Florida Power & Light Company, Environmental Services Dept., P.O. Box 14000, Juno Beach, FL 33408

FPL

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August 9, 2000

Mr. Al Linero, P.E.
State of Florida
Department of Environmental Protection
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Re: FPL Fort Myers Peaking Project
Submittal of Air Construction (PSD) Application

Dear Al:

Enclosed for your use please find seven (7) copies of an Air Construction (PSD) permit application for the Fort Myers plant. As we've discussed previously, this project involves the construction of two GE 7FA combustion turbine peaking units to be operated in simple cycle mode, primarily on natural gas fuel.

Please note that this application applies emission reductions associated with the shutdown of existing units 1 and 2 at Fort Myers, to the peaking units' emissions. By doing this, the only pollutant that triggers PSD review is volatile organic compounds (VOC's).

I would be pleased to answer any questions you may have regarding this project. At your convenience, please feel free to contact me at (561) 691-7058 or via email at rich_piper@fpl.com.

Very truly yours,

Richard Piper
Licensing Manager
Florida Power & Light Company

cc:
FDEP South District Office
C. Anderson
EPA
NPS

RECEIVED
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BUREAU OF AIR REGULATION

AIR PERMIT APPLICATION FOR THE FORT MYERS SIMPLE-CYCLE COMBUSTION TURBINE PROJECT

Prepared For:

Florida Power and Light Company
700 Universe Blvd.
Juno Beach, Florida 33408

Prepared By:

Golder Associates Inc.
6241 NW 23rd Street, Suite 500
Gainesville, Florida 32653-1500

July 2000
9937613Y/F1

DISTRIBUTION:
2 Copies - Client
2 Copies - Golder Associates Inc.

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AIR PERMIT APPLICATION

Department of
Environmental Protection

Division of Air Resources Management

APPLICATION FOR AIR PERMIT - TITLE V SOURCE

See Instructions for Form No. 62-210.900(1)

I. APPLICATION INFORMATION

Identification of Facility

1. Facility Owner/Company Name: **Florida Power and Light Company**	
2. Site Name: **Fort Myers Plant**	
3. Facility Identification Number: **0710002** [ ] Unknown	
4. Facility Location: Street Address or Other Locator: **10650 State Road 80** City: **Fort Myers** County: **Lee** Zip Code: **33905**	
5. Relocatable Facility? [ ] Yes [X] No	6. Existing Permitted Facility? [X] Yes [ ] No

Application Contact

1. Name and Title of Application Contact: **Richard G. Piper, Repowering Licensing Manager**
2. Application Contact Mailing Address: Organization/Firm: **Florida Power and Light Company** Street Address: **700 Universe Blvd.** City: **Juno Beach** State: **FL** Zip Code: **33408**
3. Application Contact Telephone Numbers: Telephone: (**561**) **691 - 7058** Fax: (**561**) **691 - 7070**

Application Processing Information (DEP Use)

1. Date of Receipt of Application:	8-10-00
2. Permit Number:	0710002-009-AC
3. PSD Number (if applicable):	PSD-FL-298
4. Siting Number (if applicable):	

Purpose of Application

Air Operation Permit Application

This Application for Air Permit is submitted to obtain: (Check one)

[ ] Initial Title V air operation permit for an existing facility which is classified as a Title V source.

[ ] Initial Title V air operation permit for a facility which, upon start up of one or more newly constructed or modified emissions units addressed in this application, would become classified as a Title V source.

Current construction permit number:_____

[ ] Title V air operation permit revision to address one or more newly constructed or modified emissions units addressed in this application.

Current construction permit number:_____

Operation permit number to be revised:_____

[ ] Title V air operation permit revision or administrative correction to address one or more proposed new or modified emissions units and to be processed concurrently with the air construction permit application. (Also check Air Construction Permit Application below.)

Operation permit number to be revised/corrected:_____

[ ] Title V air operation permit revision for reasons other than construction or modification of an emissions unit. Give reason for the revision; e.g., to comply with a new applicable requirement or to request approval of an "Early Reductions" proposal.

Operation permit number to be revised:_____

Reason for revision:_____

Air Construction Permit Application

This Application for Air Permit is submitted to obtain: (Check one)

[X] Air construction permit to construct or modify one or more emissions units.

[ ] Air construction permit to make federally enforceable an assumed restriction on the potential emissions of one or more existing, permitted emissions units.

[ ] Air construction permit for one or more existing, but unpermitted, emissions units.

Owner/Authorized Representative or Responsible Official

1. Name and Title of Owner/Authorized Representative or Responsible Official:
   William Reichel, Plant General Manager
2. Owner/Authorized Representative or Responsible Official Mailing Address:
   Organization/Firm: **Florida Power and Light Company, Fort Myers Plant**
   Street Address: **P.O. Box 430**
   City: **Fort Myers** State: **FL** Zip Code: **33905**
3. Owner/Authorized Representative or Responsible Official Telephone Numbers:
   Telephone: **(941) 693 - 4200** Fax: **(941) 693 - 4333**
4. Owner/Authorized Representative or Responsible Official Statement:

   I, the undersigned, am the owner or authorized representative(check here [ ], if so) or the responsible official (check here [ ], if so) of the Title V source addressed in this application, whichever is applicable. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this application are true, accurate and complete and that, to the best of my knowledge, any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. The air pollutant emissions units and air pollution control equipment described in this application will be operated and maintained so as to comply with all applicable standards for control of air pollutant emissions found in the statutes of the State of Florida and rules of the Department of Environmental Protection and revisions thereof. I understand that a permit, if granted by the Department, cannot be transferred without authorization from the Department, and I will promptly notify the Department upon sale or legal transfer of any permitted emissions unit.*

   William Reichel — Signature

   8/8/00 — Date

* Attach letter of authorization if not currently on file.

Professional Engineer Certification

1. Professional Engineer Name: **Kennard F. Kosky**
   Registration Number: **14996**
2. Professional Engineer Mailing Address:
   Organization/Firm: **Golder Associates Inc.**
   Street Address: **6241 NW 23rd Street, Suite 500**
   City: **Gainesville** State: **FL** Zip Code: **32653-1500**
3. Professional Engineer Telephone Numbers:
   Telephone: **(352) 336 - 5600** Fax: **(352) 336 - 6603**

4. Professional Engineer Statement:

I, the undersigned, hereby certify, except as particularly noted herein, that:*

(1) To the best of my knowledge, there is reasonable assurance that the air pollutant emissions unit(s) and the air pollution control equipment described in this Application for Air Permit, when properly operated and maintained, will comply with all applicable standards for control of air pollutant emissions found in the Florida Statutes and rules of the Department of Environmental Protection; and

(2) To the best of my knowledge, any emission estimates reported or relied on in this application are true, accurate, and complete and are either based upon reasonable techniques available for calculating emissions or, for emission estimates of hazardous air pollutants not regulated for an emissions unit addressed in this application, based solely upon the materials, information and calculations submitted with this application.

If the purpose of this application is to obtain a Title V source air operation permit (check here [ ], if so), I further certify that each emissions unit described in this Application for Air Permit, when properly operated and maintained, will comply with the applicable requirements identified in this application to which the unit is subject, except those emissions units for which a compliance schedule is submitted with this application.

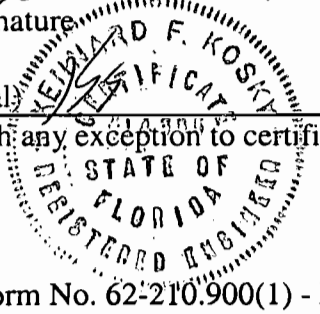
If the purpose of this application is to obtain an air construction permit for one or more proposed new or modified emissions units (check here [X], if so), I further certify that the engineering features of each such emissions unit described in this application have been designed or examined by me or individuals under my direct supervision and found to be in conformity with sound engineering principles applicable to the control of emissions of the air pollutants characterized in this application.

If the purpose of this application is to obtain an initial air operation permit or operation permit revision for one or more newly constructed or modified emissions units (check here [ ], if so), I further certify that, with the exception of any changes detailed as part of this application, each such emissions unit has been constructed or modified in substantial accordance with the information given in the corresponding application for air construction permit and with all provisions contained in such permit.

Signature

7/28/00
Date

(seal)



* Attach any exception to certification statement.

Scope of Application

Emissions Unit ID	Description of Emissions Unit	Permit Type	Processing Fee
--	GE Frame 7FA Combustion Turbine	AC1A	
--	GE Frame 7FA Combustion Turbine	AC1A	
--	Natural Gas Heaters	AC1A	

Application Processing Fee

Check one: [X] Attached - Amount: $: 7,500 [ ] Not Applicable

Construction/Modification Information

1. Description of Proposed Project or Alterations:

   Construction of 2 170-MW GE FRAME 7FA combustion turbines. See Attachment FPL-FMI.

2. Projected or Actual Date of Commencement of Construction: **1 Apr 2001**

3. Projected Date of Completion of Construction: **1 Aug 2002**

Application Comment

This application requests an air construction permit and PSD approval for two (2) advanced combustion turbines. Adding the two combustion turbines, coupled with the emission reductions from the Fort Myers Repowering Project will result in a decrease of all regulated pollutants except for CO and VOCs. The PSD threshold of 40 TPY of VOC is exceeded and PSD review of VOC applies. PSD review does not apply to other criteria pollutants. Refer to Part II for discussion. See Attachment FPL-FMI.

II. FACILITY INFORMATION

A. GENERAL FACILITY INFORMATION

Facility Location and Type

1. Facility UTM Coordinates: Zone: **17** East (km): **422.3** North (km): **2952.9**			
2. Facility Latitude/Longitude: Latitude (DD/MM/SS): **26 / 41 / 49** Longitude (DD/MM/SS): **81 / 46 / 55**			
3. Governmental Facility Code: **0**	4. Facility Status Code: **A**	5. Facility Major Group SIC Code: **49**	6. Facility SIC(s): **4911**
7. Facility Comment (limit to 500 characters): **Project consists of two 170-MW dual-fuel, General Electric Frame 7FA combustion turbines(CT) that will use dry low-nitrogen oxide combustion technology when firing natural gas and water injection when firing distillate fuel oil. Each CT will operate up to 8,760 hours per year.**			

Facility Contact

1. Name and Title of Facility Contact: **Mr. Bernie Tibble, Environmental Specialist**
2. Facility Contact Mailing Address: Organization/Firm: **Florida Power and Light Company** Street Address: **P.O. Box 430** City: **Fort Myers** State: **FL** Zip Code: **33905**
3. Facility Contact Telephone Numbers: Telephone: **(941) 693 - 4390** Fax: **(941) 693 - 4333**

Facility Regulatory Classifications

Check all that apply:

1. [ ] Small Business Stationary Source?	[ ] Unknown
2. [X] Major Source of Pollutants Other than Hazardous Air Pollutants (HAPs)?	
3. [ ] Synthetic Minor Source of Pollutants Other than HAPs?	
4. [X] Major Source of Hazardous Air Pollutants (HAPs)?	
5. [ ] Synthetic Minor Source of HAPs?	
6. [X] One or More Emissions Units Subject to NSPS?	
7. [ ] One or More Emission Units Subject to NESHAP?	
8. [ ] Title V Source by EPA Designation?	
9. Facility Regulatory Classifications Comment (limit to 200 characters): **CT is subject to NSPS Subpart GG.**	

List of Applicable Regulations

Not Applicable	

B. FACILITY POLLUTANTS

List of Pollutants Emitted

1. Pollutant Emitted	2. Pollutant Classif.	3. Requested Emissions Cap lb/hour	3. Requested Emissions Cap tons/year	4. Basis for Emissions Cap	5. Pollutant Comment
PM	A				Particulate Matter-Total
VOC	A				Volatile Organic Compounds
SO_2	A				Sulfur Dioxide
NO_X	A				Nitrogen Oxides
CO	A				Carbon Monoxides
PM_{10}	A				Particulate Matter-PM_{10}

C. FACILITY SUPPLEMENTAL INFORMATION

Supplemental Requirements

1. Area Map Showing Facility Location: [X] Attached, Document ID: FPL-FMI [ ] Not Applicable [ ] Waiver Requested
2. Facility Plot Plan: [X] Attached, Document ID: FPL-FMI [ ] Not Applicable [ ] Waiver Requested
3. Process Flow Diagram(s): [X] Attached, Document ID: FPL-FMI [ ] Not Applicable [ ] Waiver Requested
4. Precautions to Prevent Emissions of Unconfined Particulate Matter: [ ] Attached, Document ID: _____ [X] Not Applicable [ ] Waiver Requested
5. Fugitive Emissions Identification: [ ] Attached, Document ID: _____ [X] Not Applicable [ ] Waiver Requested
6. Supplemental Information for Construction Permit Application: [X] Attached, Document ID: FPL-FMI [ ] Not Applicable
7. Supplemental Requirements Comment:

Additional Supplemental Requirements for Title V Air Operation Permit Applications

8. List of Proposed Insignificant Activities:
   [ ] Attached, Document ID:_____ [ ] Not Applicable

9. List of Equipment/Activities Regulated under Title VI:
   [ ] Attached, Document ID:_____
   [ ] Equipment/Activities On site but Not Required to be Individually Listed
   [ ] Not Applicable

10. Alternative Methods of Operation:
    [ ] Attached, Document ID:_____ [ ] Not Applicable

11. Alternative Modes of Operation (Emissions Trading):
    [ ] Attached, Document ID:_____ [ ] Not Applicable

12. Identification of Additional Applicable Requirements:
    [ ] Attached, Document ID:_____ [ ] Not Applicable

13. Risk Management Plan Verification:
    [ ] Plan previously submitted to Chemical Emergency Preparedness and Prevention Office (CEPPO). Verification of submittal attached (Document ID:_____) or previously submitted to DEP (Date and DEP Office:_____)
    [ ] Plan to be submitted to CEPPO (Date required:_____)
    [ ] Not Applicable

14. Compliance Report and Plan:
    [ ] Attached, Document ID:_____ [ ] Not Applicable

15. Compliance Certification (Hard-copy Required):
    [ ] Attached, Document ID:_____ [ ] Not Applicable

III. EMISSIONS UNIT INFORMATION

A separate Emissions Unit Information Section (including subsections A through J as required) must be completed for each emissions unit addressed in this Application for Air Permit. If submitting the application form in hard copy, indicate, in the space provided at the top of each page, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application.

A. GENERAL EMISSIONS UNIT INFORMATION
(All Emissions Units)

Emissions Unit Description and Status

1. Type of Emissions Unit Addressed in This Section: (Check one)

[X] This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).

[ ] This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.

[ ] This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

2. Regulated or Unregulated Emissions Unit? (Check one)

[X] The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.

[ ] The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.

3. Description of Emissions Unit Addressed in This Section (limit to 60 characters):
GE Frame 7FA Combustion Turbine

4. Emissions Unit Identification Number:
ID:
[ ] No ID
[X] ID Unknown

5. Emissions Unit Status Code:	6. Initial Startup Date:	7. Emissions Unit Major Group SIC Code:	8. Acid Rain Unit?
C		**49**	[X]

9. Emissions Unit Comment: (Limit to 500 Characters)

This emission unit is a GE Frame 7FA combustion turbine operating in simple cycle mode. See Attachment FPL-FMI.

Emissions Unit Control Equipment

1. Control Equipment/Method Description (Limit to 200 characters per device or method):

Dry Low NO_X combustion - Natural gas firing

2. Control Device or Method Code(s): **25**

Emissions Unit Details

1. Package Unit:
   Manufacturer: **General Electric** Model Number: **7FA**
2. Generator Nameplate Rating: **172** MW
3. Incinerator Information:
   Dwell Temperature: °F
   Dwell Time: seconds
   Incinerator Afterburner Temperature: °F

Emissions Unit Control Equipment

1. Control Equipment/Method Description (Limit to 200 characters per device or method):

   Water injection - distillate oil firing

2. Control Device or Method Code(s): **28**

Emissions Unit Details

1. Package Unit:
   Manufacturer: **General Electric** Model Number: **7FA**
2. Generator Nameplate Rating: **172** MW
3. Incinerator Information:
   Dwell Temperature: °F
   Dwell Time: seconds
   Incinerator Afterburner Temperature: °F

B. EMISSIONS UNIT CAPACITY INFORMATION
(Regulated Emissions Units Only)

Emissions Unit Operating Capacity and Schedule

1. Maximum Heat Input Rate:		**1,600**	mmBtu/hr
2. Maximum Incineration Rate:	lb/hr		tons/day
3. Maximum Process or Throughput Rate:			
4. Maximum Production Rate:			
5. Requested Maximum Operating Schedule:			
	hours/day		days/week
	weeks/year	**8,760**	hours/year
6. Operating Capacity/Schedule Comment (limit to 200 characters):			

Maximum heat input at ISO conditions and natural gas firing (LHV); maximum for oil firing is 1,811 MMBtu/hr (ISO-LHV) and 180 MW; Higher power modes – gas is 1,680 MMBtu/hr and 182 MW.

C. EMISSIONS UNIT REGULATIONS
(Regulated Emissions Units Only)

List of Applicable Regulations

See Attachment FPL-EU1-D for operational requirements	
See Attachment FPL-FMI for permitting requirements	

D. EMISSION POINT (STACK/VENT) INFORMATION
(Regulated Emissions Units Only)

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram? **See Att. FPL-FMI**	2. Emission Point Type Code: **1**	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point): **Exhausts through a single stack.**		
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:		
5. Discharge Type Code: **V**	6. Stack Height: **80** feet	7. Exit Diameter: **20.5** feet
8. Exit Temperature: **1,116** °F	9. Actual Volumetric Flow Rate: **2,389,462** acfm	10. Water Vapor: **8.4** %
11. Maximum Dry Standard Flow Rate: **800,000** dscfm	12. Nonstack Emission Point Height: feet	
13. Emission Point UTM Coordinates: Zone: **17** East (km): **543.1** North (km): **2992.9**		
14. Emission Point Comment (limit to 200 characters): **Stack parameters for ISO operating condition firing natural gas above; for oil 1,098°F and 2,464,273 ACFM; HPM 1,130°F and 2,426,858.**		

E. SEGMENT (PROCESS/FUEL) INFORMATION
(All Emissions Units)

Segment Description and Rate: Segment 1 of 2

1. Segment Description (Process/Fuel Type) (limit to 500 characters): **Distillate (No. 2) Fuel Oil**		
2. Source Classification Code (SCC): **20100101**	3. SCC Units: **1,000 gallons used**	
4. Maximum Hourly Rate: **14**	5. Maximum Annual Rate: **7,000**	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur: **0.05**	8. Maximum % Ash:	9. Million Btu per SCC Unit: **130**
10. Segment Comment (limit to 200 characters): **Million Btu per SCC Unit = 129.9 (rounded to 130). Based on 7.1 lb/gal; LHV of 18,300 Btu/lb, ISO conditions, 500 hrs/yr operation.**		

Segment Description and Rate: Segment 2 of 2

1. Segment Description (Process/Fuel Type) (limit to 500 characters): **Natural Gas**		
2. Source Classification Code (SCC): **20100201**	3. SCC Units: **Million Cubic Feet**	
4. Maximum Hourly Rate: **1.68**	5. Maximum Annual Rate: **14,752**	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit: **950**
10. Segment Comment (limit to 200 characters): **Based on 950 Btu/cf (LHV); ISO conditions and 8,760 hrs/yr operation.**		

F. EMISSIONS UNIT POLLUTANTS
(All Emissions Units)

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
PM			EL
SO_2			EL
NO_X	026	028	EL
CO			EL
VOC			EL
PM_{10}			EL

G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units - Emissions-Limited and Preconstruction Review Pollutants Only)

Potential/Fugitive Emissions

1. Pollutant Emitted: **PM**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **17** lb/hour **45.6** tons/year	4. Synthetically Limited? [**X**]
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year	
6. Emission Factor: Reference: **GE, 2000; Golder**	7. Emissions Method Code: **2**
8. Calculation of Emissions (limit to 600 characters): **See Attachment FPL-FMI; Section 2.0; Appendix A.**	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): **Lb/hr based on oil firing, all loads. Tons/yr based on 7,760 hrs/yr gas firing baseload, 500 hrs/yr oil firing and 500 hours HPM; ISO conditions.**	

Allowable Emissions Allowable Emissions 1 of 3

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **10% opacity**	4. Equivalent Allowable Emissions: **17** lb/hour **4.25** tons/year
5. Method of Compliance (limit to 60 characters): **Annual stack test; EPA Method 9; if > 400 hours**	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): **Oil firing - all loads; 500 hrs/yr. See Attachment FPL-FMI; Section 2.0; Appendix A.**	

G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units - Emissions-Limited and Preconstruction Review Pollutants Only)

Potential/Fugitive Emissions

1. Pollutant Emitted: **PM**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **17** lb/hour **45.6** tons/year	4. Synthetically Limited? [X]
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year	
6. Emission Factor: Reference: **GE, 2000; Golder**	7. Emissions Method Code: **2**
8. Calculation of Emissions (limit to 600 characters): **See Attachment FPL-FMI; Section 2.0; Appendix A.**	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): **Lb/hr based on oil firing, all loads. Tons/yr based on 7,760 hrs/yr gas firing baseload, 500 hrs/yr oil firing and 500 hours HPM; ISO conditions.**	

Allowable Emissions Allowable Emissions 2 of 3

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **10% opacity**	4. Equivalent Allowable Emissions: **10** lb/hour **43.8** tons/year
5. Method of Compliance (limit to 60 characters): **VE Test < 10% opacity; EPA Method 9**	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): **Gas firing - all loads; 8,760 hrs/yr. See Attachment FPL-FMI; Section 2.0; Appendix A.**	

G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units - Emissions-Limited and Preconstruction Review Pollutants Only)

Potential/Fugitive Emissions

1. Pollutant Emitted: **PM**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **17** lb/hour **45.6** tons/year	4. Synthetically Limited? [X]
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year	
6. Emission Factor: Reference: **GE, 2000; Golder**	7. Emissions Method Code: **2**
8. Calculation of Emissions (limit to 600 characters): **See Attachment FPL-FMI; Section 2.0; Appendix A.**	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): **Lb/hr based on oil firing, all loads. Tons/yr based on 7,760 hrs/yr gas firing baseload, 500 hrs/yr oil firing and 500 hours HPM; ISO conditions.**	

Allowable Emissions Allowable Emissions **3** of **3**

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **10% opacity**	4. Equivalent Allowable Emissions: **10** lb/hour **2.5** tons/year
5. Method of Compliance (limit to 60 characters): **VE Test < 10% opacity, EPA Method 9**	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): **HPM firing -100% load; 500 hrs/yr. See Attachment FPL-FMI; Section 2.0; Appendix A.**	

G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units - Emissions-Limited and Preconstruction Review Pollutants Only)

Potential/Fugitive Emissions

1. Pollutant Emitted: **SO_2**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **103.1** lb/hour **44.9** tons/year	4. Synthetically Limited? [X]
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year	
6. Emission Factor: Reference: **GE, 2000; Golder**	7. Emissions Method Code: **2**
8. Calculation of Emissions (limit to 600 characters): **See Attachment FPL-FMI; Section 2.0; Appendix A.**	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): **Emission Factor: 1 grain S per 100 CF gas; 0.05% S oil; lb/hr based on oil firing at 100% load and 35°F. Tons/yr based on 7,760 hrs/yr gas firing; 500 hrs/yr oil and 500 hrs/yr HPM firing; ISO conditions.**	

Allowable Emissions Allowable Emissions 1 of 3

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **0.05% Sulfur Oil**	4. Equivalent Allowable Emissions: **103.1** lb/hour **24.7** tons/year
5. Method of Compliance (limit to 60 characters): **Fuel Sampling**	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): **Oil firing max @ 35°F; 100% load; TPY @ 59°F 500 hrs/yr. See Attachment FPL-FMI; Section 2.0; Appendix A.**	

G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units - Emissions-Limited and Preconstruction Review Pollutants Only)

Potential/Fugitive Emissions

1. Pollutant Emitted: **SO_2**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **103.1** lb/hour **44.9** tons/year	4. Synthetically Limited? [**X**]
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year	
6. Emission Factor: Reference: **GE, 2000; Golder**	7. Emissions Method Code: **2**
8. Calculation of Emissions (limit to 600 characters): **See Attachment FPL-FMI; Section 2.0; Appendix A.**	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): **Emission Factor: 1 grain S per 100 CF gas; 0.05% S oil; lb/hr based on oil firing at 100% load and 35°F. Tons/yr based on 7,760 hrs/yr gas firing; 500 hrs/yr oil and HPM firing; ISO conditions.**	

Allowable Emissions Allowable Emissions **2** of **3**

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **See Comment**	4. Equivalent Allowable Emissions: **5.1** lb/hour **21.5** tons/year
5. Method of Compliance (limit to 60 characters): **Fuel Sampling**	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): **Requested allowable emissions and units: Pipeline Natural Gas. Gas firing, 1 gram/100 cf - 35°F, 100% load; 8,760 hrs/yr. See Attachment FPL-FMI; Section 2.0; Appendix A.**	

G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units - Emissions-Limited and Preconstruction Review Pollutants Only)

Potential/Fugitive Emissions

1. Pollutant Emitted: **SO_2**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **103.1** lb/hour **44.9** tons/year	4. Synthetically Limited? [**X**]
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year	
6. Emission Factor: Reference: **GE, 2000; Golder**	7. Emissions Method Code: **2**

8. Calculation of Emissions (limit to 600 characters):

See Attachment FPL-FMI; Section 2.0; Appendix A.

9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters):

Emission Factor: 1 grain S per 100 CF gas; 0.05% S oil; lb/hr based on oil firing at 100% load and 35°F. Tons/yr based on 7,760 hrs/yr gas firing; 500 hrs/yr oil and 500 hrs/yr HPM firing; ISO conditions.

Allowable Emissions Allowable Emissions **3** of **3**

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **See Comment**	4. Equivalent Allowable Emissions: **5.3** lb/hour **1.3** tons/year

5. Method of Compliance (limit to 60 characters):

Fuel Sampling

6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):

Requested allowable emissions and units: Pipeline Natural Gas. HPM firing, 1 gram/100 cf - 35°F, 100% load; 500 hrs/yr. See Attachment FPL-FMI; Section 2.0; Appendix A.

G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units - Emissions-Limited and Preconstruction Review Pollutants Only)

Potential/Fugitive Emissions

1. Pollutant Emitted: **NO_X**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **333.8** lb/hour **370.6** tons/year	4. Synthetically Limited? [X]
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year	
6. Emission Factor: Reference: **GE, 2000; Golder**	7. Emissions Method Code: **2**
8. Calculation of Emissions (limit to 600 characters): **See Attachment FPL-FMI; Section 2.0; Appendix A.**	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): **Lb/hr based on oil firing; 100% load; 35°F. Tons/yr based on 7,760 hrs/yr gas firing and 500 hrs/yr oil and 500 hrs/yr HPM firing; ISO conditions.**	

Allowable Emissions Allowable Emissions 1 of 3

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **42 ppmvd**	4. Equivalent Allowable Emissions: **333.8** lb/hour **79.8** tons/year
5. Method of Compliance (limit to 60 characters): **CEM - 30 Day Rolling Average**	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): **Requested Allowable Emissions is at 15% O_2-100% load. Oil firing; max @ 35°F; 100% load; TPY @ 59°F, 500 hrs/yr. See Attachment FPL-FMI; Section 2.0; Appendix A.**	

G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units - Emissions-Limited and Preconstruction Review Pollutants Only)

Potential/Fugitive Emissions

1. Pollutant Emitted: **NO_X**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **333.8** lb/hour **370.6** tons/year	4. Synthetically Limited? [**X**]
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year	
6. Emission Factor: Reference: **GE, 2000; Golder**	7. Emissions Method Code: **2**
8. Calculation of Emissions (limit to 600 characters): **See Attachment FPL-FMI; Section 2.0; Appendix A.**	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): **Lb/hr based on oil firing; 100% load; 35°F. Tons/yr based on 7,760 hrs/yr gas firing and 500 hrs/yr oil and 500 hrs/yr HPM firing; ISO conditions**	

Allowable Emissions Allowable Emissions 2 of 3

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **10.5 ppmvd**	4. Equivalent Allowable Emissions: **71.6** lb/hour **299.7** tons/year
5. Method of Compliance (limit to 60 characters): **CEM - 30 Day Rolling Average**	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): **Requested Allowable Emissions and Units is at 15% O_2-100% load. Gas firing; 35°F; 100% load; TPY @ 59°F, 8,760 hrs/yr. See Attachment FPL-FMI; Section 2.0; Appendix A.**	

G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units - Emissions-Limited and Preconstruction Review Pollutants Only)

Potential/Fugitive Emissions

1. Pollutant Emitted: **NO_X**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **333.8** lb/hour **370.6** tons/year	4. Synthetically Limited? [**X**]
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year	
6. Emission Factor: Reference: **GE, 2000; Golder**	7. Emissions Method Code: **2**
8. Calculation of Emissions (limit to 600 characters): **See Attachment FPL-FMI; Section 2.0; Appendix A.**	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): **Lb/hr based on oil firing; 100% load; 35°F. Tons/yr based on 7,760 hrs/yr gas firing and 500 hrs/yr oil and 500 hrs/yr HPM firing; ISO conditions**	

Allowable Emissions Allowable Emissions 3 of 3

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **15 ppmvd**	4. Equivalent Allowable Emissions: **105.1** lb/hour **25.3** tons/year
5. Method of Compliance (limit to 60 characters): **CEM - 30 Day Rolling Average**	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): **Requested Allowable Emissions and Units is at 15% O_2-100% load. HPM firing; 35°F; 100% load; TPY @ 59°F, 500 hrs/yr. See Attachment FPL-FMI; Section 2.0; Appendix A.**	

G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units - Emissions-Limited and Preconstruction Review Pollutants Only)

Potential/Fugitive Emissions

1. Pollutant Emitted: **CO**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **68.1** lb/hour **139.8** tons/year	4. Synthetically Limited? [X]
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year	
6. Emission Factor: Reference: **GE, 2000; Golder**	7. Emissions Method Code: **2**
8. Calculation of Emissions (limit to 600 characters): **See Attachment FPL-FMI; Section 2.0; Appendix A.**	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): **Lb/hr based on oil firing; 100% load; 35°F. Tons/yr based on 7,760 hrs/yr gas firing and 500 hrs/yr oil and 500 hrs/yr HPM firing; ISO conditions**	

Allowable Emissions Allowable Emissions 1 of 3

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **20 ppmvd - Baseload**	4. Equivalent Allowable Emissions: **68.1** lb/hour **16.2** tons/year
5. Method of Compliance (limit to 60 characters): **EPA Method 10; high load**	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): **Oil firing; max @ 35°F; 100% load; TPY @ 59°F, 500 hrs/yr. See Attachment FPL-FMI; Section 2.0; Appendix A.**	

G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units - Emissions-Limited and Preconstruction Review Pollutants Only)

Potential/Fugitive Emissions

1. Pollutant Emitted: **CO**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **68.1** lb/hour **139.8** tons/year	4. Synthetically Limited? [X]
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year	
6. Emission Factor: Reference: **GE, 2000; Golder**	7. Emissions Method Code: **2**
8. Calculation of Emissions (limit to 600 characters): **See Attachment FPL-FMI; Section 2.0; Appendix A.**	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): **Lb/hr based on oil firing; 100% load; 35°F. Tons/yr based on 7,760 hrs/yr gas firing and 500 hrs/yr oil and 500 hrs/yr HPM firing; ISO conditions**	

Allowable Emissions Allowable Emissions 2 of 3

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **12 ppmvd**	4. Equivalent Allowable Emissions: **30.3** lb/hour **126.0** tons/year
5. Method of Compliance (limit to 60 characters): **EPA Method 10; high load**	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): **Gas firing; 35°F; 100% load; TPY @ 59°F, 8,760 hrs/yr. See Attachment FPL-FMI; Section 2.0; Appendix A.**	

G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units - Emissions-Limited and Preconstruction Review Pollutants Only)

Potential/Fugitive Emissions

1. Pollutant Emitted: **CO**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **68.1** lb/hour **139.8** tons/year	4. Synthetically Limited? [X]
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year	
6. Emission Factor: Reference: **GE, 2000; Golder**	7. Emissions Method Code: **2**
8. Calculation of Emissions (limit to 600 characters): **See Attachment FPL-FMI; Section 2.0; Appendix A.**	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): **Lb/hr based on oil firing; 100% load; 35°F. Tons/yr based on 7,760 hrs/yr gas firing and 500 hrs/yr oil and HPM firing; ISO conditions**	

Allowable Emissions Allowable Emissions 3 of 3

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **15 ppmvd**	4. Equivalent Allowable Emissions: **50.5** lb/hour **12.0** tons/year
5. Method of Compliance (limit to 60 characters): **EPA Method 10; high load**	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): **HPM firing; 35°F; 100% load; TPY @ 59°F, 500 hrs/yr. See Attachment FPL-FMI; Section 2.0; Appendix A.**	

G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units - Emissions-Limited and Preconstruction Review Pollutants Only)

Potential/Fugitive Emissions

1. Pollutant Emitted: **VOC**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **7.6** lb/hour **13.1** tons/year	4. Synthetically Limited? [X]
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year	
6. Emission Factor: Reference: **GE, 2000; Golder**	7. Emissions Method Code: **2**
8. Calculation of Emissions (limit to 600 characters): **See Attachment FPL-FMI; Section 2.0; Appendix A. VOC emissions exclusive of background VOC concentrations.**	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): **Lb/hr based on oil firing; 100% load; 35°F. Tons/yr based on 7,760 hrs/yr gas firing and 500 hrs/yr oil and 500 hrs/yr HPM firing; ISO conditions**	

Allowable Emissions Allowable Emissions 1 of 3

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **3.5 ppmvw**	4. Equivalent Allowable Emissions: **7.6** lb/hour **1.8** tons/year
5. Method of Compliance (limit to 60 characters): **EPA Method 25A; high load**	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): **Oil firing; max @ 35°F; 100% load; TPY @ 59°F, 500 hrs/yr. See Attachment FPL-FMI; Section 2.0; Appendix A.**	

G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units - Emissions-Limited and Preconstruction Review Pollutants Only)

Potential/Fugitive Emissions

1. Pollutant Emitted: **VOC**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **7.6** lb/hour **13.1** tons/year	4. Synthetically Limited? [**X**]
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year	
6. Emission Factor: Reference: **GE, 2000; Golder**	7. Emissions Method Code: **2**
8. Calculation of Emissions (limit to 600 characters): **See Attachment FPL-FMI; Section 2.0; Appendix A.**	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): **Lb/hr based on oil firing; 100% load; 35°F. Tons/yr based on 7,760 hrs/yr gas firing and 500 hrs/yr oil and 500 hrs/yr HPM firing; ISO conditions**	

Allowable Emissions Allowable Emissions **2** of **3**

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **1.5 ppmvd**	4. Equivalent Allowable Emissions: **2.9** lb/hour **12.0** tons/year
5. Method of Compliance (limit to 60 characters): **EPA Method 25A; high load**	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): **Additional requested allowable emissions and units: Gas firing; 35°F; 100% load; TPY @ 59°F, 8,760 hrs/yr. See Attachment FPL-FMI; Section 2.0; Appendix A.**	

G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units - Emissions-Limited and Preconstruction Review Pollutants Only)

Potential/Fugitive Emissions

1. Pollutant Emitted: **VOC**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **7.6** lb/hour **13.1** tons/year	4. Synthetically Limited? [**X**]
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year	
6. Emission Factor: Reference: **GE, 2000; Golder**	7. Emissions Method Code: **2**
8. Calculation of Emissions (limit to 600 characters): **See Attachment FPL-FMI; Section 2.0; Appendix A.**	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): **Lb/hr based on oil firing; 100% load; 35°F. Tons/yr based on 7,760 hrs/yr gas firing and 500 hrs/yr oil and 500 hrs/yr HPM firing; ISO conditions**	

Allowable Emissions Allowable Emissions **3** of **3**

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **1.5 ppmvd**	4. Equivalent Allowable Emissions: **2.9** lb/hour **0.7** tons/year
5. Method of Compliance (limit to 60 characters): **EPA Method 25A; high load**	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): **Additional requested allowable emissions and units: HPM firing; 35°F; 100% load; TPY @ 59°F, 500 hrs/yr. See Attachment FPL-FMI; Section 2.0; Appendix A.**	

G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units - Emissions-Limited and Preconstruction Review Pollutants Only)

Potential/Fugitive Emissions

1. Pollutant Emitted: **PM_{10}**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **17** lb/hour **45.6** tons/year	4. Synthetically Limited? [**X**]
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year	
6. Emission Factor: Reference: **GE, 2000; Golder**	7. Emissions Method Code: **2**
8. Calculation of Emissions (limit to 600 characters): **See Attachment FPL-FMI; Section 2.0; Appendix A.**	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): **Lb/hr based on oil firing; 100% load; 59°F. Tons/yr based on 7,760 hrs/yr gas firing and 500 hrs/yr oil firing and 500 hours HPM; ISO conditions.**	

Allowable Emissions Allowable Emissions **1** of **3**

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **10% opacity**	4. Equivalent Allowable Emissions: **17** lb/hour **4.25** tons/year
5. Method of Compliance (limit to 60 characters): **Annual stack test; EPA Method 9 if >400 hours**	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): **Oil firing - all loads; 500 hrs/yr. See Attachment FPL-FMI; Section 2.0; Appendix A.**	

G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units - Emissions-Limited and Preconstruction Review Pollutants Only)

Potential/Fugitive Emissions

1. Pollutant Emitted: **PM_{10}**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **17** lb/hour **45.6** tons/year	4. Synthetically Limited? [X]
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year	
6. Emission Factor: Reference: **GE, 2000; Golder**	7. Emissions Method Code: **2**
8. Calculation of Emissions (limit to 600 characters): **See Attachment FPL-FMI; Section 2.0; Appendix A.**	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): **Lb/hr based on oil firing, all loads. Tons/yr based on 7,760 hrs/yr gas firing baseload, 500 hrs/yr oil firing and 500 hours HPM; ISO conditions.**	

