exponents.
7. Default Vertical Potential Temperature Gradients.
8. "Upper Bound" Values for Supersquat Buildings.
9. No Exponential Decay for RURAL Mode

**Model Assumes Receptors on FLAT Terrain.

**Model Assumes No FLAGPOLE Receptor Heights.

**Model Calculates 1 Short Term Average(s) of: 8-HR

**This Run Includes: 3 Source(s); 1 Source Group(s); and 706 Receptor(s)

**The Model Assumes A Pollutant Type of: 111_8

**Model Set To Continue RUNning After the Setup Testing.

**Output Options Selected:
Model Outputs Tables of Highest Short Term Values by Receptor (RECTABLE Keyword)

**NOTE: The Following Flags May Appear Following CONC Values: c for Calm Hours
m for Missing Hours
b for Both Calm and Missing Hours

**Misc. Inputs: Anem. Hgt. (m) = 10.00 ; Decay Coef. = 0.0000 ; Rot. Angle = 0.0
Emission Units = GRAMS/SEC ; Emission Rate Unit Factor = 0.10000E+07
Output Units = MICROGRAMS/M**3

**Input Runstream File: C:\PROJECT\26005\MODELDAT\FMX1118.DAT ; **Output Print File: C:\PROJECT\26005\MODELDAT\FMX1118.LST

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** POINT SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (USER UNITS)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	STACK HEIGHT (METERS)	STACK TEMP. (DEG.K)	STACK EXIT VEL. (M/SEC)	STACK DIAMETER (METERS)	BUILDING EXISTS	EMISSION RATE SCALAR VARY BY
EXFAN_7	0	0.10500E+00	108.5	152.7	0.0	16.15	299.82	24.61	1.11	YES	
EXFAN_12	0	0.10500E+00	147.5	110.6	0.0	16.15	299.82	24.61	1.11	YES	
EXFAN_19	0	0.10500E+00	182.9	102.6	0.0	16.15	299.82	24.61	1.11	YES	

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** SOURCE IDs DEFINING SOURCE GROUPS ***

GROUP ID	SOURCE IDs
ALL	EXFAN_7 , EXFAN_12, EXFAN_19,

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** DIRECTION SPECIFIC BUILDING DIMENSIONS ***

SOURCE ID: EXFAN_7

IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK
1	10.7,	117.0,	0	2	10.7,	132.8,	0	3	10.7,	144.7,	0	4	10.7,	152.1,	0	5	10.7,	154.9,	0	6	10.7,	153.0,	0
7	10.7,	146.5,	0	8	10.7,	135.5,	0	9	10.7,	120.4,	0	10	10.7,	129.5,	0	11	10.7,	140.8,	0	12	10.7,	147.8,	0
13	10.7,	150.3,	0	14	10.7,	148.2,	0	15	10.7,	141.6,	0	16	10.7,	130.8,	0	17	10.7,	115.9,	0	18	10.7,	97.5,	0
19	10.7,	117.0,	0	20	10.7,	132.8,	0	21	10.7,	144.7,	0	22	10.7,	152.1,	0	23	10.7,	154.9,	0	24	10.7,	153.0,	0
25	10.7,	146.5,	0	26	10.7,	135.5,	0	27	10.7,	120.4,	0	28	10.7,	129.5,	0	29	10.7,	140.8,	0	30	10.7,	147.8,	0
31	15.2,	95.3,	0	32	15.2,	95.8,	0	33	15.2,	93.5,	0	34	15.2,	88.3,	0	35	15.2,	80.4,	0	36	10.7,	97.5,	0

SOURCE ID: EXFAN_12

IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK
1	15.2,	80.4,	0	2	15.2,	88.3,	0	3	15.2,	93.5,	0	4	15.2,	95.8,	0	5	15.2,	95.3,	0	6	12.2,	39.1,	0
7	12.2,	40.0,	0	8	12.2,	39.6,	0	9	12.2,	103.6,	0	10	12.2,	114.2,	0	11	12.2,	40.0,	0	12	15.2,	91.8,	0
13	15.2,	95.3,	0	14	15.2,	95.8,	0	15	15.2,	93.5,	0	16	15.2,	88.3,	0	17	15.2,	80.4,	0	18	15.2,	70.1,	0
19	15.2,	80.4,	0	20	15.2,	88.3,	0	21	15.2,	93.5,	0	22	15.2,	95.8,	0	23	15.2,	95.3,	0	24	12.2,	39.1,	0
25	12.2,	40.0,	0	26	12.2,	39.6,	0	27	12.2,	38.1,	0	28	12.2,	39.6,	0	29	12.2,	40.0,	0	30	15.2,	91.8,	0
31	15.2,	95.3,	0	32	15.2,	95.8,	0	33	15.2,	93.5,	0	34	15.2,	88.3,	0	35	15.2,	80.4,	0	36	15.2,	70.1,	0

SOURCE ID: EXFAN_19

IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK
1	15.2,	80.4,	0	2	15.2,	88.3,	0	3	15.2,	93.5,	0	4	15.2,	95.8,	0	5	15.2,	95.3,	0	6	15.2,	91.8,	0
7	15.2,	85.6,	0	8	12.2,	39.6,	0	9	12.2,	38.1,	0	10	12.2,	39.6,	0	11	12.2,	40.0,	0	12	12.2,	39.1,	0
13	12.2,	37.0,	0	14	15.2,	95.8,	0	15	15.2,	93.5,	0	16	15.2,	88.3,	0	17	15.2,	80.4,	0	18	15.2,	70.1,	0
19	15.2,	80.4,	0	20	15.2,	88.3,	0	21	15.2,	93.5,	0	22	15.2,	95.8,	0	23	15.2,	95.3,	0	24	15.2,	91.8,	0
25	15.2,	85.6,	0	26	12.2,	39.6,	0	27	12.2,	38.1,	0	28	12.2,	39.6,	0	29	12.2,	40.0,	0	30	12.2,	39.1,	0
31	12.2,	37.0,	0	32	15.2,	95.8,	0	33	15.2,	93.5,	0	34	15.2,	88.3,	0	35	15.2,	80.4,	0	36	15.2,	70.1,	0

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** GRIDDED RECEPTOR NETWORK SUMMARY ***

*** NETWORK ID: POLAR_1 ; NETWORK TYPE: GRIDPOLR ***

*** ORIGIN FOR POLAR NETWORK ***
X-ORIG = 106.68 ; Y-ORIG = 110.64 (METERS)

*** DISTANCE RANGES OF NETWORK ***
(METERS)

150.0, 200.0, 250.0, 300.0, 350.0, 400.0, 450.0, 500.0, 550.0, 600.0,
650.0, 700.0, 750.0, 800.0, 850.0, 900.0, 950.0, 1000.0,

*** DIRECTION RADIALS OF NETWORK ***
(DEGREES)

10.0, 20.0, 30.0, 40.0, 50.0, 60.0, 70.0, 80.0, 90.0, 100.0,
110.0, 120.0, 130.0, 140.0, 150.0, 160.0, 170.0, 180.0, 190.0, 200.0,
210.0, 220.0, 230.0, 240.0, 250.0, 260.0, 270.0, 280.0, 290.0, 300.0,
310.0, 320.0, 330.0, 340.0, 350.0, 360.0,

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZFLAG)
(METERS)

(0.0,	0.0,	0.0,	0.0);	(15.2,	0.0,	0.0,	0.0);
(30.5,	0.0,	0.0,	0.0);	(45.7,	0.0,	0.0,	0.0);
(61.0,	0.0,	0.0,	0.0);	(76.2,	0.0,	0.0,	0.0);
(91.4,	0.0,	0.0,	0.0);	(106.7,	0.0,	0.0,	0.0);
(121.9,	0.0,	0.0,	0.0);	(137.2,	0.0,	0.0,	0.0);
(152.4,	0.0,	0.0,	0.0);	(167.6,	0.0,	0.0,	0.0);
(182.9,	0.0,	0.0,	0.0);	(198.1,	0.0,	0.0,	0.0);
(213.4,	0.0,	0.0,	0.0);	(213.4,	15.2,	0.0,	0.0);
(213.4,	30.5,	0.0,	0.0);	(213.4,	45.7,	0.0,	0.0);
(213.4,	61.0,	0.0,	0.0);	(213.4,	76.2,	0.0,	0.0);
(213.4,	91.4,	0.0,	0.0);	(213.4,	106.7,	0.0,	0.0);
(213.4,	121.9,	0.0,	0.0);	(213.4,	137.2,	0.0,	0.0);
(213.4,	152.4,	0.0,	0.0);	(213.4,	167.6,	0.0,	0.0);
(213.4,	182.9,	0.0,	0.0);	(213.4,	198.1,	0.0,	0.0);
(213.4,	213.4,	0.0,	0.0);	(213.4,	221.0,	0.0,	0.0);
(198.1,	221.0,	0.0,	0.0);	(182.9,	221.0,	0.0,	0.0);
(167.6,	221.0,	0.0,	0.0);	(152.4,	221.0,	0.0,	0.0);
(137.2,	221.0,	0.0,	0.0);	(121.9,	221.0,	0.0,	0.0);
(106.7,	221.0,	0.0,	0.0);	(91.4,	221.0,	0.0,	0.0);
(76.2,	221.0,	0.0,	0.0);	(61.0,	221.0,	0.0,	0.0);
(45.7,	221.0,	0.0,	0.0);	(30.5,	221.0,	0.0,	0.0);
(15.2,	221.0,	0.0,	0.0);	(0.0,	221.0,	0.0,	0.0);
(0.0,	213.4,	0.0,	0.0);	(0.0,	198.1,	0.0,	0.0);
(0.0,	182.9,	0.0,	0.0);	(0.0,	167.6,	0.0,	0.0);
(0.0,	152.4,	0.0,	0.0);	(0.0,	137.2,	0.0,	0.0);
(0.0,	121.9,	0.0,	0.0);	(0.0,	106.7,	0.0,	0.0);
(0.0,	91.4,	0.0,	0.0);	(0.0,	76.2,	0.0,	0.0);
(0.0,	61.0,	0.0,	0.0);	(0.0,	45.7,	0.0,	0.0);
(0.0,	30.5,	0.0,	0.0);	(0.0,	15.2,	0.0,	0.0);

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

* SOURCE-RECEPTOR COMBINATIONS LESS THAN 1.0 METER OR 3*ZLB *
IN DISTANCE. CALCULATIONS MAY NOT BE PERFORMED.

SOURCE ID	- - RECEPTOR LOCATION - - XR (METERS)	YR (METERS)	DISTANCE (METERS)
EXFAN_19	213.4	91.4	32.45
EXFAN_19	213.4	106.7	30.76
EXFAN_19	213.4	121.9	36.11

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***
(1=YES; 0=NO)

```
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1
```

METEOROLOGICAL DATA PROCESSED BETWEEN START DATE: 86 1 1 1
AND END DATE: 86 12 31 24

NOTE: METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA FILE.

*** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***
(METERS/SEC)

1.54, 3.09, 5.14, 8.23, 10.80,

*** WIND PROFILE EXPONENTS ***

STABILITY	WIND SPEED CATEGORY					
CATEGORY	1	2	3	4	5	6
A	.70000E-01	.70000E-01	.70000E-01	.70000E-01	.70000E-01	.70000E-01
B	.70000E-01	.70000E-01	.70000E-01	.70000E-01	.70000E-01	.70000E-01
C	.10000E+00	.10000E+00	.10000E+00	.10000E+00	.10000E+00	.10000E+00
D	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00
E	.35000E+00	.35000E+00	.35000E+00	.35000E+00	.35000E+00	.35000E+00
F	.55000E+00	.55000E+00	.55000E+00	.55000E+00	.55000E+00	.55000E+00

*** VERTICAL POTENTIAL TEMPERATURE GRADIENTS ***
(DEGREES KELVIN PER METER)

STABILITY	WIND SPEED CATEGORY					
CATEGORY	1	2	3	4	5	6
A	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
B	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
C	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
D	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
E	.20000E-01	.20000E-01	.20000E-01	.20000E-01	.20000E-01	.20000E-01
F	.35000E-01	.35000E-01	.35000E-01	.35000E-01	.35000E-01	.35000E-01

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

FILE: C:\PROJECT\26005\MODELDAT\ORLPRE86.BIN FORMAT: UNFORM
SURFACE STATION NO.: 12815 UPPER AIR STATION NO.: 12842
NAME: ORLANDO NAME: TAMPA
YEAR: 1986 YEAR: 1986

YEAR	MONTH	DAY	HOUR	FLOW VECTOR	SPEED (M/S)	TEMP (K)	STAB CLASS	MIXING HEIGHT (M) RURAL	MIXING HEIGHT (M) URBAN
86	1	1	1	1.0	3.60	289.3	4	639.0	639.0
86	1	1	2	168.0	5.14	288.7	4	639.0	639.0
86	1	1	3	124.0	3.09	288.2	4	639.0	639.0
86	1	1	4	353.0	2.57	288.2	4	639.0	639.0
86	1	1	5	333.0	2.57	288.7	4	639.0	639.0
86	1	1	6	332.0	2.57	288.7	4	639.0	639.0
86	1	1	7	335.0	3.09	288.7	4	639.0	639.0
86	1	1	8	3.0	3.60	289.3	4	639.0	639.0
86	1	1	9	347.0	3.60	289.8	4	639.0	639.0
86	1	1	10	1.0	5.14	292.0	4	639.0	639.0
86	1	1	11	14.0	4.63	292.6	4	639.0	639.0
86	1	1	12	16.0	4.12	294.3	4	639.0	639.0
86	1	1	13	73.0	3.09	295.4	4	639.0	639.0
86	1	1	14	49.0	3.60	297.0	4	639.0	639.0
86	1	1	15	142.0	2.06	296.5	4	639.0	639.0
86	1	1	16	144.0	2.06	295.9	4	639.0	639.0
86	1	1	17	261.0	2.06	295.4	4	639.0	639.0
86	1	1	18	257.0	2.06	292.6	4	644.0	644.0
86	1	1	19	274.0	3.60	291.5	4	655.0	655.0
86	1	1	20	227.0	3.09	290.9	4	666.0	666.0
86	1	1	21	230.0	3.09	290.9	4	678.0	678.0
86	1	1	22	252.0	2.57	290.4	5	689.0	477.0
86	1	1	23	290.0	2.06	290.4	4	700.0	700.0
86	1	1	24	290.0	1.00	290.4	4	712.0	712.0

*** NOTES: STABILITY CLASS 1=A, 2=B, 3=C, 4=D, 5=E AND 6=F.
FLOW VECTOR IS DIRECTION TOWARD WHICH WIND IS BLOWING.

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** THE 1ST HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): EXFAN_7 , EXFAN_12, EXFAN_19,

*** NETWORK ID: POLAR_1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF 111_8 IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 150.00	200.00	250.00	300.00	350.00
10.0	6.33336 (86031408)	6.76162 (86112616)	7.66016 (86121116)	7.91357 (86121116)	7.54580 (86121116)
20.0	6.39179 (86121116)	8.65176 (86121116)	7.46569 (86121116)	5.38916 (86121116)	4.48178 (86020516)
30.0	7.84088 (86121116)	7.38353 (86072916)	5.89572 (86072916)	5.02122 (86072916)	4.35668 (86072916)
40.0	5.08329 (86072916)	5.91589 (86032016)	4.99337 (86072816)	5.36780 (86030416)	5.69780 (86030416)
50.0	6.92008 (86072916)	6.16346 (86030416)	6.35828 (86030416)	5.28299 (86073016)	5.40238 (86112016)
60.0	4.20278 (86042116)	5.81550 (86073016)	6.58141 (86112016)	5.41368 (86112016)	5.35571 (86011908)
70.0	3.94782 (86022716)	5.70434 (86022716)	5.94647 (86011916)	6.23382 (86011916)	5.96648 (86011916)
80.0	4.86225 (86022716)	6.95026 (86042124)	6.71477 (86042124)	5.08456 (86042124)	4.21840 (86012716)
90.0	2.05993 (86012724)	3.57747 (86042216)	4.81932 (86041616)	5.06505 (86041616)	4.76554 (86041616)
100.0	2.93380 (86012724)	3.78651 (86012724)	4.23852 (86042916)	4.31771 (86042916)	3.88933 (86042916)
110.0	4.03397 (86012724)	4.58734 (86012724)	7.18977 (86042916)	8.27395 (86042916)	8.12684 (86042916)
120.0	3.61418 (86042616)	6.31072 (86042616)	6.36096 (86042616)	5.73893 (86052216)	5.62929 (86012816)
130.0	3.68497 (86012808)	6.03652 (86042616)	6.73500 (86042616)	6.19360 (86042616)	5.48900 (86012816)
140.0	4.04758 (86011116)	5.58441 (86042316)	5.68490 (86032116)	5.86661 (86032116)	5.56323 (86032116)
150.0	7.72607 (86032216)	5.79769 (86101616)	7.95896 (86101616)	8.90105 (86101616)	8.80594 (86101616)
160.0	6.77050 (86032216)	7.68117 (86032216)	5.10107 (86120524)	5.12627 (86101616)	5.19549 (86101616)
170.0	6.34037 (86032216)	7.91860 (86032216)	7.80973 (86032216)	7.49693 (86120524)	7.10181 (86120524)
180.0	6.60073 (86111324)	6.64916 (86111324)	6.44973 (86111324)	5.94517 (86032216)	5.96305 (86032216)
190.0	4.94420 (86010816)	5.56751 (86111324)	5.62489 (86111324)	5.80200 (86111324)	5.80370 (86111324)
200.0	7.07501 (86010824)	6.37673 (86010816)	5.47225 (86120416)	5.65629 (86120416)	5.38590 (86120416)
210.0	7.82561 (86010824)	7.67508 (86010816)	7.72402 (86010816)	7.21427 (86010816)	6.42797 (86010816)
220.0	8.72653 (86101916)	8.54446 (86101916)	7.18308 (86101916)	6.85930 (86010824)	6.40032 (86010824)
230.0	6.31141 (86111416)	7.64452 (86111416)	7.01189 (86111416)	6.59774 (86101916)	6.39589 (86101916)
240.0	5.70794 (86091716)	6.25714 (86091716)	6.03105 (86091716)	5.59181 (86111416)	6.19529 (86111416)
250.0	4.55977 (86091516)	5.83918 (86091516)	6.10009 (86091516)	5.83188 (86091516)	5.35325 (86091516)
260.0	3.85691 (86050516)	4.58915 (86050516)	4.77193 (86050516)	4.71113 (86050516)	4.48906 (86050516)
270.0	4.41009 (86050516)	5.60657 (86050516)	6.03199 (86050516)	6.05408 (86051516)	6.03718 (86051516)
280.0	4.15417 (86050516)	4.64730 (86051516)	5.45367 (86040416)	5.88756 (86040416)	5.99464 (86040416)
290.0	3.27922 (86070716)	4.20643 (86062316)	4.97190 (86062316)	5.27939 (86062316)	5.27686 (86062316)
300.0	4.89232 (86040616)	5.52790 (86040616)	6.13990 (86030924)	6.80147 (86030924)	7.01240 (86030924)
310.0	9.26474 (86030916)	10.08131 (86030916)	9.67449 (86030916)	8.79414 (86030916)	7.75696 (86030916)
320.0	7.38081 (86030916)	6.91135 (86112516)	7.58745 (86112516)	7.10072 (86112516)	6.23660 (86112516)
330.0	4.83423 (86052816)	5.59240 (86081116)	5.69159 (86081116)	5.93715 (86031308)	5.94433 (86031308)
340.0	9.36610 (86031316)	8.15750 (86031316)	7.71400 (86031216)	8.38481 (86031216)	8.26475 (86031216)
350.0	8.75530 (86031316)	8.93921 (86031216)	9.58816 (86031216)	8.67473 (86031216)	7.34144 (86031216)
360.0	5.65442 (86031216)	6.45982 (86072908)	7.11412 (86072908)	7.80952 (86112616)	7.91442 (86112616)

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** THE 1ST HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): EXFAN_7 , EXFAN_12, EXFAN_19,

*** NETWORK ID: POLAR_1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF 111_8 IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 400.00	450.00	500.00	550.00	600.00
10.0	6.81836 (86121116)	5.98835 (86121116)	5.20004 (86121116)	4.50904 (86121116)	4.11084 (86073008)
20.0	4.08985 (86111716)	3.78123 (86111716)	3.99265 (86031108)	4.10160 (86031108)	4.09043 (86031108)
30.0	3.86805 (86072824)	3.84299 (86072824)	3.81548 (86021116)	3.70578 (86021116)	3.53830 (86021116)
40.0	5.60320 (86030416)	5.24542 (86030416)	4.77491 (86030416)	4.28453 (86030416)	3.82061 (86030416)
50.0	5.47623 (86112016)	5.31166 (86112016)	5.00586 (86112016)	4.63621 (86112016)	4.25181 (86112016)
60.0	5.04784 (86011908)	4.55064 (86011908)	4.02476 (86011908)	3.90518 (86031116)	3.80397 (86031116)
70.0	5.57782 (86011916)	5.15022 (86011916)	4.72845 (86011916)	4.33155 (86011916)	4.25878 (86042124)
80.0	3.87545 (86012716)	3.53042 (86012716)	3.20035 (86012716)	2.89567 (86012716)	2.66158 (86021916)
90.0	4.30276 (86041616)	3.81720 (86041616)	3.59021 (86012016)	3.34752 (86012016)	3.09984 (86012016)
100.0	3.39533 (86021516)	3.08548 (86021516)	2.77184 (86021516)	2.48028 (86021516)	2.22754 (86120316)
110.0	7.45732 (86042916)	6.64703 (86042916)	5.85630 (86042916)	5.14408 (86042916)	4.52448 (86042916)
120.0	5.29174 (86012816)	4.86573 (86012816)	4.53933 (86011316)	4.27494 (86011316)	3.99244 (86011316)
130.0	5.40482 (86012816)	5.08500 (86012816)	4.67143 (86012816)	4.24104 (86012816)	3.83060 (86012816)
140.0	5.05770 (86032116)	4.51206 (86032116)	4.05097 (86120316)	3.79077 (86120316)	3.53012 (86120316)
150.0	8.11598 (86101616)	7.19936 (86101616)	6.26564 (86101616)	5.41318 (86101616)	4.67198 (86101616)
160.0	5.06109 (86101616)	4.82143 (86101616)	4.93316 (86101608)	5.19282 (86101608)	5.31214 (86101608)
170.0	6.44210 (86120524)	5.73664 (86120524)	5.06393 (86120524)	4.90047 (86012408)	4.93152 (86012408)
180.0	5.73363 (86032216)	5.36686 (86032216)	5.03569 (86120524)	4.89875 (86120524)	4.69560 (86120524)
190.0	5.55175 (86111324)	5.13474 (86111324)	4.65299 (86111324)	4.17176 (86111324)	3.72408 (86111324)
200.0	4.93161 (86120416)	4.43112 (86120416)	3.95048 (86120416)	3.52037 (86102816)	3.28118 (86102816)
210.0	5.58447 (86010816)	5.08917 (86101908)	4.78680 (86101908)	4.43771 (86101908)	4.08580 (86101908)
220.0	5.82649 (86010824)	5.25033 (86010824)	4.71833 (86010824)	4.48139 (86010816)	4.25585 (86010816)
230.0	6.02167 (86101916)	5.58271 (86101916)	5.13581 (86101916)	4.70876 (86101916)	4.31362 (86101916)
240.0	6.44399 (86111416)	6.45216 (86111416)	6.30879 (86111416)	6.07632 (86111416)	5.79630 (86111416)
250.0	4.82196 (86091516)	4.30898 (86091516)	3.84268 (86091516)	3.55726 (86032616)	3.31760 (86032616)
260.0	4.19833 (86050516)	3.88863 (86050516)	3.58513 (86050516)	3.29963 (86050516)	3.03684 (86050516)
270.0	5.82078 (86051516)	5.50325 (86051516)	5.14475 (86051516)	4.77984 (86051516)	4.42716 (86051516)
280.0	5.89567 (86040416)	5.67022 (86040416)	5.37428 (86040416)	5.04600 (86040416)	4.71004 (86040416)
290.0	5.09295 (86062316)	4.81453 (86062316)	4.49468 (86062316)	4.16563 (86062316)	3.84548 (86062316)
300.0	6.92028 (86030924)	6.64756 (86030924)	6.27729 (86030924)	5.86446 (86030924)	5.44329 (86030924)
310.0	6.74994 (86030916)	5.84856 (86030916)	5.27344 (86122316)	4.92375 (86122316)	4.56991 (86122316)
320.0	5.34979 (86112516)	4.56021 (86112516)	3.89272 (86112516)	3.34021 (86112516)	2.88516 (86112516)
330.0	5.70578 (86031308)	5.37063 (86031308)	5.01097 (86031308)	4.65960 (86031308)	4.33023 (86031308)
340.0	7.77530 (86031216)	7.14882 (86031216)	6.49897 (86031216)	5.87828 (86031216)	5.30852 (86031216)
350.0	6.09473 (86031216)	5.40037 (86072908)	5.07061 (86072908)	4.84588 (86072908)	4.64452 (86072908)
360.0	7.64318 (86112616)	7.17266 (86112616)	6.61966 (86112616)	6.05190 (86112616)	5.50584 (86112616)

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** THE 1ST HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): EXFAN_7 , EXFAN_12, EXFAN_19,

*** NETWORK ID: POLAR_1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF 111_8 IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 650.00	700.00	750.00	800.00	850.00
10.0	3.74368 (86073008)	3.69700 (86042108)	3.65485 (86042108)	3.61791 (86042108)	3.54444 (86042108)
20.0	4.00412 (86031108)	3.87513 (86031108)	3.72479 (86031108)	3.56630 (86031108)	3.40744 (86031108)
30.0	3.34261 (86021116)	3.22103c(86121124)	3.25022c(86121124)	3.23927c(86121124)	3.20055c(86121124)
40.0	3.40181 (86030416)	3.03257 (86030416)	2.89088 (86111908)	2.80039 (86111908)	2.69797 (86111908)
50.0	3.87989 (86112016)	3.53371 (86112016)	3.21837 (86112016)	2.93458 (86112016)	2.88694 (86122008)
60.0	3.65865 (86031116)	3.48897 (86031116)	3.30836 (86031116)	3.12566 (86031116)	2.94647 (86031116)
70.0	4.38077 (86042124)	4.44171 (86042124)	4.45007 (86042124)	4.41913 (86042124)	4.34328 (86042124)
80.0	2.52085 (86021916)	2.37487 (86021916)	2.23037 (86021916)	2.09527 (86021916)	1.96442 (86021916)
90.0	2.86120 (86012016)	2.63817 (86012016)	2.43320 (86012016)	2.25516 (86012016)	2.09516c(86071908)
100.0	2.23076 (86090616)	2.21300 (86090616)	2.17192 (86090616)	2.11466 (86090616)	2.04684 (86090616)
110.0	3.99341 (86042916)	3.54049 (86042916)	3.15421 (86042916)	2.82389 (86042916)	2.55682 (86030724)
120.0	3.71122 (86011316)	3.44188 (86011316)	3.18968 (86011316)	2.96072 (86011316)	2.74797 (86011316)
130.0	3.45514 (86012816)	3.11887 (86012816)	3.17187 (86102624)	3.32946 (86102624)	3.44609 (86102624)
140.0	3.28433 (86120316)	3.05960 (86120316)	2.85721 (86120316)	2.67609 (86120316)	2.51421 (86120316)
150.0	4.04204 (86101616)	3.51181 (86101616)	3.22039 (86032108)	2.97537 (86032108)	2.75324 (86032108)
160.0	5.32413 (86101608)	5.25757 (86101608)	5.13589 (86101608)	4.97737 (86101608)	4.79583 (86101608)
170.0	4.83488 (86012408)	4.65531 (86012408)	4.42726 (86012408)	4.17527 (86012408)	3.91590 (86012408)
180.0	4.45718 (86120524)	4.20455 (86120524)	3.95417 (86120524)	3.71004 (86120524)	3.49129 (86120524)
190.0	3.58844 (86101924)	3.54509 (86101924)	3.47299 (86101924)	3.38033 (86101924)	3.29296 (86101924)
200.0	3.02854 (86102816)	2.78043 (86102816)	2.81020 (86102824)	2.91873 (86102824)	2.99151 (86102824)
210.0	3.75215 (86101908)	3.44533 (86101908)	3.16748 (86101908)	2.91770 (86101908)	2.69160 (86101908)
220.0	4.02662 (86010816)	3.80095 (86010816)	3.58327 (86010816)	3.38002 (86010816)	3.20725 (86010816)
230.0	4.15571 (86050924)	4.00273 (86050924)	3.83604 (86050924)	3.66510 (86050924)	3.52382 (86050924)
240.0	5.49553 (86111416)	5.19077 (86111416)	4.89220 (86111416)	4.63172 (86111416)	4.40703 (86111416)
250.0	3.08762 (86032616)	2.92651 (86092124)	2.82994 (86092124)	2.73084 (86092124)	2.61670 (86092124)
260.0	2.84924 (86122308)	2.79724 (86122308)	2.72534 (86122308)	2.64052 (86122308)	2.54791 (86122308)
270.0	4.09593 (86051516)	3.85593 (86031008)	3.80863 (86031008)	3.73953 (86031008)	3.65499 (86031008)
280.0	4.38141 (86040416)	4.06866 (86040416)	3.77608 (86040416)	3.50822 (86040416)	3.25997 (86040416)
290.0	3.54357 (86062316)	3.26406 (86062316)	3.00815 (86062316)	2.77538 (86062316)	2.56444 (86062316)
300.0	5.03388 (86030924)	4.64704 (86030924)	4.28788 (86030924)	3.95799 (86030924)	3.67314 (86030924)
310.0	4.22704 (86122316)	3.90351 (86122316)	3.60328 (86122316)	3.49738 (86031908)	3.44476 (86031908)
320.0	2.72206 (86080724)	2.68281 (86031908)	2.65692 (86031908)	2.61061 (86031908)	2.55239 (86031908)
330.0	4.02750 (86031308)	3.75180 (86031308)	3.50167 (86031308)	3.27492 (86031308)	3.06922 (86031308)
340.0	4.79620 (86031216)	4.56739 (86080308)	4.50283 (86080308)	4.41401 (86080308)	4.29903 (86080308)
350.0	4.66016 (86020508)	4.59043 (86020508)	4.51353 (86020508)	4.44659 (86020508)	4.36245 (86020508)
360.0	4.99904 (86112616)	4.53819 (86112616)	4.12405 (86112616)	3.75433 (86112616)	3.43264 (86112616)

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** THE 1ST HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): EXFAN_7 , EXFAN_12, EXFAN_19,

*** NETWORK ID: POLAR_1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF 111_8 IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 900.00	950.00	1000.00
10.0	3.44064 (86042108)	3.37511 (86042108)	3.28007 (86042108)
20.0	3.25257 (86031108)	3.07654 (86031108)	2.94327 (86031108)
30.0	3.16484c(86121124)	3.05088c(86121124)	2.96977c(86121124)
40.0	2.58904 (86111908)	2.46097 (86111908)	2.38729 (86021508)
50.0	2.86078 (86122008)	2.81928 (86122008)	2.78289 (86122008)
60.0	2.77415 (86031116)	2.66006 (86111808)	2.56023 (86111808)
70.0	4.27161 (86042124)	4.18939 (86042124)	4.05552 (86042124)
80.0	1.89701 (86090308)	1.98353 (86090308)	2.05734 (86090308)
90.0	2.20250c(86071908)	2.28852c(86071908)	2.35542c(86071908)
100.0	1.97270 (86090616)	1.89536 (86090616)	1.81691 (86090616)
110.0	2.53378 (86030724)	2.49853 (86030724)	2.43695 (86030724)
120.0	2.56038 (86022016)	2.51997 (86060608)	2.59802 (86060608)
130.0	3.52669 (86102624)	3.57625 (86102624)	3.59485 (86102624)
140.0	2.36928 (86120316)	2.23913 (86120316)	2.12181 (86120316)
150.0	2.56070 (86032108)	2.41180 (86032108)	2.25174 (86032108)
160.0	4.63781 (86111508)	4.51343 (86111508)	4.37062 (86111508)
170.0	3.65976 (86012408)	3.41330 (86012408)	3.18321 (86012408)
180.0	3.32150 (86110216)	3.21478 (86110216)	3.10148 (86110216)
190.0	3.19226 (86101924)	3.08830 (86101924)	2.98115 (86101924)
200.0	3.01794 (86102824)	3.03255 (86102824)	3.01304 (86102824)
210.0	2.50909 (86101908)	2.34643 (86101908)	2.18661 (86101908)
220.0	3.08729 (86010816)	2.91565 (86010816)	2.76279 (86010816)
230.0	3.37742 (86050924)	3.21736 (86050924)	3.06698 (86050924)
240.0	4.15122 (86111416)	3.92448 (86111416)	3.71234 (86111416)
250.0	2.52400 (86092124)	2.42564 (86092124)	2.32929 (86092124)
260.0	2.45134 (86122308)	2.35411 (86122308)	2.25924 (86122308)
270.0	3.55990 (86031008)	3.45740 (86031008)	3.35005 (86031008)
280.0	3.12850 (86040324)	3.07927 (86040324)	3.01459 (86040324)
290.0	2.45499 (86031824)	2.37884 (86031824)	2.30147 (86031824)
300.0	3.40867 (86030924)	3.16916 (86030924)	2.95163 (86030924)
310.0	3.36216 (86031908)	3.28199 (86031908)	3.20541 (86031908)
320.0	2.45666 (86031908)	2.37578 (86031908)	2.30901 (86031908)
330.0	2.89573 (86031308)	2.75025 (86031308)	2.59584 (86031308)
340.0	4.18521 (86080308)	4.07684 (86080308)	3.96437 (86080308)
350.0	4.28862 (86020508)	4.20089 (86020508)	4.09902 (86020508)
360.0	3.15631 (86112616)	2.95774 (86082024)	2.87431 (86082024)