Allowable Emissions Allowable Emissions 2 of 3

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **10% opacity**	4. Equivalent Allowable Emissions: **10** lb/hour **43.8** tons/year
5. Method of Compliance (limit to 60 characters): **VE Test < 10% opacity, EPA Method 9**	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): **Gas firing; all loads; 8,760 hrs/yr. See Attachment FPL-FMI; Section 2.0; Appendix A.**	

G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units - Emissions-Limited and Preconstruction Review Pollutants Only)

Potential/Fugitive Emissions

1. Pollutant Emitted: **PM_{10}**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **17** lb/hour **45.6** tons/year	4. Synthetically Limited? [**X**]
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year	
6. Emission Factor: Reference: **GE, 2000; Golder**	7. Emissions Method Code: **2**
8. Calculation of Emissions (limit to 600 characters): **See Attachment FPL-FMI; Section 2.0; Appendix A.**	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): **Lb/hr based on oil firing, all loads. Tons/yr based on 7,760 hrs/yr gas firing baseload, 500 hrs/yr oil firing and 500 hours HPM; ISO conditions.**	

Allowable Emissions Allowable Emissions **3** of **3**

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **10% opacity**	4. Equivalent Allowable Emissions: **10** lb/hour **2.5** tons/year
5. Method of Compliance (limit to 60 characters): **VE Test < 10% opacity, EPA Method 9**	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): **HPM firing; 100% loads; 500 hrs/yr. See Attachment FPL-FMI; Section 2.0; Appendix A.**	

H. VISIBLE EMISSIONS INFORMATION
(Only Regulated Emissions Units Subject to a VE Limitation)

Visible Emissions Limitation: Visible Emissions Limitation 1 of 2

1. Visible Emissions Subtype: **VE10**	2. Basis for Allowable Opacity: [ ] Rule [X] Other
3. Requested Allowable Opacity: Normal Conditions: **10** % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance: **Annual VE Test EPA Method 9**	
5. Visible Emissions Comment (limit to 200 characters): **Maximum for gas and oil firing.**	

I. CONTINUOUS MONITOR INFORMATION
(Only Regulated Emissions Units Subject to Continuous Monitoring)

Continuous Monitoring System: Continuous Monitor 1 of 2

1. Parameter Code: **EM**	2. Pollutant(s): **NO_X**
3. CMS Requirement:	[X] Rule [ ] Other
4. Monitor Information: **Not yet determined** Manufacturer: Model Number: Serial Number:	
5. Installation Date: **01 Jan 2003**	6. Performance Specification Test Date:
7. Continuous Monitor Comment (limit to 200 characters): **NO_X CEM proposed to meet requirements of 40 CFR Part 75.**	

H. VISIBLE EMISSIONS INFORMATION
(Only Regulated Emissions Units Subject to a VE Limitation)

Visible Emissions Limitation: Visible Emissions Limitation 2 of 2

1. Visible Emissions Subtype: **VE99**	2. Basis for Allowable Opacity: [X] Rule [ ] Other
3. Requested Allowable Opacity: Normal Conditions: % Exceptional Conditions: **100** % Maximum Period of Excess Opacity Allowed: **6** min/hour	
4. Method of Compliance: **None**	
5. Visible Emissions Comment (limit to 200 characters): **FDEP Rule 62-201.700(1), Allowed for 2 hours (120 minutes) per 24 hours for start up, shutdown and malfunction.**	

I. CONTINUOUS MONITOR INFORMATION
(Only Regulated Emissions Units Subject to Continuous Monitoring)

Continuous Monitoring System: Continuous Monitor 2 of 2

1. Parameter Code: **EM**	2. Pollutant(s): **NO_x**
3. CMS Requirement:	[X] Rule [ ] Other
4. Monitor Information: **Not yet determined** Manufacturer: Model Number: Serial Number:	
5. Installation Date: **01 Jan 2003**	6. Performance Specification Test Date:
7. Continuous Monitor Comment (limit to 200 characters): **Parameter Code: WTF. Required by 40 CFR Part 60; subpart GG; 60.334.**	

J. EMISSIONS UNIT SUPPLEMENTAL INFORMATION
(Regulated Emissions Units Only)

Supplemental Requirements

1. Process Flow Diagram [X] Attached, Document ID: FPL-FMI [ ] Not Applicable [ ] Waiver Requested
2. Fuel Analysis or Specification [X] Attached, Document ID: FPL-FMI [ ] Not Applicable [ ] Waiver Requested
3. Detailed Description of Control Equipment [X] Attached, Document ID: FPL-FMI [ ] Not Applicable [ ] Waiver Requested
4. Description of Stack Sampling Facilities [X] Attached, Document ID: FPL-FMI [ ] Not Applicable [ ] Waiver Requested
5. Compliance Test Report [ ] Attached, Document ID:_____ [ ] Previously submitted, Date:_____ [X] Not Applicable
6. Procedures for Startup and Shutdown [ ] Attached, Document ID:_____ [X] Not Applicable [ ] Waiver Requested
7. Operation and Maintenance Plan [ ] Attached, Document ID:_____ [X] Not Applicable [ ] Waiver Requested
8. Supplemental Information for Construction Permit Application [X] Attached, Document ID: FPL-FMI [ ] Not Applicable
9. Other Information Required by Rule or Statute [X] Attached, Document ID: FPL-FMI [ ] Not Applicable
10. Supplemental Requirements Comment:

Additional Supplemental Requirements for Title V Air Operation Permit Applications

11. Alternative Methods of Operation
[ ] Attached, Document ID:_____ [ ] Not Applicable

12. Alternative Modes of Operation (Emissions Trading)
[ ] Attached, Document ID:_____ [ ] Not Applicable

13. Identification of Additional Applicable Requirements
[ ] Attached, Document ID:_____ [ ] Not Applicable

14. Compliance Assurance Monitoring Plan
[ ] Attached, Document ID:_____ [ ] Not Applicable

15. Acid Rain Part Application (Hard-copy Required)

[ ] Acid Rain Part - Phase II (Form No. 62-210.900(1)(a))
Attached, Document ID:_____

[ ] Repowering Extension Plan (Form No. 62-210.900(1)(a)1.)
Attached, Document ID:_____

[ ] New Unit Exemption (Form No. 62-210.900(1)(a)2.)
Attached, Document ID:_____

[ ] Retired Unit Exemption (Form No. 62-210.900(1)(a)3.)
Attached, Document ID:_____

[ ] Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.)
Attached, Document ID:_____

[ ] Phase NOx Averaging Plan (Form No. 62-210.900(1)(a)5.)
Attached, Document ID:_____

[ ] Not Applicable

ATTACHMENT FPL-EU1-D

APPLICABLE REQUIREMENTS LISTING

ATTACHMENT FPL-EU1-D

Applicable Requirements Listing

EMISSION UNIT ID: EU1

FDEP Rules:

Air Pollution Control-General Provisions:

62-204.800(7)(b)37. (State Only)	NSPS Subpart GG
62-204.800(7)(c) (State Only)	NSPS authority
62-204.800(7)(d)(State Only)	NSPS General Provisions
62-204.800(12) (State Only)	Acid Rain Program
62-204.800(13) (State Only)	Allowances
62-204.800(14) (State Only)	Acid Rain Program Monitoring
62-204.800(16) (State Only)	Excess Emissions (Potentially applicable over term of permit)

Stationary Sources-General:

62-210.650	Circumvention; EUs with control device
62-210.700(1)	Excess Emissions;
62-210.700(4)	Excess Emissions; poor maintenance
62-210.700(6)	Excess Emissions; notification

Acid Rain:

62-214.300	All Acid Rain Units (Applicability)
62-214.320(1)(a),(2)	All Acid Rain Units (Application Shield)
62-214.330(1)(a)1.	Compliance Options (if 214.430)
62-214.340	Exemptions (new units, retired units)
62-214.350(2);(3);(6)	All Acid Rain Units (Certification)
62-214.370	All Acid Rain Units (Revisions; correction; potentially applicable if a need arises)
62-214.430	All Acid Rain Units (Compliance Options-if required)

Stationary Sources-Emission Standards:

62-296.320(4)(b)(State Only)	CTs/Diesel Units

Stationary Sources-Emission Monitoring (where stack test is required):

62-297.310(1)	All Units (Test Runs-Mass Emission)
62-297.310(2)(b)	All Units (Operating Rate; other than CTs;no CT)
62-297.310(3)	All Units (Calculation of Emission)
62-297.310(4)(a)	All Units (Applicable Test Procedures;Sampling time)
62-297.310(4)(b)	All Units (Sample Volume)
62-297.310(4)(c)	All Units (Required Flow Rate Range-PM/H2SO4/F)
62-297.310(4)(d)	All Units (Calibration)
62-297.310(4)(e)	All Units (EPA Method 5-only)
62-297.310(5)	All Units (Determination of Process Variables)

62-297.310(6)(a)	All Units (Permanent Test Facilities-general)
62-297.310(6)(c)	All Units (Sampling Ports)
62-297.310(6)(d)	All Units (Work Platforms)
62-297.310(6)(e)	All Units (Access)
62-297.310(6)(f)	All Units (Electrical Power)
62-297.310(6)(g)	All Units (Equipment Support)
62-297.310(7)(a)1.	Applies mainly to CTs/Diesels
62-297.310(7)(a)2.	FFSG excess emissions
62-297.310(7)(a)3.	Permit Renewal Test Required
62-297.310(7)(a)4.a	Annual Test
62-297.310(7)(a)5.	PM exemption if <400 hrs/yr
62-297.310(7)(a)6.	PM FFSG semi annual test required if >200 hrs/yr
62-297.310(7)(a)7.	PM quarterly monitoring if >100 hrs/yr
62-297.310(7)(a)9.	FDEP Notification - 15 days
62-297.310(7)(c)	Waiver of Compliance Tests (Fuel Sampling)
62-297.310(8)	Test Reports

Federal Rules:

NSPS Subpart GG:

40 CFR 60.332(a)(1)	NO_x for Electric Utility CTs
40 CFR 60.332(a)(3)	NO_x for Electric Utility CTs
40 CFR 60.333	SO_2 limits
40 CFR 60.334	Monitoring of Operations (Custom Monitoring for Gas)
40 CFR 60.335	Test Methods

NSPS General Requirements:

40 CFR 60.7(a)(1)	Notification of Construction
40 CFR 60.7(a)(2)	Notification of Initial Start-Up
40 CFR 60.7(a)(3)	Notification of Actual Start-Up
40 CFR 60.7(a)(4)	Notification and Recordkeeping (Physical/Operational Cycle)
40 CFR 60.7(a)(5)	Notification of CEM Demonstration
40 CFR 60.7(b)	Notification and Recordkeeping (startup/shutdown/malfunction)
40 CFR 60.7(c)	Notification and Recordkeeping (startup/shutdown/malfunction)
40 CFR 60.7(d)	Notification and Recordkeeping (startup/shutdown/malfunction)
40 CFR 60.7(f)	Notification and Recordkeeping (maintain records-2 yrs)
40 CFR 60.8(a)	Performance Test Requirements
40 CFR 60.8(b)	Performance Test Notification
40 CFR 60.8(c)	Performance Tests (representative conditions)
40 CFR 60.8(e)	Provide Stack Sampling Facilities
40 CFR 60.8(f)	Test Runs
40 CFR 60.11(a)	Compliance (ref. S. 60.8 or Subpart; other than opacity)
40 CFR 60.11(b)	Compliance (opacity determined EPA Method 9)
40 CFR 60.11(c)	Compliance (opacity; excludes startup/shutdown/malfunction)
40 CFR 60.11(d)	Compliance (maintain air pollution control equip.)
40 CFR 60.11(e)(2)	Compliance (opacity; ref. S. 60.8)
40 CFR 60.12	Circumvention

40 CFR 60.13(a)	Monitoring (Appendix B; Appendix F)
40 CFR 60.13(c)	Monitoring (Opacity COMS)
40 CFR 60.13(d)(1)	Monitoring (CEMS; span, drift, etc.)
40 CFR 60.13(d)(2)	Monitoring (COMS; span, system check)
40 CFR 60.13(e)	Monitoring (frequency of operation)
40 CFR 60.13(f)	Monitoring (frequency of operation)
40 CFR 60.13(h)	Monitoring (COMS; data requirements)
Acid Rain-Permits:	
40 CFR 72.9(a)	Permit Requirements
40 CFR 72.9(b)	Monitoring Requirements
40 CFR 72.9(c)(1)	SO_2 Allowances-hold allowances
40 CFR 72.9(c)(2)	SO_2 Allowances-violation
40 CFR 72.9(c)(3)(iii)	SO_2 Allowances-Phase II Units (listed)
40 CFR 72.9(c)(4)	SO_2 Allowances-allowances held in ATS
40 CFR 72.9(c)(5)	SO_2 Allowances-no deduction for 72.9(c)(1)(i)
40 CFR 72.9(d)	NO_x Requirements
40 CFR 72.9(e)	Excess Emission Requirements
40 CFR 72.9(f)	Recordkeeping and Reporting
40 CFR 72.9(g)	Liability
40 CFR 72.20(a)	Designated Representative; required
40 CFR 72.20(b)	Designated Representative; legally binding
40 CFR 72.20(c)	Designated Representative; certification requirements
40 CFR 72.21	Submissions
40 CFR 72.22	Alternate Designated Representative
40 CFR 72.23	Changing representatives; owners
40 CFR 72.24	Certificate of representation
40 CFR 72.30(a)	Requirements to Apply (operate)
40 CFR 72.30(b)(2)	Requirements to Apply (Phase II-Complete)
40 CFR 72.30(c)	Requirements to Apply (reapply before expiration)
40 CFR 72.30(d)	Requirements to Apply (submittal requirements)
40 CFR 72.31	Information Requirements; Acid Rain Applications
40 CFR 72.32	Permit Application Shield
40 CFR 72.33(b)	Dispatch System ID;unit/system ID
40 CFR 72.33(c)	Dispatch System ID;ID requirements
40 CFR 72.33(d)	Dispatch System ID;ID change
40 CFR 72.40(a)	General; compliance plan
40 CFR 72.40(b)	General; multi-unit compliance options
40 CFR 72.40(c)	General; conditional approval
40 CFR 72.40(d)	General; termination of compliance options
40 CFR 72.51	Permit Shield
40 CFR 72.90	Annual Compliance Certification
Allowances:	
40 CFR 73.33(a),(c)	Authorized account representative
40 CFR 73.35(c)(1)	Compliance: ID of allowances by serial number

Monitoring Part 75:

40 CFR 75.4	Compliance Dates;
40 CFR 75.5	Prohibitions
40 CFR 75.10(a)(1)	Primary Measurement; SO_2;
40 CFR 75.10(a)(2)	Primary Measurement; NO_x;
40 CFR 75.10(a)(3)(iii)	Primary Measurement; CO_2; O_2 monitor
40 CFR 75.10(b)	Primary Measurement; Performance Requirements
40 CFR 75.10(c)	Primary Measurement; Heat Input; Appendix F
40 CFR 75.10(e)	Primary Measurement; Optional Backup Monitor
40 CFR 75.10(f)	Primary Measurement; Minimum Measurement
40 CFR 75.10(g)	Primary Measurement; Minimum Recording
40 CFR 75.11(d)	SO_2 Monitoring; Gas- and Oil-fired units
40 CFR 75.11(e)	SO_2 Monitoring; Gaseous firing
40 CFR 75.12(a)	NO_x Monitoring; Coal; Non-peaking oil/gas units
40 CFR 75.12(b)	NO_x Monitoring; Determination of NO_x emission rate; Appendix F
40 CFR 75.13(b)	CO_2 Monitoring; Appendix G
40 CFR 75.13(c)	CO_2 Monitoring; Appendix F
40 CFR 75.14(c)	Opacity Monitoring; Gas units; exemption
40 CFR 75.20(a)	Initial Certification Approval Process; Loss of Certification
40 CFR 75.20(b)	Recertification Procedures (if recertification necessary)
40 CFR 75.20(c)	Certification Procedures (if recertification necessary)
40 CFR 75.20(d)	Recertification Backup/portable monitor
40 CFR 75.20(f)	Alternate Monitoring system
40 CFR 75.21(a)	QA/QC; CEMS; Appendix B (Suspended 7/17/95-12/31/96)
40 CFR 75.21(c)	QA/QC; Calibration Gases
40 CFR 75.21(d)	QA/QC; Notification of RATA
40 CFR 75.21(e)	QA/QC; Audits
40 CFR 75.21(f)	QA/QC; CEMS (Effective 7/17/96-12/31/96)
40 CFR 75.22	Reference Methods
40 CFR 75.24	Out-of-Control Periods; CEMS
40 CFR 75.30(a)(3)	General Missing Data Procedures; NO_x
40 CFR 75.30(a)(4)	General Missing Data Procedures; SO_2
40 CFR 75.30(b)	General Missing Data Procedures; certified backup monitor
40 CFR 75.30(c)	General Missing Data Procedures; certified backup monitor
40 CFR 75.30(d)	General Missing Data Procedures; SO_2 (optional before 1/1/97)
40 CFR 75.30(e)	General Missing Data Procedures; bypass/multiple stacks
40 CFR 75.31	Initial Missing Data Procedures (new/re-certified CMS)
40 CFR 75.32	Monitoring Data Availability for Missing Data
40 CFR 75.33	Standard Missing Data Procedures
40 CFR 75.36	Missing Data for Heat Input
40 CFR 75.40	Alternate Monitoring Systems-General
40 CFR 75.41	Alternate Monitoring Systems-Precision Criteria
40 CFR 75.42	Alternate Monitoring Systems-Reliability Criteria
40 CFR 75.43	Alternate Monitoring Systems-Accessability Criteria
40 CFR 75.44	Alternate Monitoring Systems-Timeliness Criteria
40 CFR 75.45	Alternate Monitoring Systems-Daily QA
40 CFR 75.46	Alternate Monitoring Systems-Missing data
40 CFR 75.47	Alternate Monitoring Systems-Criteria for Class

40 CFR 75.48	Alternate Monitoring Systems-Petition
40 CFR 75.53	Monitoring Plan; revisions
40 CFR 75.54(a)	Recordkeeping-general
40 CFR 75.54(b)	Recordkeeping-operating parameter
40 CFR 75.54(c)	Recordkeeping-SO_2
40 CFR 75.54(d)	Recordkeeping- NO_x
40 CFR 75.54(e)	Recordkeeping-CO_2
40 CFR 75.54(f)	Recordkeeping-Opacity
40 CFR 75.55(c)	General Recordkeeping (Specific Situations)
40 CFR 75.55(e)	General Recordkeeping (Specific Situations)
40 CFR 75.56	Certification; QA/QC Provisions
40 CFR 75.60	Reporting Requirements-General
40 CFR 75.61	Reporting Requirements-Notification cert/recertification
40 CFR 75.62	Reporting Requirements-Monitoring Plan
40 CFR 75.63	Reporting Requirements-Certification/Recertification
40 CFR 75.64(a)	Reporting Requirements-Quarterly reports; submission
40 CFR 75.64(b)	Reporting Requirements-Quarterly reports; DR statement
40 CFR 75.64(c)	Rep. Req.; Quarterly reports; Compliance Certification
40 CFR 75.64(d)	Rep. Req.; Quarterly reports; Electronic format
40 CFR 75.66	Petitions to the Administrator (if required)
Appendix A-1	Installation and Measurement Locations
Appendix A-2.	Equipment Specifications
Appendix A-3.	Performance Specifications
Appendix A-4.	Data Handling and Acquisition Systems
Appendix A-5.	Calibration Gases
Appendix A-6.	Certification Tests and Procedures
Appendix A-7.	Calculations
Appendix B	QA/QC Procedures
Appendix C-1.	Missing Data; SO_2/ NO_x for controlled sources
Appendix C-2.	Missing Data; Load-Based Procedure; NO_x & flow
Appendix D	Optional SO_2; Oil-/gas-fired units
Appendix F	Conversion Procedures
Appendix H	Traceability Protocol

Acid Rain Program-Excess Emissions (these are future requirements):

40 CFR 77.3	Offset Plans (future)
40 CFR 77.5(b)	Deductions of Allowances (future)
40 CFR 77.6	Excess Emissions Penalties (SO_2 and NO_x;future)

III. EMISSIONS UNIT INFORMATION

A separate Emissions Unit Information Section (including subsections A through J as required) must be completed for each emissions unit addressed in this Application for Air Permit. If submitting the application form in hard copy, indicate, in the space provided at the top of each page, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application.

A. GENERAL EMISSIONS UNIT INFORMATION
(All Emissions Units)

Emissions Unit Description and Status

1. Type of Emissions Unit Addressed in This Section: (Check one)

[X] This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).

[ ] This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.

[ ] This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

2. Regulated or Unregulated Emissions Unit? (Check one)

[X] The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.

[ ] The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.

3. Description of Emissions Unit Addressed in This Section (limit to 60 characters):
GE Frame 7FA Combustion Turbine

4. Emissions Unit Identification Number:
ID:
[ ] No ID
[X] ID Unknown

5. Emissions Unit Status Code:	6. Initial Startup Date:	7. Emissions Unit Major Group SIC Code:	8. Acid Rain Unit?
C		**49**	[X]

9. Emissions Unit Comment: (Limit to 500 Characters)

This emission unit is a GE Frame 7FA combustion turbine operating in simple cycle mode. See Attachment FPL-FMI.

Emissions Unit Control Equipment

1. Control Equipment/Method Description (Limit to 200 characters per device or method):

   Dry Low NO_X combustion - Natural gas firing

2. Control Device or Method Code(s): **25**

Emissions Unit Details

1. Package Unit:
   Manufacturer: **General Electric** Model Number: **7FA**
2. Generator Nameplate Rating: **172** MW
3. Incinerator Information:
   Dwell Temperature: °F
   Dwell Time: seconds
   Incinerator Afterburner Temperature: °F

Emissions Unit Control Equipment

1. Control Equipment/Method Description (Limit to 200 characters per device or method):

   Water injection - distillate oil firing

2. Control Device or Method Code(s): **28**

Emissions Unit Details

1. Package Unit:
   Manufacturer: **General Electric** Model Number: **7FA**
2. Generator Nameplate Rating: **172** MW
3. Incinerator Information:
   Dwell Temperature: °F
   Dwell Time: seconds
   Incinerator Afterburner Temperature: °F

B. EMISSIONS UNIT CAPACITY INFORMATION
(Regulated Emissions Units Only)

Emissions Unit Operating Capacity and Schedule

1. Maximum Heat Input Rate:		**1,600**	mmBtu/hr
2. Maximum Incineration Rate:	lb/hr		tons/day
3. Maximum Process or Throughput Rate:			
4. Maximum Production Rate:			
5. Requested Maximum Operating Schedule:			
	hours/day		days/week
	weeks/year	**8,760**	hours/year
6. Operating Capacity/Schedule Comment (limit to 200 characters):			

Maximum heat input at ISO conditions and natural gas firing (LHV); maximum for oil firing is 1,811 MMBtu/hr (ISO-LHV) and 180 MW; Higher power modes – gas is 1,680 MMBtu/hr and 182 MW.

C. EMISSIONS UNIT REGULATIONS
(Regulated Emissions Units Only)

List of Applicable Regulations

See Attachment FPL-EU1-D for operational requirements	
See Attachment FPL-FMI for permitting requirements	

D. EMISSION POINT (STACK/VENT) INFORMATION
(Regulated Emissions Units Only)

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram? **See Att. FPL-FMI**	2. Emission Point Type Code: **1**

3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point):

Exhausts through a single stack.

4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:

5. Discharge Type Code: **V**	6. Stack Height: **80** feet	7. Exit Diameter: **20.5** feet
8. Exit Temperature: **1,116** °F	9. Actual Volumetric Flow Rate: **2,389,462** acfm	10. Water Vapor: **8.4** %
11. Maximum Dry Standard Flow Rate: **800,000** dscfm	12. Nonstack Emission Point Height: feet	

13. Emission Point UTM Coordinates:

Zone: **17** East (km): **543.1** North (km): **2992.9**

14. Emission Point Comment (limit to 200 characters):

Stack parameters for ISO operating condition firing natural gas above; for oil 1,098°F and 2,464,273 ACFM; HPM 1,130°F and 2,426,858.

E. SEGMENT (PROCESS/FUEL) INFORMATION
(All Emissions Units)

Segment Description and Rate: Segment 1 of 2

1. Segment Description (Process/Fuel Type) (limit to 500 characters): **Distillate (No. 2) Fuel Oil**		
2. Source Classification Code (SCC): **20100101**	3. SCC Units: **1,000 gallons used**	
4. Maximum Hourly Rate: **14**	5. Maximum Annual Rate: **7,000**	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur: **0.05**	8. Maximum % Ash:	9. Million Btu per SCC Unit: **130**
10. Segment Comment (limit to 200 characters): **Million Btu per SCC Unit = 129.9 (rounded to 130). Based on 7.1 lb/gal; LHV of 18,300 Btu/lb, ISO conditions, 500 hrs/yr operation.**		

Segment Description and Rate: Segment 2 of 2

1. Segment Description (Process/Fuel Type) (limit to 500 characters): **Natural Gas**		
2. Source Classification Code (SCC): **20100201**	3. SCC Units: **Million Cubic Feet**	
4. Maximum Hourly Rate: **1.68**	5. Maximum Annual Rate: **14,752**	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit: **950**
10. Segment Comment (limit to 200 characters): **Based on 950 Btu/cf (LHV); ISO conditions and 8,760 hrs/yr operation.**		

F. EMISSIONS UNIT POLLUTANTS
(All Emissions Units)

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
PM			EL
SO_2			EL
NO_X	026	028	EL
CO			EL
VOC			EL
PM_{10}			EL

G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units - Emissions-Limited and Preconstruction Review Pollutants Only)

Potential/Fugitive Emissions

1. Pollutant Emitted: **PM**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **17** lb/hour **45.6** tons/year	4. Synthetically Limited? [**X**]
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year	
6. Emission Factor: Reference: **GE, 2000; Golder**	7. Emissions Method Code: **2**
8. Calculation of Emissions (limit to 600 characters): **See Attachment FPL-FMI; Section 2.0; Appendix A.**	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): **Lb/hr based on oil firing, all loads. Tons/yr based on 7,760 hrs/yr gas firing baseload, 500 hrs/yr oil firing and 500 hours HPM; ISO conditions.**	

Allowable Emissions Allowable Emissions 1 of 3

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **10% opacity**	4. Equivalent Allowable Emissions: **17** lb/hour **4.25** tons/year
5. Method of Compliance (limit to 60 characters): **Annual stack test; EPA Method 9; if > 400 hours**	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): **Oil firing - all loads; 500 hrs/yr. See Attachment FPL-FMI; Section 2.0; Appendix A.**	

G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units - Emissions-Limited and Preconstruction Review Pollutants Only)

Potential/Fugitive Emissions

1. Pollutant Emitted: **PM**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **17** lb/hour **45.6** tons/year	4. Synthetically Limited? [X]
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year	
6. Emission Factor: Reference: **GE, 2000; Golder**	7. Emissions Method Code: **2**
8. Calculation of Emissions (limit to 600 characters): **See Attachment FPL-FMI; Section 2.0; Appendix A.**	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): **Lb/hr based on oil firing, all loads. Tons/yr based on 7,760 hrs/yr gas firing baseload, 500 hrs/yr oil firing and 500 hours HPM; ISO conditions.**	

Allowable Emissions Allowable Emissions 2 of 3

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **10% opacity**	4. Equivalent Allowable Emissions: **10** lb/hour **43.8** tons/year
5. Method of Compliance (limit to 60 characters): **VE Test < 10% opacity; EPA Method 9**	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): **Gas firing - all loads; 8,760 hrs/yr. See Attachment FPL-FMI; Section 2.0; Appendix A.**	

G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units - Emissions-Limited and Preconstruction Review Pollutants Only)

Potential/Fugitive Emissions

1. Pollutant Emitted: **PM**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **17** lb/hour **45.6** tons/year	4. Synthetically Limited? [X]
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year	
6. Emission Factor: Reference: **GE, 2000; Golder**	7. Emissions Method Code: **2**
8. Calculation of Emissions (limit to 600 characters): **See Attachment FPL-FMI; Section 2.0; Appendix A.**	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): **Lb/hr based on oil firing, all loads. Tons/yr based on 7,760 hrs/yr gas firing baseload, 500 hrs/yr oil firing and 500 hours HPM; ISO conditions.**	

Allowable Emissions Allowable Emissions 3 of 3

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **10% opacity**	4. Equivalent Allowable Emissions: **10** lb/hour **2.5** tons/year
5. Method of Compliance (limit to 60 characters): **VE Test < 10% opacity; EPA Method 9**	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): **HPM firing - 100% load; 500 hrs/yr. See Attachment FPL-FMI; Section 2.0; Appendix A.**	

G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units - Emissions-Limited and Preconstruction Review Pollutants Only)

Potential/Fugitive Emissions

1. Pollutant Emitted: **SO_2**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **103.1** lb/hour **44.9** tons/year	4. Synthetically Limited? [X]
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year	
6. Emission Factor: Reference: **GE, 2000; Golder**	7. Emissions Method Code: **2**
8. Calculation of Emissions (limit to 600 characters): **See Attachment FPL-FMI; Section 2.0; Appendix A.**	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): **Emission Factor: 1 grain S per 100 CF gas; 0.05% S oil; lb/hr based on oil firing at 100% load and 35°F. Tons/yr based on 7,760 hrs/yr gas firing; 500 hrs/yr oil and 500 hrs/yr HPM firing; ISO conditions.**	

Allowable Emissions Allowable Emissions 1 of 3

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **0.05% Sulfur Oil**	4. Equivalent Allowable Emissions: **103.1** lb/hour **24.7** tons/year
5. Method of Compliance (limit to 60 characters): **Fuel Sampling**	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): **Oil firing - 35°F; 100% load; 500 hrs/yr. See Attachment FPL-FMI; Section 2.0; Appendix A.**	

G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units - Emissions-Limited and Preconstruction Review Pollutants Only)

Potential/Fugitive Emissions

1. Pollutant Emitted: **SO_2**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **103.1** lb/hour **44.9** tons/year	4. Synthetically Limited? [X]
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year	
6. Emission Factor: Reference: **GE, 2000; Golder**	7. Emissions Method Code: **2**
8. Calculation of Emissions (limit to 600 characters): **See Attachment FPL-FMI; Section 2.0; Appendix A.**	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): **Emission Factor: 1 grain S per 100 CF gas; 0.05% S oil; lb/hr based on oil firing at 100% load and 35°F. Tons/yr based on 7,760 hrs/yr gas firing; 500 hrs/yr oil and 500 hrs/yr HPM firing; ISO conditions.**	

Allowable Emissions Allowable Emissions 2 of 3

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **See Comment**	4. Equivalent Allowable Emissions: **5.1** lb/hour **21.5** tons/year
5. Method of Compliance (limit to 60 characters): **Fuel Sampling**	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): **Requested allowable emissions and units: Pipeline Natural Gas. Gas firing, 1 gram/100 cf - 35°F, 100% load; 8,760 hrs/yr. See Attachment FPL-FMI; Section 2.0; Appendix A.**	

G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units - Emissions-Limited and Preconstruction Review Pollutants Only)

Potential/Fugitive Emissions

1. Pollutant Emitted: **SO_2**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **103.1** lb/hour **44.9** tons/year	4. Synthetically Limited? [X]
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year	
6. Emission Factor: Reference: **GE, 2000; Golder**	7. Emissions Method Code: **2**
8. Calculation of Emissions (limit to 600 characters): **See Attachment FPL-FMI; Section 2.0; Appendix A.**	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): **Emission Factor: 1 grain S per 100 CF gas; 0.05% S oil; lb/hr based on oil firing at 100% load and 35°F. Tons/yr based on 7,760 hrs/yr gas firing; 500 hrs/yr oil and 500 hrs/yr HPM firing; ISO conditions.**	

Allowable Emissions Allowable Emissions **3** of **3**

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **See Comment**	4. Equivalent Allowable Emissions: **5.3** lb/hour **1.3** tons/year
5. Method of Compliance (limit to 60 characters): **Fuel Sampling**	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): **Requested allowable emissions and units: Pipeline Natural Gas. HPM firing, 1 gram/100 cf - 35°F, 100% load; 500 hrs/yr. See Attachment FPL-FMI; Section 2.0; Appendix A.**	

G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units - Emissions-Limited and Preconstruction Review Pollutants Only)

Potential/Fugitive Emissions

1. Pollutant Emitted: **NO_x**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **333.8** lb/hour **370.6** tons/year	4. Synthetically Limited? [X]
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year	
6. Emission Factor: Reference: **GE, 2000; Golder**	7. Emissions Method Code: **2**
8. Calculation of Emissions (limit to 600 characters): **See Attachment FPL-FMI; Section 2.0; Appendix A.**	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): **Lb/hr based on oil firing; 100% load; 35°F. Tons/yr based on 7,760 hrs/yr gas firing and 500 hrs/yr oil and 500 hrs/yr HPM firing; ISO conditions.**	

Allowable Emissions Allowable Emissions 1 of 3

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **42 ppmvd**	4. Equivalent Allowable Emissions: **333.8** lb/hour **79.8** tons/year
5. Method of Compliance (limit to 60 characters): **CEM - 30 Day Rolling Average**	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): **Requested Allowable Emissions is at 15% O_2-100% load. Oil firing; max @ 35°F; 100% load; TPY @ 59°F, 500 hrs/yr. See Attachment FPL-FMI; Section 2.0; Appendix A.**	

G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units - Emissions-Limited and Preconstruction Review Pollutants Only)

Potential/Fugitive Emissions

1. Pollutant Emitted: **NO_X**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **333.8** lb/hour **370.6** tons/year	4. Synthetically Limited? [**X**]
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year	
6. Emission Factor: Reference: **GE, 2000; Golder**	7. Emissions Method Code: **2**
8. Calculation of Emissions (limit to 600 characters): **See Attachment FPL-FMI; Section 2.0; Appendix A.**	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): **Lb/hr based on oil firing; 100% load; 35°F. Tons/yr based on 7,760 hrs/yr gas firing and 500 hrs/yr oil and 500 hrs/yr HPM firing; ISO conditions**	

Allowable Emissions Allowable Emissions **2** of **3**

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **10.5 ppmvd**	4. Equivalent Allowable Emissions: **71.6** lb/hour **299.7** tons/year
5. Method of Compliance (limit to 60 characters): **CEM - 30 Day Rolling Average**	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): **Requested Allowable Emissions and Units is at 15% O_2-100% load. Gas firing; 35°F; 100% load; TPY @ 59°F, 8,760 hrs/yr. See Attachment FPL-FMI; Section 2.0; Appendix A.**	

G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units - Emissions-Limited and Preconstruction Review Pollutants Only)

Potential/Fugitive Emissions

1. Pollutant Emitted: **NO_X**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **333.8** lb/hour **370.6** tons/year	4. Synthetically Limited? [X]
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year	
6. Emission Factor: Reference: **GE, 2000; Golder**	7. Emissions Method Code: **2**
8. Calculation of Emissions (limit to 600 characters): **See Attachment FPL-FMI; Section 2.0; Appendix A.**	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): **Lb/hr based on oil firing; 100% load; 35°F. Tons/yr based on 7,760 hrs/yr gas firing and 500 hrs/yr oil and 500 hrs/yr HPM firing; ISO conditions**	

Allowable Emissions Allowable Emissions 3 of 3

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **10.5 ppmvd**	4. Equivalent Allowable Emissions: **105.1** lb/hour **25.3** tons/year
5. Method of Compliance (limit to 60 characters): **CEM - 30 Day Rolling Average**	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): **Requested Allowable Emissions and Units is at 15% O_2-100% load. HPM firing; 35°F; 100% load; TPY @ 59°F, 500 hrs/yr. See Attachment FPL-FMI; Section 2.0; Appendix A.**	

G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units - Emissions-Limited and Preconstruction Review Pollutants Only)

Potential/Fugitive Emissions

1. Pollutant Emitted: **CO**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **68.1** lb/hour **139.8** tons/year	4. Synthetically Limited? [**X**]
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year	
6. Emission Factor: Reference: **GE, 2000; Golder**	7. Emissions Method Code: **2**
8. Calculation of Emissions (limit to 600 characters): **See Attachment FPL-FMI; Section 2.0; Appendix A.**	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): **Lb/hr based on oil firing; 100% load; 35°F. Tons/yr based on 7,760 hrs/yr gas firing and 500 hrs/yr oil and 500 hrs/yr HPM firing; ISO conditions**	

Allowable Emissions Allowable Emissions **1** of **3**

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **20 ppmvd - Baseload**	4. Equivalent Allowable Emissions: **68.1** lb/hour **16.2** tons/year
5. Method of Compliance (limit to 60 characters): **EPA Method 10; high load**	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): **Oil firing; max @ 35°F; 100% load; TPY @ 59°F, 500 hrs/yr. See Attachment FPL-FMI; Section 2.0; Appendix A.**	

G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units - Emissions-Limited and Preconstruction Review Pollutants Only)

Potential/Fugitive Emissions

1. Pollutant Emitted: **CO**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **68.1** lb/hour **139.8** tons/year	4. Synthetically Limited? [X]
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year	
6. Emission Factor: Reference: **GE, 2000; Golder**	7. Emissions Method Code: **2**
8. Calculation of Emissions (limit to 600 characters): **See Attachment FPL-FMI; Section 2.0; Appendix A.**	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): **Lb/hr based on oil firing; 100% load; 32°F. Tons/yr based on 7,760 hrs/yr gas firing and 5000 hrs/yr oil and 500 hrs/yr HPM firing; ISO conditions.**	

Allowable Emissions Allowable Emissions 2 of 3

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **12 ppmvd**	4. Equivalent Allowable Emissions: **30.3** lb/hour **126.0** tons/year
5. Method of Compliance (limit to 60 characters): **EPA Method 10; high load**	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): **Gas firing; 35°F; 100% load; TPY @ 59°F, 8,760 hrs/yr. See Attachment FPL-FMI; Section 2.0; Appendix A.**	

G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units - Emissions-Limited and Preconstruction Review Pollutants Only)

Potential/Fugitive Emissions

1. Pollutant Emitted: **CO**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **68.1** lb/hour **139.8** tons/year	4. Synthetically Limited? [**X**]
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year	
6. Emission Factor: Reference: **GE, 2000; Golder**	7. Emissions Method Code: **2**
8. Calculation of Emissions (limit to 600 characters): **See Attachment FPL-FMI; Section 2.0; Appendix A.**	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): **Lb/hr based on oil firing; 100% load; 35°F. Tons/yr based on 7,760 hrs/yr gas firing and 500 hrs/yr oil and HPM firing; ISO conditions**	

Allowable Emissions Allowable Emissions **3** of **3**

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **15 ppmvd**	4. Equivalent Allowable Emissions: **50.5** lb/hour **12.0** tons/year
5. Method of Compliance (limit to 60 characters): **EPA Method 10; high load**	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): **HPM firing; 35°F; 100% load; TPY @ 59°F, 500 hrs/yr. See Attachment FPL-FMI; Section 2.0; Appendix A.**	

G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units - Emissions-Limited and Preconstruction Review Pollutants Only)

Potential/Fugitive Emissions

1. Pollutant Emitted: **VOC**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **7.6** lb/hour **13.1** tons/year	4. Synthetically Limited? [X]
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year	
6. Emission Factor: Reference: **GE, 2000; Golder**	7. Emissions Method Code: **2**
8. Calculation of Emissions (limit to 600 characters): **See Attachment FPL-FMI; Section 2.0; Appendix A. VOC emissions exclusive of background VOC concentrations.**	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): **Lb/hr based on oil firing; 100% load; 35°F. Tons/yr based on 7,760 hrs/yr gas firing and 500 hrs/yr oil and 500 hrs/yr HPM firing; ISO conditions.**	

Allowable Emissions Allowable Emissions 1 of 3

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **3.5 ppmvw**	4. Equivalent Allowable Emissions: **7.6** lb/hour **1.8** tons/year
5. Method of Compliance (limit to 60 characters): **EPA Method 25A; high load**	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): **Oil firing; max @ 35°F; 100% load; TPY @ 59°F, 500 hrs/yr. See Attachment FPL-FMI; Section 2.0; Appendix A.**	

G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units - Emissions-Limited and Preconstruction Review Pollutants Only)

Potential/Fugitive Emissions

1. Pollutant Emitted: **VOC**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **7.6** lb/hour **13.1** tons/year	4. Synthetically Limited? [X]
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year	
6. Emission Factor: Reference: **GE, 2000; Golder**	7. Emissions Method Code: **2**
8. Calculation of Emissions (limit to 600 characters): **See Attachment FPL-FMI; Section 2.0; Appendix A.**	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): **Lb/hr based on oil firing; 100% load; 35°F. Tons/yr based on 7,760 hrs/yr gas firing and 500 hrs/yr oil and 500 hrs/yr HPM firing; ISO conditions**	

Allowable Emissions Allowable Emissions 2 of 3

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **1.5 ppmvd**	4. Equivalent Allowable Emissions: **2.9** lb/hour **12.0** tons/year
5. Method of Compliance (limit to 60 characters): **EPA Method 25A; high load**	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): **Additional requested allowable emissions and units: Gas firing; 35°F; 100% load; TPY @ 59°F, 8,760 hrs/yr. See Attachment FPL-FMI; Section 2.0; Appendix A.**	

G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units - Emissions-Limited and Preconstruction Review Pollutants Only)

Potential/Fugitive Emissions

1. Pollutant Emitted: **VOC**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **7.6** lb/hour **13.1** tons/year	4. Synthetically Limited? [**X**]
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year	
6. Emission Factor: Reference: **GE, 2000; Golder**	7. Emissions Method Code: **2**
8. Calculation of Emissions (limit to 600 characters): **See Attachment FPL-FMI; Section 2.0; Appendix A.**	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): **Lb/hr based on oil firing; 100% load; 35°F. Tons/yr based on 7,760 hrs/yr gas firing and 500 hrs/yr oil and 500 hrs/yr HPM firing; ISO conditions**	

Allowable Emissions Allowable Emissions **3** of **3**

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **1.5 ppmvd**	4. Equivalent Allowable Emissions: **2.9** lb/hour **0.7** tons/year
5. Method of Compliance (limit to 60 characters): **EPA Method 25A; high load**	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): **Additional requested allowable emissions and units: HPM firing; 35°F; 100% load; TPY @ 59°F, 500 hrs/yr. See Attachment FPL-FMI; Section 2.0; Appendix A.**	

G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units - Emissions-Limited and Preconstruction Review Pollutants Only)

Potential/Fugitive Emissions

1. Pollutant Emitted: **PM_{10}**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **17** lb/hour **45.6** tons/year	4. Synthetically Limited? [**X**]
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year	
6. Emission Factor: Reference: **GE, 2000; Golder**	7. Emissions Method Code: **2**
8. Calculation of Emissions (limit to 600 characters): **See Attachment FPL-FMI; Section 2.0; Appendix A.**	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): **Lb/hr based on oil firing; 100% load; 59°F. Tons/yr based on 7,760 hrs/yr gas firing and 500 hrs/yr oil firing and 500 hours HPM; ISO conditions.**	

Allowable Emissions Allowable Emissions **1** of **3**

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **10% opacity**	4. Equivalent Allowable Emissions: **17** lb/hour **4.25** tons/year
5. Method of Compliance (limit to 60 characters): **Annual stack test; EPA Method 9 if >400 hours**	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): **Oil firing - all loads; 500 hrs/yr. See Attachment FPL-FMI; Section 2.0; Appendix A.**	

G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units - Emissions-Limited and Preconstruction Review Pollutants Only)

Potential/Fugitive Emissions

1. Pollutant Emitted: **PM_{10}**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **17** lb/hour **45.6** tons/year	4. Synthetically Limited? [X]
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year	
6. Emission Factor: Reference: **GE, 2000; Golder**	7. Emissions Method Code: **2**
8. Calculation of Emissions (limit to 600 characters): **See Attachment FPL-FMI; Section 2.0; Appendix A.**	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): **Lb/hr based on oil firing, all loads. Tons/yr based on 7,760 hrs/yr gas firing baseload, 500 hrs/yr oil firing and 500 hours HPM; ISO conditions.**	

Allowable Emissions Allowable Emissions 2 of 3

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **10% opacity**	4. Equivalent Allowable Emissions: **10** lb/hour **43.8** tons/year
5. Method of Compliance (limit to 60 characters): **VE Test < 10% opacity, EPA Method 9**	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): **Gas firing; all loads; 8,760 hrs/yr. See Attachment FPL-FMI; Section 2.0; Appendix A.**	

G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units - Emissions-Limited and Preconstruction Review Pollutants Only)

Potential/Fugitive Emissions

1. Pollutant Emitted: **PM_{10}**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **17** lb/hour **45.6** tons/year	4. Synthetically Limited? [**X**]
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year	
6. Emission Factor: Reference: **GE, 2000; Golder**	7. Emissions Method Code: **2**
8. Calculation of Emissions (limit to 600 characters): **See Attachment FPL-FMI; Section 2.0; Appendix A.**	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): **Lb/hr based on oil firing, all loads. Tons/yr based on 7,760 hrs/yr gas firing baseload, 500 hrs/yr oil firing and 500 hours HPM; ISO conditions.**	

Allowable Emissions Allowable Emissions **3** of **3**

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **10% opacity**	4. Equivalent Allowable Emissions: **10** lb/hour **2.5** tons/year
5. Method of Compliance (limit to 60 characters): **VE Test < 10% opacity**	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): **HPM firing; 100% load; 500 hrs/yr. See Attachment FPL-FMI; Section 2.0; Appendix A.**	

H. VISIBLE EMISSIONS INFORMATION
(Only Regulated Emissions Units Subject to a VE Limitation)

Visible Emissions Limitation: Visible Emissions Limitation 1 of 2

1. Visible Emissions Subtype: **VE10**	2. Basis for Allowable Opacity: [ ] Rule [X] Other
3. Requested Allowable Opacity: Normal Conditions: 10 % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance: **Annual VE Test EPA Method 9**	
5. Visible Emissions Comment (limit to 200 characters): **Maximum for gas and oil firing.**	

I. CONTINUOUS MONITOR INFORMATION
(Only Regulated Emissions Units Subject to Continuous Monitoring)

Continuous Monitoring System: Continuous Monitor 1 of 2

1. Parameter Code: **EM**	2. Pollutant(s): **NO_x**
3. CMS Requirement:	[X] Rule [ ] Other
4. Monitor Information: **Not yet determined** Manufacturer: Model Number: Serial Number:	
5. Installation Date: **01 Jan 2003**	6. Performance Specification Test Date:
7. Continuous Monitor Comment (limit to 200 characters): **NO_x CEM proposed to meet requirements of 40 CFR Part 75.**	

H. VISIBLE EMISSIONS INFORMATION
(Only Regulated Emissions Units Subject to a VE Limitation)

Visible Emissions Limitation: Visible Emissions Limitation 2 of 2

1. Visible Emissions Subtype: **VE99**	2. Basis for Allowable Opacity: [X] Rule [ ] Other
3. Requested Allowable Opacity: Normal Conditions: % Exceptional Conditions: **100** % Maximum Period of Excess Opacity Allowed: **6** min/hour	
4. Method of Compliance: **None**	
5. Visible Emissions Comment (limit to 200 characters): **FDEP Rule 62-201.700(1), Allowed for 2 hours (120 minutes) per 24 hours for start up, shutdown and malfunction.**	

I. CONTINUOUS MONITOR INFORMATION
(Only Regulated Emissions Units Subject to Continuous Monitoring)

Continuous Monitoring System: Continuous Monitor 2 of 2

1. Parameter Code: **EM**	2. Pollutant(s): **NO_X**
3. CMS Requirement: [X] Rule [ ] Other	
4. Monitor Information: **Not yet determined** Manufacturer: Model Number: Serial Number:	
5. Installation Date: **01 Jan 2003**	6. Performance Specification Test Date:
7. Continuous Monitor Comment (limit to 200 characters): **Parameter Code: WTF. Required by 40 CFR Part 60; subpart GG; 60.334.**	

J. EMISSIONS UNIT SUPPLEMENTAL INFORMATION
(Regulated Emissions Units Only)

Supplemental Requirements

1. Process Flow Diagram [X] Attached, Document ID: FPL-FMI [ ] Not Applicable [ ] Waiver Requested
2. Fuel Analysis or Specification [X] Attached, Document ID: FPL-FMI [ ] Not Applicable [ ] Waiver Requested
3. Detailed Description of Control Equipment [X] Attached, Document ID: FPL-FMI [ ] Not Applicable [ ] Waiver Requested
4. Description of Stack Sampling Facilities [X] Attached, Document ID: FPL-FMI [ ] Not Applicable [ ] Waiver Requested
5. Compliance Test Report [ ] Attached, Document ID:_____ [ ] Previously submitted, Date:_____ [X] Not Applicable
6. Procedures for Startup and Shutdown [ ] Attached, Document ID:_____ [X] Not Applicable [ ] Waiver Requested
7. Operation and Maintenance Plan [ ] Attached, Document ID:_____ [X] Not Applicable [ ] Waiver Requested
8. Supplemental Information for Construction Permit Application [X] Attached, Document ID: FPL-FMI [ ] Not Applicable
9. Other Information Required by Rule or Statute [X] Attached, Document ID: FPL-FMI [ ] Not Applicable
10. Supplemental Requirements Comment:

Additional Supplemental Requirements for Title V Air Operation Permit Applications

11. Alternative Methods of Operation
[ ] Attached, Document ID:_____ [ ] Not Applicable

12. Alternative Modes of Operation (Emissions Trading)
[ ] Attached, Document ID:_____ [ ] Not Applicable

13. Identification of Additional Applicable Requirements
[ ] Attached, Document ID:_____ [ ] Not Applicable

14. Compliance Assurance Monitoring Plan
[ ] Attached, Document ID:_____ [ ] Not Applicable

15. Acid Rain Part Application (Hard-copy Required)

[ ] Acid Rain Part - Phase II (Form No. 62-210.900(1)(a))
Attached, Document ID:_____

[ ] Repowering Extension Plan (Form No. 62-210.900(1)(a)1.)
Attached, Document ID:_____

[ ] New Unit Exemption (Form No. 62-210.900(1)(a)2.)
Attached, Document ID:_____

[ ] Retired Unit Exemption (Form No. 62-210.900(1)(a)3.)
Attached, Document ID:_____

[ ] Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.)
Attached, Document ID:_____

[ ] Phase NOx Averaging Plan (Form No. 62-210.900(1)(a)5.)
Attached, Document ID:_____

[ ] Not Applicable

III. EMISSIONS UNIT INFORMATION

A separate Emissions Unit Information Section (including subsections A through J as required) must be completed for each emissions unit addressed in this Application for Air Permit. If submitting the application form in hard copy, indicate, in the space provided at the top of each page, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application.

A. GENERAL EMISSIONS UNIT INFORMATION
(All Emissions Units)

Emissions Unit Description and Status

1. Type of Emissions Unit Addressed in This Section: (Check one)

[ ] This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).

[X] This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.

[ ] This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

2. Regulated or Unregulated Emissions Unit? (Check one)

[ ] The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.

[X] The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.

3. Description of Emissions Unit Addressed in This Section (limit to 60 characters):

Natural Gas Heaters

4. Emissions Unit Identification Number: [ ] No ID
ID: [X] ID Unknown

5. Emissions Unit Status Code:	6. Initial Startup Date:	7. Emissions Unit Major Group SIC Code:	8. Acid Rain Unit?
C		**49**	[ ]

9. Emissions Unit Comment: (Limit to 500 Characters)

This emission unit is Natural Gas Heaters for the GE Frame 7FA combustion turbine operating in simple cycle mode. See Attachment FPL-FMI.

Emissions Unit Control Equipment

1. Control Equipment/Method Description (Limit to 200 characters per device or method):

Dry Low NO_x combustion - Natural gas firing

2. Control Device or Method Code(s): **25**

Emissions Unit Details

1. Package Unit: Manufacturer: **Gas Tech or Equivalent**	Model Number:	
2. Generator Nameplate Rating:	MW	
3. Incinerator Information:		
Dwell Temperature:		°F
Dwell Time:		seconds
Incinerator Afterburner Temperature:		°F

B. EMISSIONS UNIT CAPACITY INFORMATION
(Regulated Emissions Units Only)

Emissions Unit Operating Capacity and Schedule

1. Maximum Heat Input Rate:		**23.71**	mmBtu/hr
2. Maximum Incineration Rate:	lb/hr		tons/day
3. Maximum Process or Throughput Rate:			
4. Maximum Production Rate:			
5. Requested Maximum Operating Schedule:			
	hours/day		days/week
	weeks/year	**8,760**	hours/year
6. Operating Capacity/Schedule Comment (limit to 200 characters):			
Maximum heat input per unit when natural gas firing (HHV).			

C. EMISSIONS UNIT REGULATIONS
(Regulated Emissions Units Only)

List of Applicable Regulations

See Attachment FPL-FMI for permitting requirements	

D. EMISSION POINT (STACK/VENT) INFORMATION
(Regulated Emissions Units Only)

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram? **See Att. FPL-FMI**	2. Emission Point Type Code: **1**	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point): **Exhausts through a single stack.**		
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:		
5. Discharge Type Code: **V**	6. Stack Height: **30** feet	7. Exit Diameter: **1.5** feet
8. Exit Temperature: **713** °F	9. Actual Volumetric Flow Rate: **11,736** acfm	10. Water Vapor: %
11. Maximum Dry Standard Flow Rate: dscfm	12. Nonstack Emission Point Height: feet	
13. Emission Point UTM Coordinates: Zone: **17** East (km): **543.1** North (km): **2992.9**		
14. Emission Point Comment (limit to 200 characters): **Each Heater will have one stack.**		

E. SEGMENT (PROCESS/FUEL) INFORMATION
(All Emissions Units)

Segment Description and Rate: Segment 1 of 1

1. Segment Description (Process/Fuel Type) (limit to 500 characters): **Natural Gas < 100 MMBtu/hr**		
2. Source Classification Code (SCC): **10100602**	3. SCC Units: **Million Cubic Feet**	
4. Maximum Hourly Rate: **0.023**	5. Maximum Annual Rate: **406.7**	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur: **0.05**	8. Maximum % Ash:	9. Million Btu per SCC Unit: **1020**
10. Segment Comment (limit to 200 characters): **Maximum hourly based on 1020 Btu/cf (HHV) for each heater; maximum annual based on 8,760 hrs/yr operation for 2 heaters.**		

Segment Description and Rate: Segment ____ of ____

1. Segment Description (Process/Fuel Type) (limit to 500 characters):		
2. Source Classification Code (SCC):	3. SCC Units:	
4. Maximum Hourly Rate:	5. Maximum Annual Rate:	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment (limit to 200 characters):		

F. EMISSIONS UNIT POLLUTANTS
(All Emissions Units)

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
NO_X	026		EL
CO			EL

G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units - Emissions-Limited and Preconstruction Review Pollutants Only)

Potential/Fugitive Emissions

1. Pollutant Emitted: **NO_x**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **2.36** lb/hour **20.7** tons/year	4. Synthetically Limited? [**X**]
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year	
6. Emission Factor: Reference: **GasTech, 2000; Golder**	7. Emissions Method Code: **2**
8. Calculation of Emissions (limit to 600 characters): **See Attachment FPL-FMI; Section 2.0; Appendix A.**	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): **Lb/hr based on one heater. Tons/yr based on 8,760 hrs/yr for 2 heaters.**	

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **0.1 lb/MMBtu**	4. Equivalent Allowable Emissions: **2.36** b/hour **20.7** tons/year
5. Method of Compliance (limit to 60 characters):	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): **See Attachment FPL-FMI; Section 2.0.**	

G. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units - Emissions-Limited and Preconstruction Review Pollutants Only)

Potential/Fugitive Emissions

1. Pollutant Emitted: **CO**	2. Total Percent Efficiency of Control:
3. Potential Emissions: **1.79** lb/hour **15.5** tons/year	4. Synthetically Limited? [**X**]
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year	
6. Emission Factor: Reference: **GasTech, 2000; Golder**	7. Emissions Method Code: **2**
8. Calculation of Emissions (limit to 600 characters): **See Attachment FPL-FMI; Section 2.0; Appendix A.**	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): **Lb/hr based on one heater. Tons/yr based on 8,760 and 2 heaters.**	

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: **OTHER**	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: **0.075 lb/MMBtu**	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance (limit to 60 characters):	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): **See Attachment FPL-FMI; Section 2.0.**	

H. VISIBLE EMISSIONS INFORMATION
(Only Regulated Emissions Units Subject to a VE Limitation)

Visible Emissions Limitation: Visible Emissions Limitation 1 of 2

1. Visible Emissions Subtype: **VE20**	2. Basis for Allowable Opacity: [ ] Rule [X] Other
3. Requested Allowable Opacity: Normal Conditions: **10** % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance: **Annual VE Test EPA Method 9**	
5. Visible Emissions Comment (limit to 200 characters): **Maximum for gas firing. Rule 62-296.320 allows 20% opacity**	

I. CONTINUOUS MONITOR INFORMATION
(Only Regulated Emissions Units Subject to Continuous Monitoring)

Continuous Monitoring System: Continuous Monitor _____ of _____

1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement:	[ ] Rule [ ] Other
4. Monitor Information: Manufacturer: Model Number: Serial Number:	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment (limit to 200 characters):	

H. VISIBLE EMISSIONS INFORMATION
(Only Regulated Emissions Units Subject to a VE Limitation)

Visible Emissions Limitation: Visible Emissions Limitation 2 of 2

1. Visible Emissions Subtype: **VE99**	2. Basis for Allowable Opacity: [X] Rule [ ] Other
3. Requested Allowable Opacity: Normal Conditions: % Exceptional Conditions: **100** % Maximum Period of Excess Opacity Allowed: **6** min/hour	
4. Method of Compliance: **None**	
5. Visible Emissions Comment (limit to 200 characters): **FDEP Rule 62-201.700(1), Allowed for 2 hours (120 minutes) per 24 hours for start up, shutdown and malfunction.**	

I. CONTINUOUS MONITOR INFORMATION
(Only Regulated Emissions Units Subject to Continuous Monitoring)

Continuous Monitoring System: Continuous Monitor _____ of _____

1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement:	[X] Rule [ ] Other
4. Monitor Information: Manufacturer: Model Number: Serial Number:	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment (limit to 200 characters):	

J. EMISSIONS UNIT SUPPLEMENTAL INFORMATION
(Regulated Emissions Units Only)

Supplemental Requirements

1. Process Flow Diagram [X] Attached, Document ID: FPL-FMI [ ] Not Applicable [ ] Waiver Requested
2. Fuel Analysis or Specification [X] Attached, Document ID: FPL-FMI [ ] Not Applicable [ ] Waiver Requested
3. Detailed Description of Control Equipment [X] Attached, Document ID: FPL-FMI [ ] Not Applicable [ ] Waiver Requested
4. Description of Stack Sampling Facilities [X] Attached, Document ID: FPL-FMI [ ] Not Applicable [ ] Waiver Requested
5. Compliance Test Report [ ] Attached, Document ID:_____ [ ] Previously submitted, Date:_____ [X] Not Applicable
6. Procedures for Startup and Shutdown [ ] Attached, Document ID:_____ [X] Not Applicable [ ] Waiver Requested
7. Operation and Maintenance Plan [ ] Attached, Document ID:_____ [X] Not Applicable [ ] Waiver Requested
8. Supplemental Information for Construction Permit Application [X] Attached, Document ID: FPL-FMI [ ] Not Applicable
9. Other Information Required by Rule or Statute [X] Attached, Document ID: FPL-FMI [ ] Not Applicable
10. Supplemental Requirements Comment:

Additional Supplemental Requirements for Title V Air Operation Permit Applications

11. Alternative Methods of Operation
[ ] Attached, Document ID:_____ [ ] Not Applicable

12. Alternative Modes of Operation (Emissions Trading)
[ ] Attached, Document ID:_____ [ ] Not Applicable

13. Identification of Additional Applicable Requirements
[ ] Attached, Document ID:_____ [ ] Not Applicable

14. Compliance Assurance Monitoring Plan
[ ] Attached, Document ID:_____ [ ] Not Applicable

15. Acid Rain Part Application (Hard-copy Required)

[ ] Acid Rain Part - Phase II (Form No. 62-210.900(1)(a))
Attached, Document ID:_____

[ ] Repowering Extension Plan (Form No. 62-210.900(1)(a)1.)
Attached, Document ID:_____

[ ] New Unit Exemption (Form No. 62-210.900(1)(a)2.)
Attached, Document ID:_____

[ ] Retired Unit Exemption (Form No. 62-210.900(1)(a)3.)
Attached, Document ID:_____

[ ] Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.)
Attached, Document ID:_____

[ ] Phase NOx Averaging Plan (Form No. 62-210.900(1)(a)5.)
Attached, Document ID:_____

[ ] Not Applicable

PART II

ATTACHMENT FPL-FM1

ANALYSIS REPORT

1.0 INTRODUCTION

Florida Power & Light Company (FPL) proposes to license, install, and operate two combustion turbines with a nominal capacity of 340 megawatts (MW) at the existing Fort Myers Plant located in Lee County, Florida (Figure 1-1). The Project consists of two 170-MW dual-fuel, General Electric Frame 7FA combustion turbines (CTs) that will use dry low-nitrogen oxide (NO_x) [dry-low NO_x (DLN)] combustion technology when operating on natural gas and water injection (for NO_x control) when operating on distillate fuel oil. The combustion turbines are being permitted to operate at capacity factors up to 100 percent. The primary fuel for the CTs will be natural gas with distillate fuel oil used as backup fuel. The fuel oil will contain a maximum sulfur content of 0.05 percent.

The Fort Myers Plant is located on 460 acres approximately 2.5 miles east of Tice, Florida, and north of State Road 80. Currently, the FPL Fort Myers Plant consists of two fossil-fuel-fired steam-generating units (Units 1 and 2) with a combined generating capacity of 593 megawatts (MW) and 12 simple-cycle gas turbines (GT 1-12) with a combined generating capacity of 708 MW. In addition, FPL is in the process of replacing the existing two fossil-fuel-fired steam generators with 6 "F" class CTs and heat recovery steam generators (HRSGs) operating as a combined-cycle plant, pursuant to construction permit No. 070002-004AC.

FPL has contracted Golder Associates Inc. (Golder) to:

- Prepare this application;
- Determine the applicability of state and federal new source review (NSR) regulations, including prevention of significant deterioration (PSD) and nonattainment review requirements; and
- Evaluate the Project's compliance with any applicable requirements.

Air quality impact analyses are also provided using an air dispersion model approved by the Florida Department of Environmental Protection (FDEP).

The proposed Project will be a new air pollution source that will result in increases in air emissions in Lee County. The U.S. Environmental Protection Agency (EPA) has implemented regulations requiring a PSD review. PSD regulations are promulgated under Volume 40 Code of Federal Regulations (CFR) Part 52.21 and implemented through delegation to the Florida Department of Environmental Protection (DEP). Florida's PSD regulations are codified in Rules 62-212.400, F.A.C. These regulations incorporate the EPA PSD regulations.

Lee County is designated as either an attainment area or an unclassifiable area for all criteria pollutants [i.e., attainment for ozone (O_3), particulate matter with aerodynamic diameter of 10 micrometers or less (PM_{10}), sulfur dioxide (SO_2), carbon monoxide (CO), and nitrogen dioxide (NO_2); unclassifiable for lead] and is classified as a PSD Class II area for PM_{10}, SO_2, and NO_2.

The potential and actual emissions from the existing Units 1 and 2, the 6 CTs being constructed and, potential emissions from the new emission units to be installed as part of the Project, and the differences (net increases/decreases) are presented in Table 1-1. PSD review is not required for any regulated pollutant having a net emission increase less than the PSD significant emission rate, therefore, PSD review of the Fort Myers simple cycle CT project is applicable only for volatile organic compounds (VOCs). For informational purposes, this application presents the results of ambient air quality impact analyses that would be required if PSD review were applicable for other additional criteria pollutants. Moreover, the emission limits proposed for the CTs by FPL reflect use of best available control technology (BACT) and are at least as stringent as those established in recent PSD permits issued by FDEP

The air permit application is divided into seven major sections.

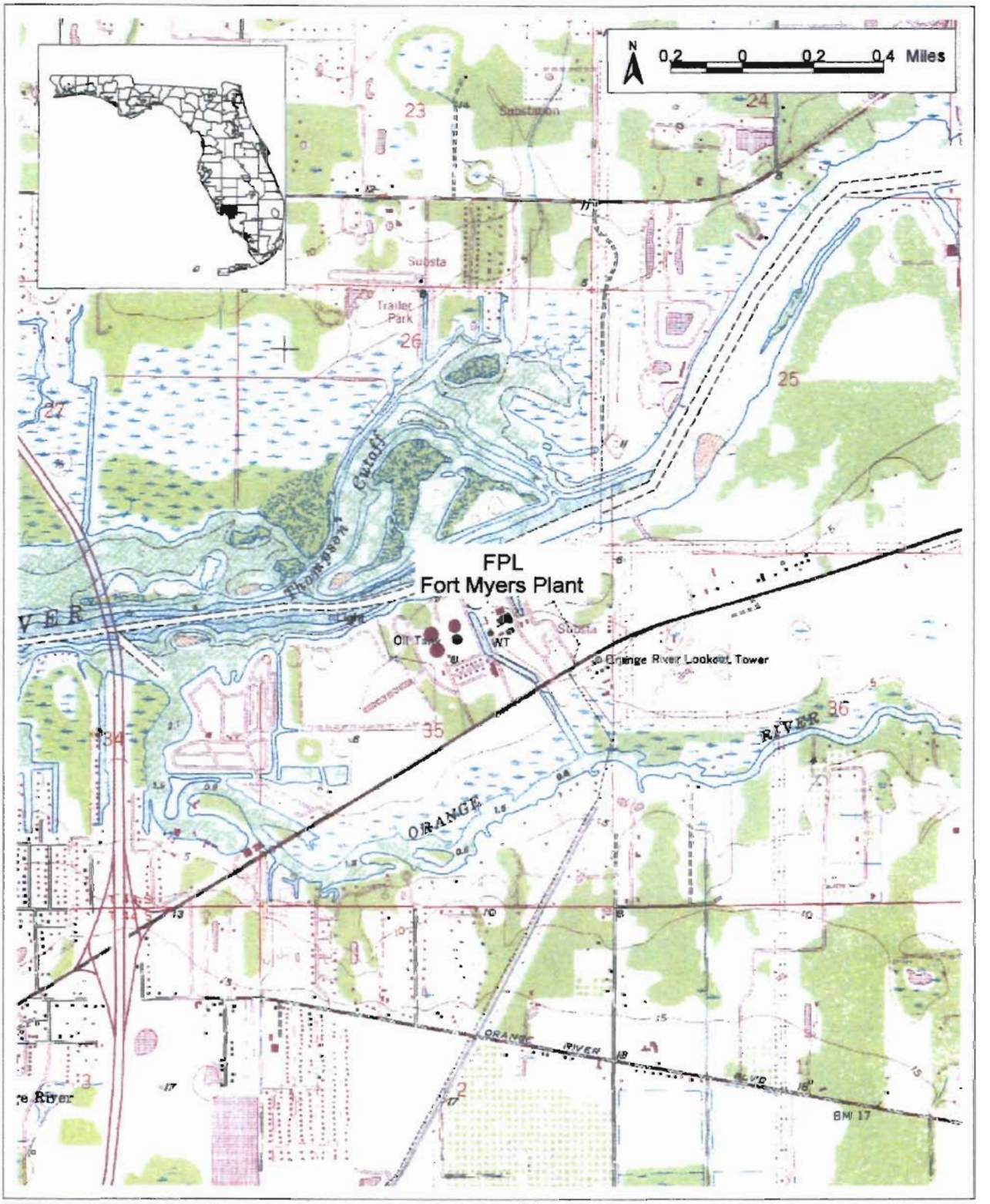
- Section 2.0 presents a description of the facility, including air emissions and stack parameters.
- Section 3.0 provides a review of the PSD and nonattainment requirements applicable in the proposed Project.
- Section 4.0 provides a discussion of the control technology .
- Section 5.0 discusses the ambient air monitoring data and existing source impacts.

- Section 6.0 presents a summary of the air modeling approach and results used in assessing compliance of the proposed Project with ambient air quality standards (AAQS), PSD increments, and good engineering practice (GEP) stack height regulations

Table 1-1. Net Emissions Increases/Decreases for Fort Myers CT Project Base Gas Firing - 7,760 hours; Oil-500 hours; HPM - 500 hours, CF = 100 Percent

Pollutant	Potential (Permitted) for Units 1 and 2	Actual Emissions	Repowering Project	Net Decrease(-) or Increase (+) From Actual (Repowering)	2 GE FA Turbines Simple Cycle	Net Decrease(-) or Increase (+) From Actual (Repowering + New CT's)	PSD SERs (Tons/yr)
PM as TSP	3,115	607	313	-294	91	-203	24
PM10	3,115	607	290	-317	91	-226	15
NO2	17,790	7,095	1,845	-5,250	741	-4,509	40
SO2	68,536	20,561	137	-20,424	91	-20,333	40
CO	3,516	1,507	1,267	-240	280	40	100
VOCs	124	47	82	36	26	62	40

Note: PSD SERs = Prevention of Significant Deterioration Significant Emission Rates.
HPM = Higher Power Modes.
CF = Capacity Factor.



FORT MYERS REPOWERING PROJECT

Figure 1-1
Project Site Location

FPL

2.0 PROJECT DESCRIPTION

2.1 SITE DESCRIPTION

The Fort Myers Plant site, shown in Figure 2-1, consists of 460 acres. The plant elevation will be approximately 13 feet above mean sea level (ft-msl). The terrain surrounding the site is flat.

2.2 EXISTING FORT MYERS PLANT

Units 1 and 2 are existing fossil-fuel-fired steam generators firing residual oil. Unit 1 has a maximum heat input of 1,690 million British thermal units per hour (MMBtu/hr) and Unit 2 has a maximum heat input of 4,000 MMBtu/hr. Air construction permit No. 0710002-004AC authorized construction of the Fort Myers Repowering Project. This prject involves the installation of six natural gas-fired combined cycle units to replace the two residual oil-fired steam generating units. Each combined cycle unit consists of a nominal 170-MW gas-fired combustion turbine with a heat recovery steam generator (HRSG). The Repowering Project results in contemporaneous emission decrease for almost all of the criteria air pollutants.

The existing gas turbine peaking units (GT 1-12) have a maximum heat input of 850 MMBtu/hr each and are operated as peaking units. The maximum sulfur content for the distillate oil is 0.5 percent.

2.3 SIMPLE CYCLE COMBUSTION TURBINES

The proposed project will consist of two General Electric Frame 7FA CTs and associated facilities. The annual operation for these units is based on a capacity factor of 100 percent, which is equivalent to operating 8,760 hours per year at full load. Natural gas will be used as the primary fuel, and fuel oil will be used as a backup fuel. Fuel oil usage will be limited to the equivalent of 500 hours per year at full load. Peak capability or power augmentation operation, when firing natural gas, would not exceed 500 hours per year. This operation is referred to as higher power modes (HPM) and are utilized to supply power above 100 percent base load when firing gas.

Plant performance with General Electric 7FA CTs was developed for natural gas and oil; at 50-, 75-, and 100-percent load; and at 35 degrees Fahrenheit (°F), 59°F, and 95°F compressor inlet temperatures. Combustion turbine performance is based on a performance envelope developed from General Electric data. The CTs will be capable of operating from 50 to 100 percent of baseload. The efficiency of the CTs decreases at part load. As a result, FPL will have an economic incentive to dispatch the plant to keep the units operating as near baseload as possible.

Natural gas will be transported to the units by connecting to the gas lateral being constructed for the Repowering Project and fuel oil will be trucked to the site. The distillate fuel oil will have a maximum sulfur content of 0.05 percent and will be stored onsite in existing aboveground storage tanks.

Air emissions control will consist of using state-of-the-art DLN burners in the CTs when firing natural gas and water injection when firing fuel oil. The General Electric Frame 7FA will be equipped with the General Electric DLN-2.6 combustion system that regulates the distribution of fuel delivery to a multi-nozzle, total premix combustor arrangement. The fuel flow distribution to each combustion system fuel nozzle is regulated to maintain unit load and minimize turbine emissions. The DLN-2.6 combustion system consists of six fuel nozzles per combustion can, with each operating as a fully premixed combustor. Of the six nozzles, five are located radially and one is in the center. The fuel system is fully automated and sequences the DLN-2.6 combustion system through a number of staging modes prior to reaching full load. The General Electric Frame 7FA has 14 combustors per turbine. Water injection will be used for NO_x control when firing distillate fuel oil. The SO_2 emissions will be controlled by the use of low-sulfur fuels. Good combustion practices and clean fuels will also minimize potential emissions of PM, CO, volatile organic compound (VOC), and other pollutants (e.g., trace metals). These engineering and environmental designs maximize control of air emissions while minimizing economic, environmental, and energy impacts.

2.4 PROPOSED SOURCE EMISSIONS AND STACK PARAMETERS

The estimated maximum hourly emissions and exhaust information representative of the proposed CT operating at baseload conditions (100-percent load), 75-percent load and 50-percent load conditions are presented in Tables 2-1 through 2-7. The information is presented in these tables for one unit operating in simple cycle operation, based on natural gas combustion and fuel oil combustion. The data are presented for compressor inlet temperatures of 35°F, 59°F, and 95°F. These temperatures represent the range of ambient temperatures that the CTs are most likely to experience. The performance calculations for the operating conditions are given in Appendix A.

The pollutant gaseous emission concentrations and PM_{10} emission rates for the proposed CTs are as follows:

Pollutant	Natural Gas	Distillate Oil
NO_x, ppmvd @ 15 percent O_2	10.5 (base); 15 (HPM)	42
CO, ppmvd	9 (base); 15 (HPM)	20
VOC as CH_4, ppmvd (gas), ppmvw (oil)	1.5	3.5
SO_x as SO_2	Calculated Based on Fuel (1.0 grains S/100 SCF)	Calculated Based on Fuel (0.05 percent sulfur)
PM_{10} lb/hr (dry filterable)	10	17

Note: lb/hr = pound per hour
ppmvd = parts per million volume dry
ppmvw = parts per million volume wet

The maximum short-term emission rates (lb/hr) generally occur at baseload, 35°F operation, where the CT has the greatest output and greatest fuel consumption.

Based on a compressor inlet temperature of 59°F, the emission rates used to calculate maximum potential annual emissions for the proposed facility for regulated air pollutants are presented in Table 2-8 for one and two CTs. To produce the maximum potential annual emissions, the CTs are being permitted to operate at baseload for 8,760 hours firing natural gas for 7,760 hours with maximum fuel oil operation of 500 hours at full load and 500 hours HPM operation. The potential emissions are based on the 59°F turbine inlet air condition since it represents a nominal

average between the higher emission levels at the 35°F turbine inlet conditions (winter) and the relatively infrequent 95°F turbine inlet condition (summer).

Process flow diagrams of the turbine operating at compressor inlet temperature of 95°F, 59°F, and 35°F are presented in Figures 2-2 through 2-4, respectively for the "F" Class CT.