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** THE 1ST HIGHEST 8-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): EXFAN_7 , EXFAN_12, EXFAN_19,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF 111_8 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
0.00	0.00	7.44777	(86101916)	15.24	0.00	8.67478	(86101916)
30.48	0.00	9.13811	(86101916)	45.72	0.00	8.63417	(86101916)
60.96	0.00	7.54574	(86010824)	76.20	0.00	7.07240	(86010824)
91.44	0.00	5.27667	(86010816)	106.68	0.00	6.61192	(86111324)
121.92	0.00	5.80155	(86101924)	137.16	0.00	6.21853	(86032216)
152.40	0.00	5.17410	(86111324)	167.64	0.00	6.69175	(86032216)
182.88	0.00	6.61316	(86032216)	198.12	0.00	3.56403	(86032108)
213.36	0.00	6.41019	(86011116)	213.36	15.24	5.36888	(86011116)
213.36	30.48	2.64387	(86012808)	213.36	45.72	2.88298	(86022516)
213.36	60.96	3.07436	(86012724)	213.36	76.20	4.04848	(86012724)
213.36	91.44	1.94396	(86012724)	213.36	106.68	2.01510	(86012724)
213.36	121.92	1.54950	(86012724)	213.36	137.16	2.55566	(86022716)
213.36	152.40	3.13404	(86022716)	213.36	167.64	4.08114	(86042116)
213.36	182.88	5.91349	(86072916)	213.36	198.12	7.06973	(86072916)
213.36	213.36	6.10039	(86032016)	213.36	220.98	6.02087	(86032016)
198.12	220.98	5.47764	(86072916)	182.88	220.98	7.53727	(86121116)
167.64	220.98	4.83403	(86121116)	152.40	220.98	5.62534	(86121116)
137.16	220.98	4.93818	(86031916)	121.92	220.98	5.36993	(86031316)
106.68	220.98	7.32058	(86031316)	91.44	220.98	8.07487	(86031316)
76.20	220.98	9.18502	(86031316)	60.96	220.98	7.51078	(86031316)
45.72	220.98	4.78963	(86031016)	30.48	220.98	5.53281	(86031816)
15.24	220.98	7.46001	(86030916)	0.00	220.98	9.77315	(86030916)
0.00	213.36	10.06358	(86030916)	0.00	198.12	8.40142	(86030916)
0.00	182.88	5.06571	(86030916)	0.00	167.64	3.80418	(86040616)
0.00	152.40	2.86234	(86051516)	0.00	137.16	3.20449	(86050516)
0.00	121.92	2.96044	(86040516)	0.00	106.68	2.90490	(86050516)
0.00	91.44	2.64634	(86050516)	0.00	76.20	2.85776	(86051016)
0.00	60.96	3.95864	(86091516)	0.00	45.72	5.05704	(86091716)
0.00	30.48	5.45899	(86091716)	0.00	15.24	6.69880	(86111416)

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** THE SUMMARY OF HIGHEST 8-HR RESULTS ***

** CONC OF 111_8 IN MICROGRAMS/M**3 **

GROUP ID	AVERAGE CONC	DATE (YYMMDDHH)	RECEPTOR (XR, YR, ZELEV, ZFLAG)	OF TYPE	NETWORK GRID-ID
ALL HIGH 1ST HIGH VALUE IS	10.08131	ON 86030916: AT(-46.53, 239.20, 0.00, 0.00)		GP	POLAR_1

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR
BD = BOUNDARY

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** Message Summary For ISC2 Model Execution ***

--------- Summary of Total Messages --------

A Total of 0 Fatal Error Message(s)
A Total of 0 Warning Message(s)
A Total of 328 Informational Message(s)

A Total of 328 Calm Hours Identified

******** FATAL ERROR MESSAGES ********
*** NONE ***

******** WARNING MESSAGES ********
*** NONE ***

****
*** ISCST2 Finishes Successfully ***
****

APPENDIX J

ISCST2 OUTPUT LISTING

1,1,1-TRICHLOROETHANE 24-HOUR AVERGAGE EMISSSION

RUN: FMX11124

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                    ISCST2 - (DATED 93109)

                    IBM-PC VERSION (2.11 ) ISCST2F
                    (C) COPYRIGHT 1992, TRINITY CONSULTANTS, INC.
                    SERIAL NUMBER 10573 SOLD TO CROSS, TESSITORE & ASSOC.

Run Began on  2/29/1996 at  9:21:53


*** TRINITY SOURCE FILE NAME: C:\PROJECT\26005\MODELDAT\FMXSRCA.PNT
*** TRINITY DOWNWASH FILE NAME: C:\PROJECT\26005\MODELDAT\FMXBPIP.WAK
*** TRINITY RECEPTOR FILE NAME: C:\PROJECT\26005\MODELDAT\FMXREC.REC
CO STARTING
CO TITLEONE Foamex;125' Foam Line & LBSR Stacks(GEP);53' Exhaust Fan Stacks (3)
CO TITLETWO 1,1,1-Trichloroethane 24-hr Average Emissions
CO MODELOPT DFAULT CONC RURAL
CO AVERTIME 24
CO POLLUTID 111_24
CO TERRHGTS FLAT
CO ELEVUNIT FEET
CO RUNORNOT RUN
CO FINISHED
SO STARTING
SO LOCATION EXFAN_7 POINT     108.51     152.71       0.00
SO SRCPARAM EXFAN_7 0.104998      16.15     299.82    24.6109      1.105
SO LOCATION EXFAN_12 POINT     147.52     110.64       0.00
SO SRCPARAM EXFAN_12 0.104998      16.15     299.82    24.6109      1.105
SO LOCATION EXFAN_19 POINT     182.88     102.56       0.00
SO SRCPARAM EXFAN_19 0.104998      16.15     299.82    24.6109      1.105
SO BUILDHGT EXFAN_7    10.67    10.67    10.67    10.67    10.67    10.67
SO BUILDHGT EXFAN_7    10.67    10.67    10.67    10.67    10.67    10.67
SO BUILDHGT EXFAN_7    10.67    10.67    10.67    10.67    10.67    10.67
SO BUILDHGT EXFAN_7    10.67    10.67    10.67    10.67    10.67    10.67
SO BUILDHGT EXFAN_7    10.67    10.67    10.67    10.67    10.67    10.67
SO BUILDHGT EXFAN_7    15.24    15.24    15.24    15.24    15.24    10.67
SO BUILDWID EXFAN_7   116.96   132.83   144.67   152.11   154.93   153.04
SO BUILDWID EXFAN_7   146.50   135.51   120.40   129.50   140.77   147.76
SO BUILDWID EXFAN_7   150.26   148.19   141.62   130.75   115.90    97.54
SO BUILDWID EXFAN_7   116.96   132.83   144.67   152.11   154.93   153.04
SO BUILDWID EXFAN_7   146.50   135.51   120.40   129.50   140.77   147.76
SO BUILDWID EXFAN_7    95.26    95.83    93.48    88.29    80.42    97.54
SO BUILDHGT EXFAN_12    15.24    15.24    15.24    15.24    15.24    12.19
SO BUILDHGT EXFAN_12    12.19    12.19    12.19    12.19    12.19    15.24
SO BUILDHGT EXFAN_12    15.24    15.24    15.24    15.24    15.24    15.24
SO BUILDHGT EXFAN_12    15.24    15.24    15.24    15.24    15.24    12.19
SO BUILDHGT EXFAN_12    12.19    12.19    12.19    12.19    12.19    15.24
SO BUILDHGT EXFAN_12    15.24    15.24    15.24    15.24    15.24    15.24
SO BUILDWID EXFAN_12    80.42    88.29    93.48    95.83    95.26    39.09
SO BUILDWID EXFAN_12    39.97    39.64   103.63   114.23    39.97    91.81
SO BUILDWID EXFAN_12    95.26    95.83    93.48    88.29    80.42    70.11
SO BUILDWID EXFAN_12    80.42    88.29    93.48    95.83    95.26    39.09
SO BUILDWID EXFAN_12    39.97    39.64    38.10    39.64    39.97    91.81
SO BUILDWID EXFAN_12    95.26    95.83    93.48    88.29    80.42    70.11
SO BUILDHGT EXFAN_19    15.24    15.24    15.24    15.24    15.24    15.24
SO BUILDHGT EXFAN_19    15.24    12.19    12.19    12.19    12.19    12.19
SO BUILDHGT EXFAN_19    12.19    15.24    15.24    15.24    15.24    15.24
SO BUILDHGT EXFAN_19    15.24    15.24    15.24    15.24    15.24    15.24
SO BUILDHGT EXFAN_19    15.24    12.19    12.19    12.19    12.19    12.19
SO BUILDHGT EXFAN_19    12.19    15.24    15.24    15.24    15.24    15.24
SO BUILDWID EXFAN_19    80.42    88.29    93.48    95.83    95.26    91.81
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SO BUILDWID EXFAN_19    85.56    39.64    38.10    39.64    39.97    39.09
SO BUILDWID EXFAN_19    37.02    95.83    93.48    88.29    80.42    70.11
SO BUILDWID EXFAN_19    80.42    88.29    93.48    95.83    95.26    91.81
SO BUILDWID EXFAN_19    85.56    39.64    38.10    39.64    39.97    39.09
SO BUILDWID EXFAN_19    37.02    95.83    93.48    88.29    80.42    70.11
SO EMISUNIT 1000000.000000 GRAMS/SEC MICROGRAMS/M**3
SO SRCGROUP ALL
SO FINISHED
RE STARTING
RE GRIDPOLR POLAR_1  STA
RE GRIDPOLR POLAR_1  ORIG 106.68 110.64
RE GRIDPOLR POLAR_1  DIST 150.00 200.00 250.00 300.00
RE GRIDPOLR POLAR_1  DIST 350.00 400.00 450.00 500.00
RE GRIDPOLR POLAR_1  DIST 550.00 600.00 650.00 700.00
RE GRIDPOLR POLAR_1  DIST 750.00 800.00 850.00 900.00
RE GRIDPOLR POLAR_1  DIST 950.00 1000.00
RE GRIDPOLR POLAR_1  GDIR 36 10.00 10.00
RE GRIDPOLR POLAR_1  END
RE DISCCART 0.00 0.00
RE DISCCART 15.24 0.00
RE DISCCART 30.48 0.00
RE DISCCART 45.72 0.00
RE DISCCART 60.96 0.00
RE DISCCART 76.20 0.00
RE DISCCART 91.44 0.00
RE DISCCART 106.68 0.00
RE DISCCART 121.92 0.00
RE DISCCART 137.16 0.00
RE DISCCART 152.40 0.00
RE DISCCART 167.64 0.00
RE DISCCART 182.88 0.00
RE DISCCART 198.12 0.00
RE DISCCART 213.36 0.00
RE DISCCART 213.36 15.24
RE DISCCART 213.36 30.48
RE DISCCART 213.36 45.72
RE DISCCART 213.36 60.96
RE DISCCART 213.36 76.20
RE DISCCART 213.36 91.44
RE DISCCART 213.36 106.68
RE DISCCART 213.36 121.92
RE DISCCART 213.36 137.16
RE DISCCART 213.36 152.40
RE DISCCART 213.36 167.64
RE DISCCART 213.36 182.88
RE DISCCART 213.36 198.12
RE DISCCART 213.36 213.36
RE DISCCART 213.36 220.98
RE DISCCART 198.12 220.98
RE DISCCART 182.88 220.98
RE DISCCART 167.64 220.98
RE DISCCART 152.40 220.98
RE DISCCART 137.16 220.98
RE DISCCART 121.92 220.98
RE DISCCART 106.68 220.98
RE DISCCART 91.44 220.98
RE DISCCART 76.20 220.98
RE DISCCART 60.96 220.98
RE DISCCART 45.72 220.98
RE DISCCART 30.48 220.98
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RE DISCCART 15.24 220.98
RE DISCCART 0.00 220.98
RE DISCCART 0.00 213.36
RE DISCCART 0.00 198.12
RE DISCCART 0.00 182.88
RE DISCCART 0.00 167.64
RE DISCCART 0.00 152.40
RE DISCCART 0.00 137.16
RE DISCCART 0.00 121.92
RE DISCCART 0.00 106.68
RE DISCCART 0.00 91.44
RE DISCCART 0.00 76.20
RE DISCCART 0.00 60.96
RE DISCCART 0.00 45.72
RE DISCCART 0.00 30.48
RE DISCCART 0.00 15.24
RE FINISHED
ME STARTING
ME INPUTFIL C:\PROJECT\26005\MODELDAT\ORLPRE86.BIN UNFORM
ME ANEMHGHT   10.000 METERS
ME SURFDATA 12815 1986 ORLANDO
ME UAIRDATA 12842 1986 TAMPA
ME STARTEND 1986 1 1 1 1986 12 31 24
ME FINISHED
OU STARTING
OU RECTABLE 24 FIRST
OU FINISHED