Based on a review of the emission rates for natural gas and fuel oil combustion, the highest emission rates for the regulated pollutants generally occur when firing fuel oil. Combustion of natural gas and fuel oil result in slightly different exhaust flow gas rates and stack exit temperatures; however, the differences are minor. As a result of the higher emissions when firing oil, the air modeling analyses were based on determining maximum ground-level impacts with fuel oil.

As discussed in Section 6.0, the air modeling analyses that addressed compliance with ambient standards were based on modeling the CTs for the operating load and ambient temperature which produced the maximum impacts from the load impact analysis that was performed. Although the highest emission rates occur with low compressor inlet temperatures (i.e., 35°F) and baseload conditions, the lowest exhaust gas flow rates occur with a compressor inlet temperature of 95°F and 50 percent operating load. Since this low exhaust flow condition can result in potentially higher impacts due to lower plume rise (i.e., due to lower exit velocity and temperature), the analysis included modeling the CTs for the following four scenarios which are designed to determine the maximum impacts for the project:

- Base operating load for the turbine at an inlet temperature of 35°F;
- Base operating load for the turbine at an inlet temperature of 95°F;
- A 50-percent operating load for the turbine at an inlet temperature of 35°F; and
- A 50-percent operating load for the turbine at an inlet temperature of 95°F.

The natural gas must be heated to about 300°F for the dry low-NO_x combustors to operate effectively. This will be accomplished, during simple-cycle operation, by installing direct fired natural gas heaters (two). Table 2-9 presents the performance, stack parameters, and emissions data for direct fired heaters. Only natural gas would be used in the direct fired heaters.

Appendix A contains estimated emission for hazardous air pollutants (HAPs). The HAP emissions are based on emission factors from the April 2000 revision of EPA's AP-42 emission factor database.

Except for formaldehyde when firing natural gas, the emission factors are those presented in Tables 3.1-3, 3.1-4, and 3.1-5 of the revised AP-42 section for combustion turbines. For formaldehyde when firing natural gas, a review of EPA's database was conducted and an emission factor was estimated based on comparisons of the turbines and emission characteristics from EPA's database to those proposed for this project. A discussion regarding this review and estimation of the formaldehyde emission factor is presented in the following section.

The recent EPA emission factor suggests formaldehyde emissions from gas turbines of 780 lb/10^{12} Btu when firing natural gas at loads greater than 80 percent. The EPA suggested emission factor for all loads is 3,100 lb/10^{12} Btu.

The emission factors are not appropriate for the proposed CTs based on several factors. First, and most importantly, the data used to develop the AP-42 emission factors are not representative of the General Electric Frame 7FA (170 MW) combustion turbine. Second, a review of the data of the pertinent information in the EPA database that relates to the characteristics clearly suggests a much lower emission factor for formaldehyde. Some of the important aspects of the EPA Gas Turbine Database related to formaldehyde emission are as follows.

- The formaldehyde emissions are from small (<30 MW) gas turbines. The available data are from an average capacity of about 28 MW. More importantly, the median capacity, or the turbine size where an equal number of turbines are above and below that size, is about 15 MW. Data from only 8 large turbines (>30 MW) are included in the EPA database, with a maximum size of 88 MW.
- In contrast to the AP-42 emission factors for formaldehyde which are based on an average value, the median value is substantially lower. For all loads, the median formaldehyde emission factor is about 320 lb/10^{12} Btu; for turbine loads greater than 50 percent, the median emission factor is about 110 lb/10^{12} Btu. Since the median

emission factor is about 8 to ten times lower than the average factor, this clearly points to the large range in formaldehyde emissions and how the individual turbine combustion characteristics can influence the results.

- There is a strong relationship between formaldehyde and CO emissions, as noted by EPA in the support document and, and as observed in the data. Gas turbines with higher CO emissions had higher observed formaldehyde emissions. An evaluation of the coincident CO and formaldehyde data indicates that formaldehyde emissions were 150 lb/10^{12} Btu with CO emissions less than 0.02 lb/mmBtu.

The emission factors for many of the other pollutants were developed with even less data and also are not representative of the state-of-the-art DLN combustion system. The use of the AP-42 emission factors for these pollutants provide an estimate of HAP emissions that are likely very conservative. An evaluation of the HAP emission from the project indicates that emissions are less than 25 tons/year for all HAPs and less than 10 tons/year for a single HAP. Therefore, the requirements of 40 CFR 63.43 for maximum achievable control technology are not applicable to the project.

2.5 SITE LAYOUT, STRUCTURES, AND STACK SAMPLING FACILITIES

A plot plan of the proposed facility is presented in Figure 2-5. A profile of a unit is shown in Figure 2-6. The dimensions of the buildings and structures are presented in Section 6.0. Stack sampling facilities will be constructed in accordance with Rule 62-297.310(6) F.A.C.

Table 2-1. Stack, Operating, and Emission Data for the Proposed GE 7FA Combustion Turbine with DLN Combustors Firing Natural Gas-- Baseload for Simple Cycle Operation

Parameter		Operating and Emission Data[a] for Compressor Inlet Temperature 35°F	59°F	95°F
Stack Data (ft)				
Height (minimum)		80	80	80
Diameter (maximum)		20.5	20.5	20.5
Operating Data				
Temperature (°F)		1,095	1,116	1,143
Velocity (ft/sec)		124.2	120.7	113.6
Maximum Hourly Emission per Unit[b]				
SO_2	lb/hr	5.1	4.9	4.4
	Basis	1.0 grain S/100CF	1.0 grain S/100CF	1.0 grain S/100CF
PM/PM_{10}	lb/hr	10	10	10
	Basis	Dry filterables	Dry filterables	Dry filterables
NO_x	lb/hr	71.6	68.4	61.9
	Basis	10.5 ppmvd at 15% O_2	10.5 ppmvd at 15% O_2	10.5 ppmvd at 15% O_2
CO	lb/hr	30.3	28.8	26.2
	Basis	9 ppmvd	9 ppmvd	9 ppmvd
VOC[c] (as methane)	lb/hr	2.9	2.7	2.5
	Basis	1.5 ppmvd	1.5 ppmvd	1.5 ppmvd
Sulfuric Acid Mist	lb/hr	0.39	0.38	0.34
	Basis	5% SO_2	5% SO_2	5% SO_2

Note: ppmvd = parts per million volume dry; O_2 = oxygen; S = sulfur; CF = cubic feet

[a] Refer to Appendix A for detailed information.

[b] Other regulated pollutants are assumed to have minor to negligible emissions. These pollutants include lead, reduced sulfur compounds, hydrogen sulfide, fluorides, beryllium, mercury, MWC organics, MWC metals, and MWC acid gases (see Appendix A).

[c] VOC emissions exclusive of background VOC concentrations.

Table 2-2. Stack, Operating, and Emission Data for the Proposed GE 7FA Combustion Turbine with DLN Combustors Firing Natural Gas-- 75 Percent Load for Simple Cycle Operation

Parameter		Operating and Emission Data[a] for Compressor Inlet Temperature 35°F	59°F	95°F
Stack Data (ft)				
Height (minimum)		80	80	80
Diameter (maximum)		20.5	20.5	20.5
Operating Data				
Temperature (°F)		1,122	1,139	1,170
Velocity (ft/sec)		101.6	99.9	95.6
Maximum Hourly Emission per Unit[b]				
SO_2	lb/hr	4.1	4.0	3.6
	Basis	1.0 grain S/100CF	1.0 grain S/100CF	1.0 grain S/100CF
PM/PM_{10}	lb/hr	10	10	10
	Basis	Dry filterables	Dry filterables	Dry filterables
NO_x	lb/hr	57.0	54.9	50.3
	Basis	10.5 ppmvd at 15% O_2	10.5 ppmvd at 15% O_2	10.5 ppmvd at 15% O_2
CO	lb/hr	24.4	23.5	21.7
	Basis	9 ppmvd	9 ppmvd	9 ppmvd
VOC[c] (as methane)	lb/hr	2.3	2.2	2.1
	Basis	1.5 ppmvd	1.5 ppmvd	1.5 ppmvd
Sulfuric Acid Mist	lb/hr	0.32	0.30	0.28
	Basis	5% SO_2	5% SO_2	5% SO_2

Note: ppmvd = parts per million volume dry; O_2 = oxygen; S = sulfur; CF = cubic feet

[a] Refer to Appendix A for detailed information.

[b] Other regulated pollutants are assumed to have minor to negligible emissions. These pollutants include lead, reduced sulfur compounds, hydrogen sulfide, fluorides, beryllium, mercury, MWC organics, MWC metals, and MWC acid gases (see Appendix A).

[c] VOC emissions exclusive of background VOC concentrations.

Table 2-3. Stack, Operating, and Emission Data for the Proposed GE 7FA Combustion Turbine with DLN Combustors Firing Natural Gas-- 50 Percent Load for Simple Cycle Operation

Parameter		Operating and Emission Data[a] for Compressor Inlet Temperature 35°F	59°F	95°F
Stack Data (ft)				
Height (minimum)		80	80	80
Diameter (maximum)		20.5	20.5	20.5
Operating Data				
Temperature (°F)		1,168	1,184	1,200
Velocity (ft/sec)		86.1	85.1	81.8
Maximum Hourly Emission per Unit[b]				
SO_2	lb/hr	3.3	3.2	2.9
	Basis	1.0 grain S/100CF	1.0 grain S/100CF	1.0 grain S/100CF
PM/PM_{10}	lb/hr	10	10	10
	Basis	Dry filterables	Dry filterables	Dry filterables
NO_x	lb/hr	45.2	43.7	40.2
	Basis	10.5 ppmvd at 15% O_2	10.5 ppmvd at 15% O_2	10.5 ppmvd at 15% O_2
CO	lb/hr	20.1	19.5	18.3
	Basis	9 ppmvd	9 ppmvd	9 ppmvd
VOC[c] (as methane)	lb/hr	1.9	1.9	1.7
	Basis	1.5 ppmvd	1.5 ppmvd	1.5 ppmvd
Sulfuric Acid Mist	lb/hr	0.25	0.24	0.23
	Basis	5% SO_2	5% SO_2	5% SO_2

Note: ppmvd = parts per million volume dry; O_2 = oxygen; S = sulfur; CF = cubic feet

[a] Refer to Appendix A for detailed information.

[b] Other regulated pollutants are assumed to have minor to negligible emissions. These pollutants include lead, reduced sulfur compounds, hydrogen sulfide, fluorides, beryllium, mercury, MWC organics, MWC metals, and MWC acid gases (see Appendix A).

[c] VOC emissions exclusive of background VOC concentrations.

Table 2-4. Stack, Operating, and Emission Data for the Proposed GE 7FA Combustion Turbine with Water Injection Firing Distillate Fuel Oil-- Baseload for Simple Cycle Operation

Parameter		Operating and Emission Data[a] for Compressor Inlet Temperature 35°F	59°F	95°F
Stack Data (ft)				
Height (minimum)		80	80	80
Diameter (maximum)		20.5	20.5	20.5
Operating Data				
Temperature (°F)		1,074	1,098	1,131
Velocity (ft/sec)		128.2	124.4	115.6
Maximum Hourly Emission per Unit[b]				
SO_2	lb/hr	103.1	98.6	89.1
	Basis	0.05 % S	0.05 % S	0.05 % S
PM/PM_{10}	lb/hr	17.0	17.0	17.0
	Basis	Dry filterables	Dry filterables	Dry filterables
NO_x	lb/hr	333.8	319.2	284.8
	Basis	42 ppmvd at 15% O_2	42 ppmvd at 15% O_2	42 ppmvd at 15% O_2
CO	lb/hr	68.1	64.7	58.2
	Basis	20 ppmvd	20 ppmvd	20 ppmvd
VOC[c] (as methane)	lb/hr	7.6	7.3	6.6
	Basis	3.5 ppmvw	3.5 ppmvw	3.5 ppmvw
Sulfuric Acid Mist	lb/hr	7.9	7.6	6.8
	Basis	5% SO_2	5% SO_2	5% SO_2

Note: ppmvd = parts per million volume dry; O_2 = oxygen; S = sulfur; CF = cubic feet; ppmvw = parts per million volume wet

[a] Refer to Appendix A for detailed information.

[b] Other regulated pollutants are assumed to have minor to negligible emissions. These pollutants include lead, reduced sulfur compounds, hydrogen sulfide, fluorides, beryllium, mercury, MWC organics, MWC metals, and MWC acid gases (see Appendix A).

[c] VOC emissions exclusive of background VOC concentrations.

Table 2-5. Stack, Operating, and Emission Data for the Proposed GE 7FA Combustion Turbine with Water Injection Firing Distillate Fuel Oil-- 75 Percent Load for Simple Cycle Operation

Parameter		Operating and Emission Data[a] for Compressor Inlet Temperature 35°F	59°F	95°F
Stack Data (ft)				
Height (minimum)		80	80	80
Diameter (maximum)		20.5	20.5	20.5
Operating Data				
Temperature (°F)		1,121	1,137	1,166
Velocity (ft/sec)		103.3	101.5	97.4
Maximum Hourly Emission per Unit[b]				
SO_2	lb/hr	82.0	78.8	72.2
	Basis	0.05 % S	0.05 % S	0.05 % S
PM/PM_{10}	lb/hr	17	17	17
	Basis	Dry filterables	Dry filterables	Dry filterables
NO_x	lb/hr	262.6	252.6	231.2
	Basis	42 ppmvd at 15% O_2	42 ppmvd at 15% O_2	42 ppmvd at 15% O_2
CO	lb/hr	64.1	62.1	58.0
	Basis	24 ppmvd	24 ppmvd	24 ppmvd
VOC[c] (as methane)	lb/hr	6.0	5.8	5.5
	Basis	3.5 ppmvw	3.5 ppmvw	3.5 ppmvw
Sulfuric Acid Mist	lb/hr	6.3	6.0	5.5
	Basis	5% SO_2	5% SO_2	5% SO_2

Note: ppmvd = parts per million volume dry; O_2 = oxygen; S = sulfur; CF = cubic feet; ppmvw = parts per million volume wet

[a] Refer to Appendix A for detailed information.

[b] Other regulated pollutants are assumed to have minor to negligible emissions. These pollutants include lead, reduced sulfur compounds, hydrogen sulfide, fluorides, beryllium, mercury, MWC organics, MWC metals, and MWC acid gases (see Appendix A).

[c] VOC emissions exclusive of background VOC concentrations.

Table 2-6. Stack, Operating, and Emission Data for the Proposed GE 7FA Combustion Turbine with Water Injection Firing Distillate Fuel Oil-- 50 Percent Load for Simple Cycle Operation

Parameter		Operating and Emission Data[a] for Compressor Inlet Temperature 35°F	59°F	95°F
Stack Data (ft)				
Height (minimum)		80	80	80
Diameter (maximum)		20.5	20.5	20.5
Operating Data				
Temperature (°F)		1,168	1,182	1,200
Velocity (ft/sec)		87.2	86.3	83.6
Maximum Hourly Emission per Unit[b]				
SO_2	lb/hr	64.7	62.6	57.7
	Basis	0.05 % S	0.05 % S	0.05 % S
PM/PM_{10}	lb/hr	17	17	17
	Basis	Dry filterables	Dry filterables	Dry filterables
NO_x	lb/hr	205.6	198.9	183.2
	Basis	42 ppmvd at 15% O_2	42 ppmvd at 15% O_2	42 ppmvd at 15% O_2
CO	lb/hr	77.5	75.7	71.8
	Basis	35 ppmvd	35 ppmvd	35 ppmvd
VOC[c] (as methane)	lb/hr	4.9	4.8	4.6
	Basis	3.5 ppmvw	3.5 ppmvw	3.5 ppmvw
Sulfuric Acid Mist	lb/hr	5.0	4.8	4.4
	Basis	5% SO_2	5% SO_2	5% SO_2

Note: ppmvd = parts per million volume dry; O_2 = oxygen; S = sulfur; CF = cubic feet; ppmvw = parts per million volume wet

[a] Refer to Appendix A for detailed information.

[b] Other regulated pollutants are assumed to have minor to negligible emissions. These pollutants include lead, reduced sulfur compounds, hydrogen sulfide, fluorides, beryllium, mercury, MWC organics, MWC metals, and MWC acid gases (see Appendix A).

[c] VOC emissions exclusive of background VOC concentrations.

Table 2-7. Stack, Operating, and Emission Data for the Proposed GE 7FA Combustion Turbine with DLN Combustors Firing Natural Gas-- Higher Power Modes Operation

Parameter		Operating and Emission Data[a] for Compressor Inlet Temperature 35°F	59°F	95°F
Stack Data (ft)				
Height (minimum)		80	80	80
Diameter (maximum)		20.5	20.5	20.5
Operating Data				
Temperature (°F)		1,109	1,130	1,158
Velocity (ft/sec)		125.7	122.5	118.5
Maximum Hourly Emission per Unit[b]				
SO_2	lb/hr	5.3	5.1	4.8
	Basis	1.0 grain S/100CF	1.0 grain S/100CF	1.0 grain S/100CF
PM/PM_{10}	lb/hr	10	10	10
	Basis	Dry filterables	Dry filterables	Dry filterables
NO_x	lb/hr	105.1	101.3	95.5
	Basis	15 ppmvd at 15% O_2	15 ppmvd at 15% O_2	15 ppmvd at 15% O_2
CO	lb/hr	50.5	48.0	44.7
	Basis	15 ppmvd	15 ppmvd	15 ppmvd
VOC[c] (as methane)	lb/hr	2.9	2.7	2.6
	Basis	1.5 ppmvd	1.5 ppmvd	1.5 ppmvd
Sulfuric Acid Mist	lb/hr	0.41	0.39	0.37
	Basis	5% SO_2	5% SO_2	5% SO_2

Note: ppmvd = parts per million volume dry; O_2 = oxygen; S = sulfur; CF = cubic feet

[a] Refer to Appendix A for detailed information.

[b] Other regulated pollutants are assumed to have minor to negligible emissions. These pollutants include lead, reduced sulfur compounds, hydrogen sulfide, fluorides, beryllium, mercury, MWC organics, MWC metals, and MWC acid gases (see Appendix A).

[c] VOC emissions exclusive of background VOC concentrations.

Table 2-8. Maximum Potential Emissions (tons/year) for the FPL Fort Myers Simple Cycle CT Project

Pollutant	CT Units	Hours	Load at 59 °F Turbine Inlet 100%	75%	50%	Units	Hours	Load at 59 °F Turbine Inlet 100%	75%	50%
		Natural Gas Firing[a]								
PM	1	8,760	43.8	43.8	43.8	2	7760	77.6	77.6	77.6
SO_2	1	8,760	21.5	17.4	14.0	2	7760	38.0	30.8	24.8
NO_x	1	8,760	299.7	240.6	191.4	2	7760	531.0	426.4	339.2
CO	1	8,760	126.0	102.9	85.6	2	7760	223.3	182.4	151.7
VOC	1	8,760	12.0	9.8	8.2	2	7760	21.3	17.4	14.4
		Distillate Oil Firing[b]								
PM	1	500	4.3	4.3	4.3	2	500	8.5	8.5	8.5
SO_2	1	500	24.6	19.7	15.7	2	500	49.3	39.4	31.3
NO_x	1	500	79.8	63.2	49.7	2	500	159.6	126.3	99.4
CO	1	500	16.2	15.5	18.9	2	500	32.3	31.0	37.8
VOC	1	500	1.8	1.4	1.2	2	500	3.6	2.9	2.4
		Higher Power Modes[c]								
PM	1	500	2.5	NA	NA	2	500	5.0	NA	NA
SO_2	1	500	1.3	NA	NA	2	500	2.6	NA	NA
NO_x	1	500	25.3	NA	NA	2	500	50.6	NA	NA
CO	1	500	12.0	NA	NA	2	500	24.0	NA	NA
VOC	1	500	0.7	NA	NA	2	500	1.4	NA	NA
		Total Potential Emissions[d]								
PM	1	8,760	45.6	45.6	45.6	2	8,760	91.1	81.7	81.7
SO_2	1	8,760	44.9	36.1	28.8	2	8,760	89.9	68.5	54.7
NO_x	1	8,760	370.6	290.1	230.2	2	8,760	741.3	528.3	419.3
CO	1	8,760	139.8	112.6	99.6	2	8,760	279.6	203.0	180.9
VOC	1	8,760	13.1	10.7	8.9	2	8,760	26.3	19.3	16.0

Notes: [a] 8,760 hours per year operation as shown for one unit in Tables B-2, B-6 and B-10.
[b] 500 hours per year of oil firing as shown for one unit in Tables B-14, B-18 and B-22.
[c] 500 hours of higher power modes firing gas firing as shown for one unit in Table B-26.
[d] for 75% and 50% load the emssions are based on 8,260 hours gas firing and 500 hours of oil firing.

Table 2-9. Performance, Stack Parameters and Emissions for Natural Gas Heaters, Fort Myers Peaking Units

	Natural Gas Heater
Performance[a]	
Fuel Usage (scf/hr-gas)	23,218
Heat Input (mmBtu/hr-HHV)	23.71
Hours per Year	8,760
Maximum Fuel Usage (mmscf/yr)	203.39
Number of Units	2
Stack Parameters	
Diameter (ft)	1.5
Height (ft)	30
Temperature (°F)	713
Velocity (ft/sec)	55
Flow (acfm)	11,736
Emissions	
SO_2 -Basis (grains S/100 scf-gas; %S diesel)[b]	1
(lb/hr)	0.066
(tpy) - one unit	0.291
(tpy) - maximum[a]	0.581
NO_x - (lb/mmBtu)[c]	0.100
(lb/hr)	2.360
(tpy)	10.337
(tpy) - maximum[a]	20.674
CO - (lb/mmBtu)[c]	0.075
(lb/hr)	1.790
(tpy)	7.840
(tpy) - maximum[a]	15.680
VOC - (lb/mmBtu)[c]	0.004
(lb/hr)	0.102
(tpy)	0.447
(tpy) - maximum[a]	0.894
PM/PM10 - (lb/10^6 ft^3)[d]	6.200
(lb/hr)	0.144
(tpy)	0.631
(tpy) - maximum[a]	1.261

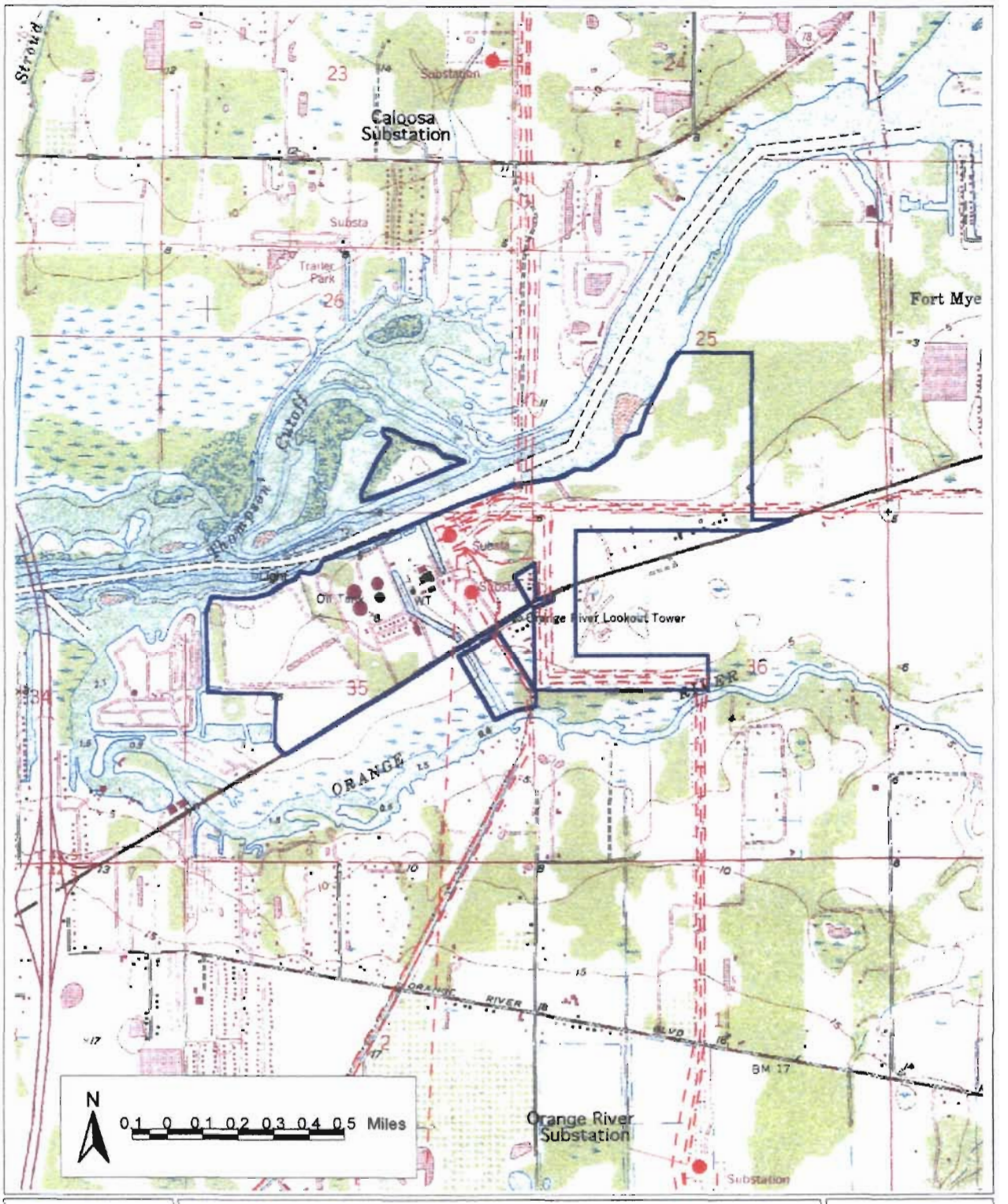
Notes:

a - GasTech, 2000.

b - Typical maximum for pipeline natural gas.

c - vendor information (GasTech)

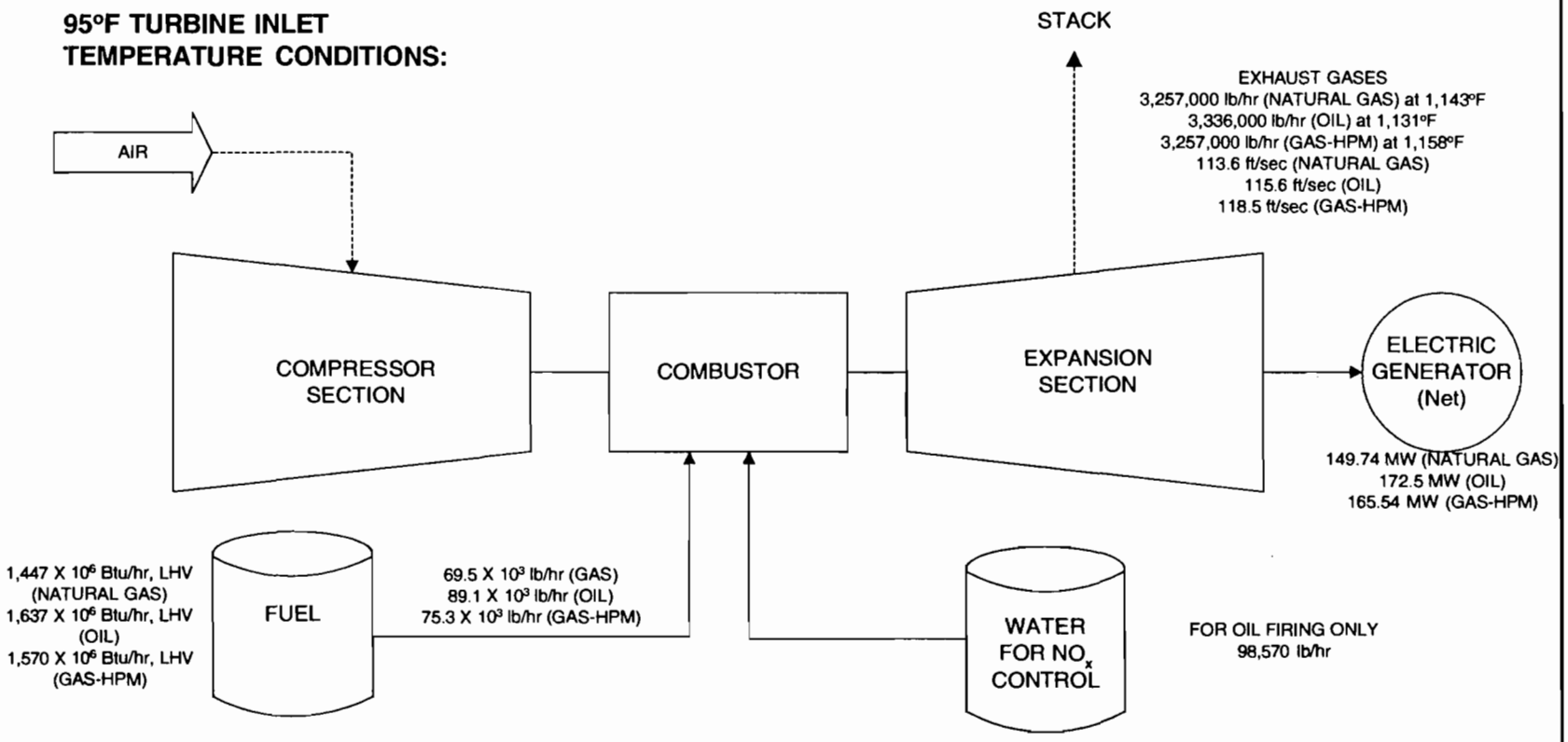
d - AP-42 Table 1.4-2 Filterable PM; higher factor used for small heater; Table 3.3-1 PM-10



FORT MYERS REPOWERING PROJECT

Figure 2-1
Property Boundary of the Fort Myers Plant Site

FPL



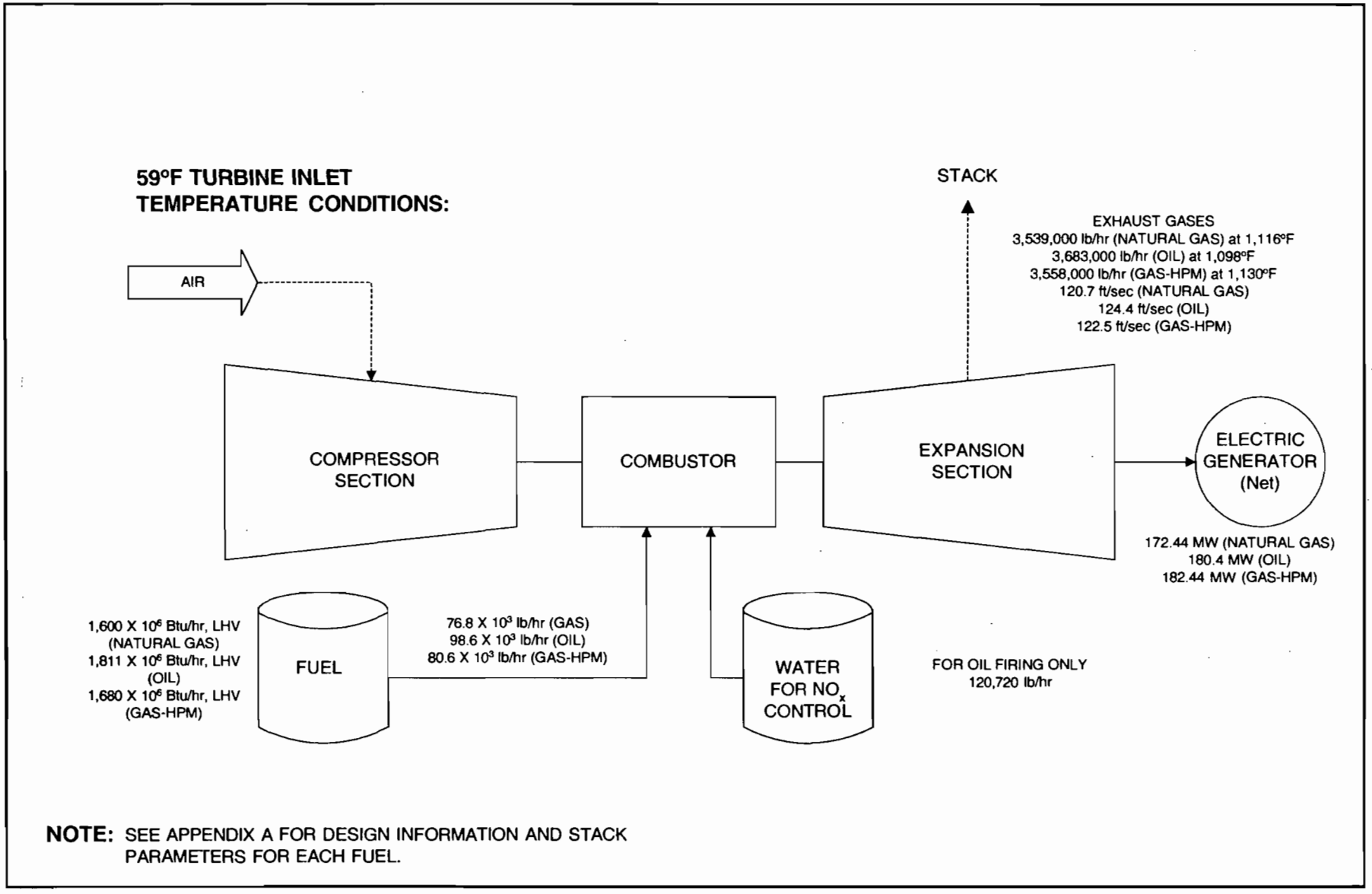
NOTE: SEE APPENDIX A FOR DESIGN INFORMATION AND STACK PARAMETERS FOR EACH FUEL.

Figure 2-2
Simplified Flow Diagram of GE FRAME 7FA
Combustion Turbine
Baseload, Summer Design Conditions

Process Flow Legend
Solid/Liquid
Gas
Steam

Filename: 9937613Y\F1\WP\FIGURES.VSD
Date: 7/14/00

Golder Associates



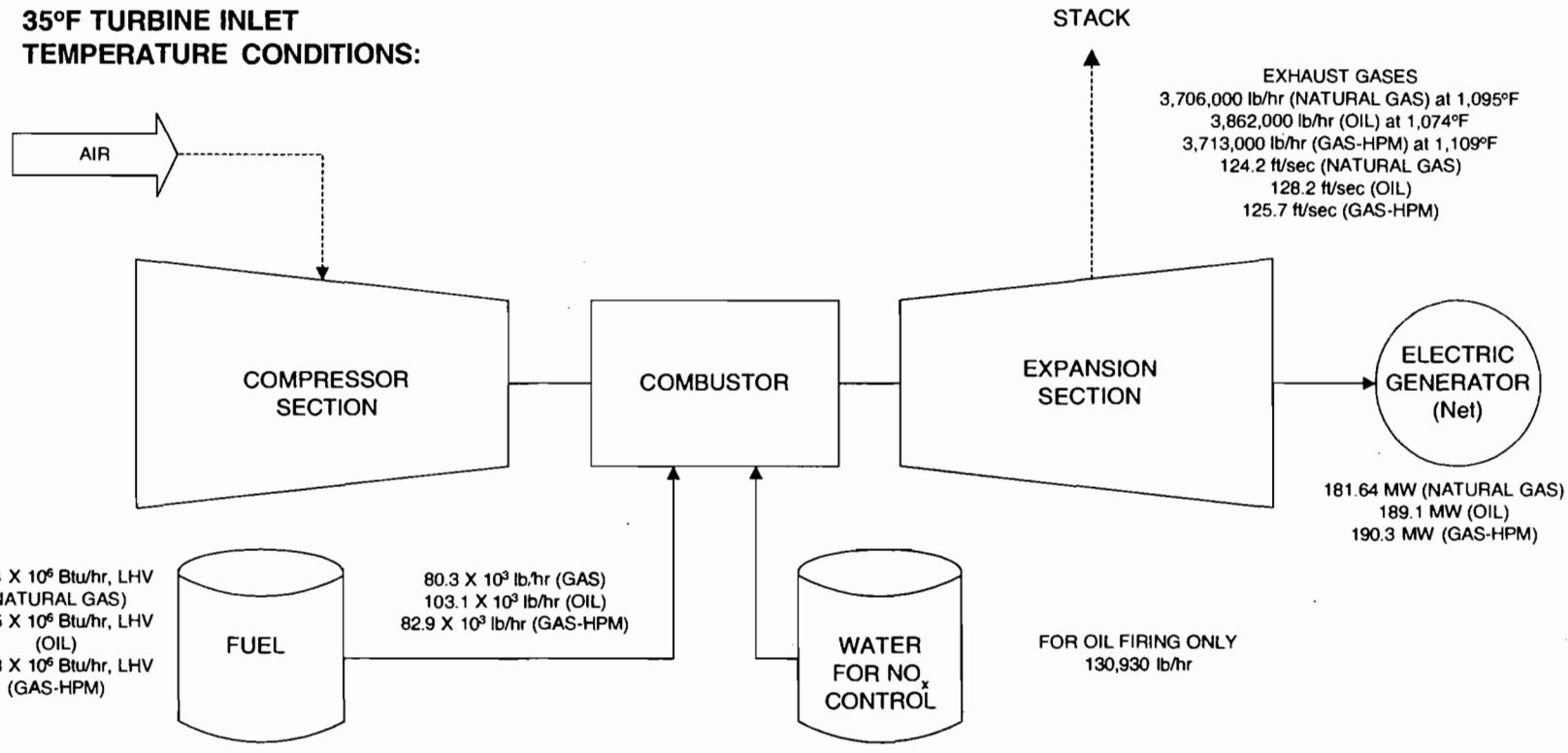
NOTE: SEE APPENDIX A FOR DESIGN INFORMATION AND STACK PARAMETERS FOR EACH FUEL.

Figure 2-3
Simplified Flow Diagram of GE FRAME 7FA
Combustion Turbine
Baseload, Annual Design Conditions

Process Flow Legend
Solid/Liquid
Gas
Steam

Filename: 9937613Y\F1\WP\FIGURES.VSD
Date: 7/14/00

Golder Associates



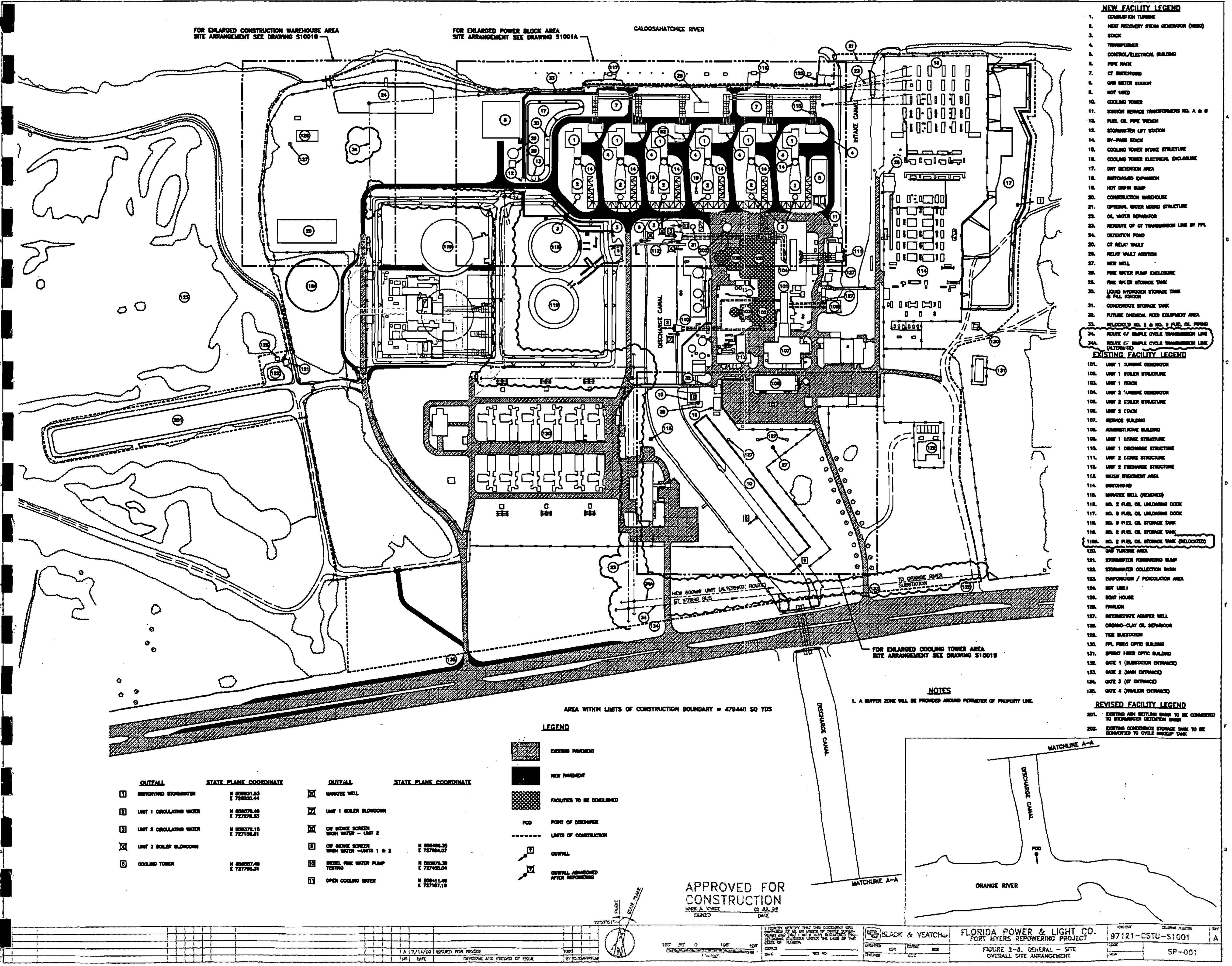
NOTE: SEE APPENDIX A FOR DESIGN INFORMATION AND STACK PARAMETERS FOR EACH FUEL.

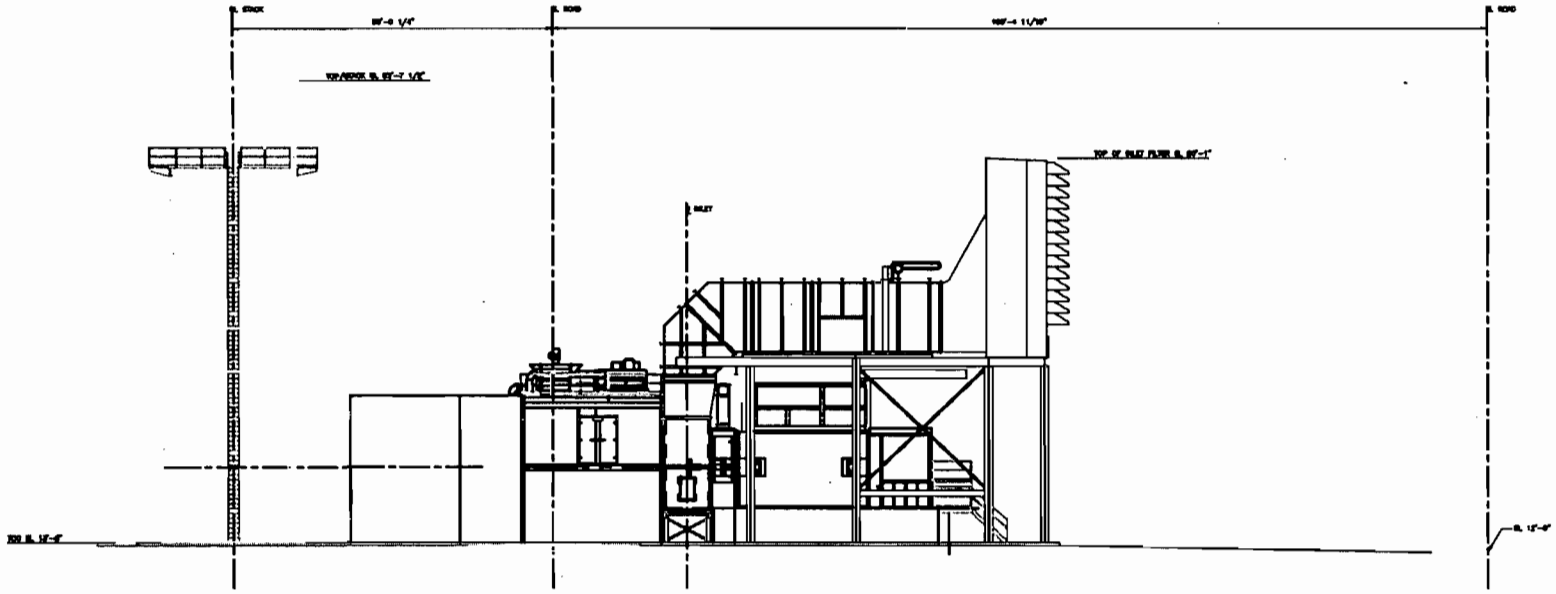
Figure 2-4
Simplified Flow Diagram of GE FRAME 7FA
Combustion Turbine
Baseload, Winter Design Conditions

Process Flow Legend
Solid/Liquid
Gas
Steam

Filename: 9937613Y\F1\WP\FIGURES.VSD
Date: 7/14/00

Golder Associates


CALOOSAHATCHEE RIVER
FOR ENLARGED CONSTRUCTION WAREHOUSE AREA SITE ARRANGEMENT SEE DRAWING S1001B
FOR ENLARGED POWER BLOCK AREA SITE ARRANGEMENT SEE DRAWING S1001A
INTAKE CANAL
DISCHARGE CANAL
FOR ENLARGED COOLING TOWER AREA SITE ARRANGEMENT SEE DRAWING S1001B
TO ORANGE RIVER SUBSTATION
AREA WITHIN LIMITS OF CONSTRUCTION BOUNDARY = 479440 SQ YDS
NEW FACILITY LEGEND
1. COMBUSTION TURBINE
2. HEAT RECOVERY STEAM GENERATOR (HRSG)
3. STACK
4. TRANSFORMER
5. CONTROL/ELECTRICAL BUILDING
6. PIPE RACK
7. CT SWITCHYARD
8. GAS METER STATION
9. NOT USED
10. COOLING TOWER
11. STATION SERVICE TRANSFORMERS NO. A & B
12. FUEL OIL PIPE TRENCH
13. STORMWATER LIFT STATION
14. BY-PASS STACK
15. COOLING TOWER INTAKE STRUCTURE
16. COOLING TOWER ELECTRICAL ENCLOSURE
17. DRY DETENTION AREA
18. SWITCHYARD EXPANSION
19. HOT DRAIN SUMP
20. CONSTRUCTION WAREHOUSE
21. OPTIONAL WATER MIXING STRUCTURE
22. OIL WATER SEPARATOR
23. REROUTE OF CT TRANSMISSION LINE BY FPL
24. DETENTION POND
25. CT RELAY VAULT
26. RELAY VAULT ADDITION
27. NEW WELL
28. FIRE WATER PUMP ENCLOSURE
29. FIRE WATER STORAGE TANK
30. LIQUID HYDROGEN STORAGE TANK & FILL STATION
31. CONDENSATE STORAGE TANK
32. FUTURE CHEMICAL FEED EQUIPMENT AREA
33. RELOCATED NO. 2 & NO. 6 FUEL OIL PIPING
34. ROUTE OF SIMPLE CYCLE TRANSMISSION LINE
34A. ROUTE OF SIMPLE CYCLE TRANSMISSION LINE (ALTERNATE)
EXISTING FACILITY LEGEND
101. UNIT 1 TURBINE GENERATOR
102. UNIT 1 BOILER STRUCTURE
103. UNIT 1 STACK
104. UNIT 2 TURBINE GENERATOR
105. UNIT 2 BOILER STRUCTURE
106. UNIT 2 STACK
107. SERVICE BUILDING
108. ADMINISTRATIVE BUILDING
109. UNIT 1 INTAKE STRUCTURE
110. UNIT 1 DISCHARGE STRUCTURE
111. UNIT 2 INTAKE STRUCTURE
112. UNIT 2 DISCHARGE STRUCTURE
113. WATER TREATMENT AREA
114. SWITCHYARD
115. MANATEE WELL (REMOVED)
116. NO. 2 FUEL OIL UNLOADING DOCK
117. NO. 6 FUEL OIL UNLOADING DOCK
118. NO. 6 FUEL OIL STORAGE TANK
119. NO. 2 FUEL OIL STORAGE TANK
119A. NO. 2 FUEL OIL STORAGE TANK (RELOCATED)
120. GAS TURBINE AREA
121. STORMWATER FORWARDING SUMP
122. STORMWATER COLLECTION BASIN
123. EVAPORATION / PERCOLATION AREA
124. NOT USED
125. BOAT HOUSE
126. PAVILION
127. INTERMEDIATE AQUIFER WELL
128. ORGANO-CLAY OIL SEPARATOR
129. TIDE SUBSTATION
130. FPL FIBER OPTIC BUILDING
131. SPRINT FIBER OPTIC BUILDING
132. GATE 1 (SUBSTATION ENTRANCE)
133. GATE 2 (MAIN ENTRANCE)
134. GATE 3 (CT ENTRANCE)
135. GATE 4 (PAVILION ENTRANCE)
REVISED FACILITY LEGEND
201. EXISTING ASH SETTLING BASIN TO BE CONVERTED TO STORMWATER DETENTION BASIN
202. EXISTING CONDENSATE STORAGE TANK TO BE CONVERTED TO CYCLE MAKEUP TANK
NOTES
1. A BUFFER ZONE WILL BE PROVIDED AROUND PERIMETER OF PROPERTY LINE.
LEGEND
EXISTING PAVEMENT
NEW PAVEMENT
FACILITIES TO BE DEMOLISHED
POD POINT OF DISCHARGE
LIMITS OF CONSTRUCTION
OUTFALL
OUTFALL ABANDONED AFTER REPOWERING
OUTFALL
STATE PLANE COORDINATE
1 SWITCHYARD STORMWATER
2 UNIT 1 CIRCULATING WATER
3 UNIT 2 CIRCULATING WATER
4 UNIT 2 BOILER BLOWDOWN
5 COOLING TOWER
6 MANATEE WELL
7 UNIT 1 BOILER BLOWDOWN
8 CW INTAKE SCREEN WASH WATER – UNIT 2
9 CW INTAKE SCREEN WASH WATER –UNITS 1 & 2
10 DIESEL FIRE WATER PUMP TESTING
11 OPEN COOLING WATER
MATCHLINE A–A
ORANGE RIVER
POD
PLANT
STATE PLANE
APPROVED FOR CONSTRUCTION
SIGNED
DATE
A 7/14/00 ISSUED FOR REVIEW
NO DATE REVISIONS AND RECORD OF ISSUE
1"=100'
BLACK & VEATCH
FLORIDA POWER & LIGHT CO.
FORT MYERS REPOWERING PROJECT
FIGURE 2-3. GENERAL – SITE OVERALL SITE ARRANGEMENT
97121-CSTU-S1001
A
SP-001



(LOOKING NORTH)

BLACK & VEATCH

FLORIDA POWER AND LIGHT CO.
FT MYERS REPOWERING PROJECT

SITE ARRANGEMENT
CT ELEVATION

097121-CSTU-S1010

A

FIGURE 2-6

3.0 AIR QUALITY REVIEW REQUIREMENTS AND APPLICABILITY

The following discussion pertains to the federal and state air regulatory requirements and their applicability to the proposed project.

3.1 NATIONAL AND STATE AAQS

The existing national and Florida AAQS are presented in Table 3-1. National primary AAQS were promulgated to protect the public health with an adequate margin of safety [42 United States Code (USC) Section 7409(b)(1)]. The primary AAQS are designed to protect children, the elderly, and those with respiratory diseases. National secondary AAQS were promulgated to protect the public welfare from any known or anticipated adverse effects associated with the presence of pollutants in the ambient air [42 USC Section 7409(b)(2)]. Areas of the country in violation of AAQS are designated as nonattainment areas, and new sources to be located in or near these areas may be subject to more stringent air permitting requirements.

3.2 PSD REQUIREMENTS

3.2.1 GENERAL REQUIREMENTS

Under federal and State of Florida PSD review requirements, all new or modified major sources of air pollutants regulated under the Clean Air Act (CAA) must be reviewed and a permit issued before the commencement of construction. Florida's State Implementation Plan (SIP), which contains PSD regulations, has been approved by EPA; therefore, PSD approval authority has been granted to DEP. For projects reviewed under the Power Plant Siting Act (PPSA) the PSD program is delegated.

A "major facility" is defined as any one of 28 named source categories that have the potential to emit 100 tons per year (TPY) or more, or any other stationary facility that has the potential to emit 250 TPY or more, of any pollutant regulated under CAA. "Potential to emit" means the capability, at maximum design capacity, to emit a pollutant after the application of control equipment.

Subject to certain exceptions, a "major modification" is defined under PSD regulations as a physical or operational change at an existing major facility that increases the facility's emissions by an amount that is greater than the defined significant emission rates. PSD significant emission rates are shown in Table 3-2.

EPA's regulations identify certain increases above an air quality baseline concentration level of SO_2, PM_{10}, and NO_2 concentrations that would constitute significant deterioration. The EPA class designations and allowable PSD increments are presented in Table 3-1. The State of Florida has adopted the EPA class designations and allowable PSD increments for SO_2, PM_{10}, and NO_2 increments.

PSD review is used to determine whether significant air quality deterioration will result from the new or modified facility. Federal PSD requirements are contained in 40 CFR 52.21, *Prevention of Significant Deterioration of Air Quality*. The State of Florida has adopted PSD regulations which have been approved by EPA [Rule 62-212.400 F.A.C.]. Major facilities and major modifications are required to undergo the following analysis related to PSD for each pollutant emitted in significant amounts:

1. Control technology review,
2. Source impact analysis,
3. Air quality analysis (monitoring),
4. Source information, and
5. Additional impact analyses.

In addition to these analyses, a new facility also must be reviewed with respect to GEP stack height regulations. Discussions concerning each of these requirements are presented in the following sections.

3.2.2 CONTROL TECHNOLOGY REVIEW

The control technology review requirements of the federal and state PSD regulations require that all applicable federal and state emission-limiting standards be met, and that BACT be applied to control emissions from the source (Rule 62-212.410, F.A.C.). The BACT requirements

are applicable to all regulated pollutants for which the increase in emissions from the facility or modification exceeds the significant emission rate (see Table 3-2).

BACT is defined in 52.21 (b)(12) and Rule 62-210.200(40), F.A.C., as:

> An emissions limitation (including a visible emission standard) based on the maximum degree of reduction of each pollutant subject to regulation under the Act which would be emitted by any proposed major stationary source or major modification which the Administrator, on a case-by-case basis, taking into account energy, environmental, and economic impacts, and other costs, determines is achievable through application of production processes and available methods, systems, and techniques (including fuel cleaning or treatment or innovative fuel combustion techniques) for control of such pollutant. In no event shall application of best available control technology result in emissions of any pollutant which would exceed the emissions allowed by any applicable standard under 40 CFR Parts 60 and 61. If the Administrator determines that technological or economic limitations on the application of measurement methodology to a particular part of a source or facility would make the imposition of an emission standard infeasible, a design, equipment, work practice, operational standard or combination thereof, may be prescribed instead to satisfy the requirement for the application of BACT. Such standard shall, to the degree possible, set forth the emissions reductions achievable by implementation of such design, equipment, work practice, or operation and shall provide for compliance by means which achieve equivalent results.

BACT was promulgated within the framework of the PSD requirements in the 1977 amendments of the CAA [Public Law 95-95; Part C, Section 165(a)(4)]. The primary purpose of BACT is to optimize consumption of PSD air quality increments and thereby enlarge the potential for future economic growth without significantly degrading air quality (EPA, 1978; 1980). Guidelines for the evaluation of BACT can be found in EPA's *Guidelines for Determining Best Available Control Technology (BACT)* (EPA, 1978) and in the *PSD Workshop Manual* (EPA, 1980). These guidelines were promulgated by EPA to provide a consistent approach to BACT and to ensure that the impacts of alternative emission control systems are measured by the same set of parameters. In addition, through implementation of these guidelines, BACT in one area may not be identical to BACT in another area. According to EPA (1980), "BACT analyses for the same types of emissions unit and the same pollutants in different locations or situations may determine that different control strategies should be applied to the different sites, depending on site-specific factors. Therefore, BACT analyses must be conducted on a case-by-case basis."

The BACT requirements are intended to ensure that the control systems incorporated in the design of a proposed facility reflect the latest in control technologies used in a particular industry and take into consideration existing and future air quality in the vicinity of the proposed facility. BACT must, as a minimum, demonstrate compliance with new source performance standards (NSPS) for a source (if applicable). An evaluation of the air pollution control techniques and systems, including a cost-benefit analysis of alternative control technologies capable of achieving a higher degree of emission reduction than the proposed control technology, is required. The cost-benefit analysis requires the documentation of the materials, energy, and economic penalties associated with the proposed and alternative control systems, as well as the environmental benefits derived from these systems. A decision on BACT is to be based on sound judgment, balancing environmental benefits with energy, economic, and other impacts (EPA, 1978).

Historically, a "bottom-up" approach consistent with the BACT Guidelines and PSD Workshop Manual has been used. With this approach, an initial control level, which is usually NSPS, is evaluated against successively more stringent controls until a BACT level is selected. However, EPA became concerned that the bottom-up approach was not providing the level of BACT decisions originally intended. As a result, in December 1987, the EPA Assistant Administrator for Air and Radiation mandated changes in the implementation of the PSD program, including the adoption of a new "top-down" approach to BACT decision making.

The top-down BACT approach essentially starts with the most stringent (or top) technology and emissions limit that have been applied elsewhere to the same or a similar source category. The applicant must next provide a basis for rejecting this technology in favor of the next most stringent technology or propose to use it. Rejection of control alternatives may be based on technical or economic infeasibility. Such decisions are made on the basis of physical differences (e.g., fuel type), locational differences (e.g., availability of water), or significant differences that may exist in the environmental, economic, or energy impacts. The differences between the proposed facility and the facility on which the control technique was applied previously must

be justified. EPA has issued a draft guidance document on the top-down approach entitled *Top-Down Best Available Control Technology Guidance Document* (EPA, 1990).

3.2.3 SOURCE IMPACT ANALYSIS

A source impact analysis must be performed for a proposed major source subject to PSD review for each pollutant for which the increase in emissions exceeds the significant emission rate (Table 3-2). The PSD regulations specifically provide for the use of atmospheric dispersion models in performing impact analyses, estimating baseline and future air quality levels, and determining compliance with AAQS and allowable PSD increments. Designated EPA models normally must be used in performing the impact analysis. Specific applications for other than EPA-approved models require EPA's consultation and prior approval. Guidance for the use and application of dispersion models is presented in the EPA publication Guideline on Air Quality Models (Revised). The source impact analysis for criteria pollutants that addresses compliance with AAQS and PSD Class II increments may be limited to the new or modified source if the net increase in impacts as a result of the new or modified source is below the significance levels, as presented in Table 3-1.

The EPA has proposed significant impact levels (SILs) for Class I areas. The NPS, as the designated agency for oversight in air quality impacts to Class I areas, has also recommended significant impact levels for PSD Class I areas. The EPA proposed Class I SILs are as follows:

Pollutant	Averaging Time	Proposed EPA PSD Class I Significant Impact Levels ($\mu g/m^3$)
SO_2	3-hour	1
	24-hour	0.2
	Annual	0.1
PM_{10}	24-hour	0.3
	Annual	0.2
NO_2	Annual	0.1

[a] $\mu g/m^3$ = micrograms per cubic meter.

Although these levels have not been officially promulgated as part of the PSD review process and may not be binding for states in performing PSD review, the proposed levels serve as a guideline in assessing a source's impact in a Class I area. The EPA action to incorporate Class I

significant impact levels in the PSD process is part of implementing NSR provisions of the 1990 CAA Amendments. Because the process of developing the regulations will be lengthy, EPA believes that the proposed rules concerning the significant impact levels is appropriate in order to assist states in implementing the PSD permit process.

Various lengths of record for meteorological data can be used for impact analysis. A 5-year period can be used with corresponding evaluation of highest, second-highest short-term concentrations for comparison to AAQS or PSD increments. The term "HSH" refers to the highest of the second-highest concentrations at all receptors (i.e., the highest concentration at each receptor is discarded). The second-highest concentration is significant because short-term AAQS specify that the standard should not be exceeded at any location more than once a year. If fewer than 5 years of meteorological data are used in the modeling analysis, the highest concentration at each receptor normally must be used for comparison to air quality standards.

The term "baseline concentration" evolves from federal and state PSD regulations and refers to a concentration level corresponding to a specified baseline date and certain additional baseline sources. By definition, in the PSD regulations as amended August 7, 1980, baseline concentration means the ambient concentration level that exists in the baseline area at the time of the applicable baseline date. A baseline concentration is determined for each pollutant for which a baseline date is established and includes:

1. The actual emissions representative of facilities in existence on the applicable baseline date; and
2. The allowable emissions of major stationary facilities that commenced construction before January 6, 1975, for SO_2 and PM (TSP) concentrations, or February 8, 1988, for NO_2 concentrations, but that were not in operation by the applicable baseline date.

The following emissions are not included in the baseline concentration and therefore affect PSD increment consumption:

1. Actual emissions from any major stationary facility on which construction commenced after January 6, 1975, for SO_2 and PM (TSP) concentrations, and after February 8, 1988, for NO_2 concentrations; and
2. Actual emission increases and decreases at any stationary facility occurring after the baseline date.

In reference to the baseline concentration, the term "baseline date" actually includes three different dates:

1. The major facility baseline date, which is January 6, 1975, in the cases of SO_2 and PM (TSP), and February 8, 1988, in the case of NO_2.
2. The minor facility baseline date, which is the earliest date after the trigger date on which a major stationary facility or major modification subject to PSD regulations submits a complete PSD application.
3. The trigger date, which is August 7, 1977, for SO_2 and PM (TSP), and February 8, 1988, for NO_2.

The minor source baseline date for SO_2 and PM (TSP) has been set as December 27, 1977, for the entire State of Florida [Rule 62-204.360(1) and (2), F.A.C.]. The minor source baseline for NO_2 has been set as March 28, 1988 [Rule 62-204.360(3), F.A.C.]. It should be noted that references to PM (TSP) are also applicable to PM_{10}.

3.2.4 AIR QUALITY MONITORING REQUIREMENTS

In accordance with requirements of 40 CFR 52.21(m) and Rule 62-212.400(5)(f), F.A.C., any application for a PSD permit must contain an analysis of continuous ambient air quality data in the area affected by the proposed major stationary facility or major modification. For a new major facility, the affected pollutants are those that the facility potentially would emit in significant amounts. For a major modification, the pollutants are those for which the net emissions increase exceeds the significant emission rate (see Table 3-2).

Ambient air monitoring for a period of up to 1 year generally is appropriate to satisfy the PSD monitoring requirements. A minimum of 4 months of data is required. Existing data from the

vicinity of the proposed source may be used if the data meet certain quality assurance requirements; otherwise, additional data may need to be gathered. Guidance in designing a PSD monitoring network is provided in EPA's *Ambient Monitoring Guidelines for Prevention of Significant Deterioration* (EPA, 1987a).

The regulations include an exemption that excludes or limits the pollutants for which an air quality analysis must be conducted. This exemption states that Florida DEP exempts a proposed major stationary facility or major modification from the monitoring requirements with respect to a particular pollutant if the emissions increase of the pollutant from the facility or modification would cause, in any area, air quality impacts less than the *de minimis* levels presented in Table 3-2 (Rule 62-212.400-3, F.A.C.).

3.2.5 SOURCE INFORMATION/GOOD ENGINEERING PRACTICE STACK HEIGHT

Source information must be provided to adequately describe the proposed project. The general type of information required for this project is presented in Section 2.0.

The 1977 CAA Amendments require that the degree of emission limitation required for control of any pollutant not be affected by a stack height that exceeds GEP or any other dispersion technique. On July 8, 1985, EPA promulgated final stack height regulations (EPA, 1985a). Identical regulations have been adopted by Florida DEP (Rule 62-210.550, F.A.C.). GEP stack height is defined as the highest of:

1. 65 m; or
2. A height established by applying the formula:

   $Hg = H + 1.5L$

   where: Hg = GEP stack height,

   H = Height of the structure or nearby structure, and

   L = Lesser dimension (height or projected width) of nearby structure(s); or
3. A height demonstrated by a fluid model or field study.

"Nearby" is defined as a distance up to five times the lesser of the height or width dimensions of a structure or terrain feature, but not greater than 0.8 km. Although GEP stack height regulations require that the stack height used in modeling for determining compliance with AAQS and PSD increments not exceed the GEP stack height, the actual stack height may be greater.

The stack height regulations also allow increased GEP stack height beyond that resulting from the above formula in cases where plume impaction occurs. Plume impaction is defined as concentrations measured or predicted to occur when the plume interacts with elevated terrain. Elevated terrain is defined as terrain that exceeds the height calculated by the GEP stack height formula.

3.2.6 ADDITIONAL IMPACT ANALYSIS

In addition to air quality impact analyses, federal and State of Florida PSD regulations require analyses of the impairment to visibility and the impacts on soils and vegetation that would occur as a result of the proposed source [40 CFR 52.21(o); Rule 62-212.400(5)(e), F.A.C.]. These analyses are to be conducted primarily for PSD Class I areas. Impacts as a result of general commercial, residential, industrial, and other growth associated with the source also must be addressed. These analyses are required for each pollutant emitted in significant amounts (Table 3-2).

3.3 NONATTAINMENT RULES

Based on the current nonattainment provisions (Rule 62-212.500, F.A.C.), all major new facilities and modifications to existing major facilities located in a nonattainment area must undergo nonattainment review. A new major facility is required to undergo this review if the proposed pieces of equipment have the potential to emit 100 TPY or more of the nonattainment pollutant. A major modification at a major facility is required to undergo review if it results in a significant net emission increase of 40 TPY or more of the nonattainment pollutant or if the modification is major (i.e., 100 TPY or more).

For major facilities or major modifications that locate in an attainment or unclassifiable area, the nonattainment review procedures apply if the source or modification is located within the area of influence of a nonattainment area. The area of influence is defined as an area that is outside the boundary of a nonattainment area but within the locus of all points that are 50 km outside the boundary of the nonattainment area. Based on Rule 62-2.500(2)(c)2.a., F.A.C., all VOC sources that are located within an area of influence are exempt from the provisions of NSR for nonattainment areas. Sources that emit other nonattainment pollutants and are located within the area of influence are subject to nonattainment review unless the maximum allowable emissions from the proposed source do not have a significant impact within the nonattainment area.

3.4 EMISSION STANDARDS

3.4.1 NEW SOURCE PERFORMANCE STANDARDS

The NSPS are a set of national emission standards that apply to specific categories of new sources. As stated in the CAA Amendments of 1977, these standards "shall reflect the degree of emission limitation and the percentage reduction achievable through application of the best technological system of continuous emission reduction the Administrator determines has been adequately demonstrated."

The proposed project will be subject to one or more NSPS. The CTs will be subject to 40 CFR Part 60, Subpart GG.

3.4.1.1 Combustion Turbine

The CTs will be subject to emission limitations covered under Subpart GG, which limits NO_x and SO_2 emissions from all stationary CTs with a heat input at peak load equal to 10.7 gigajoules per hour [10 million British thermal units per hour (mmBtu/hr)], based on the lower heating value of the fuel fired.

NO_x emissions are limited to 75 ppmvd corrected to 15 percent oxygen and heat rate while sulfur dioxide emissions are limited to using a fuel with a sulfur content of 0.8 percent. In

addition to emission limitations, there are requirements for notification, record keeping, reporting, performance testing and monitoring. These are summarized below:

40 CFR 60.7 Notification and Record Keeping

(a)(1) Notification of the date of construction - 30 days after such date.

(a)(2) Notification of the date of initial start-up - no more than 60 days or less than 30 days prior to date.

(a)(3) Notification of actual date of initial start-up - within 15 days after such date.

(a)(5) Notification of date which demonstrates continuous emission monitoring (CEM) - not less than 30 days prior to date.

60.7 (b) Maintain records of the start-up, shutdown, and malfunction quarterly.

(c) Excess emissions reports - by the 30th day following end of quarter. (required even if no excess emissions occur)

(d) Maintain file of all measurements for two years.

60.8 Performance Tests

(a) must be performed within 60 days after achieving maximum production rate but no later than 180 days after initial start-up.

(d) Notification of Performance tests at least 30 days prior to them occurring.

40 CFR Subpart GG

60.334 Monitoring of Operations

(a) continuous monitoring system required for water-to-fuel ratio to meet NSPS; system must be accurate within ±5 percent.

(b) Monitor sulfur and nitrogen content of fuel.

Oil - (1): each occasion that fuel is transferred to bulk storage tank.

Gas - (2): daily monitoring required

3.4.2 FLORIDA RULES

The Florida DEP regulations for new stationary sources are covered in the F.A.C. The Florida DEP has adopted the EPA NSPS by reference in Rule 62-204.800(7); subsection (b)39 for stationary gas turbines. Therefore, the project is required to meet the same emissions, performance testing, monitoring, reporting, and record keeping as those described in Section 3.4.1. DEP has authority for implementing NSPS requirements in Florida.

3.4.3 FLORIDA AIR PERMITTING REQUIREMENTS

The Florida DEP regulations require any new source to obtain an air permit prior to construction. Major new sources must meet the appropriate PSD and nonattainment requirements as discussed previously. Required permits and approvals for air pollution sources include NSR for nonattainment areas, PSD, NSPS, National Emission Standards for Hazardous Air Pollutants (NESHAP), Permit to Construct, and Permit to Operate. The requirements for construction permits and approvals are contained in Rules 62-4.030, 62-4.050, 62-4.052, 62-4.210, and 62-210.300(1), F.A.C. Specific emission standards are set forth in Chapter 62-296, F.A.C.

3.4.4 HAZARDOUS POLLUTANT REVIEW

The Florida DEP has published guidelines (DEP, 1995) to determine whether any emission of a potentially hazardous or toxic pollutant can pose a possible health risk to the public. Maximum concentrations for all regulated pollutants for which an ambient standard does not exist and all nonregulated hazardous pollutants can be compared to ambient reference concentrations (ARCs) for each applicable pollutant. If the maximum predicted concentrations for any hazardous pollutant is less than the corresponding ARC for each applicable averaging time, that emission is considered not to pose a significant health risk. The ARCs are not environmental standards but, rather, evaluation tools to determine if an apparent threat to the public health may exist. These levels are not used in permitting new sources.

3.4.5 LOCAL AIR REGULATIONS

Lee County does not have specific regulations regarding ambient air quality or air pollutant emissions. The Lee County Comprehensive Plan identifies goals and objectives (Goal 88: Air Quality), which indicate that the county should maintain the best possible air quality, meet or

be better than the ambient air quality standards, promote measures for preserving and improving current air quality, and maintain the present attainment status.

3.5 SOURCE APPLICABILITY

3.5.1 AREA CLASSIFICATION

The project site is located in Lee County, which has been designated by EPA and DEP as an attainment area for all criteria pollutants. Lee County and surrounding counties are designated as PSD Class II areas for SO_2, PM (TSP) , and NO_2. The nearest Class I area to the site is the Everglades National Park (NP) which is about 97.2 km (60.8 miles) from the site.

3.5.2 PSD REVIEW

3.5.2.1 Contemporaneous Emission Increases and Decreases

The proposed project is considered to be a modification of a major facility because the facility emissions exceed the PSD major threshold and that potential emissions from at least one regulated pollutant emitted by the new project is estimated to exceed the PSD significant emission rate. PSD review would be required for any pollutant for which the emissions of the proposed project and contemporaneous emission increases and decreases, exceed the PSD significant emission rates. As shown in Table 3-3, potential emissions from the proposed Project for NO_x, CO, PM (TSP), PM_{10}, SO_2, and sulfuric acid mist plus the actual net facility emission decreases of the Repowering Project, do not trigger PSD review. Because the proposed project's impacts for these pollutants are predicted to be below the significant impact levels, a modeling analysis incorporating the impacts from other sources is not required. [Note: EPA has promulgated changes to the PSD Rules to eliminate hazardous air pollutants (HAPs) from PSD review. The pollutants, vinyl chloride, mercury, asbestos, and beryllium, are no longer evaluated in PSD review.]

3.5.2.2 Emission Standards

The applicable NSPS for the CTs is 40 CFR Part 60, Subpart GG. The proposed emissions for the turbines will be well below the specified limits (see Section 4.0). There are no applicable NSPs for the dual fired fuel heaters.

3.5.2.3 Ambient Monitoring

Based on the estimated pollutant emissions from the proposed Project and contemporaneious emission decreases, a pre-construction ambient air quality monitoring analysis is not required for any regulated pollutant.

3.5.2.4 GEP Stack Height Impact Analysis

The GEP stack height regulations allow any stack to be at least 65 m [213 feet (ft)] high. The CT stacks for the project will be 80 ft. This stack height does not exceed the GEP stack height. However, as discussed in Section 6.0, Air Quality Modeling Approach, since the stack height is less than GEP, building downwash effects must be considered in the modeling analysis. As a result, the potential for downwash of the CTs' emissions caused by nearby structures are included in the modeling analysis.

3.5.3 NONATTAINMENT REVIEW

The project site is located in Lee County, which is classified as an attainment area for all criteria pollutants. Therefore, nonattainment requirements are not applicable.

3.5.4 OTHER CAA REQUIREMENTS

The 1990 CAA Amendments established a program to reduce potential precursors of acidic deposition. The Acid Rain Program was delineated in Title IV of the CAA Amendments and required EPA to develop the program. EPA's final regulations were promulgated on January 11, 1993, and included permit provisions (40 CFR Part 72), an allowance system (Part 73), CEM (Part 75), excess emission procedures (Part 77), and appeal procedures (Part 78).

EPA's Acid Rain Program applies to all existing and new utility units except those serving a generator less than 25 MW, existing simple cycle CTs, and certain non-utility facilities; units which fall under the program are referred to as affected units. The EPA regulations would be applicable to the proposed project for the purposes for obtaining a permit and allowances, as well as emission monitoring. New units are required to obtain permits under the program by submitting a complete application 24 months before the later of January 1, 2000, or the date on which the unit begins serving an electric generator (greater than 25 MW).

The permit would provide SO_2 and NO_x emission limitations and the requirement to hold emission allowances. Emission limitations established in the Acid Rain Program are presumed to be less stringent than BACT or lowest achievable emission rate (LAER) for new units. An allowance is a market-based financial instrument that is equivalent to 1 ton of SO_2 emissions. Allowances can be sold, purchased, or traded. For the proposed project, SO_2 allowances will be obtained from the market.

CEM for SO_2 and NO_x is required for gas-fired and oil-fired affected units. When an SO_2 CEM is selected to monitor SO_2 mass emissions, a flow monitor is also required. Alternately, SO_2 emissions may be determined using procedures established in Appendix D, 40 CFR Part 75 (flow proportional oil sampling or manual daily oil sampling). CO_2 emissions must also be determined either through a CEM (e.g., as a diluent for NO_x monitoring) or calculation. Alternate procedures, test methods, and quality assurance/quality control (QA/QC) procedures for CEM are specified (Part 75, Appendices A through I). The CEM requirements including QA/QC procedures are, in general, more stringent than those specified in the NSPS for Subpart GG. New units are required to meet the requirements by the later of January 1, 1995, or not later than 90 days after the unit commences commercial operation.