**************************************
*** SETUP Finishes Successfully ***
**************************************
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*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** MODEL SETUP OPTIONS SUMMARY ***

- -

**Model Is Setup For Calculation of Average CONCentration Values.

**Model Uses RURAL Dispersion.

**Model Uses Regulatory DEFAULT Options:
1. Final Plume Rise.
2. Stack-tip Downwash.
3. Buoyancy-induced Dispersion.
4. Use Calms Processing Routine.
5. Not Use Missing Data Processing Routine.
6. Default Wind Profile Exponents.
7. Default Vertical Potential Temperature Gradients.
8. "Upper Bound" Values for Supersquat Buildings.
9. No Exponential Decay for RURAL Mode

**Model Assumes Receptors on FLAT Terrain.

**Model Assumes No FLAGPOLE Receptor Heights.

**Model Calculates 1 Short Term Average(s) of: 24-HR

**This Run Includes: 3 Source(s); 1 Source Group(s); and 706 Receptor(s)

**The Model Assumes A Pollutant Type of: 111_24

**Model Set To Continue RUNning After the Setup Testing.

**Output Options Selected:
Model Outputs Tables of Highest Short Term Values by Receptor (RECTABLE Keyword)

**NOTE: The Following Flags May Appear Following CONC Values: c for Calm Hours
m for Missing Hours
b for Both Calm and Missing Hours

**Misc. Inputs: Anem. Hgt. (m) = 10.00 ; Decay Coef. = 0.0000 ; Rot. Angle = 0.0
Emission Units = GRAMS/SEC ; Emission Rate Unit Factor = 0.10000E+07
Output Units = MICROGRAMS/M**3

**Input Runstream File: C:\PROJECT\26005\MODELDAT\FMX11124.DAT ; **Output Print File: C:\PROJECT\26005\MODELDAT\FMX11124.LST

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** POINT SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (USER UNITS)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	STACK HEIGHT (METERS)	STACK TEMP. (DEG.K)	STACK EXIT VEL. (M/SEC)	STACK DIAMETER (METERS)	BUILDING EXISTS	EMISSION RATE SCALAR VARY BY
EXFAN_7	0	0.10500E+00	108.5	152.7	0.0	16.15	299.82	24.61	1.11	YES	
EXFAN_12	0	0.10500E+00	147.5	110.6	0.0	16.15	299.82	24.61	1.11	YES	
EXFAN_19	0	0.10500E+00	182.9	102.6	0.0	16.15	299.82	24.61	1.11	YES	

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** SOURCE IDs DEFINING SOURCE GROUPS ***

GROUP ID	SOURCE IDs
ALL	EXFAN_7 , EXFAN_12, EXFAN_19,

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** DIRECTION SPECIFIC BUILDING DIMENSIONS ***

SOURCE ID: EXFAN_7

IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK
1	10.7,	117.0,	0	2	10.7,	132.8,	0	3	10.7,	144.7,	0	4	10.7,	152.1,	0	5	10.7,	154.9,	0	6	10.7,	153.0,	0
7	10.7,	146.5,	0	8	10.7,	135.5,	0	9	10.7,	120.4,	0	10	10.7,	129.5,	0	11	10.7,	140.8,	0	12	10.7,	147.8,	0
13	10.7,	150.3,	0	14	10.7,	148.2,	0	15	10.7,	141.6,	0	16	10.7,	130.8,	0	17	10.7,	115.9,	0	18	10.7,	97.5,	0
19	10.7,	117.0,	0	20	10.7,	132.8,	0	21	10.7,	144.7,	0	22	10.7,	152.1,	0	23	10.7,	154.9,	0	24	10.7,	153.0,	0
25	10.7,	146.5,	0	26	10.7,	135.5,	0	27	10.7,	120.4,	0	28	10.7,	129.5,	0	29	10.7,	140.8,	0	30	10.7,	147.8,	0
31	15.2,	95.3,	0	32	15.2,	95.8,	0	33	15.2,	93.5,	0	34	15.2,	88.3,	0	35	15.2,	80.4,	0	36	10.7,	97.5,	0

SOURCE ID: EXFAN_12

IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK
1	15.2,	80.4,	0	2	15.2,	88.3,	0	3	15.2,	93.5,	0	4	15.2,	95.8,	0	5	15.2,	95.3,	0	6	12.2,	39.1,	0
7	12.2,	40.0,	0	8	12.2,	39.6,	0	9	12.2,	103.6,	0	10	12.2,	114.2,	0	11	12.2,	40.0,	0	12	15.2,	91.8,	0
13	15.2,	95.3,	0	14	15.2,	95.8,	0	15	15.2,	93.5,	0	16	15.2,	88.3,	0	17	15.2,	80.4,	0	18	15.2,	70.1,	0
19	15.2,	80.4,	0	20	15.2,	88.3,	0	21	15.2,	93.5,	0	22	15.2,	95.8,	0	23	15.2,	95.3,	0	24	12.2,	39.1,	0
25	12.2,	40.0,	0	26	12.2,	39.6,	0	27	12.2,	38.1,	0	28	12.2,	39.6,	0	29	12.2,	40.0,	0	30	15.2,	91.8,	0
31	15.2,	95.3,	0	32	15.2,	95.8,	0	33	15.2,	93.5,	0	34	15.2,	88.3,	0	35	15.2,	80.4,	0	36	15.2,	70.1,	0

SOURCE ID: EXFAN_19

IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK	IFV	BH	BW	WAK
1	15.2,	80.4,	0	2	15.2,	88.3,	0	3	15.2,	93.5,	0	4	15.2,	95.8,	0	5	15.2,	95.3,	0	6	15.2,	91.8,	0
7	15.2,	85.6,	0	8	12.2,	39.6,	0	9	12.2,	38.1,	0	10	12.2,	39.6,	0	11	12.2,	40.0,	0	12	12.2,	39.1,	0
13	12.2,	37.0,	0	14	15.2,	95.8,	0	15	15.2,	93.5,	0	16	15.2,	88.3,	0	17	15.2,	80.4,	0	18	15.2,	70.1,	0
19	15.2,	80.4,	0	20	15.2,	88.3,	0	21	15.2,	93.5,	0	22	15.2,	95.8,	0	23	15.2,	95.3,	0	24	15.2,	91.8,	0
25	15.2,	85.6,	0	26	12.2,	39.6,	0	27	12.2,	38.1,	0	28	12.2,	39.6,	0	29	12.2,	40.0,	0	30	12.2,	39.1,	0
31	12.2,	37.0,	0	32	15.2,	95.8,	0	33	15.2,	93.5,	0	34	15.2,	88.3,	0	35	15.2,	80.4,	0	36	15.2,	70.1,	0

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** GRIDDED RECEPTOR NETWORK SUMMARY ***

*** NETWORK ID: POLAR_1 ; NETWORK TYPE: GRIDPOLR ***

*** ORIGIN FOR POLAR NETWORK ***
X-ORIG = 106.68 ; Y-ORIG = 110.64 (METERS)

*** DISTANCE RANGES OF NETWORK ***
(METERS)

150.0, 200.0, 250.0, 300.0, 350.0, 400.0, 450.0, 500.0, 550.0, 600.0,
650.0, 700.0, 750.0, 800.0, 850.0, 900.0, 950.0, 1000.0,

*** DIRECTION RADIALS OF NETWORK ***
(DEGREES)

10.0, 20.0, 30.0, 40.0, 50.0, 60.0, 70.0, 80.0, 90.0, 100.0,
110.0, 120.0, 130.0, 140.0, 150.0, 160.0, 170.0, 180.0, 190.0, 200.0,
210.0, 220.0, 230.0, 240.0, 250.0, 260.0, 270.0, 280.0, 290.0, 300.0,
310.0, 320.0, 330.0, 340.0, 350.0, 360.0,

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZFLAG)
(METERS)