The EPA has, and is currently developing, emissions standards for HAPs for various industrial categories. These new National Emission Standards for Hazardous Air Pollutants (NESHAPs) that result from the 1990 CAA Amendments are based on the use of Maximum Achievable Control Technology (MACT). The adopted standards are contained in 40 CFR 63. New sources that emit more than 10 TPY of a single HAP or 25 TPY of total HAPs are required to apply MACT for the promulgated industrial category or to obtain a case-by-case MACT determination from the applicable regulatory authority after submitting a MACT analysis. EPA is currently developing NESHAP for stationary combustion turbines. The proposed NESHAP are anticipated in late 2000 with promulgation in early 2002. For the Project, emissions of HAPs will be less than 10 TPY of a single HAP and 25 TPY of all HAPs.

Table 3-1. National and State AAQS, Allowable PSD Increments, and Significant Impact Levels

Pollutant	Averaging Time	AAQS ($\mu g/m^3$)			PSD Increments ($\mu g/m^3$)		Significant Impact Levels ($\mu g/m^3$) [b]
		Primary Standard	Secondary Standard	Florida	Class I	Class II	
Particulate Matter[c] (PM_{10})	Annual Arithmetic Mean	50	50	50	4	17	1
	24-Hour Maximum	150	150	150	8	30	5
Sulfur Dioxide	Annual Arithmetic Mean	80	NA	60	2	20	1
	24-Hour Maximum[a]	365	NA	260	5	91	5
	3-Hour Maximum[a]	NA	1,300	1,300	25	512	25
Carbon Monoxide	8-Hour Maximum[a]	10,000	10,000	10,000	NA	NA	500
	1-Hour Maximum[a]	40,000	40,000	40,000	NA	NA	2,000
Nitrogen Dioxide	Annual Arithmetic Mean	100	100	100	2.5	25	1
Ozone[c]	8-Hour Maximum[d]	157	157	157	NA	NA	NA
Lead	Calendar Quarter Arithmetic Mean	1.5	1.5	1.5	NA	NA	NA

Note: Particulate matter (PM_{10}) = particulate matter with aerodynamic diameter less than or equal to 10 micrometers.
NA = Not applicable, i.e., no standard exists.

[a] Short-term maximum concentrations are not to be exceeded more than once per year.

[b] Maximum concentrations are not to be exceeded.

[c] On July 18, 1997, EPA promulgated revised AAQS for particulate matter and ozone. For particulate matter, $PM_{2.5}$ standards were introduced with a 24-hour standard of 65 g/m^3 (3-year average of 98th percentile) and an annual standard of 15 g/m^3 (3-year average at community monitors). These standards have been stayed by a court case against EPA; implementation of these standards appears to be years away.

[d] 0.08 parts per million (ppm); achieved when 3-year average of 99th percentile is 0.08 ppm or less. These have been stayed by a court case against EPA. EPA is appealing. The 1-hour standard of 0.12 ppm is still applicable. FDEP has not yet adopted the new standards.

Sources: Federal Register, Vol. 43, No. 118, June 19, 1978.; 40 CFR 50; 40 CFR 52.21.; Chapter 62-204, F.A.C.

Table 3-2. PSD Significant Emission Rates and *De Minimis* Monitoring Concentrations

Pollutant	Regulated Under	Significant Emission Rate (TPY)	*De Minimis* Monitoring Concentration[a] (µg/m3)
Sulfur Dioxide	NAAQS, NSPS	40	13, 24-hour
Particulate Matter [PM (TSP)]	NSPS	25	10, 24-hour
Particulate Matter (PM_{10})	NAAQS	15	10, 24-hour
Nitrogen Dioxide	NAAQS, NSPS	40	14, annual
Carbon Monoxide	NAAQS, NSPS	100	575, 8-hour
Volatile Organic Compounds (Ozone)	NAAQS, NSPS	40	100 TPY[b]
Lead	NAAQS	0.6	0.1, 3-month
Sulfuric Acid Mist	NSPS	7	NM
Total Fluorides	NSPS	3	0.25, 24-hour
Total Reduced Sulfur	NSPS	10	10, 1-hour
Reduced Sulfur Compounds	NSPS	10	10, 1-hour
Hydrogen Sulfide	NSPS	10	0.2, 1-hour
Mercury	NESHAP	0.1	0.25, 24-hour
MWC Organics	NSPS	$3.5x10^{-6}$	NM
MWC Metals	NSPS	15	NM
MWC Acid Gases	NSPS	40	NM
MSW Landfill Gases	NSPS	50	NM

Note: Ambient monitoring requirements for any pollutant may be exempted if the impact of the increase in emissions is below *de minimis* monitoring concentrations.

NAAQS = National Ambient Air Quality Standards
NM = No ambient measurement method established; therefore, no *de minimis* concentration has been established.
NSPS = New Source Performance Standards
NESHAP = National Emission Standards for Hazardous Air Pollutants
g/m^3 = micrograms per cubic meter
MWC = Municipal waste combustor
MSW = Municipal solid waste

[a] Short-term concentrations are not to be exceeded.
[b] No *de minimis* concentration; an increase in VOC emissions of 100 TPY or more will require monitoring analysis for ozone.
[c] Any emission rate of these pollutants.

Sources: 40 CFR 52.21.
Rule 62-212.400

Table 3-3. Net Emission Changes Due to the Proposed FPL Fort Myers Simple Cycle CT Project Compared to the PSD Significant Emission Rates

Pollutant	Pollutant Emissions (TPY) from Repowered Facility					
	Actual Emissions	Repowering Project	Simple Cycle CT Project[a]	Net Emissions Change	Significant Emission Rate	PSD Review
Sulfur Dioxide	20,561	137	91	-20,333	40	No
Particulate Matter [PM(TSP)]	607	313	91	-203	25	No
Particulate Matter (PM_{10})	607	290	91	-225	15	No
Nitrogen Dioxide	7,095	1,845	741	-4,509	40	No
Carbon Monoxide	1,507	1,267	280	40	100	No
Volatile Organic Compounds	46.7	82.2	26	62	40	Yes
Lead	0.05	NEG	NEG	NEG	0.6	No
Sulfuric Acid Mist	915	20.7	--	-894	7	No
Total Fluorides	58	NEG	NEG	-58	3	No
Total Reduced Sulfur	NEG	NEG	NEG	–	10	No
Reduced Sulfur Compounds	NEG	NEG	NEG	–	10	No
Hydrogen Sulfide	NEG	NEG	NEG	–	10	No
Mercury	0.021	<0.0001	<0.0001	-0.021	0.1	No
MWC Organics (as 2,3,7,8-TCDD)	$8.7x10^{-8}$	$5.9x10^{-8}$	NEG	$-2.8x10^{-8}$	$3.5x10^{-6}$	No
MWC Metals (as Be and Cd)	0.0513	NEG	NEG	-0.0153	15	No
MWC Acid Gases (as HCl)	25.1	NEG	NEG	-25.1	40	No

Note: NEG = Negligible; MWC= Municipal Waste Combustor

[a] Based on emissions when operating at base load at 59°F; firing natural gas for 7,760 hours per year, firing oil for 500 hours per year, and operating at HPM for 500 hours per year. Total of 2 GE FRAME F CTs.

Table 3-4. Predicted Net Increase in Impacts Due to the Proposed Fort Myers Simple Cycle CT Project Compared to PSD *De Minimis* Monitoring Concentrations

Pollutant[a]	Concentration ($\mu g/m^3$)	
	Predicted Increase in Impacts[b]	*De Minimis* Monitoring Concentration; Averaging Period
Volatile Organic Compounds (VOCs)	26 TPY	100 TPY
Sulfur Dioxide	0.68	13; 24-hour
Particulate Matter (PM_{10})	0.15	10; 24-hour
Nitrogen Dioxide	0.16	14; annual
Carbon Monoxide	1.5	575; 8-hour

Note: NA = not applicable.
NM = no ambient measurement method.
TPY = tons per year.

[a] The only pollutant triggering PSD review is VOCs. The impacts of SO_2, PM_{10}, NO_2, and CO are shown for informational purposes.

[b] See Section 6.0 for air dispersion modeling results.

4.0 CONTROL TECHNOLOGY DESCRIPTION

4.1 NITROGEN OXIDES

The CT proposed for the project will utilize advanced dry low-NO_x combustors at an emission rate of 10.5 ppmvd corrected to 15 percent O_2 for natural gas firing. Water injection is proposed for fuel oil firing at an emission rate of 42 ppmvd corrected to 15-percent O_2.

Dry low-NO_x combustor technology has been offered and installed by manufacturers to reduce NO_x emissions by inhibiting thermal NO_x formation through premixing fuel and air prior to combustion and providing staged combustion to reduce flame temperatures. NO_x emission rates of 25 ppmvd (corrected to 15 percent O_2) and less have been offered by manufacturers for advanced combustion turbines. Advanced in this context is the larger (over 150 MW) and more efficient (higher initial firing temperatures and lower heat rate) combustion turbines. This technology is truly pollution prevention since NO_x emissions are inhibited from forming.

The permitting trend for advanced (i.e., Frame "F" class) simple cycle combustion turbines is the use of dry low-NO_x combustors. At least five projects in Florida (Florida Power & Light Martin Peaking Units; Oleander Power Project; IPS Shady Hills and Vandolah Projects, and Osceola Power Project) have been permitted using this technology.

This type of machine advances the state-of-the-art for CTs by being more efficient and less polluting than previous CTs. Integral to the machine's design is dry low-NO_x combustors that prevent the formation of air pollutants within the combustion process, thereby eliminating the need for add-on controls that can have detrimental effects on the environment. An analogy of this technology is a more efficient automotive engine that gives better mileage and reduces pollutant formation without the need of a catalytic converter.

An advanced gas turbine is unique from an engineering perspective in two ways. First, the advanced machine is larger and has higher initial firing (i.e., combustion) temperatures than conventional turbines. This results in a larger, more thermally efficient machine. For example, the electrical generating capability of the selected Class F advanced machine is about 170 MW

compared to 70 to 120 MW for conventional machines. The higher initial firing temperature (i.e., 2,400°F) results in about 10 percent more electrical energy produced for the same amount of fossil fuel used in conventional machines. This has the added advantage of producing lower air pollutant emissions (e.g., NO_x, PM, and CO) for each MW generated. While the increased firing temperature increases the thermal NO_x generated, this NO_x increase is controlled through combustor design.

The second unique attribute of the advanced machine is the use of dry low-NO_x combustors that will reduce NO_x emissions to 9 ppmvd corrected to 15 percent O_2. Thermal NO_x formation is inhibited by using staged combustion techniques where the natural gas and combustion air are premixed prior to ignition. This level of control will result in NO_x emissions of about 0.03 lb/10^6 Btu, which is significantly less than the emission rate from the existing fossil-fuel-fired steam generators.

The GE Frame 7FA will be equipped with the GE dry low-NO_x 2.6 (DLN-2.6) combustion system that regulates the distribution of fuel delivery to a multi-nozzle, total premix combustor arrangement. The fuel flow distribution to each combustion system fuel nozzle is regulated to maintain unit load and optimum turbine emissions. The DLN-2.6 combustion system consists of six fuel nozzles per combustion can, with each operating as a fully premixed combustor. Of the six nozzles, five are located radially and one is in the center. The fuel system is fully automated and sequences the DLN-2.6 combustion system through a number of staging modes prior to reaching full load. The GE Frame 7FA has 14 combustors per turbine. GE has guaranteed 9 ppmvd corrected to 15 percent oxygen for the Fort Myers Project. Similar systems have been field tested at or below 9 ppmvd corrected to 15 percent O_2. An emission limit of 9 ppmvd corrected to 15 percent O_2 on a 30-day rolling average basis is being requested. This provides some margin for operation in future years while still providing considerable reduction in NO_x emissions from the facility.

4.2 CARBON MONOXIDE

Emissions of CO are dependent upon the combustion design, which is a result of the manufacturer's operating specifications, including the air-to-fuel ratio, staging of combustion

and the amount of water injected (i.e., for oil firing). The CTs proposed for the project have designs to optimize combustion efficiency and minimize CO as well as NO_x emissions. The emissions limit proposed for CO is 9 ppmvd for natural gas firing and 20 ppmvd for fuel oil firing, which is within the range of limits established as BACT for other projects. FDEP approved an emission limits up to 25 ppmvd for the simple cycle projects. GE has guaranteed for base load operation 9 ppmvd and 20 ppmvd for natural gas and fuel oil firing, respectively, for the Fort Myers Project. The requested limit provides additional margin while still reducing CO emissions from the facility.

4.3 VOLATILE ORGANIC COMPOUNDS-BACT

VOCs will be emitted by the CT as a result of incomplete combustion. Emissions of VOCs will be limited by the use of combustion technology and clean fuels so that emissions will not exceed 1.5 ppmvd with natural gas firing and 3.5 ppmvw for fuel oil firing. These emission levels have been established as BACT emission levels established for other similar sources. Combustion controls and the use of clean fuels have been overwhelmingly approved as BACT for CTs. The environmental effect of further reducing emissions would not be significant.

Good combustion practices and combustion design, and catalytic oxidation are the control alternatives viable for the project. Combustion design and good combustion practices are the common techniques used to control VOC emissions. Sufficient time turbulence, temperature, and turbulence is required within the combustion zone to maximize combustion efficiency and minimize VOC emissions.

In an oxidation catalyst control system, VOC emissions are reduced by allowing unburned VOC to react with oxygen at the surface of a precious metal catalyst, such as platinum. Combustion of VOC starts at about 300°F with efficiencies of approximately 40 percent occurring at temperatures above 600°F according to catalyst manufacturer Englehard.

For combustion turbines, the oxidation catalyst can be located directly after the CT. Catalyst size depends upon the exhaust flow, temperature, and desired efficiency. The existing oxidation catalyst applications primarily have been limited to smaller cogeneration facilities burning

natural gas. Oxidation catalyst have not been used on oil fired CTs. The use of sulfur-containing fuels in an oxidation catalyst system would result in an increase of SO_3 emissions and concomitant corrosive effects of the stack. In addition, trace metals in the fuel could result in catalyst poisoning during prolonged periods of operation.

Since the units may likely require numerous startups, during simple-cycle operation, variations in exhaust conditions will influence catalyst life and performance. Very little technical data exist to demonstrate the effect of such cycling.

4.3.1.1 Economic

Table 4-1 and 4-2 present the capital and annualized cost for an oxidation catalyst applied to simple cycle operation. The estimated annualized cost of an oxidation catalyst is $703,400 per unit, resulting in a cost effectiveness of nearly $133,800 per ton of VOC removed for a control efficiency of 40 percent. Indeed, even if an unrealistic 90 percent control of VOCs is assumed the resulting cost effectiveness is nearly $60,000 per ton of VOC removed. The cost effectiveness is based on 7,760 hours per year firing natural gas at base load, 500 hours per year firing natural gas at high power mode, and 500 hours per year firing distillate oil. No cost are associated with good combustion practices or combustion techniques since they are inherent in the design.

4.3.1.2 Environmental

Experience with similar projects indicate that the air quality impacts of both oxidation catalyst control and good combustion practice would be well below any significant impact levels. Therefore, no significant environmental benefit would be realized by the installation of an oxidation catalyst. Indeed there would be additional particulate and secondary emissions as a result of an oxidation catalyst. The particulate would result from the conversion of SO_2 to sulfates, and the secondary emissions would result from the heat rate reduction.

4.3.1.3 Energy

An energy penalty would result from the pressure drop across the catalyst bed. A pressure drop of about 2 inches water gauge would be expected. At a catalyst back pressure of about two inches, an energy penalty of about 3,150,096 kWhr/year would result at 100 percent load. The

energy penalty is sufficient to supply the electrical needs of about 260 residential customers. To replace this lost energy, about 3.1×10^{10} or about 31 mmcf/year of natural gas would be required.

4.3.1.4 Proposed BACT

Combustion design and good combustion practices are proposed as BACT, as there are adverse technical and economic consequences of using catalytic oxidation on CTs. The proposed BACT emission rates for VOC will not exceed 1.5 ppmvw when firing natural gas and 3.5 ppmvw when firing distillate oil at baseload conditions. Catalytic oxidation is considered unreasonable for the following reasons:

1. Catalytic oxidation will not produce measurable improvement in air quality.
2. The economic impact are significant (i.e., the capital cost is about 1.62 million per unit, with an annualized cost of $703,400 per year per unit.); and
3. Recent projects in Florida have been authorized with BACT emission limits of 1.5 ppmvw and 3.5 ppmvw for natural gas and oil firing respectively.

Combustion design is proposed as BACT as a result of the technical and economic consequences of using catalytic oxidation of CTs. Catalytic oxidation is considered unreasonable since it will not produce a measurable reduction in air quality impacts. The cost of an oxidation catalyst would be significant and not be cost effective given the maximum proposed emission limits.

4.4 PM/PM_{10}, SO_2, AND OTHER REGULATED AND NONREGULATED POLLUTANT EMISSIONS

The PM/PM_{10} emissions from the CTs are a result of incomplete combustion and trace elements in the fuel. The design of the CT ensures that particulate emissions will be minimized by combustion controls and the use of natural gas.

4.5 PROPOSED EMISSION LIMITS

Table 4-3 presents a summary of the emission limits proposed for the project including averaging times and compliance methods.

Table 4-1. Direct and Indirect Capital Costs for CO Catalyst, General Electric Frame F Simple Cycle

Cost Component	Costs	Basis of Cost Component
Direct Capital Costs		
CO Associated Equipment	$780,000	Vendor Quote
Flue Gas Ductwork	$49,088	Vatavauk,1990
Instrumentation	$78,000	10% of CO Associated Equipment
Sales Tax	$46,800	6% of CO Associated Equipment/Catalyst
Freight	$39,000	5% of CO Associated Equipment/Catalyst
Total Direct Capital Costs (TDCC)	$992,888	
Direct Installation Costs		
Foundation and supports	$79,431	8% of TDCC and RCC;OAQPS Cost Control Manual
Handling & Erection	$139,004	14% of TDCC and RCC;OAQPS Cost Control Manual
Electrical	$39,716	4% of TDCC and RCC;OAQPS Cost Control Manual
Piping	$19,858	2% of TDCC and RCC;OAQPS Cost Control Manual
Insulation for ductwork	$9,929	1% of TDCC and RCC;OAQPS Cost Control Manual
Painting	$9,929	1% of TDCC and RCC;OAQPS Cost Control Manual
Site Preparation	$5,000	Engineering Estimate
Buildings	$0	
Total Direct Installation Costs (TDIC)	$302,866	
Total Capital Costs	$1,295,754	Sum of TDCC, TDIC and RCC
Indirect Costs		
Engineering	$99,289	10% of Total Capital Costs; OAQPS Cost Control Manual
Construction and Field Expense	$49,644	5% of Total Capital Costs; OAQPS Cost Control Manual
Contractor Fees	$99,289	10% of Total Capital Costs; OAQPS Cost Control Manual
Start-up	$19,858	2% of Total Capital Costs; OAQPS Cost Control Manual
Performance Tests	$9,929	1% of Total Capital Costs; OAQPS Cost Control Manual
Contingencies	$29,787	3% of Total Capital Costs; OAQPS Cost Control Manual
Total Indirect Capital Cost (TInDC)	$307,795	
Total Direct, Indirect and Capital Costs (TDICC)	$1,603,549	Sum of TCC and TInCC
Mass Flow of Combustion Turbine	3,600,000 lb/hr	"F"

Table 4-2. Annualized Cost for VOC Catalyst, General Electric Frame F Simple Cycle Mode

Cost Component	Cost	Basis of Cost Estimate
Diirect Annual Costs		
Operating Personnel	$6,240	8 hours/week at $15/hr
Supervision	$936	15% of Operating Personnel;OAQPS Cost Control Manual
Catalyst Replacement	$224,667	3 year catalyst life; base on Vendor Budget Quote
Inventory Cost	$28,548	Capital Recovery (10.98%) for 1/3 catalyst
Contingency	$7,812	3% of Direct Annual Costs
Total Direct Annual Costs (TDAC)	268,202	
Energy Costs		
Heat Rate Penalty	$222,767	0.2% of MW output; EPA, 1993 (Page 6-20) and $3/mmBtu addl fuel costs
Total Energy Costs (TDEC)	$222,767	
Indirect Annual Costs		
Overhead	$4,306	60% of Operating/Supervision Labor
Property Taxes	$16,035	1% of Total Capital Costs
Insurance	$16,035	1% of Total Capital Costs
Annualized Total Direct Capital	$176,070	10.98% Capital Recy Factor of 7% over 15 yrs times sum of TDICC
Total Indirect Annual Costs	$212,446	
Total Annualized Costs	$703,416	Sum of TDAC, TEC and TIAC
Cost Effectiveness	$133,844	VOC Emission Reduction ($/ton of VOC removed)

Table 4-3. Proposed Emission Limits for the CTs Associated with the Fort Myers Repowering Project

Pollutant	Proposed Limit (Natural Gas)	Proposed Limit (Fuel Oil)	Averaging Time	Compliance Method
Nitrogen Oxides	10.5 ppmvd[a]	42 ppmvd[a]	30-day rolling average	Part 75 CEM
Carbon Monoxide	9 ppmvd	20 ppmvd	Initial compliance test	EPA Method 10
Sulfur Dioxide	1 grain per 100 scf	0.05 percent[b]	Annual Average	Supplier analyses
Volatile Organic Compounds	1.5 ppmvd	3.5 ppmvw	Initial compliance test	EPA Method 25A
Particulate Matter	10 percent opacity or less	10-percent opacity or less	6-minute average	EPA Method 9

Note: ppmvd = parts per million (volume), dry

[a] Corrected to 15-percent O_2

[b] Percent sulfur in fuel oil

5.0 AMBIENT MONITORING DATA

The Fort Myers Plant is located in a rural area of Lee County which has a minimal number of air pollution sources. A number of air monitoring stations have operated in the county over the past several years to measure air concentrations from existing sources. A summary of the maximum pollutant concentrations measured in Lee County and used in the evaluation of the Fort Myers Repowering Project is presented in Table 5-1. The monitoring locations are presented in Figure 5-1. These data indicate that the maximum PM_{10} and O_3 concentrations measured in the county are well below applicable standards.

Recent measurements through July 1998 also show that the maximum O_3 concentrations are below the AAQS. The highest and second-highest 1-hour average O_3 concentrations at the Cape Coral monitoring site were 0.117 and 0.109 ppm, respectively. At the Fort Myers Beach site (intersection of School and Bay Streets), the highest and second-highest 1-hour O_3 concentrations were 0.103 and 0.102 ppm, respectively.

In addition to the monitors in Lee County, FDEP operates a PM_{10} ambient monitor in Naples, Collier County, about 48 km (30 miles) to south of the plant site. The maximum concentrations from this monitoring station are well below the applicable ambient standards. No other FDEP-operated ambient air monitoring stations are located in adjacent counties.

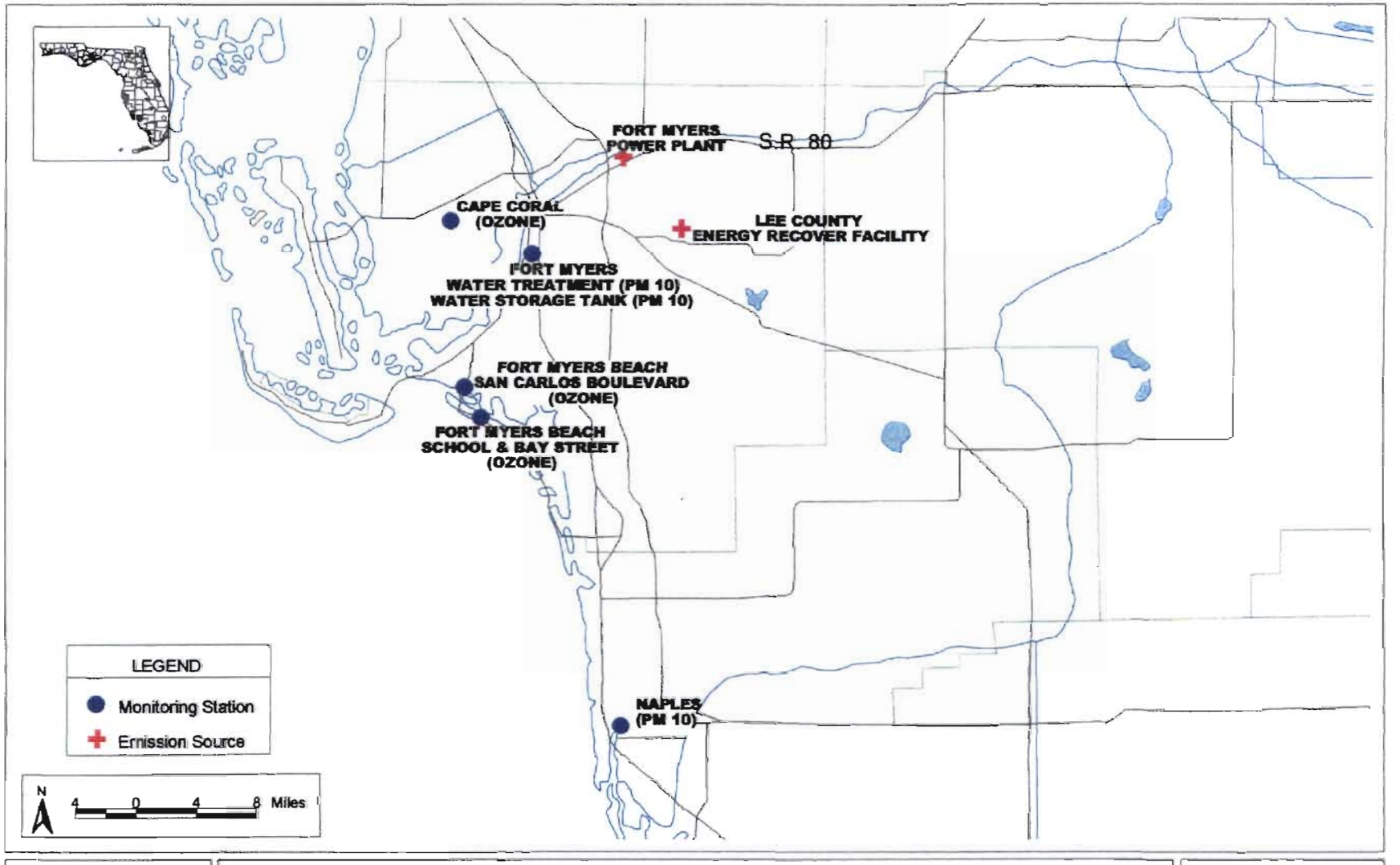
Given the lack of industrial development in the vicinity of the plant, existing concentrations of other criteria pollutants, i.e., SO_2, NO_2, CO, and Pb, which are usually associated with an urban environment, are expected to be well below the AAQS.

Table 5-1. Summary of Maximum PM_{10} and O_3 Concentrations Measured in Lee and Collier Counties, 1994 to 1997

Saroad Site No.	Operator	Location [a]	Measurement Period: Year	Measurement Period: Months	Number of Observations	Concentration (ppm) 1-Hour: Highest	Concentration (ppm) 1-Hour: Second-Highest	Concentration ($\mu g/m^3$) 24-Hour: Highest	Concentration ($\mu g/m^3$) 24-Hour: Second-Highest	Concentration ($\mu g/m^3$) Period: Average
PM_{10}										
		Florida AAQS				**NA**	**NA**	**NA**	**150**	**50**
Lee County										
1300-005-F01	FDEP	Fort Myers/ Water Treatment Plant	1994	Oct-Dec	11	NA	NA	22	22	13
			1995	Jan-Dec	59	NA	NA	59	30	16
			1996	Jan-Dec	57	NA	NA	65	38	17
			1997	Jan-Dec	58	NA	NA	38	33	18
1300-005-F09	FDEP	Fort Myers/ Water Storage Tank	1994	Nov-Dec	9	NA	NA	23	17	12
			1995	Apr-Dec	60	NA	NA	59	29	16
			1996	Jan-Dec	50	NA	NA	65	38	17
			1997	Jan-Dec	53	NA	NA	38	33	17
Collier County										
1300-005-F09	FDEP	Naples/ East Naples, Fire Dept.	1995	Jan-Dec	59	NA	NA	65	34	16
			1996	Jan-Dec	56	NA	NA	60	45	16
			1997	Jan-Dec	58	NA	NA	46	37	18
Ozone										
		Florida AAQS				**NA**	**0.12**	**NA**	**NA**	**NA**
Lee County										
0475-001-F01	FDEP	Cape Coral/ 1111 SE Sixth Court	1994	Jan-Dec	8,592	0.093	0.092	NA	NA	NA
			1995	Jan-Dec	8,544	0.092	0.086	NA	NA	NA
			1996	Jan-Dec	8,448	0.074	0.072	NA	NA	NA
			1997	Jan-Dec	8,533	0.081	0.076	NA	NA	NA
1304-001-F01	FDEP	Fort Myers Beach/ 17891 San Carlos Boulevard	1994	Jan-Dec	8,480	0.092	0.090	NA	NA	NA
			1995	Jan-Dec	6,986	0.089	0.088	NA	NA	NA
1304-002-F01	FDEP	Fort Myers Beach/ Intersection of School and Bay	1995	Oct-Dec	1,433	0.066	0.065	NA	NA	NA
			1996	Jan-Dec	8,636	0.089	0.080	NA	NA	NA
			1997	Jan-Dec	8,655	0.098	0.083	NA	NA	NA

Note: NA = not applicable.
AAQS = ambient air quality standard.

[a] See Figure 5-1 for station locations



FORT MYERS REPOWERING PROJECT

Figure 5-1
Location of Ambient Air Quality Monitoring Stations and Air Emission Sources

FPL

6.0 AIR QUALITY IMPACT ANALYSIS

6.1 GENERAL MODELING ANALYSIS APPROACH

The general modeling approach followed EPA and FDEP modeling guidelines for determining compliance with the AAQS and PSD increments. For this project, the net emissions changes will be less than the PSD significant emission rates. As a result, an air quality impact analysis is not required by FDEP new source review air regulations. However, as a supplement to the air permit application, air quality impacts were estimated for the future plant configuration. This includes the impacts due to the proposed CTs, the repowered units (6 combined-cycle CTs), 12 existing gas turbines, and the cooling tower in the vicinity of the FPL Fort Myers plant site following FDEP policies. As total PSD increment consumption was addressed in detail for the repowering project, compliance with allowable PSD increments is not addressed in this report.

A significant impact analysis was performed to determine whether the proposed CT's alone will result in predicted impacts that will exceed the EPA significant impact levels at any off-plant property areas in the vicinity of the plant.

Generally, if a new project also is within 150 km of a PSD Class I area, then a significant impact analysis is also performed for the PSD Class I area. EPA has proposed PSD Class I significant impact levels that have not been finalized as of this report. Because the FPL Fort Myers site is approximately 95 km from the Everglades National Park PSD Class I area, an assessment of the proposed CTs was performed at this area.

An air quality impact assessment was performed for the power plant's future operations. The worst case future emission scenario will include the proposed two simple-cycle CTs firing fuel oil, the 6 repowered units in combined-cycle mode (these units only fire natural gas), the repowered project cooling tower, and the existing GTs. For these operations, the buildings for Units 1 and 2 would no longer be in existence.

6.2 PRECONSTRUCTION MONITORING ANALYSIS APPROACH

A proposed major stationary facility or major modification may be exempt from the monitoring requirements with respect to a particular pollutant if the emissions increase of the pollutant from the facility or modification would cause, in any area, air quality impacts (or in the case of VOCs, emission) less than the *de minimis* levels. As presented in Section 3.0, since the project's VOC emissions are lower than the *de minimis* VOC emission level, the project is exempt from preconstruction ambient monitoring requirements.

6.3 AIR MODELING ANALYSIS APPROACH

6.3.1 GENERAL PROCEDURES

As stated in the previous sections, for each pollutant which is emitted above the significant emission rate, air modeling analyses are required to determine if the project's impacts are predicted to be greater than the significant impact levels. These analyses consider the project's impacts alone. Air quality impacts are predicted using 5 years of meteorological data and selecting the highest annual and the highest short-term concentrations for comparison to the significant impact levels.

If the project's impacts are greater than the significant impact levels, the air modeling analyses must consider other nearby sources and background concentrations, and calculate the cumulative impact of these sources for comparison to ambient standards. In general, when 5 years of meteorological data are used in the analysis, the highest annual and the HSH concentrations are compared to the applicable AAQS and allowable PSD increments. The HSH concentration is calculated for a receptor field by:

1. Eliminating the highest concentration predicted at each receptor,
2. Identifying the second-highest concentration at each receptor, and
3. Selecting the highest concentration among these second-highest concentrations.

This approach is consistent with air quality standards and allowable PSD increments, which permit a short-term average concentration to be exceeded once per year at each receptor.

To develop the maximum short-term concentrations for the proposed project, the modeling approach was divided into screening and refined phases to reduce the computation time required to perform the modeling analysis. For this study, the only difference between the two modeling phases is the density of the receptor grid spacing employed when predicting concentrations. Concentrations are predicted for the screening phase using a coarse receptor grid and a 5-year meteorological data record.

Refinements of the maximum predicted concentrations are typically performed for the receptors of the screening receptor grid at which the highest and/or HSH concentrations occurred over the 5-year period. Generally, if the maximum concentration from other years in the screening analysis are within 10 percent of the overall maximum concentration, then those other concentrations are refined as well. Typically, if the highest and HSH concentrations are in different locations, concentrations in both areas are refined.

Modeling refinements are performed for short-term averaging times by using a denser receptor grid, centered on the screening receptor at which the maximum concentration was predicted. The angular spacing between radials is reduced from 0.25 to 2 degrees, so that the angular spacing between adjacent receptor is 100 m or less. Also, the radial distance interval between receptors is 100 m. If the maximum screening concentration is located on the plant property boundary, additional plant boundary receptors are input, spaced at a 2-degree angular interval and centered on the screening receptor. The domain of the refinement grid will extend to all adjacent screening receptors. The air dispersion model is then executed with the refined grid for the entire year of meteorology during which the screening concentration occurred. This approach is used to ensure that a valid highest concentration is obtained. A more detailed description of the model, along with the emission inventory, meteorological data, and screening receptor grids are presented in the following sections.

6.3.2 MODEL SELECTION

The Industrial Source Complex Short-term (ISCST3, Version 00101) dispersion model (EPA, 1999) was used to evaluate the pollutant impacts due to the proposed CTs. This model is maintained by the EPA on its Internet website: Support Center for Regulatory Air Models

(SCRAM), within the Technical Transfer Network (TTN). A listing of ISCST3 model features is presented in Table 6-1. The ISCST3 model is designed to calculate hourly concentrations based on hourly meteorological data (i.e., wind direction, wind speed, atmospheric stability, ambient temperature, and mixing heights). The ISCST3 model is applicable to sources located in either flat or rolling terrain where terrain heights do not exceed stack heights. These areas are referred to as simple terrain. The model can also be applied in areas where the terrain exceeds the stack heights. These areas are referred to as complex terrain.

In this analysis, the EPA regulatory default options were used to predict all maximum impacts. The ISCST3 model can run in the rural or urban land use mode which affects stability dispersion coefficients, wind speed profiles, and mixing heights. Land use can be characterized based on a scheme recommended by EPA (Auer, 1978). If more than 50 percent of the land use within a 3-km radius around a project is classified as industrial or commercial, or high-density residential, then the urban option should be selected. Otherwise, the rural option is appropriate. Based on the land-use within a 3-km radius of the FPL Fort Myers plant site (see Figure 2-1), the rural dispersion coefficients were used in the modeling analysis.

The ISCST3 model was used to provide maximum concentrations for the annual and 24-, 8-, 3-, and 1-hour averaging times. When evaluating the project's impacts only for comparison to the significant impact and *de minimis* monitoring levels, a generic emission rate of 10 grams per second (g/s) was used as emissions for the proposed source. Maximum pollutant-specific air impacts for the project were then determined by multiplying the maximum pollutant-specific emission rate, in pounds per hour, by the maximum predicted generic impact divided by 79.365 lb/hr (10 g/s).

6.3.3 METEOROLOGICAL DATA

Meteorological data used in the ISCST3 model to determine air quality impacts consisted of a concurrent 5-year period of hourly surface weather observations and twice-daily upper air soundings from the FAA station located at the Fort Myers Page Field Airport and the NWS station located in Ruskin, respectively. Concentrations were predicted using 5 years of hourly meteorological data from 1987 through 1991. The FAA station at Fort Myers is located

approximately 19 km (12 miles) to the southwest of the plant site. The NWS station at Ruskin is located approximately 140 km (85 miles) to the north of the plant site. The surface meteorological data from Fort Myers are assumed to be representative of the project site because both the project site and the weather station are located near one another and are situated near similar topographical features and land use characteristics.

The FDEP has recommended and approved the use of these meteorological data to address air quality impacts for proposed sources locating in Lee County.

The surface observations included wind direction, wind speed, temperature, cloud cover, and cloud ceiling height. The wind speed, cloud cover, and cloud ceiling values were used in the ISCST3 meteorological preprocessor program to determine atmospheric stability using the Turner stability scheme. Based on the temperature measurements at morning and afternoon, mixing heights were calculated from the radiosonde data at Ruskin using the Holzworth approach (Holzworth, 1972). Hourly mixing heights were derived from the morning and afternoon mixing heights using the interpolation method developed by EPA (Holzworth, 1972). The hourly surface data and mixing heights were used to develop a sequential series of hourly meteorological data (i.e., wind direction, wind speed, temperature, stability, and mixing heights). Because the observed hourly wind directions at the NWS stations are classified into one of thirty-six 10-degree sectors, the wind directions were randomized within each sector to account for the expected variability in air flow. These calculations were performed using the EPA RAMMET meteorological preprocessor program.

6.3.4 EMISSION INVENTORY

6.3.4.1 Proposed Units

A summary of the criteria pollutant emission rates, physical stack and stack operating parameters for the proposed CTs used in the air modeling analysis is presented in Tables 2-1 through 2-6. The emission and stack operating parameters presented for 35°F, 59°F, and 95°F ambient temperatures for both natural gas and distillate fuel oil were used in the modeling to determine the maximum air quality impacts for a range of possible operating conditions.

The following nine modeling scenarios were considered for each fuel type:

1. Base operating load at an inlet temperature of 35°F;
2. Base operating load at an inlet temperature of 59°F;
3. Base operating load at an inlet temperature of 95°F;
4. 75 percent operating load at an inlet temperature of 35°F;
5. Base operating load at an inlet temperature of 59°F;
6. 75 percent operating load at an inlet temperature of 95°F;
7. 50 percent operating load at an inlet temperature of 35°F; and
8. Base operating load at an inlet temperature of 59°F;
9. 50 percent operating load at an inlet temperature of 95°F.

In addition, the following three modeling scenarios were also considered for natural gas firing only, making a total of 12 scenarios for natural gas firing;

1. Higher Power Mode (HPM), base inlet temperature of 35°F ;
2. HPM, base inlet temperature of 59°F; and
3. HPM, base inlet temperature of 95°F.

The proposed CTs will have a stack height of 80 ft and an inner stack diameter of 20.5 ft. To address impacts for the proposed CTs alone and determine the operating load and ambient temperature that produce the maximum air quality impact, a generic emission rate of 10 grams per second (g/s) was used as an emission rate for the proposed CTs. Maximum pollutant-specific air impacts were determined by multiplying the maximum pollutant-specific emission rate in pounds per hour (lb/hr) to the maximum predicted generic impact divided by 79.365 lb/hr (10 g/s).

6.3.4.2 Existing Site Facilities

The repowered units will consist of 6 CTs operating in combined-cycle mode. Each unit will have a HRSG stack with a height of 125 ft and an inner stack diameter of 19 ft. The repowered units operate burn only natural gas.

The cooling tower dimensions are as follows: deck height of 31 ft, length of 580 ft, and width of 50 ft. The cooling tower will consist of 12 cells; each cell will have a height of 45 ft and a diameter of 32 ft.

Existing gas turbines, GT1-GT12, will continue to operate on fuel oil.

6.3.4.3 Other Emission Sources

The only air emission source, other than the existing GTs at the Fort Myers Plant, that could potentially interact with the proposed project is the Lee County Energy Recovery Facility, located about 8 km to the south of the Fort Myers Plant. The stack, operating, and pollutant emission data for the Lee County Energy Recovery Facility are as follows:

Stack Data		Emission Data	
Height	276 ft	SO_2	82 lb/hr
Diameter	6.5 ft	NO_2	160 lb/hr
		PM	40 lb/hr
Operating Data			
Exit gas temperature	290°F		
Exit gas velocity	75.3 ft/s		

6.3.5 RECEPTOR LOCATIONS

For predicting maximum concentrations in the vicinity of the plant due to the proposed project only, a polar receptor grid comprised of 847 discrete and regular grid receptors was used. These receptors included 36 receptors located on radials extending out from the modeling origin. Along each radial, receptors were located at the plant property and at distances of 0.3, 0.5, 0.7, 1.0, 1.5, 2.0, 2.5, 3.0, 3.5, 4.0, 5.0, 6.0, 8.0, 10.0, 12.0, 14.0, 16.0, 18.0, 20.0, 22.0, 24.0, 27.0, and 30.0 km from the modeling origin. The modeling origin location is the midpoint between the No. 3 and No. 4 HRSG stack locations. This is the same location that was used in the 1998 SCA air modeling analysis.

For predicting maximum concentrations for comparison to the AAQS, a receptor grid comprised of 883 discrete and regular grid receptors was used. These receptors included 36 receptors located on radials extending out from the modeling origin. Along each radial, receptors were

located at the plant property and at distances of 0.3, 0.5, 0.7, 0.9, 1.1, 1.5, 2.0, 3.0, 4.0, 5.0, 6.0, 7.0, 8.0, 9.0, 10.0, 11.0, 12.0, 13.0, 14.0, 15.0, 16.0, 17.0, 18.0, 19.0, and 20.0 km from the origin location.

Because the maximum pollutant impacts due to the proposed CTs only are generally an order of magnitude or more below the significant impact levels, additional air modeling refinements were not performed for the project only impacts in the site vicinity. However, modeling refinements were performed for the AAQS analyses, which included all future FPL Fort Myers sources.

Since the terrain surrounding the proposed plant site varies little from the stack base elevation of 50 ft above MSL, the terrain was assumed to be flat and receptor elevations were set equal to the stack base elevation.

6.3.6 BUILDING DOWNWASH EFFECTS

The only significant structures in the vicinity of the proposed CT stacks are the proposed CT air filter inlets and the CT structures. The height and widths of these structures are as follows:

Structure	Height (ft)	Width (ft)	Length (ft)
CT air inlet	55	20	48
CT structure	22	30	36

The following additional structures were included from the HRSG operation analysis presented in the air application for the Repowering Project:

Structure	Height (ft)	Width (ft)	Length (ft)
CT air inlet	55	20	48
HRSG structure	52	40	68
Diesel fuel oil tank	40	180 (diameter)	NA
Cooling tower	28.5	529	45

Note that for future plant operations, the buildings associated with retired Units 1 and 2 will no longer exist.

Building dimensions for the project's structures were entered into the EPA's Building Profile Input Program (BPIP, Version 95086) for the purpose of obtaining direction-specific building heights and widths for all downwash-affected sources. The direction-specific building dimensions were then input to the ISCST3 model as the building height and width for each of 36 ten-degree wind sectors. A summary of the direction-specific building dimensions used in the modeling is presented in Appendix C.

6.3.7 BACKGROUND CONCENTRATIONS

Total air quality impacts were estimated by adding the maximum concentrations due to project-related sources to background concentrations. Background concentrations are concentrations due to sources not associated with the Fort Myers Plant. These concentrations consist of two components:

- Impacts due to other modeled emission sources (i.e., non-project-related), and
- Impacts due to sources not explicitly modeled.

Background concentrations due to other modeled sources were predicted with the ISCST model based on the data developed from the emission inventory in Section 6.1.5.

The non-modeled background concentrations were obtained from air quality monitoring data and are as follows:

Pollutant	Averaging Period	Background Concentration ($\mu g/m^3$)
PM_{10}	24-hour	33
	Annual	18
SO_2	3-hour	100
	24-hour	31
	Annual	5
NO_2	Annual	20

Background PM_{10} concentrations were based on the highest annual and second-highest 24-hour average concentrations measured in Lee County and used in the air quality analysis for the Fort Myers Repowering Project (see Section 5.0). Background SO_2 concentrations were based on the highest annual, second-highest 24-hour, and second-highest 3-hour average concentrations measured in Sarasota County during 1997 (which is the closest SO_2 monitoring station to the plant site). Similarly, background NO_2 concentrations were based on the highest annual concentration measured at the NO_2 monitoring stations closest to the plant site. These monitoring stations are located in Pinellas, Hillsborough, and Orange County. The SO_2 and NO_2 background concentrations are conservative since they are based on air quality data collected in areas with higher vehicular and industrial emissions which would produce higher contributions from non-modeled background sources than those expected around the Fort Myers plant site.

6.4 SIGNIFICANT IMPACT ANALYSIS RESULTS

6.4.1 SITE VICINITY

The modeling analysis results for the proposed CTs alone in the vicinity of the plant are summarized in Tables 6-2 through 6-6. The maximum pollutant concentrations predicted in the screening analysis for a single CT and two CTs firing natural gas are presented in Tables 6-2 and 6-3, respectively. Similarly, the maximum pollutant concentrations predicted for one and two CTs firing distillate fuel are presented in Tables 6-4 and 6-5, respectively.

As shown in the tables, the maximum predicted PM, SO_2, NO_x, and CO impacts due to the proposed CTs are all well below the significant impact levels. Because of the very low impacts, further refinements of the project only impacts were not performed. These occurred during fuel oil firing. A summary of the project only impacts is compared to the significant impact levels in Table 6-6.

6.4.2 AT THE EVERGLADES NP PSD CLASS I AREA

The modeling analysis results for the proposed CTs alone at the Everglades NP are summarized in Tables 6-7 through 6-10. As a conservative modeling approach, the project's maximum impacts at the Everglades NP were predicted with the ISCST3 model. The maximum pollutant

concentrations predicted in the screening analysis for a single CT and two CTs firing natural gas are presented in Tables 6-7 and 6-8, respectively. A summary of maximum pollutant concentrations predicted for one and two CTs firing distillate oil is presented in Tables 6-9 and 6-10, respectively.

A summary of the project-only impacts at the Everglades NP is presented in Table 6-11. The maximum predicted SO_2, NO_2, and PM impacts due to the proposed CTs are all well below EPA's proposed PSD Class I significant impact levels. As discussed previously, the contemporaneous net emission decreases for the project results in overall emission decreases for SO_2, NO_x, and PM which will have the effect of expanding the Class I PSD increment in the Everglade NP.

6.5 FUTURE PLANT OPERATIONS

The maximum SO_2, NO_2, and PM_{10} concentrations due to all sources for future operations are presented for the screening and refined analyses in Tables 6-12 and 6-13, respectively. These results show that the maximum SO_2, NO_2, PM_{10}, and CO concentrations for future operations of the project with other emission sources will ensure compliance with and maintenance of the AAQS.

A summary of the ISCST3 model results for each year are presented in Appendix D. Examples of the model input files are also provided in Appendix D.

Table 6-1. Major Features of the ISCST3 Model, Version 99155

ISCST3 Model Features
• Polar or Cartesian coordinate systems for receptor locations
• Rural or one of three urban options which affect wind speed profile exponent, dispersion rates, and mixing height calculations
• Plume rise due to momentum and buoyancy as a function of downwind distance for stack emissions (Briggs, 1969, 1971, 1972, and 1975; Bowers, et al., 1979).
• Procedures suggested by Huber and Snyder (1976); Huber (1977); and Schulman and Scire (1980) for evaluating building wake effects
• Procedures suggested by Briggs (1974) for evaluating stack-tip downwash
• Separation of multiple emission sources
• Consideration of the effects of gravitational settling and dry deposition on ambient particulate concentrations
• Capability of simulating point, line, volume, area, and open pit sources
• Capability to calculate dry and wet deposition, including both gaseous and particulate precipitation scavenging for wet deposition
• Variation of wind speed with height (wind speed-profile exponent law)
• Concentration estimates for 1-hour to annual average times
• Terrain-adjustment procedures for elevated terrain including a terrain truncation algorithm for ISCST3; a built-in algorithm for predicting concentrations in complex terrain
• Consideration of time-dependent exponential decay of pollutants
• The method of Pasquill (1976) to account for buoyancy-induced dispersion
• A regulatory default option to set various model options and parameters to EPA recommended values (see text for regulatory options used)
• Procedure for calm-wind processing including setting wind speeds less than 1 meters per second(m/s) to 1 m/s.

Note: ISCST3 = Industrial Source Complex Short-Term.
Source: EPA, 1999.

Table 6.2. Maximum Pollutant Concentrations Predicted for One Proposed Combustion Turbine on Natural Gas, at Site Vicinity

	Maximum Emission Rates (lb/hr) by Operating Load and Air Temperature													Maximum Predicted Concentrations (ug/m^3) by Operating Load and Air Temperature (1)											
	Base Load			75% Load			50% Load			Higher Power Mode			Averaging	Base Load			75% Load			50% Load			Higher Power Mode		
Pollutant	35°F	59°F	95°F	35°F	59°F	95°F	35°F	59°F	95°F	35°F	59°F	95°F	Time	35°F	59°F	95°F	35°F	59°F	95°F	35°F	59°F	95°F	35°F	59°F	95°F
Generic (10 g/s)	79.37	79.37	79.37	79.37	79.37	79.37	79.37	79.37	79.37	79.37	79.37	79.37	Annual	0.0192	0.0197	0.0210	0.0242	0.0245	0.0255	0.0286	0.0288	0.0300	0.0189	0.0192	0.0198
													24-Hour	0.2496	0.2526	0.3042	0.3237	0.3257	0.3318	0.3519	0.3533	0.3604	0.2473	0.2499	0.2533
													8-Hour	0.4493	0.4669	0.5271	0.6451	0.6474	0.6544	0.7496	0.7505	0.7554	0.4428	0.4503	0.4671
													3-Hour	0.8845	0.8872	0.8937	1.3682	1.3702	1.3768	1.4992	1.5010	1.5108	0.8824	0.8847	0.8878
													1-Hour	2.0424	2.0996	2.2074	2.4915	2.5788	2.6610	2.9123	2.9459	2.9958	1.9659	2.0753	2.1009
SO_2	5.1	4.9	4.4	4.1	4.0	3.6	3.3	3.2	2.9	5.3	5.1	4.8	Annual	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
													24-Hour	0.016	0.016	0.017	0.017	0.016	0.015	0.015	0.014	0.013	0.017	0.016	0.015
													3-Hour	0.057	0.055	0.050	0.071	0.069	0.062	0.062	0.061	0.055	0.059	0.057	0.054
NO_x	71.6	68.4	61.9	57.0	54.9	50.3	45.2	43.7	40.2	105.1	101.3	95.5	Annual	0.017	0.017	0.016	0.017	0.017	0.016	0.016	0.016	0.015	0.025	0.025	0.024
PM10	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	Annual	0.002	0.002	0.003	0.003	0.003	0.003	0.004	0.004	0.004	0.002	0.002	0.002
													24-Hour	0.031	0.032	0.038	0.041	0.041	0.042	0.044	0.045	0.045	0.031	0.031	0.032
CO	30.3	28.8	26.2	24.4	23.5	21.7	20.1	19.5	18.3	50.5	2.7	44.7	8-Hour	0.172	0.169	0.174	0.198	0.192	0.179	0.190	0.184	0.174	0.282	0.015	0.263
													1-Hour	0.780	0.762	0.729	0.766	0.764	0.728	0.738	0.724	0.691	1.251	0.071	1.183

(1) Concentrations are based on highest predicted concentrations using five years of meteorological for 1987 to 1991 of surface and upper air data from the National Weather Service station at Palm Beach International Airport.

Table 6-3. Maximum Pollutant Concentrations Predicted for 2 Simple-Cycle Combustion Turbines on Natural Gas Compared to EPA Significant Impact Levels, FPL Ft. Myers

Pollutant	Averaging Time	Maximum Predicted Concentrations (ug/m^3) by Operating Load and Air Temperature (1)												EPA Significant Impact Levels (ug/m^3)
		Base Load			75% Load			50% Load			Higher Power Mode			
		35°F	59°F	95°F	35°F	59°F	95°F	35°F	59°F	95°F	35°F	59°F	95°F	
SO_2	Annual	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.003	0.002	0.002	1
	24-Hour	0.032	0.031	0.034	0.033	0.033	0.030	0.029	0.028	0.026	0.033	0.032	0.031	5
	3-Hour	0.114	0.110	0.099	0.141	0.138	0.125	0.125	0.121	0.110	0.118	0.114	0.107	25
NO_x	Annual	0.035	0.034	0.033	0.035	0.034	0.032	0.033	0.032	0.030	0.050	0.049	0.048	1
PM_{10}	Annual	0.005	0.005	0.005	0.006	0.006	0.006	0.007	0.007	0.008	0.005	0.005	0.005	1
	24-Hour	0.06	0.06	0.08	0.08	0.08	0.08	0.09	0.09	0.09	0.06	0.06	0.06	5
CO	8-Hour	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.3	0.6	0.0	0.5	500
	1-Hour	1.6	1.5	1.5	1.5	1.5	1.5	1.5	1.4	1.4	2.5	0.1	2.4	2,000

(1) Concentrations are based on highest predicted concentrations using five years of meteorological for 1987 to 1991 of surface and upper air data from the National Weather Service station at Palm Beach International Airport.

Table 6.4. Maximum Pollutant Concentrations Predicted for One Proposed Combustion Turbine on Fuel Oil, at Site Vicinity

	Maximum Emission Rates (lb/hr) by Operating Load and Air Temperature										Maximum Predicted Concentrations (ug/m^3) by Operating Load and Air Temperature (1)								
	Base Load			75% Load			50% Load			Averaging	Base Load			75% Load			50% Load		
Pollutant	35°F	59°F	95°F	35°F	59°F	95°F	35°F	59°F	95°F	Time	35°F	59°F	95°F	35°F	59°F	95°F	35°F	59°F	95°F
Generic (10 g/s)	79.37	79.37	79.37	79.37	79.37	79.37	79.37	79.37	79.37	Annual	0.0187	0.0191	0.0206	0.0237	0.0240	0.0249	0.0282	0.0284	0.0293
										24-Hour	0.2463	0.2492	0.3022	0.3208	0.3230	0.3286	0.3494	0.3506	0.3559
										8-Hour	0.4396	0.4483	0.5247	0.6418	0.6443	0.6507	0.7479	0.7487	0.7523
										3-Hour	0.8814	0.8842	0.8920	0.9284	0.9382	1.3733	1.4958	1.4974	1.5046
										1-Hour	1.9638	2.0297	2.2032	2.4857	2.4901	2.5922	2.8764	2.9098	2.9510
SO_2	103.1	98.6	89.1	82.0	78.8	72.2	64.7	62.6	57.7	Annual	0.024	0.024	0.023	0.024	0.024	0.023	0.023	0.022	0.021
										24-Hour	0.320	0.310	0.339	0.331	0.321	0.299	0.285	0.277	0.259
										3-Hour	1.145	1.098	1.001	0.959	0.932	1.249	1.219	1.181	1.094
NO_x	333.8	319.2	284.8	262.6	252.6	231.2	205.6	198.9	183.2	Annual	0.079	0.077	0.074	0.078	0.076	0.073	0.073	0.071	0.068
PM10	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	Annual	0.004	0.004	0.004	0.005	0.005	0.005	0.006	0.006	0.006
										24-Hour	0.053	0.053	0.065	0.069	0.069	0.070	0.075	0.075	0.076
CO	68.1	64.7	58.2	64.1	62.1	58.0	77.5	75.7	71.8	8-Hour	0.377	0.365	0.385	0.518	0.504	0.476	0.730	0.714	0.681
										1-Hour	1.685	1.655	1.616	2.008	1.948	1.894	2.809	2.775	2.670

(1) Concentrations are based on highest predicted concentrations using five years of meteorological for 1987 to 1991 of surface and upper air data from the National Weather Service station at Palm Beach International Airport.

Table 6-5. Maximum Pollutant Concentrations Predicted for 2 Simple-Cycle Combustion Turbines on Fuel Oil at the Site Vicinity as Compared to EPA Significant Impact Levels, FPL Ft. Myers

Pollutant	Averaging Time	Maximum Predicted Concentrations (ug/m^3) by Operating Load and Air Temperature (1)									EPA Significant Impact Levels (ug/m^3)
		Base Load			75% Load			50% Load			
		35°F	59°F	95°F	35°F	59°F	95°F	35°F	59°F	95°F	
SO_2	Annual	0.0486	0.0475	0.0462	0.0490	0.0476	0.0453	0.0460	0.0448	0.0426	1
	24-Hour	0.640	0.619	0.679	0.663	0.641	0.598	0.570	0.553	0.518	5
	3-Hour	2.290	2.197	2.003	1.918	1.863	2.499	2.439	2.362	2.188	25
NO_x	Annual	0.157	0.154	0.148	0.157	0.153	0.145	0.146	0.142	0.135	1
PM10	Annual	0.0080	0.0082	0.0088	0.0102	0.0103	0.0107	0.0121	0.0122	0.0126	1
	24-Hour	0.11	0.11	0.13	0.14	0.14	0.14	0.15	0.15	0.15	5
CO	8-Hour	0.75	0.73	0.77	1.04	1.01	0.95	1.46	1.43	1.36	500
	1-Hour	3.37	3.31	3.23	4.02	3.90	3.79	5.62	5.55	5.34	2,000

(1) Concentrations are based on highest predicted concentrations using five years of meteorological for 1987 to 1991 of surface and upper air data from the National Weather Service station at Palm Beach International Airport.
NA = Not applicable

Table 6-6. Summary of Maximum Pollutant Concentrations Predicted for Two Combustion Turbines Compared to the EPA Significant Impact Levels and PSD Class II Increments

Pollutant	Averaging Time	Maximum Predicted Concentration (ug/m^3) (1)	EPA Significant Impact Levels (ug/m^3)	PSD Class II Increments (ug/m^3)
Natural Gas				
SO_2	Annual	0.002	1	20
	24-Hour	0.03	5	91
	3-Hour	0.14	25	512
PM10	Annual	0.008	1	17
	24-Hour	0.09	5	30
NO_2	Annual	0.03	1	25
CO	8-Hour	0.40	500	NA
	1-Hour	1.56	2,000	NA
Fuel Oil				
SO_2	Annual	0.049	1	20
	24-Hour	0.68	5	91
	3-Hour	2.50	25	512
PM10	Annual	0.013	1	17
	24-Hour	0.15	5	30
NO_2	Annual	0.16	1	25
CO	8-Hour	1.46	500	NA
	1-Hour	5.62	2,000	NA

(1) Concentrations are highest predicted using ISCST3 model and 5-year meteorological data set

Table 6.7. Maximum Pollutant Concentrations Predicted for One Proposed Combustion Turbine on Natural Gas, at Everglades National Park PSD Class I Area

	Maximum Emission Rates (lb/hr) by Operating Load and Air Temperature													Maximum Predicted Concentrations (ug/m^3) by Operating Load and Air Temperature (1)											
	Base Load			75% Load			50% Load			Higher Power Mode				Base Load			75% Load			50% Load			Higher Power Mode		
Pollutant	35°F	59°F	95°F	35°F	59°F	95°F	35°F	59°F	95°F	35°F	59°F	95°F	Averaging Time	32°F	59°F	95°F	32°F	59°F	95°F	32°F	59°F	95°F	32°F	59°F	95°F
Generic (10 g/s)	79.37	79.37	79.37	79.37	79.37	79.37	79.37	79.37	79.37	79.37	79.37	79.37	Annual	0.0021	0.0022	0.0023	0.0025	0.0025	0.0025	0.0027	0.0027	0.0028	0.0021	0.0021	0.0022
													24-Hour	0.0608	0.0617	0.0639	0.0691	0.0696	0.0713	0.0770	0.0774	0.0794	0.0602	0.0609	0.0620
													8-Hour	0.1625	0.1644	0.1689	0.1792	0.1803	0.1834	0.1928	0.1934	0.1966	0.1611	0.1628	0.1649
													3-Hour	0.3001	0.3057	0.3192	0.3509	0.3541	0.3638	0.3940	0.3961	0.4065	0.2960	0.3008	0.3071
													1-Hour	0.5503	0.5582	0.5773	0.6217	0.6260	0.6391	0.6796	0.6822	0.6958	0.5443	0.5511	0.5601
SO_2	5.1	4.9	4.4	4.1	4.0	3.6	3.3	3.2	2.9	5.3	5.1	4.8	Annual	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
													24-Hour	0.004	0.004	0.004	0.004	0.004	0.003	0.003	0.003	0.003	0.004	0.004	0.004
													3-Hour	0.019	0.019	0.018	0.018	0.018	0.017	0.016	0.016	0.015	0.020	0.019	0.019
NO_x	71.6	68.4	61.9	57.0	54.9	50.3	45.2	43.7	40.2	105.1	101.3	95.5	Annual	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.001	0.001	0.003	0.003	0.003
PM_{10}	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	Annual	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
													24-Hour	0.008	0.008	0.008	0.009	0.009	0.009	0.010	0.010	0.010	0.008	0.008	0.008
CO	30.3	28.8	26.2	24.4	23.5	21.7	20.1	19.5	18.3	50.5	2.7	44.7	8-Hour	0.062	0.060	0.056	0.055	0.053	0.050	0.049	0.048	0.045	0.103	0.006	0.093
													1-Hour	0.210	0.203	0.191	0.191	0.185	0.175	0.172	0.168	0.160	0.346	0.019	0.315

(1) Concentrations are based on highest predicted concentrations using five years of meteorological for 1987 to 1991 of surface and upper air data from the National Weather Service station at Palm Beach International Airport.

Table 6-8. Maximum Pollutant Concentrations Predicted for 2 Simple-Cycle Combustion Turbines on Natural Gas at the Everglades National Park as Compared to Proposed EPA PSD Class I Significant Impact Levels

Pollutant	Averaging Time	Maximum Predicted Concentrations (ug/m^3) by Operating Load and Air Temperature (1)												Proposed EPA Class I Significant Impact Levels (ug/m^3)
		Base Load			75% Load			50% Load			Higher Power Mode			
		35°F	59°F	95°F	35°F	59°F	95°F	35°F	59°F	95°F	35°F	59°F	95°F	
SO_2	Annual	0.0003	0.0003	0.0002	0.0003	0.0003	0.0002	0.0002	0.0002	0.0002	0.0003	0.0003	0.0003	0.1
	24-Hour	0.008	0.008	0.007	0.007	0.007	0.006	0.006	0.006	0.006	0.008	0.008	0.007	0.2
	3-Hour	0.039	0.038	0.035	0.036	0.036	0.033	0.033	0.032	0.030	0.040	0.039	0.037	1.0
NO_x	Annual	0.004	0.004	0.004	0.004	0.003	0.003	0.003	0.003	0.003	0.006	0.005	0.005	0.1
PM10	Annual	0.0005	0.0005	0.0006	0.0006	0.0006	0.0006	0.0007	0.0007	0.0007	0.0005	0.0005	0.0005	0.2
	24-Hour	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.3
CO	8-Hour	0.12	0.12	0.11	0.11	0.11	0.10	0.10	0.10	0.09	0.21	0.01	0.19	NA
	1-Hour	0.42	0.41	0.38	0.38	0.37	0.35	0.34	0.34	0.32	0.69	0.04	0.63	NA

(1) Concentrations are based on highest predicted concentrations using five years of meteorological for 1987 to 1991 of surface and upper air data from the National Weather Service station at Palm Beach International Airport.
NA = Not applicable

Table 6-9. Maximum Pollutant Concentrations Predicted for One Proposed Combustion Turbine on Fuel Oil, at Everglades National Park PSD Class I Area

	Maximum Emission Rates (lb/hr) by Operating Load and Air Temperature										Maximum Predicted Concentrations (ug/m^3) by Operating Load and Air Temperature (1)								
	Base Load			75% Load			50% Load				Base Load			75% Load			50% Load		
Pollutant	35°F	59°F	95°F	35°F	59°F	95°F	35°F	59°F	95°F	Averaging Time	35°F	59°F	95°F	35°F	59°F	95°F	35°F	59°F	95°F
Generic (10 g/s)	79.37	79.37	79.37	79.37	79.37	79.37	79.37	79.37	79.37	Annual	0.0021	0.0021	0.0022	0.0025	0.0025	0.0025	0.0027	0.0027	0.0027
										24-Hour	0.0598	0.0607	0.0633	0.0683	0.0689	0.0704	0.0763	0.0767	0.0782
										8-Hour	0.1604	0.1623	0.1677	0.1778	0.1789	0.1818	0.1917	0.1923	0.1947
										3-Hour	0.2939	0.2995	0.3156	0.3464	0.3499	0.3589	0.3903	0.3922	0.4000
										1-Hour	0.5414	0.5494	0.5724	0.6155	0.6202	0.6324	0.6746	0.6771	0.6873
SO_2	103.1	98.6	89.1	82.0	78.8	72.2	64.7	62.6	57.7	Annual	0.003	0.003	0.003	0.003	0.002	0.002	0.002	0.002	0.002
										24-Hour	0.078	0.075	0.071	0.071	0.068	0.064	0.062	0.060	0.057
										3-Hour	0.382	0.372	0.354	0.358	0.347	0.326	0.318	0.309	0.291
NO_x	333.8	319.2	284.8	262.6	252.6	231.2	205.6	198.9	183.2	Annual	0.009	0.009	0.008	0.008	0.008	0.007	0.007	0.007	0.006
PM10	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	Annual	0.000	0.000	0.000	0.001	0.001	0.001	0.001	0.001	0.001
										24-Hour	0.013	0.013	0.014	0.015	0.015	0.015	0.016	0.016	0.017
CO	68.1	64.7	58.2	64.1	62.1	58.0	77.5	75.7	71.8	8-Hour	0.138	0.132	0.123	0.144	0.140	0.133	0.187	0.183	0.176
										1-Hour	0.465	0.448	0.420	0.497	0.485	0.462	0.659	0.646	0.622

(1) Concentrations are based on highest predicted concentrations using five years of meteorological for 1987 to 1991 of surface and upper air data from the National Weather Service station at Palm Beach International Airport.

Table 6-10. Maximum Pollutant Concentrations Predicted for 2 Simple-Cycle Combustion Turbines on Fuel Oil at the Everglades National Park as Compared to Proposed EPA PSD Class I Significant Impact Levels

Pollutant	Averaging Time	Maximum Predicted Concentrations (ug/m^3) by Operating Load and Air Temperature (1)									Proposed EPA Class I Significant Impact Levels (ug/m^3)
		Base Load			75% Load			50% Load			
		35°F	59°F	95°F	35°F	59°F	95°F	35°F	59°F	95°F	
SO_2	Annual	0.0055	0.0053	0.0050	0.0051	0.0049	0.0046	0.0044	0.0042	0.0040	0.1
	24-Hour	0.155	0.151	0.142	0.141	0.137	0.128	0.124	0.121	0.114	0.2
	3-Hour	0.764	0.744	0.709	0.716	0.695	0.653	0.636	0.619	0.582	1.0
NO_x	Annual	0.018	0.017	0.016	0.016	0.016	0.015	0.014	0.013	0.013	0.1
PM10	Annual	0.0009	0.0009	0.0010	0.0011	0.0011	0.0011	0.0011	0.0011	0.0012	0.2
	24-Hour	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.3
CO	8-Hour	0.28	0.26	0.25	0.29	0.28	0.27	0.37	0.37	0.35	NA
	1-Hour	0.93	0.90	0.84	0.99	0.97	0.92	1.32	1.29	1.24	NA

(1) Concentrations are based on highest predicted concentrations using five years of meteorological for 1987 to 1991 of surface and upper air data from the National Weather Service station at Palm Beach International Airport.

NA = Not applicable

Table 6-11. Summary of Maximum Pollutant Concentrations Predicted for Two Combustion Turbines Compared to the EPA Class I Significant Impact Levels and PSD Class I Increments

Pollutant	Averaging Time	Maximum Predicted Concentration (ug/m^3) (1)	EPA Class I Significant Impact Levels (ug/m^3)	PSD Class I Increments (ug/m^3)
Natural Gas				
SO_2	Annual	0.0003	0.1	2
	24-Hour	0.008	0.2	5
	3-Hour	0.039	1.0	25
PM10	Annual	0.0007	0.2	4
	24-Hour	0.02	0.3	8
NO_2	Annual	0.004	0.1	2.5
Fuel Oil				
SO_2	Annual	0.0055	0.1	2
	24-Hour	0.16	0.2	5
	3-Hour	0.76	1.0	25
PM10	Annual	0.0012	0.2	4
	24-Hour	0.03	0.3	8
NO_2	Annual	0.018	0.1	2.5

(1) Concentrations are highest predicted using ISCST3 model and 5-year meteorological data set

Table 6-12. Maximum SO_2, NO_2, and PM_{10} Impacts Due to Modeled Sources for Future Operations (Proposed CTs, Combined-Cycle Mode) - Screening Analysis

Averaging Time	Value	Concentration ($\mu g/m^3$)	Receptor Location[a] Direction (degrees)	Receptor Location[a] Distance (m)	Period Ending (YYMMDDHH)
SO_2					
Annual	Highest	2.3	200	11,000	87123124
		2.7	240	10,000	88123124
		2.2	270	8,000	89123124
		3.8	240	10,000	90123124
		2.7	230	10,000	91123124
24-hour	HSH	28	190	12,000	87100524
		25	240	10,000	88102824
		21	300	5,000	89082824
		26	250	15,000	90031224
		24	250	17,000	91111424
3-hour	HSH	100	200	15,000	87042706
		98	260	13,000	88092824
		85	180	11,000	89031024
		99	160	15,000	90102621
		99	240	1,500	91062415
NO_2					
Annual	Highest	4.6	200	10,000	87123124
		4.3	240	8,000	88123124
		3.4	270	8,000	89123124
		6.0	240	10,000	90123124
		4.3	240	7,000	91123124
PM_{10}					
Annual	Highest	0.4	230	919	87123124
		0.4	230	919	88123124
		0.4	280	300	89123124
		0.6	230	1,100	90123124
		0.5	230	919	91123124
24-Hour	HSH	3.7	230	919	87081724
		3.9	130	700	88070124
		3.7	320	700	89091424
		3.5	220	906	90042424
		3.9	130	500	91042124

Note: YY=Year, MM=Month, DD=Day, HH=Hour, HSH=Highest, Second-Highest.

[a] Relative to the center of the proposed CT HRSG stacks.

[b] Refined modeling analysis performed for this concentration.

Table 6-13. Maximum SO_2, NO_2, and PM_{10} Impacts Predicted for All Sources for Future Operations Compared to AAQS--Refined Analysis

		Concentration ($\mu g/m^3$)			Receptor Location[a]			
Averaging Time	Value	Total	Modeled Sources	Background	Direction (degrees)	Distance (m)	Period Ending (YYMMDDHH)	Florida AAQS ($\mu g/m^3$)
SO_2								
Annual	Highest	9	3.9	5	37.5	10,300	90123124	60
24-hour	HSH	60	28	31	190	11,900	97100524	260
3-hour	HSH	211	111	100	191.25	14,000	87100506	1,300
		203	103	100	256	12,300	88091703	
		199	99	100	160.25	14,100	90102621	
		212	112	100	244	1,600	91062512	
NO_2								
Annual	Highest	26	6.1	20	237.5	10,200	90123124	100
PM_{10}								
Annual	Highest	19	0.6	18	226	900	90123124	50
24-Hour	HSH	37	4.2	33	130	600	88070124	150
		37	3.9	33	130	500	91042124	

Note: YY=Year, MM=Month, DD=Day, HH=Hour, HSH=Highest, Second-Highest.

[a] Relative to the center of the proposed CT HRSG stacks.

APPENDIX A

EXPECTED PERFORMANCE AND EMISSION INFORMATION ON GE FRAME 7FA COMBUSTION TURBINE

Table A-1. Design Information and Stack Parameters for FPL Fort Myers Simple Cycle CT Project
GE Frame 7FA, Dry Low NOx Combustor, Natural Gas, Base Load

Parameter	Turbine Inlet Temperature 35 °F	59 °F	75 °F	95 °F
Combustion Turbine Performance				
Net power output (MW)	181.64	172.44	163.14	149.74
Net heat rate (Btu/kWh, LHV)	9,213	9,280	9,412	9,666
(Btu/kWh, HHV)	10,227	10,301	10,447	10,729
Heat Input (MMBtu/hr, LHV)	1,674	1,600	1,536	1,447
(MMBtu/hr, HHV)	1,858	1,776	1,704	1,607
Fuel heating value (Btu/lb, LHV)	20,835	20,835	20,835	20,835
(Btu/lb, HHV)	23,127	23,127	23,127	23,127
(HHV/LHV)	1.110	1.110	1.110	1.110
CT Exhaust Flow				
Mass Flow (lb/hr)- with no margin	3,706,000	3,539,000	3,418,000	3,257,000
- provided	3,706,000	3,539,000	3,418,000	3,257,000
Temperature (°F)	1,095	1,116	1,128	1,143
Moisture (% Vol.)	7.56	8.39	9.04	9.92
Oxygen (% Vol.)	12.60	12.44	12.36	12.27
Molecular Weight	28.49	28.39	28.33	28.22
Fuel Usage				
Fuel usage (lb/hr) = Heat Input (MMBtu/hr) x 1,000,000 Btu/MMBtu (Fuel Heat Content, Btu/lb (LHV))				
Heat input (MMBtu/hr, LHV)	1,674	1,600	1,536	1,447
Heat content (Btu/lb, LHV)	20,835	20,835	20,835	20,835
Fuel usage (lb/hr)- calculated	80,322	76,808	73,698	69,470
CT Stack				
CT- Stack height (ft)	80	80	80	80
Diameter (ft)	20.5	20.5	20.5	20.5
Turbine Flow Conditions (CT Stack-Unit 4 only)				
Turbine Flow (acfm) = [(Mass Flow (lb/hr) x 1,545 x (Temp. (°F)+ 460°F)] / [Molecular weight x 2116.8] / 60 min/hr				
Mass flow (lb/hr)	3,706,000	3,539,000	3,418,000	3,257,000
Temperature (°F)	1,095	1,116	1,128	1,143
Molecular weight	28.49	28.39	28.33	28.22
Volume flow (acfm)- calculated	2,460,544	2,389,462	2,331,000	2,250,314
(ft3/s)- calculated	41,009	39,824	38,850	37,505
Stack Flow Conditions				
Velocity (ft/sec) = Volume flow (acfm) / [((diameter)^2 /4) x 3.14159] / 60 sec/min				
CT Temperature (°F)	1,095	1,116	1,128	1,143
CT volume flow (acfm)	2,460,544	2,389,462	2,331,000	2,250,314
Diameter (ft)	20.5	20.5	20.5	20.5
Velocity (ft/sec)- calculated	124.2	120.7	117.7	113.6

Note: Universal gas constant = 1,545 ft-lb(force)/°R; atmospheric pressure = 2,116.8 lb(force)/ft^2; 14.7 lb/ft^3
Turbine inlet relative humidity is 20% at 35 °F, 60% at 59 and 75 °F, and 50% at 95 °F.
Source: GE, 2000.