(0.0,	0.0,	0.0,	0.0);	(15.2,	0.0,	0.0,	0.0);
(30.5,	0.0,	0.0,	0.0);	(45.7,	0.0,	0.0,	0.0);
(61.0,	0.0,	0.0,	0.0);	(76.2,	0.0,	0.0,	0.0);
(91.4,	0.0,	0.0,	0.0);	(106.7,	0.0,	0.0,	0.0);
(121.9,	0.0,	0.0,	0.0);	(137.2,	0.0,	0.0,	0.0);
(152.4,	0.0,	0.0,	0.0);	(167.6,	0.0,	0.0,	0.0);
(182.9,	0.0,	0.0,	0.0);	(198.1,	0.0,	0.0,	0.0);
(213.4,	0.0,	0.0,	0.0);	(213.4,	15.2,	0.0,	0.0);
(213.4,	30.5,	0.0,	0.0);	(213.4,	45.7,	0.0,	0.0);
(213.4,	61.0,	0.0,	0.0);	(213.4,	76.2,	0.0,	0.0);
(213.4,	91.4,	0.0,	0.0);	(213.4,	106.7,	0.0,	0.0);
(213.4,	121.9,	0.0,	0.0);	(213.4,	137.2,	0.0,	0.0);
(213.4,	152.4,	0.0,	0.0);	(213.4,	167.6,	0.0,	0.0);
(213.4,	182.9,	0.0,	0.0);	(213.4,	198.1,	0.0,	0.0);
(213.4,	213.4,	0.0,	0.0);	(213.4,	221.0,	0.0,	0.0);
(198.1,	221.0,	0.0,	0.0);	(182.9,	221.0,	0.0,	0.0);
(167.6,	221.0,	0.0,	0.0);	(152.4,	221.0,	0.0,	0.0);
(137.2,	221.0,	0.0,	0.0);	(121.9,	221.0,	0.0,	0.0);
(106.7,	221.0,	0.0,	0.0);	(91.4,	221.0,	0.0,	0.0);
(76.2,	221.0,	0.0,	0.0);	(61.0,	221.0,	0.0,	0.0);
(45.7,	221.0,	0.0,	0.0);	(30.5,	221.0,	0.0,	0.0);
(15.2,	221.0,	0.0,	0.0);	(0.0,	221.0,	0.0,	0.0);
(0.0,	213.4,	0.0,	0.0);	(0.0,	198.1,	0.0,	0.0);
(0.0,	182.9,	0.0,	0.0);	(0.0,	167.6,	0.0,	0.0);
(0.0,	152.4,	0.0,	0.0);	(0.0,	137.2,	0.0,	0.0);
(0.0,	121.9,	0.0,	0.0);	(0.0,	106.7,	0.0,	0.0);
(0.0,	91.4,	0.0,	0.0);	(0.0,	76.2,	0.0,	0.0);
(0.0,	61.0,	0.0,	0.0);	(0.0,	45.7,	0.0,	0.0);
(0.0,	30.5,	0.0,	0.0);	(0.0,	15.2,	0.0,	0.0);

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

* SOURCE-RECEPTOR COMBINATIONS LESS THAN 1.0 METER OR 3*ZLB *
IN DISTANCE. CALCULATIONS MAY NOT BE PERFORMED.

SOURCE ID	- - RECEPTOR LOCATION - - XR (METERS)	YR (METERS)	DISTANCE (METERS)
EXFAN_19	213.4	91.4	32.45
EXFAN_19	213.4	106.7	30.76
EXFAN_19	213.4	121.9	36.11

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***
(1=YES; 0=NO)

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1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1
```

METEOROLOGICAL DATA PROCESSED BETWEEN START DATE: 86 1 1 1
AND END DATE: 86 12 31 24

NOTE: METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA FILE.

*** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***
(METERS/SEC)

1.54, 3.09, 5.14, 8.23, 10.80,

*** WIND PROFILE EXPONENTS ***

STABILITY			WIND SPEED CATEGORY			
CATEGORY	1	2	3	4	5	6
A	.70000E-01	.70000E-01	.70000E-01	.70000E-01	.70000E-01	.70000E-01
B	.70000E-01	.70000E-01	.70000E-01	.70000E-01	.70000E-01	.70000E-01
C	.10000E+00	.10000E+00	.10000E+00	.10000E+00	.10000E+00	.10000E+00
D	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00
E	.35000E+00	.35000E+00	.35000E+00	.35000E+00	.35000E+00	.35000E+00
F	.55000E+00	.55000E+00	.55000E+00	.55000E+00	.55000E+00	.55000E+00

*** VERTICAL POTENTIAL TEMPERATURE GRADIENTS ***
(DEGREES KELVIN PER METER)

STABILITY			WIND SPEED CATEGORY			
CATEGORY	1	2	3	4	5	6
A	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
B	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
C	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
D	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
E	.20000E-01	.20000E-01	.20000E-01	.20000E-01	.20000E-01	.20000E-01
F	.35000E-01	.35000E-01	.35000E-01	.35000E-01	.35000E-01	.35000E-01

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

FILE: C:\PROJECT\26005\MODELDAT\ORLPRE86.BIN FORMAT: UNFORM
SURFACE STATION NO.: 12815 UPPER AIR STATION NO.: 12842
NAME: ORLANDO NAME: TAMPA
YEAR: 1986 YEAR: 1986

YEAR	MONTH	DAY	HOUR	FLOW VECTOR	SPEED (M/S)	TEMP (K)	STAB CLASS	MIXING HEIGHT (M) RURAL	MIXING HEIGHT (M) URBAN
86	1	1	1	1.0	3.60	289.3	4	639.0	639.0
86	1	1	2	168.0	5.14	288.7	4	639.0	639.0
86	1	1	3	124.0	3.09	288.2	4	639.0	639.0
86	1	1	4	353.0	2.57	288.2	4	639.0	639.0
86	1	1	5	333.0	2.57	288.7	4	639.0	639.0
86	1	1	6	332.0	2.57	288.7	4	639.0	639.0
86	1	1	7	335.0	3.09	288.7	4	639.0	639.0
86	1	1	8	3.0	3.60	289.3	4	639.0	639.0
86	1	1	9	347.0	3.60	289.8	4	639.0	639.0
86	1	1	10	1.0	5.14	292.0	4	639.0	639.0
86	1	1	11	14.0	4.63	292.6	4	639.0	639.0
86	1	1	12	16.0	4.12	294.3	4	639.0	639.0
86	1	1	13	73.0	3.09	295.4	4	639.0	639.0
86	1	1	14	49.0	3.60	297.0	4	639.0	639.0
86	1	1	15	142.0	2.06	296.5	4	639.0	639.0
86	1	1	16	144.0	2.06	295.9	4	639.0	639.0
86	1	1	17	261.0	2.06	295.4	4	639.0	639.0
86	1	1	18	257.0	2.06	292.6	4	644.0	644.0
86	1	1	19	274.0	3.60	291.5	4	655.0	655.0
86	1	1	20	227.0	3.09	290.9	4	666.0	666.0
86	1	1	21	230.0	3.09	290.9	4	678.0	678.0
86	1	1	22	252.0	2.57	290.4	5	689.0	477.0
86	1	1	23	290.0	2.06	290.4	4	700.0	700.0
86	1	1	24	290.0	1.00	290.4	4	712.0	712.0

*** NOTES: STABILITY CLASS 1=A, 2=B, 3=C, 4=D, 5=E AND 6=F.
FLOW VECTOR IS DIRECTION TOWARD WHICH WIND IS BLOWING.

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** THE 1ST HIGHEST 24-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): EXFAN_7 , EXFAN_12, EXFAN_19,

*** NETWORK ID: POLAR_1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF 111_24 IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 150.00	200.00	250.00	300.00	350.00
10.0	2.89299 (86031924)	3.36087c(86121124)	3.60735c(86121124)	3.54534c(86121124)	3.32268c(86121124)
20.0	3.27785 (86072924)	3.65407c(86121124)	3.03990c(86121124)	2.77615 (86072924)	2.54433 (86072924)
30.0	3.00563c(86121124)	3.74526 (86072924)	2.90190 (86072924)	2.44290 (86011024)	2.36799 (86072824)
40.0	2.35648 (86072924)	3.13840 (86072824)	3.62526 (86072824)	3.60748 (86072824)	3.30754 (86072824)
50.0	2.73307 (86022724)	3.10920 (86072824)	2.89468 (86072824)	2.69484 (86073024)	2.54644 (86073024)
60.0	2.46668 (86022724)	2.79724 (86073024)	2.94221 (86073024)	2.93765 (86011924)	2.99435 (86011924)
70.0	2.52242 (86022724)	3.12919 (86022724)	3.32813 (86011924)	3.17735 (86011924)	2.94134 (86011924)
80.0	2.43478 (86022724)	3.20564 (86011924)	2.84926 (86011924)	2.32223 (86011924)	1.94200 (86011924)
90.0	1.43418 (86012724)	2.00153 (86012724)	2.42670c(86041624)	2.60680c(86041624)	2.54445c(86041624)
100.0	1.45461 (86012724)	2.10144 (86012724)	2.27059 (86012724)	2.21881 (86012724)	2.06127 (86012724)
110.0	1.83895 (86012724)	2.00136 (86011324)	2.93640 (86042924)	3.48795 (86042924)	3.51869 (86042924)
120.0	1.88818c(86012824)	2.13687 (86042624)	2.48451c(86012824)	2.66444c(86012824)	2.57563c(86012824)
130.0	2.21214 (86011124)	3.31817c(86012824)	3.06280c(86012824)	2.87591c(86012824)	2.79545c(86012824)
140.0	3.09202 (86011124)	4.84457 (86011124)	3.65045 (86032124)	3.41351 (86032124)	3.10512 (86032124)
150.0	4.49213 (86011124)	4.64762 (86011124)	5.28586 (86011124)	4.91222 (86011124)	4.02779 (86011124)
160.0	3.52698 (86032224)	3.71627 (86032224)	3.48192 (86120524)	3.16303 (86120524)	2.96059 (86101624)
170.0	2.99533 (86032224)	3.70037 (86032224)	3.97240 (86032224)	4.13859 (86120524)	4.43172 (86120524)
180.0	3.08582c(86111324)	3.00353c(86111324)	2.75464c(86111324)	2.67946 (86032224)	2.71904 (86032224)
190.0	2.97336 (86010824)	3.19686c(86111324)	3.08352c(86111324)	2.96147c(86111324)	2.78913c(86111324)
200.0	4.97494 (86010824)	4.00649 (86010824)	3.13375c(86111324)	2.82954c(86111324)	2.49864c(86111324)
210.0	5.11492 (86010824)	5.49101 (86010824)	5.12358 (86010824)	4.56516 (86010824)	4.00051 (86010824)
220.0	3.51390 (86101924)	3.69151 (86010824)	4.18510 (86010824)	4.32315 (86010824)	4.23804 (86010824)
230.0	2.46233 (86010924)	3.07581 (86010924)	3.41977 (86010924)	3.55720 (86010924)	3.56184 (86010924)
240.0	2.22294 (86091524)	2.28634 (86091524)	2.47182 (86010924)	2.73828 (86010924)	2.88915 (86010924)
250.0	1.80607 (86091524)	2.31516 (86091524)	2.42725 (86091524)	2.33348 (86091524)	2.15806 (86091524)
260.0	1.40606c(86050524)	1.67429 (86051524)	1.84013 (86051524)	1.89275 (86051524)	1.86113 (86051524)
270.0	1.80198c(86050524)	2.38691c(86050524)	2.70394 (86051524)	2.83744 (86051524)	2.81165 (86051524)
280.0	1.87815c(86050524)	2.19062c(86050524)	2.22603 (86040424)	2.35832 (86040424)	2.36761 (86040424)
290.0	1.84424c(86050524)	1.89267c(86050524)	2.01978 (86062324)	2.13020 (86062324)	2.12216 (86062324)
300.0	2.34871 (86030924)	3.34657 (86030924)	3.92025 (86030924)	4.17817 (86030924)	4.18741 (86030924)
310.0	4.16584 (86030924)	4.32743 (86030924)	4.04547 (86030924)	3.67730 (86030924)	3.54425 (86122324)
320.0	2.68394 (86030924)	2.75101 (86031824)	2.76987 (86081124)	2.56252 (86081124)	2.26608 (86081124)
330.0	3.31438 (86031324)	4.69773 (86031324)	5.28969 (86031324)	5.37913 (86031324)	5.21192 (86031324)
340.0	6.68763 (86031324)	6.70041 (86031324)	6.06013 (86031324)	5.25866 (86031324)	4.47695 (86031324)
350.0	6.08180 (86031324)	5.04519 (86031324)	3.80743 (86031324)	3.46757 (86031224)	3.05748 (86080324)
360.0	3.72978 (86031324)	3.13796 (86031924)	3.08701 (86031924)	2.85230 (86112624)	2.83472 (86112624)

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** THE 1ST HIGHEST 24-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): EXFAN_7 , EXFAN_12, EXFAN_19,

*** NETWORK ID: POLAR_1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF 111_24 IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 400.00	450.00	500.00	550.00	600.00
10.0	3.19723 (86082024)	3.15144 (86082024)	3.02072 (86082024)	2.85137 (86082024)	2.66841 (86082024)
20.0	2.26090 (86072924)	2.22303 (86011024)	2.21446 (86011024)	2.16178 (86011024)	2.07975 (86011024)
30.0	2.39112 (86072824)	2.30467 (86072824)	2.16980 (86072824)	2.08515 (86021124)	1.97820 (86021124)
40.0	2.87827 (86072824)	2.45971 (86072824)	2.09841 (86072824)	1.89118 (86021024)	1.83883 (86021024)
50.0	2.33786 (86073024)	2.16870 (86112024)	2.13948 (86112024)	2.07933 (86112024)	2.00131 (86112024)
60.0	2.88880 (86011924)	2.69804 (86011924)	2.48054 (86011924)	2.26494 (86011924)	2.06355 (86011924)
70.0	2.70811 (86011924)	2.48139 (86011924)	2.26926 (86011924)	2.07484 (86011924)	1.92915c(86081824)
80.0	1.75002c(86041624)	1.56564c(86041624)	1.42247 (86021924)	1.36176 (86021924)	1.28902 (86021924)
90.0	2.40381c(86041624)	2.23466c(86041624)	2.06195c(86041624)	1.90245c(86041624)	1.76204c(86041624)
100.0	1.88783 (86012724)	1.71274 (86012724)	1.55145 (86012724)	1.40945 (86012724)	1.28731 (86012724)
110.0	3.30341 (86042924)	3.00959 (86042924)	2.70608 (86042924)	2.42590 (86042924)	2.18133 (86042924)
120.0	2.38138c(86012824)	2.15940c(86012824)	1.94530c(86012824)	1.84759 (86011324)	1.80011 (86011324)
130.0	2.66098c(86012824)	2.48991c(86012824)	2.31005c(86012824)	2.12431c(86012824)	1.94147c(86012824)
140.0	2.81305 (86032124)	2.54907 (86032124)	2.31231 (86032124)	2.10062 (86032124)	1.91177 (86032124)
150.0	3.50861 (86101624)	3.15688 (86101624)	2.76687 (86101624)	2.39699 (86101624)	2.06930 (86101624)
160.0	3.15609 (86101624)	3.26795 (86101624)	3.31013 (86101624)	3.30203 (86101624)	3.25387 (86101624)
170.0	4.49958 (86120524)	4.41271 (86120524)	4.22683 (86120524)	3.98533 (86120524)	3.71919 (86120524)
180.0	2.65957 (86032224)	2.64815 (86120524)	2.72698 (86120524)	2.74440 (86120524)	2.71342 (86120524)
190.0	2.55579c(86111324)	2.29293c(86111324)	2.03250c(86111324)	1.79244c(86111324)	1.72145 (86120624)
200.0	2.20796c(86111324)	2.03954 (86102824)	2.10133 (86102824)	2.12263 (86102824)	2.11635 (86102824)
210.0	3.49314 (86010824)	3.05748 (86010824)	2.68953 (86010824)	2.37984 (86010824)	2.11850 (86010824)
220.0	4.03956 (86010824)	3.79271 (86010824)	3.53260 (86010824)	3.27721 (86010824)	3.03525 (86010824)
230.0	3.48301 (86010924)	3.35613 (86010924)	3.20363 (86010924)	3.03956 (86010924)	2.87266 (86010924)
240.0	2.95187 (86010924)	2.94695 (86010924)	2.89328 (86010924)	2.80668 (86010924)	2.69950 (86010924)
250.0	1.96332 (86091524)	1.83862 (86032624)	1.76384 (86092024)	1.73539 (86092024)	1.69524 (86092024)
260.0	1.78340 (86051524)	1.68246 (86051524)	1.57260 (86051524)	1.46214 (86051524)	1.35572 (86051524)
270.0	2.69892 (86051524)	2.54388 (86051524)	2.37320 (86051524)	2.20197 (86051524)	2.03818 (86051524)
280.0	2.32298 (86040424)	2.24777 (86040424)	2.14674 (86040424)	2.03291 (86040424)	1.91432 (86040424)
290.0	2.05024 (86062324)	1.94936 (86062324)	1.83948 (86062324)	1.73177 (86062324)	1.63177 (86062324)
300.0	4.04711 (86030924)	3.82828 (86030924)	3.57483 (86030924)	3.31308 (86030924)	3.05791 (86030924)
310.0	3.59587 (86122324)	3.52498 (86122324)	3.37870 (86122324)	3.19219 (86122324)	2.98894 (86122324)
320.0	1.97660 (86081124)	1.75787 (86031324)	1.67515 (86031324)	1.58213 (86031324)	1.48581 (86031324)
330.0	4.92795 (86031324)	4.60319 (86031324)	4.27461 (86031324)	3.95963 (86031324)	3.66581 (86031324)
340.0	3.79727 (86031324)	3.23355 (86031324)	2.77227 (86031324)	2.41513 (86031224)	2.19221 (86031224)
350.0	2.85710 (86080324)	2.56227 (86080324)	2.35478 (86113024)	2.41548 (86113024)	2.41611 (86113024)
360.0	2.72036 (86112624)	2.56161 (86112624)	2.38613 (86112624)	2.25262c(86121124)	2.33088 (86082024)

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** THE 1ST HIGHEST 24-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): EXFAN_7 , EXFAN_12, EXFAN_19,

*** NETWORK ID: POLAR_1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF 111_24 IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 650.00	700.00	750.00	800.00	850.00
10.0	2.48507 (86082024)	2.30837 (86082024)	2.14191 (86082024)	1.98736 (86082024)	1.84523 (86082024)
20.0	1.98075 (86011024)	1.87378 (86011024)	1.76493 (86011024)	1.65804 (86011024)	1.55679 (86011024)
30.0	1.85510 (86021124)	1.72750 (86021124)	1.60251 (86021124)	1.48238 (86021124)	1.37363 (86021124)
40.0	1.76952 (86021024)	1.69079 (86021024)	1.60787 (86021024)	1.52428 (86021024)	1.44271 (86021024)
50.0	1.91391 (86112024)	1.82259 (86112024)	1.73039 (86112024)	1.63954 (86112024)	1.55060 (86112024)
60.0	1.88063 (86011924)	1.71675 (86011924)	1.57082 (86011924)	1.47123 (86030424)	1.39069 (86030424)
70.0	1.80711c(86081824)	1.69412c(86081824)	1.60640 (86042124)	1.57929 (86042124)	1.54041 (86042124)
80.0	1.21152 (86021924)	1.13385 (86021924)	1.05870 (86021924)	0.98981 (86021924)	0.92382 (86021924)
90.0	1.63103c(86041624)	1.51050c(86041624)	1.40007c(86041624)	1.36010c(86071924)	1.36057c(86071924)
100.0	1.18332 (86012724)	1.09500 (86012724)	1.02726c(86090624)	1.03324c(86090624)	1.03168c(86090624)
110.0	1.97483 (86042924)	1.80402 (86042924)	1.65473 (86042924)	1.53509 (86042924)	1.43888 (86042924)
120.0	1.74993 (86011324)	1.69836 (86011324)	1.64678 (86011324)	1.59520 (86011324)	1.52812 (86011324)
130.0	1.77181c(86012824)	1.61691c(86012824)	1.47736c(86012824)	1.37175 (86102624)	1.38822 (86102624)
140.0	1.79094 (86122924)	1.74682 (86122924)	1.68990 (86122924)	1.62562 (86122924)	1.55779 (86122924)
150.0	1.86110 (86032124)	1.72388 (86032124)	1.59884 (86032124)	1.48409 (86032124)	1.37939 (86032124)
160.0	3.17509 (86101624)	3.07457 (86101624)	2.95987 (86101624)	2.83716 (86101624)	2.71095 (86101624)
170.0	3.44875 (86120524)	3.18632 (86120524)	2.93890 (86120524)	2.70938 (86120524)	2.49870 (86120524)
180.0	2.64803 (86120524)	2.56013 (86120524)	2.46084 (86120524)	2.35363 (86120524)	2.24870 (86120524)
190.0	1.71451 (86120624)	1.69416 (86120624)	1.66003 (86120624)	1.61144 (86120624)	1.57190 (86120624)
200.0	2.09139 (86102824)	2.05377 (86102824)	2.00760 (86102824)	1.95572 (86102824)	1.90018 (86102824)
210.0	1.89681 (86010824)	1.70758 (86010824)	1.54623 (86010824)	1.40780 (86010724)	1.35930 (86010724)
220.0	2.81046 (86010824)	2.60393 (86010824)	2.41537 (86010824)	2.25150 (86010824)	2.12108 (86010824)
230.0	2.70835 (86010924)	2.54989 (86010924)	2.39912 (86010924)	2.26156 (86010924)	2.13481 (86010924)
240.0	2.58088 (86010924)	2.45729 (86010924)	2.33318 (86010924)	2.21455 (86010924)	2.10999 (86010924)
250.0	1.64735 (86092024)	1.59455 (86092024)	1.53893 (86092024)	1.48128 (86092024)	1.42847 (86092024)
260.0	1.32199 (86110924)	1.32282 (86110924)	1.31375 (86110924)	1.29794 (86110924)	1.27720 (86110924)
270.0	1.88561 (86051524)	1.74551 (86051524)	1.61808 (86051524)	1.50633 (86051524)	1.40303 (86051524)
280.0	1.79619 (86040424)	1.68177 (86040424)	1.57292 (86040424)	1.47183 (86040424)	1.39901c(86040324)
290.0	1.54112 (86062324)	1.45912 (86062324)	1.38536 (86062324)	1.31940 (86062324)	1.26043 (86062324)
300.0	2.81710 (86030924)	2.59415 (86030924)	2.39011 (86030924)	2.20464 (86030924)	2.05182 (86030924)
310.0	2.78355 (86122324)	2.58454 (86122324)	2.39648 (86122324)	2.22149 (86122324)	2.06062 (86122324)
320.0	1.39087 (86031324)	1.29993 (86031324)	1.22284 (86031924)	1.18010 (86031924)	1.14405 (86031924)
330.0	3.39575 (86031324)	3.14947 (86031324)	2.92579 (86031324)	2.73688 (86031324)	2.56734 (86031324)
340.0	2.06043c(86102524)	1.99355c(86102524)	1.91577c(86102524)	1.83187c(86102524)	1.74831c(86102524)
350.0	2.37479 (86113024)	2.29189 (86113024)	2.20203 (86113024)	2.10396 (86113024)	1.99786 (86113024)
360.0	2.37655 (86082024)	2.38620 (86082024)	2.36704 (86082024)	2.32595 (86082024)	2.26946 (86082024)

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** THE 1ST HIGHEST 24-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): EXFAN_7 , EXFAN_12, EXFAN_19,

*** NETWORK ID: POLAR_1 ; NETWORK TYPE: GRIDPOLR ***

** CONC OF 111_24 IN MICROGRAMS/M**3 **

DIRECTION (DEGREES)	DISTANCE (METERS) 900.00	950.00	1000.00
10.0	1.71537 (86082024)	1.60823 (86082024)	1.58106 (86072324)
20.0	1.48339 (86072324)	1.42715 (86072324)	1.37751 (86072324)
30.0	1.32513 (86071024)	1.30383 (86071024)	1.28441 (86071024)
40.0	1.37143 (86021024)	1.31136 (86021024)	1.23892 (86021024)
50.0	1.47293 (86112024)	1.40450 (86112024)	1.34705 (86122024)
60.0	1.30999 (86030424)	1.24204 (86030424)	1.17977 (86030424)
70.0	1.50527 (86042124)	1.47057 (86042124)	1.41785 (86042124)
80.0	0.88912 (86012024)	0.87356 (86012024)	0.85413 (86012024)
90.0	1.36161c(86071924)	1.36210c(86071924)	1.36132c(86071924)
100.0	1.02408c(86090624)	1.01170c(86090624)	0.99544c(86090624)
110.0	1.36001 (86042924)	1.29538 (86042924)	1.24197 (86042924)
120.0	1.48260 (86011324)	1.44641 (86011324)	1.39944 (86011324)
130.0	1.39527 (86102624)	1.39421 (86102624)	1.38477 (86102624)
140.0	1.48900 (86122924)	1.41831 (86122924)	1.35606 (86122924)
150.0	1.28686 (86032124)	1.21723 (86032124)	1.13973 (86032124)
160.0	2.58458 (86101624)	2.45268 (86101624)	2.33574 (86101624)
170.0	2.31629 (86120524)	2.16474 (86120524)	2.00940 (86120524)
180.0	2.15185 (86120524)	2.05768 (86120524)	1.95863 (86120524)
190.0	1.51971 (86120624)	1.46585 (86120624)	1.40866 (86120624)
200.0	1.84325 (86102824)	1.78839 (86102824)	1.72442 (86102824)
210.0	1.30770 (86010724)	1.25590 (86010724)	1.19836 (86010724)
220.0	2.00894 (86010824)	1.88090 (86010824)	1.76693 (86010824)
230.0	2.02311 (86010924)	1.91278 (86010924)	1.80756 (86010924)
240.0	2.00493 (86010924)	1.90091 (86010924)	1.80399 (86010924)
250.0	1.37626 (86092024)	1.32135 (86092024)	1.26773 (86092024)
260.0	1.25317 (86110924)	1.22593 (86110924)	1.19607 (86110924)
270.0	1.30996 (86051524)	1.23079 (86051524)	1.19565c(86082524)
280.0	1.36026c(86040324)	1.32504 (86052724)	1.30302 (86052724)
290.0	1.20744 (86062324)	1.15920 (86062324)	1.11456 (86062324)
300.0	1.90424 (86030924)	1.77250 (86030924)	1.65239 (86030924)
310.0	1.91768 (86122324)	1.79392 (86122324)	1.67872 (86122324)
320.0	1.10988c(86042024)	1.08205c(86042024)	1.05436c(86042024)
330.0	2.42716 (86031324)	2.29093 (86031324)	2.15565 (86031324)
340.0	1.66748c(86102524)	1.58608c(86102524)	1.50088c(86102524)
350.0	1.88198 (86113024)	1.78031 (86113024)	1.68607 (86113024)
360.0	2.20395 (86082024)	2.12910 (86082024)	2.05118 (86082024)

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** THE 1ST HIGHEST 24-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): EXFAN_7 , EXFAN_12, EXFAN_19,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF 111_24 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
0.00	0.00	3.13212	(86010924)	15.24	0.00	3.50412	(86101924)
30.48	0.00	3.73590	(86101924)	45.72	0.00	4.41256	(86010824)
60.96	0.00	4.75937	(86010824)	76.20	0.00	4.38623	(86010824)
91.44	0.00	3.67090	(86010824)	106.68	0.00	3.00666c	(86111324)
121.92	0.00	2.25420c	(86111324)	137.16	0.00	2.83163	(86032224)
152.40	0.00	2.39516	(86032224)	167.64	0.00	3.04986	(86032224)
182.88	0.00	4.31453	(86011124)	198.12	0.00	2.59430	(86011124)
213.36	0.00	4.49123	(86011124)	213.36	15.24	3.66458	(86011124)
213.36	30.48	1.87672	(86011124)	213.36	45.72	1.19236c	(86012824)
213.36	60.96	1.60049	(86012724)	213.36	76.20	1.77223	(86012724)
213.36	91.44	0.93403	(86012724)	213.36	106.68	1.19200	(86012724)
213.36	121.92	0.81958	(86012724)	213.36	137.16	1.16876	(86022724)
213.36	152.40	1.39701	(86022724)	213.36	167.64	2.25789	(86022724)
213.36	182.88	2.23417	(86072924)	213.36	198.12	2.76747	(86072924)
213.36	213.36	2.61793	(86072924)	213.36	220.98	2.49383	(86072924)
198.12	220.98	2.44865	(86072924)	182.88	220.98	2.89142c	(86121124)
167.64	220.98	2.84732	(86072924)	152.40	220.98	2.43460c	(86121124)
137.16	220.98	2.43291	(86031924)	121.92	220.98	3.38731	(86031324)
106.68	220.98	4.62516	(86031324)	91.44	220.98	5.27816	(86031324)
76.20	220.98	5.78875	(86031324)	60.96	220.98	4.78820	(86031324)
45.72	220.98	2.76253	(86031324)	30.48	220.98	2.19063	(86031824)
15.24	220.98	2.70103	(86030924)	0.00	220.98	3.70727	(86030924)
0.00	213.36	4.01994	(86030924)	0.00	198.12	3.90599	(86030924)
0.00	182.88	2.81430	(86030924)	0.00	167.64	1.48602	(86040624)
0.00	152.40	1.74870c	(86050524)	0.00	137.16	1.38785c	(86050524)
0.00	121.92	1.15044c	(86051724)	0.00	106.68	1.11795c	(86050524)
0.00	91.44	0.96757c	(86050524)	0.00	76.20	0.99570	(86101924)
0.00	60.96	1.58236	(86091524)	0.00	45.72	1.94339	(86091524)
0.00	30.48	1.86725	(86091524)	0.00	15.24	2.59876	(86010924)

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** THE SUMMARY OF HIGHEST 24-HR RESULTS ***

** CONC OF 111_24 IN MICROGRAMS/M**3 **

GROUP ID	AVERAGE CONC	DATE (YYMMDDHH)	RECEPTOR (XR, YR, ZELEV, ZFLAG)	OF TYPE	NETWORK GRID-ID
ALL HIGH 1ST HIGH VALUE IS	6.70041	ON 86031324:	AT (38.28, 298.58, 0.00, 0.00)	GP	POLAR_1

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR
BD = BOUNDARY

*** MODELING OPTIONS USED: CONC RURAL FLAT DFAULT

*** Message Summary For ISC2 Model Execution ***

--------- Summary of Total Messages --------

A Total of 0 Fatal Error Message(s)
A Total of 0 Warning Message(s)
A Total of 328 Informational Message(s)

A Total of 328 Calm Hours Identified

******** FATAL ERROR MESSAGES ********
*** NONE ***

******** WARNING MESSAGES ********
*** NONE ***

****
*** ISCST2 Finishes Successfully ***
****

Florida Department of Environmental Protection
Meeting Sign-In Sheet

Re: FOAMEX INTERNATIONAL INC. **Date:** 2/22/96

Name	Representing	Telephone
KAY RYKOWSKI	HARDING LAWSON ASSOCIATES	(407)851-1484
DOUG TERRILL	FOAMEX INTERNATIONAL INC.	407-857-2510
TOM BURGHARDT	FOAMEX International Inc	610-859-3010
Cleve Holladay	FLA D.E.P.	904-488-1344
WILLARD HANKS	FL DEP	904-488-1344
Clark Fancy	FL DEP	904-488-1344
Joe Tessitore	Harding Lawson Associates	407-851-1484

Willard
for file

Harding Lawson Associates

January 29, 1996

26005.F21.816

Mr. C.H. Fancy, P.E.
Division of Air Resources Management
Florida Department of Environmental Protection
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Request for Meeting
Foamex, L.P.
Permit No. AC48-214902

Dear Mr. Fancy:

This letter is to confirm that we have a meeting scheduled with you at 1:30 pm on Thursday, February 22 to discuss the status of the Foamex L.P. flexible polyurethane foam manufacturing facility located in Orlando, Florida. This facility is currently under Construction Permit AC48-214902, which was issued from Tallahassee. The permit was issued in February 1995; Willard Hanks was the permitting engineer assigned to the project. I have confirmed that Mr. Hanks' schedule is open on this date; it is my assumption that he will attend the meeting.

Foamex representatives will include Doug Terrill, who is the plant manager of the Orlando facility, and Tom Burkhart from the Foamex corporate office in Pennsylvania.. Both myself and Joe Tessitore of HLA will also attend. Should you have any questions or comments concerning this matter, please do not hesitate to contact Kay Rykowski or Joe Tessitore at (407) 851-1484.

Yours very truly,

HARDING LAWSON ASSOCIATES

Patricia Kay Rykowski

Patricia Kay Rykowski
Senior Engineer