Table A-2. Maximum Emissions for Criteria Pollutants for FPL Fort Myers Simple Cycle CT Project
GE Frame 7FA, Dry Low NOx Combustor, Natural Gas, Base Load

Parameter	Turbine Inlet Temperature 35 °F	59 °F	75 °F	95 °F
Hours of Operation	8,760	8,760	8,760	8,760
Particulate (lb/hr) = Emission rate (lb/hr) from manufacturer				
Basis (excludes H_2SO_4), lb/hr	10	10	10	10
Emission rate (lb/hr)- provided	10.0	10.0	10.0	10.0
(TPY)	43.8	43.8	43.8	43.8
Sulfur Dioxide (lb/hr) = Natural gas (cf/hr) x sulfur content(gr/100 cf) x 1 lb/7000 gr x (lb SO_2 /lb S) /100				
Fuel density (lb/ft^3)	0.0448	0.0448	0.0448	0.0448
Fuel use (cf/hr)	1,793,537	1,715,087	1,645,639	1,551,219
Sulfur content (grains/ 100 cf)	1	1	1	1
lb SO_2 /lb S (64/32)	2	2	2	2
Emission rate (lb/hr)	5.1	4.9	4.7	4.4
(TPY)	22.44	21.46	20.59	19.41
Nitrogen Oxides (lb/hr) = NOx(ppm) x {[20.9 x (1 - Moisture(%)/100)] - Oxygen(%)} x 2116.8 x Volume flow (acfm) x 46 (mole. wgt NOx) x 60 min/hr / [1545 x (CT temp.(°F) + 460°F) x 5.9 x 1,000,000 (adj. for ppm)]				
Basis, ppmvd @15% O_2	10.5	10.5	10.5	10.5
Moisture (%)	7.56	8.39	9.04	9.92
Oxygen (%)	12.6	12.44	12.36	12.27
Turbine Flow (acfm)	2,460,544	2,389,462	2,331,000	2,250,314
Turbine Exhaust Temperature (°F)	1,095	1,116	1,128	1,143
Emission rate (lb/hr)	71.6	68.4	65.7	61.9
(TPY)	313.4	299.7	287.8	271.3
Carbon Monoxide (lb/hr) = CO(ppm) x [1 - Moisture(%)/100] x 2116.8 lb/ft2 x Volume flow (acfm) x 28 (mole. wgt CO) x 60 min/hr / [1545 x (CT temp.(°F) + 460°F) x 1,000,000 (adj. for ppm)]				
Basis, ppmvd	9	9	9	9
Moisture (%)	7.56	8.39	9.04	9.92
Turbine Flow (acfm)	2,460,544	2,389,462	2,331,000	2,250,314
Turbine Exhaust Temperature (°F)	1,095	1,116	1,128	1,143
Emission rate (lb/hr)	30.3	28.8	27.7	26.2
(TPY)	132.7	126.0	121.1	114.7
(lb/mmBtu)	0.016312297	0.016198155	0.01622828	0.016305329
VOCs (lb/hr) = VOC(ppmvd) x [1-Moisture(%)/100] x 2116.8 lb/ft2 x Volume flow (acfm) x 16 (mole. wgt as methane) x 60 min/hr / [1545 x (CT temp.(°F) + 460°F) x 1,000,000 (adj. for ppm)]				
Basis, ppmvd	1.5	1.5	1.5	1.5
Moisture (%)	7.56	8.39	9.04	9.92
Turbine Flow (acfm)	2,460,544	2,389,462	2,331,000	2,250,314
Turbine Exhaust Temperature (°F)	1,095	1,116	1,128	1,143
Emission rate (lb/hr)	2.89	2.74	2.63	2.49
(TPY)	12.6	12.0	11.5	10.9
Lead (lb/hr)= NA				
Emission Rate Basis	NA	NA	NA	NA
Emission rate (lb/hr)	NA	NA	NA	NA
(TPY)	NA	NA	NA	NA

Note: ppmvd= parts per million, volume dry; O_2= oxygen.

Source: GE, 2000; Golder Associates, 2000; EPA, 1996

Table A-3. Maximum Emissions for Other Regulated PSD Pollutants for FPL Fort Myers Simple Cycle CT Project
GE Frame 7FA, Dry Low NOx Combustor, Natural Gas, Base Load

Parameter	Turbine Inlet Temperature 35 °F	59 °F	75 °F	95 °F
Hours of Operation	8,760	8,760	8,760	8,760
2,3,7,8 TCDD Equivalents (lb/hr) = Basis (lb/10^{12} Btu) x Heat Input (MMBtu/hr) / 1,000,000 MMBtu/10^{12} Btu				
Basis (a) , lb/10^{12} Btu	1.20E-06	1.20E-06	1.20E-06	1.20E-06
Heat Input Rate (MMBtu/hr)	1.86E+03	1.78E+03	1.70E+03	1.61E+03
Emission Rate (lb/hr)	2.23E-09	2.13E-09	2.05E-09	1.93E-09
(TPY)	9.76E-09	9.34E-09	8.96E-09	8.44E-09
Beryllium (lb/hr) = Basis (lb/10^{12} Btu) x Heat Input (MMBtu/hr) / 1,000,000 MMBtu/10^{12} Btu				
Basis (a) , lb/10^{12} Btu	0	0	0	0
Heat Input Rate (MMBtu/hr)	1,858	1,776	1,704	1,607
Emission Rate (lb/hr)	0	0	0	0
(TPY)	0	0	0	0
Fluoride (lb/hr) = Basis (lb/10^{12} Btu) x Heat Input (MMBtu/hr) / 1,000,000 MMBtu/10^{12} Btu				
Basis (b) , lb/10^{12} Btu	0	0	0	0
Heat Input Rate (MMBtu/hr)	1,858	1,776	1,704	1,607
Emission Rate (lb/hr)	0	0	0	0
(TPY)	0	0	0	0
Mercury (lb/hr) = Basis (lb/10^{12} Btu) x Heat Input (MMBtu/hr) / 1,000,000 MMBtu/10^{12} Btu				
Basis (a) , lb/10^{12} Btu	7.48E-04	7.48E-04	7.48E-04	7.48E-04
Heat Input Rate (MMBtu/hr)	1,858	1,776	1,704	1,607
Emission Rate (lb/hr)	1.39E-06	1.33E-06	1.27E-06	1.20E-06
(TPY)	6.09E-06	5.82E-06	5.58E-06	5.26E-06
Sulfuric Acid Mist = Fuel Use (lb/hr) x sulfur (S) content (fraction) x conversion of S to H_2SO_4 (%) x MW H_2SO_4 /MW S (98/32)				
Fuel Usage (cf/hr)	1,793,537	1,715,087	1,645,639	1,551,219
Sulfur (lb/hr)	2.56	2.45	2.35	2.22
lb H_2SO_4 /lb S (98/32)	3.0625	3.0625	3.0625	3.0625
Conversion to H_2SO_4 (%) (c)	5	5	5	5
Emission Rate (lb/hr)	0.39	0.38	0.36	0.34
(TPY)	1.72	1.64	1.58	1.49

Sources: (a) Golder Associates, 2000; (b) EPA, 1981; (c) Assumed.

Note: No Emission Factors for Hydrogen chloride (HCl) from natural gas firing.

Table A-4. Maximum Emissions for Hazardous Air Pollutants for FPL Fort Myers Simple Cycle CT Project
GE Frame 7FA, Dry Low NOx Combustor, Natural Gas, Base Load

Parameter	Turbine Inlet Temperature 35 °F	59 °F	75 °F	95 °F
Hours of Operation	8,760	8,760	8,760	8,760
Acetalhyde (lb/hr) = Basis (lb/10^{12} Btu) x Heat Input (MMBtu/hr) / 1,000,000 MMBtu/10^{12} Btu				
Basis (a) , lb/10^{12} Btu	40.00	40.00	40.00	40.00
Heat Input Rate (MMBtu/hr)	1,858	1,776	1,704	1,607
Emission Rate (lb/hr)	7.43E-02	7.11E-02	6.82E-02	6.43E-02
(TPY)	3.25E-01	3.11E-01	2.99E-01	2.81E-01
Benzene (lb/hr) = Basis (lb/10^{12} Btu) x Heat Input (MMBtu/hr) / 1,000,000 MMBtu/10^{12} Btu				
Basis (a) , lb/10^{12} Btu	12	12	12	12
Heat Input Rate (MMBtu/hr)	1,858	1,776	1,704	1,607
Emission Rate (lb/hr)	2.23E-02	2.13E-02	2.05E-02	1.93E-02
(TPY)	9.76E-02	9.34E-02	8.96E-02	8.44E-02
1,3 Butadiene (lb/hr) = Basis (lb/10^{12} Btu) x Heat Input (MMBtu/hr) / 1,000,000 MMBtu/10^{12} Btu				
Basis (a) , lb/10^{12} Btu	0.43	0.43	0.43	0.43
Heat Input Rate (MMBtu/hr)	1,858	1,776	1,704	1,607
Emission Rate (lb/hr)	7.99E-04	7.64E-04	7.33E-04	6.91E-04
(TPY)	3.50E-03	3.35E-03	3.21E-03	3.03E-03
Acrolein (lb/hr) = Basis (lb/10^{12} Btu) x Heat Input (MMBtu/hr) / 1,000,000 MMBtu/10^{12} Btu				
Basis (a) , lb/10^{12} Btu	6.4	6.4	6.4	6.4
Heat Input Rate (MMBtu/hr)	1,858	1,776	1,704	1,607
Emission Rate (lb/hr)	1.19E-02	1.14E-02	1.09E-02	1.03E-02
(TPY)	5.21E-02	4.98E-02	4.78E-02	4.50E-02
Formaldehyde (lb/hr) = Basis (lb/10^{12} Btu) x Heat Input (MMBtu/hr) / 1,000,000 MMBtu/10^{12} Btu				
Basis (a) , lb/10^{12} Btu	150	150	150	150
Heat Input Rate (MMBtu/hr)	1,858	1,776	1,704	1,607
Emission Rate (lb/hr)	2.79E-01	2.66E-01	2.56E-01	2.41E-01
(TPY)	1.22E+00	1.17E+00	1.12E+00	1.06E+00
Ethylbenzene (lb/hr) = Basis (lb/10^{12} Btu) x Heat Input (MMBtu/hr) / 1,000,000 MMBtu/10^{12} Btu				
Basis (a) , lb/10^{12} Btu	32.0	32.0	32.0	32.0
Heat Input Rate (MMBtu/hr)	1.86E+03	1.78E+03	1.70E+03	1.61E+03
Emission Rate (lb/hr)	5.94E-02	5.68E-02	5.45E-02	5.14E-02
(TPY)	2.60E-01	2.49E-01	2.39E-01	2.25E-01
Napthalene (lb/hr) = Basis (lb/10^{12} Btu) x Heat Input (MMBtu/hr) / 1,000,000 MMBtu/10^{12} Btu				
Basis (a) , lb/10^{12} Btu	1.3	1.3	1.3	1.3
Heat Input Rate (MMBtu/hr)	1,858	1,776	1,704	1,607
Emission Rate (lb/hr)	2.41E-03	2.31E-03	2.22E-03	2.09E-03
(TPY)	1.06E-02	1.01E-02	9.70E-03	9.15E-03
Propylene Oxide (lb/hr) = Basis (lb/10^{12} Btu) x Heat Input (MMBtu/hr) / 1,000,000 MMBtu/10^{12} Btu				
Basis (a) , lb/10^{12} Btu	29.0	29.0	29.0	29.0
Heat Input Rate (MMBtu/hr)	1,858	1,776	1,704	1,607
Emission Rate (lb/hr)	5.39E-02	5.15E-02	4.94E-02	4.66E-02
(TPY)	2.36E-01	2.26E-01	2.16E-01	2.04E-01
Polycyclic Aromatic Hydrocarbons (PAH) (lb/hr) = Basis (lb/10^{12} Btu) x Heat Input (MMBtu/hr) / 1,000,000 MMBtu/10^{12} I				
Basis (b) , lb/10^{12} Btu	22.0	22.0	22.0	22.0
Heat Input Rate (MMBtu/hr)	1,858	1,776	1,704	1,607
Emission Rate (lb/hr)	4.09E-02	3.91E-02	3.75E-02	3.53E-02
(TPY)	1.79E-01	1.71E-01	1.64E-01	1.55E-01
Xylene (lb/hr) = Basis (lb/10^{12} Btu) x Heat Input (MMBtu/hr) / 1,000,000 MMBtu/10^{12} Btu				
Basis (a) , lb/10^{12} Btu	64.0	64.0	64.0	64.0
Heat Input Rate (MMBtu/hr)	1,858	1,776	1,704	1,607
Emission Rate (lb/hr)	1.19E-01	1.14E-01	1.09E-01	1.03E-01
(TPY)	5.21E-01	4.98E-01	4.78E-01	4.50E-01
Toluene (lb/hr) = Basis (lb/10^{12} Btu) x Heat Input (MMBtu/hr) / 1,000,000 MMBtu/10^{12} Btu				
Basis (a) , lb/10^{12} Btu	130	130	130	130
Heat Input Rate (MMBtu/hr)	1,858	1,776	1,704	1,607
Emission Rate (lb/hr)	2.41E-01	2.31E-01	2.22E-01	2.09E-01
(TPY)	1.06E+00	1.01E+00	9.70E-01	9.15E-01

Sources: (a) Golder Associates, 2000; (b) EPA, 2000 (AP-42,Table 3.1-4)

Table A-5. Design Information and Stack Parameters for FPL Fort Myers Simple Cycle CT Project
GE Frame 7FA, Dry Low NOx Combustor, Natural Gas, 75% Load

Parameter	Turbine Inlet Temperature 35 °F	59 °F	75 °F	95 °F
Combustion Turbine Performance				
Net power output (MW)	136.7	129.24	122.24	112.24
Net heat rate (Btu/kWh, LHV)	9,855	10,043	10,236	10,602
(Btu/kWh, HHV)	10,939	11,148	11,362	11,769
Heat Input (MMBtu/hr, LHV)	1,347	1,298	1,251	1,190
(MMBtu/hr, HHV)	1,495	1,441	1,389	1,321
Fuel heating value (Btu/lb, LHV)	20,835	20,835	20,835	20,835
(Btu/lb, HHV)	23,127	23,127	23,127	23,127
(HHV/LHV)	1.110	1.110	1.110	1.110
CT Exhaust Flow				
Mass Flow (lb/hr)- with no margin	2,979,000	2,888,000	2,803,000	2,694,000
- provided	2,979,000	2,888,000	2,803,000	2,694,000
Temperature (°F)	1,122	1,139	1,153	1,170
Moisture (% Vol.)	7.49	8.27	8.92	9.8
Oxygen (% Vol.)	12.67	12.57	12.49	12.41
Molecular Weight	28.50	28.41	28.33	28.23
Fuel Usage				
Fuel usage (lb/hr) = Heat Input (MMBtu/hr) x 1,000,000 Btu/MMBtu (Fuel Heat Content, Btu/lb (LHV))				
Heat input (MMBtu/hr, LHV)	1,347	1,298	1,251	1,190
Heat content (Btu/lb, LHV)	20,835	20,835	20,835	20,835
Fuel usage (lb/hr)- calculated	64,660	62,299	60,058	57,115
CT Stack				
CT- Stack height (ft)	80	80	80	80
Diameter (ft)	20.5	20.5	20.5	20.5
Turbine Flow Conditions (CT Stack-Unit 4 only)				
Turbine Flow (acfm) = [(Mass Flow (lb/hr) x 1,545 x (Temp. (°F)+ 460°F)] / [Molecular weight x 2116.8] / 60 min/hr				
Mass flow (lb/hr)	2,979,000	2,888,000	2,803,000	2,694,000
Temperature (°F)	1,122	1,139	1,153	1,170
Molecular weight	28.50	28.41	28.33	28.23
Volume flow (acfm)- calculated	2,011,853	1,977,488	1,941,432	1,892,412
(ft3/s)- calculated	33,531	32,958	32,357	31,540
Stack Flow Conditions				
Velocity (ft/sec) = Volume flow (acfm) / [((diameter)^2 /4) x 3.14159] / 60 sec/min				
CT Temperature (°F)	1,122	1,139	1,153	1,170
CT volume flow (acfm)	2,011,853	1,977,488	1,941,432	1,892,412
Diameter (ft)	20.5	20.5	20.5	20.5
Velocity (ft/sec)- calculated	101.6	99.9	98.0	95.6

Note: Universal gas constant = 1,545 ft-lb(force)/°R; atmospheric pressure = 2,116.8 lb(force)/ft^2; 14.7 lb/ft^3
Turbine inlet relative humidity is 20% at 35 °F, 60% at 59 and 75 °F, and 50% at 95 °F.
Source: GE, 2000.

Table A-6. Maximum Emissions for Criteria Pollutants for FPL Fort Myers Simple Cycle CT Project
GE Frame 7FA, Dry Low NOx Combustor, Natural Gas, 75% Load

Parameter	Turbine Inlet Temperature 35 °F	59 °F	75 °F	95 °F
Hours of Operation	8,760	8,760	8,760	8,760
Particulate (lb/hr) = Emission rate (lb/hr) from manufacturer				
Basis (excludes H_2SO_4), lb/hr	10	10	10	10
Emission rate (lb/hr)- provided	10.0	10.0	10.0	10.0
(TPY)	43.8	43.8	43.8	43.8
Sulfur Dioxide (lb/hr) = Natural gas (cf/hr) x sulfur content(gr/100 cf) x 1 lb/7000 gr x (lb SO_2 /lb S) /100				
Fuel density (lb/ft^3)	0.0448	0.0448	0.0448	0.0448
Fuel use (cf/hr)	1,443,832	1,391,103	1,341,054	1,275,357
Sulfur content (grains/ 100 cf)	1	1	1	1
lb SO_2 /lb S (64/32)	2	2	2	2
Emission rate (lb/hr)	4.1	4.0	3.8	3.6
(TPY)	18.07	17.41	16.78	15.96
Nitrogen Oxides (lb/hr) = NOx(ppm) x {[20.9 x (1 - Moisture(%)/100)] - Oxygen(%)} x 2116.8 x Volume flow (acfm) x 46 (mole. wgt NOx) x 60 min/hr / [1545 x (CT temp.(°F) + 460°F) x 5.9 x 1,000,000 (adj. for ppm)]				
Basis, ppmvd @15% O_2	10.5	10.5	10.5	10.5
Moisture (%)	7.49	8.27	8.92	9.8
Oxygen (%)	12.67	12.57	12.49	12.41
Turbine Flow (acfm)	2,011,853	1,977,488	1,941,432	1,892,412
Turbine Exhaust Temperature (°F)	1,122	1,139	1,153	1,170
Emission rate (lb/hr)	57.0	54.9	53.0	50.3
(TPY)	249.8	240.6	232.2	220.4
Carbon Monoxide (lb/hr) = CO(ppm) x [1 - Moisture(%)/100] x 2116.8 lb/ft2 x Volume flow (acfm) x 28 (mole. wgt CO) x 60 min/hr / [1545 x (CT temp.(°F) + 460°F) x 1,000,000 (adj. for ppm)]				
Basis, ppmvd	9	9	9	9
Moisture (%)	7.49	8.27	8.92	9.8
Turbine Flow (acfm)	2,011,853	1,977,488	1,941,432	1,892,412
Turbine Exhaust Temperature (°F)	1,122	1,139	1,153	1,170
Emission rate (lb/hr)	24.4	23.5	22.7	21.7
(TPY)	106.7	102.9	99.5	95.0
VOCs (lb/hr) = VOC(ppmvd) x [1-Moisture(%)/100] x 2116.8 lb/ft2 x Volume flow (acfm) x 16 (mole. wgt as methane) x 60 min/hr / [1545 x (CT temp.(°F) + 460°F) x 1,000,000 (adj. for ppm)]				
Basis, ppmvd	1.5	1.5	1.5	1.5
Moisture (%)	7.49	8.27	8.92	9.8
Turbine Flow (acfm)	2,011,853	1,977,488	1,941,432	1,892,412
Turbine Exhaust Temperature (°F)	1,122	1,139	1,153	1,170
Emission rate (lb/hr)	2.32	2.24	2.16	2.07
(TPY)	10.2	9.8	9.5	9.0
Lead (lb/hr)= NA				
Emission Rate Basis	NA	NA	NA	NA
Emission rate (lb/hr)	NA	NA	NA	NA
(TPY)	NA	NA	NA	NA

Note: ppmvd= parts per million, volume dry; O_2= oxygen.

Source: GE, 2000; Golder Associates, 2000; EPA, 1996

Table A-7. Maximum Emissions for Other Regulated PSD Pollutants for FPL Fort Myers Simple Cycle CT Project
GE Frame 7FA, Dry Low NOx Combustor, Natural Gas, 75% Load

Parameter	Turbine Inlet Temperature 35 °F	59 °F	75 °F	95 °F
Hours of Operation	8,760	8,760	8,760	8,760
2,3,7,8-TCDD Equivalents (lb/hr) = Basis (lb/10^{12} Btu) x Heat Input (MMBtu/hr) / 1,000,000 MMBtu/10^{12} Btu				
Basis (a) , lb/10^{12} Btu	1.20E-06	1.20E-06	1.20E-06	1.20E-06
Heat Input Rate (MMBtu/hr)	1.50E+03	1.44E+03	1.39E+03	1.32E+03
Emission Rate (lb/hr)	1.79E-09	1.73E-09	1.67E-09	1.59E-09
(TPY)	7.86E-09	7.57E-09	7.30E-09	6.94E-09
Beryllium (lb/hr) = Basis (lb/10^{12} Btu) x Heat Input (MMBtu/hr) / 1,000,000 MMBtu/10^{12} Btu				
Basis (a) , lb/10^{12} Btu	0	0	0	0
Heat Input Rate (MMBtu/hr)	1,495	1,441	1,389	1,321
Emission Rate (lb/hr)	0	0	0	0
(TPY)	0	0	0	0
Fluoride (lb/hr) = Basis (lb/10^{12} Btu) x Heat Input (MMBtu/hr) / 1,000,000 MMBtu/10^{12} Btu				
Basis (b) , lb/10^{12} Btu	0	0	0	0
Heat Input Rate (MMBtu/hr)	1,495	1,441	1,389	1,321
Emission Rate (lb/hr)	0	0	0	0
(TPY)	0	0	0	0
Mercury (lb/hr) = Basis (lb/10^{12} Btu) x Heat Input (MMBtu/hr) / 1,000,000 MMBtu/10^{12} Btu				
Basis (a) , lb/10^{12} Btu	7.48E-04	7.48E-04	7.48E-04	7.48E-04
Heat Input Rate (MMBtu/hr)	1,495	1,441	1,389	1,321
Emission Rate (lb/hr)	1.12E-06	1.08E-06	1.04E-06	9.88E-07
(TPY)	4.90E-06	4.72E-06	4.55E-06	4.33E-06
Sulfuric Acid Mist = Fuel Use (lb/hr) x sulfur (S) content (fraction) x conversion of S to H_2SO_4 (%) x MW H_2SO_4 /MW S (98/32)				
Fuel Usage (cf/hr)	1,443,832	1,391,103	1,341,054	1,275,357
Sulfur (lb/hr)	2.06	1.99	1.92	1.82
lb H_2SO_4 /lb S (98/32)	3.0625	3.0625	3.0625	3.0625
Conversion to H_2SO_4 (%) (c)	5	5	5	5
Emission Rate (lb/hr)	0.32	0.30	0.29	0.28
(TPY)	1.38	1.33	1.28	1.22

Sources: (a) Golder Associates, 2000; (b) EPA, 1981; (c) Assumed.

Table A-8. Maximum Emissions for Hazardous Air Pollutants for FPL Fort Myers Simple Cycle CT Project
GE Frame 7FA, Dry Low NOx Combustor, Natural Gas, 75% Load

Parameter	Turbine Inlet Temperature 35 °F	59 °F	75 °F	95 °F
Hours of Operation	8,760	8,760	8,760	8,760
Acetalhyde (lb/hr) = Basis (lb/10^{12} Btu) x Heat Input (MMBtu/hr) / 1,000,000 MMBtu/10^{12} Btu				
Basis (a) , lb/10^{12} Btu	40.0	40.0	40.0	40.0
Heat Input Rate (MMBtu/hr)	1,495	1,441	1,389	1,321
Emission Rate (lb/hr)	5.98E-02	5.76E-02	5.56E-02	5.28E-02
(TPY)	2.62E-01	2.52E-01	2.43E-01	2.31E-01
Benzene (lb/hr) = Basis (lb/10^{12} Btu) x Heat Input (MMBtu/hr) / 1,000,000 MMBtu/10^{12} Btu				
Basis (a) , lb/10^{12} Btu	12.0	12.0	12.0	12.0
Heat Input Rate (MMBtu/hr)	1,495	1,441	1,389	1,321
Emission Rate (lb/hr)	1.79E-02	1.73E-02	1.67E-02	1.59E-02
(TPY)	7.86E-02	7.57E-02	7.30E-02	6.94E-02
1,3 Butadiene (lb/hr) = Basis (lb/10^{12} Btu) x Heat Input (MMBtu/hr) / 1,000,000 MMBtu/10^{12} Btu				
Basis (a) , lb/10^{12} Btu	0.43	0.43	0.43	0.43
Heat Input Rate (MMBtu/hr)	1,495	1,441	1,389	1,321
Emission Rate (lb/hr)	6.43E-04	6.20E-04	5.97E-04	5.68E-04
(TPY)	2.82E-03	2.71E-03	2.62E-03	2.49E-03
Acrolein (lb/hr) = Basis (lb/10^{12} Btu) x Heat Input (MMBtu/hr) / 1,000,000 MMBtu/10^{12} Btu				
Basis (a) , lb/10^{12} Btu	6.4	6.4	6.4	6.4
Heat Input Rate (MMBtu/hr)	1,495	1,441	1,389	1,321
Emission Rate (lb/hr)	9.57E-03	9.22E-03	8.89E-03	8.45E-03
(TPY)	4.19E-02	4.04E-02	3.89E-02	3.70E-02
Formaldehyde (lb/hr) = Basis (lb/10^{12} Btu) x Heat Input (MMBtu/hr) / 1,000,000 MMBtu/10^{12} Btu				
Basis (a) , lb/10^{12} Btu	150	150	150	150
Heat Input Rate (MMBtu/hr)	1,495	1,441	1,389	1,321
Emission Rate (lb/hr)	2.24E-01	2.16E-01	2.08E-01	1.98E-01
(TPY)	9.82E-01	9.47E-01	9.13E-01	8.68E-01
Ethylbenzene (lb/hr) = Basis (lb/10^{12} Btu) x Heat Input (MMBtu/hr) / 1,000,000 MMBtu/10^{12} Btu				
Basis (a) , lb/10^{12} Btu	32.0	32.0	32.0	32.0
Heat Input Rate (MMBtu/hr)	1.50E+03	1.44E+03	1.39E+03	1.32E+03
Emission Rate (lb/hr)	4.79E-02	4.61E-02	4.44E-02	4.23E-02
(TPY)	2.10E-01	2.02E-01	1.95E-01	1.85E-01
Napthalene (lb/hr) = Basis (lb/10^{12} Btu) x Heat Input (MMBtu/hr) / 1,000,000 MMBtu/10^{12} Btu				
Basis (a) , lb/10^{12} Btu	1.3	1.3	1.3	1.3
Heat Input Rate (MMBtu/hr)	1,495	1,441	1,389	1,321
Emission Rate (lb/hr)	1.94E-03	1.87E-03	1.81E-03	1.72E-03
(TPY)	8.51E-03	8.20E-03	7.91E-03	7.52E-03
Propylene Oxide (lb/hr) = Basis (lb/10^{12} Btu) x Heat Input (MMBtu/hr) / 1,000,000 MMBtu/10^{12} Btu				
Basis (a) , lb/10^{12} Btu	29.0	29.0	29.0	29.0
Heat Input Rate (MMBtu/hr)	1,495	1,441	1,389	1,321
Emission Rate (lb/hr)	4.34E-02	4.18E-02	4.03E-02	3.83E-02
(TPY)	1.90E-01	1.83E-01	1.76E-01	1.68E-01
Polycyclic Aromatic Hydrocarbons (PAH) (lb/hr) = Basis (lb/10^{12} Btu) x Heat Input (MMBtu/hr) / 1,000,000 MMBtu/10^{12} Btu				
Basis (b) , lb/10^{12} Btu	22.0	22.0	22.0	22.0
Heat Input Rate (MMBtu/hr)	1,495	1,441	1,389	1,321
Emission Rate (lb/hr)	3.29E-02	3.17E-02	3.06E-02	2.91E-02
(TPY)	1.44E-01	1.39E-01	1.34E-01	1.27E-01
Xylene (lb/hr) = Basis (lb/10^{12} Btu) x Heat Input (MMBtu/hr) / 1,000,000 MMBtu/10^{12} Btu				
Basis (a) , lb/10^{12} Btu	64.0	64.0	64.0	64.0
Heat Input Rate (MMBtu/hr)	1,495	1,441	1,389	1,321
Emission Rate (lb/hr)	9.57E-02	9.22E-02	8.89E-02	8.45E-02
(TPY)	4.19E-01	4.04E-01	3.89E-01	3.70E-01
Toluene (lb/hr) = Basis (lb/10^{12} Btu) x Heat Input (MMBtu/hr) / 1,000,000 MMBtu/10^{12} Btu				
Basis (a) , lb/10^{12} Btu	130	130	130	130
Heat Input Rate (MMBtu/hr)	1,495	1,441	1,389	1,321
Emission Rate (lb/hr)	1.94E-01	1.87E-01	1.81E-01	1.72E-01
(TPY)	8.51E-01	8.20E-01	7.91E-01	7.52E-01

Sources: (a) Golder Associates, 2000; (b) EPA, 2000 (AP-42,Table 3.1-4)

Table A-9. Design Information and Stack Parameters for FPL Fort Myers Simple Cycle CT Project
GE Frame 7FA, Dry Low NOx Combustor, Natural Gas, 50% Load

Parameter	Turbine Inlet Temperature 35 °F	59 °F	75 °F	95 °F
Combustion Turbine Performance				
Net power output (MW)	91.1	86.5	81.34	74.64
Net heat rate (Btu/kWh, LHV)	11,820	12,050	12,415	12,866
(Btu/kWh, HHV)	13,120	13,375	13,780	14,281
Heat Input (MMBtu/hr, LHV)	1,077	1,042	1,010	960
(MMBtu/hr, HHV)	1,195	1,157	1,121	1,066
Fuel heating value (Btu/lb, LHV)	20,835	20,835	20,835	20,835
(Btu/lb, HHV)	23,127	23,127	23,127	23,127
(HHV/LHV)	1.110	1.110	1.110	1.110
CT Exhaust Flow				
Mass Flow (lb/hr)- with no margin	2,456,000	2,396,000	2,336,000	2,267,000
- provided	2,456,000	2,396,000	2,336,000	2,267,000
Temperature (°F)	1,168	1,184	1,195	1,200
Moisture (% Vol.)	7.21	7.97	8.62	9.45
Oxygen (% Vol.)	12.99	12.90	12.83	12.80
Molecular Weight	28.51	28.43	28.35	28.25
Fuel Usage				
Fuel usage (lb/hr) = Heat Input (MMBtu/hr) x 1,000,000 Btu/MMBtu (Fuel Heat Content, Btu/lb (LHV))				
Heat input (MMBtu/hr, LHV)	1,077	1,042	1,010	960
Heat content (Btu/lb, LHV)	20,835	20,835	20,835	20,835
Fuel usage (lb/hr)- calculated	51,682	50,026	48,467	46,091
CT Stack				
CT- Stack height (ft)	80	80	80	80
Diameter (ft)	20.5	20.5	20.5	20.5
Turbine Flow Conditions (CT Stack-Unit 4 only)				
Turbine Flow (acfm) = [(Mass Flow (lb/hr) x 1,545 x (Temp. (°F)+ 460°F)] / [Molecular weight x 2116.8] / 60 min/hr				
Mass flow (lb/hr)	2,456,000	2,396,000	2,336,000	2,267,000
Temperature (°F)	1,168	1,184	1,195	1,200
Molecular weight	28.51	28.43	28.35	28.25
Volume flow (acfm)- calculated	1,705,874	1,685,637	1,658,984	1,620,525
(ft3/s)- calculated	28,431	28,094	27,650	27,009
Stack Flow Conditions				
Velocity (ft/sec) = Volume flow (acfm) / [((diameter)^2 /4) x 3.14159] / 60 sec/min				
CT Temperature (°F)	1,168	1,184	1,195	1,200
CT volume flow (acfm)	1,705,874	1,685,637	1,658,984	1,620,525
Diameter (ft)	20.5	20.5	20.5	20.5
Velocity (ft/sec)- calculated	86.1	85.1	83.8	81.8

Note: Universal gas constant = 1,545 ft-lb(force)/°R; atmospheric pressure = 2,116.8 lb(force)/ft^2; 14.7 lb/ft^3
Turbine inlet relative humidity is 20% at 35 °F, 60% at 59 and 75 °F, and 50% at 95 °F.
Source: GE, 2000.

Table A-10. Maximum Emissions for Criteria Pollutants for FPL Fort Myers Simple Cycle CT Project
GE Frame 7FA, Dry Low NOx Combustor, Natural Gas, 50% Load

Parameter	Turbine Inlet Temperature 35 °F	59 °F	75 °F	95 °F
Hours of Operation	8,760	8,760	8,760	8,760
Particulate (lb/hr) = Emission rate (lb/hr) from manufacturer				
Basis (excludes H_2SO_4), lb/hr	10	10	10	10
Emission rate (lb/hr)- provided	10.0	10.0	10.0	10.0
(TPY)	43.8	43.8	43.8	43.8
Sulfur Dioxide (lb/hr) = Natural gas (cf/hr) x sulfur content(gr/100 cf) x 1 lb/7000 gr x (lb SO_2 /lb S) /100				
Fuel density (lb/ft^3)	0.0448	0.0448	0.0448	0.0448
Fuel use (cf/hr)	1,154,037	1,117,062	1,082,231	1,029,181
Sulfur content (grains/ 100 cf)	1	1	1	1
lb SO_2 /lb S (64/32)	2	2	2	2
Emission rate (lb/hr)	3.3	3.2	3.1	2.9
(TPY)	14.44	13.98	13.54	12.88
Nitrogen Oxides (lb/hr) = NOx(ppm) x {[20.9 x (1 - Moisture(%)/100)] - Oxygen(%)} x 2116.8 x Volume flow (acfm) x 46 (mole. wgt NOx) x 60 min/hr / [1545 x (CT temp.(°F) + 460°F) x 5.9 x 1,000,000 (adj. for ppm)]				
Basis, ppmvd @15% O_2	10.5	10.5	10.5	10.5
Moisture (%)	7.21	7.97	8.62	9.45
Oxygen (%)	12.99	12.9	12.83	12.8
Turbine Flow (acfm)	1,705,874	1,685,637	1,658,984	1,620,525
Turbine Exhaust Temperature (°F)	1,168	1,184	1,195	1,200
Emission rate (lb/hr)	45.2	43.7	42.3	40.2
(TPY)	197.8	191.4	185.2	176.2
Carbon Monoxide (lb/hr) = CO(ppm) x [1 - Moisture(%)/100] x 2116.8 lb/ft2 x Volume flow (acfm) x 28 (mole. wgt CO) x 60 min/hr / [1545 x (CT temp.(°F) + 460°F) x 1,000,000 (adj. for ppm)]				
Basis, ppmvd	9	9	9	9
Moisture (%)	7.21	7.97	8.62	9.45
Turbine Flow (acfm)	1,705,874	1,685,637	1,658,984	1,620,525
Turbine Exhaust Temperature (°F)	1,168	1,184	1,195	1,200
Emission rate (lb/hr)	20.1	19.5	19.0	18.3
(TPY)	88.2	85.6	83.1	80.2
VOCs (lb/hr) = VOC(ppmvd) x [1-Moisture(%)/100] x 2116.8 lb/ft2 x Volume flow (acfm) x 16 (mole. wgt as methane) x 60 min/hr / [1545 x (CT temp.(°F) + 460°F) x 1,000,000 (adj. for ppm)]				
Basis, ppmvd	1.5	1.5	1.5	1.5
Moisture (%)	7.21	7.97	8.62	9.45
Turbine Flow (acfm)	1,705,874	1,685,637	1,658,984	1,620,525
Turbine Exhaust Temperature (°F)	1,168	1,184	1,195	1,200
Emission rate (lb/hr)	1.92	1.86	1.81	1.74
(TPY)	8.4	8.2	7.9	7.6
Lead (lb/hr)= NA				
Emission Rate Basis	NA	NA	NA	NA
Emission rate (lb/hr)	NA	NA	NA	NA
(TPY)	NA	NA	NA	NA

Note: ppmvd= parts per million, volume dry; O_2= oxygen.

Source: GE, 2000; Golder Associates, 1998; EPA, 1996

Table A-11. Maximum Emissions for Other Regulated PSD Pollutants for FPL Fort Myers Simple Cycel CT Project
GE Frame 7FA, Dry Low NOx Combustor, Natural Gas, 50% Load

Parameter	Turbine Inlet Temperature 35 °F	59 °F	75 °F	95 °F
Hours of Operation	8,760	8,760	8,760	8,760
2,3,7,8-TCDD Equivalents (lb/hr) = Basis (lb/10^{12} Btu) x Heat Input (MMBtu/hr) / 1,000,000 MMBtu/10^{12} Btu				
Basis (a) , lb/10^{12} Btu	1.20E-06	1.20E-06	1.20E-06	1.20E-06
Heat Input Rate (MMBtu/hr)	1.20E+03	1.16E+03	1.12E+03	1.07E+03
Emission Rate (lb/hr)	1.43E-09	1.39E-09	1.35E-09	1.28E-09
(TPY)	6.28E-09	6.08E-09	5.89E-09	5.60E-09
Beryllium (lb/hr) = Basis (lb/10^{12} Btu) x Heat Input (MMBtu/hr) / 1,000,000 MMBtu/10^{12} Btu				
Basis (a) , lb/10^{12} Btu	0	0	0	0
Heat Input Rate (MMBtu/hr)	1,195	1,157	1,121	1,066
Emission Rate (lb/hr)	0	0	0	0
(TPY)	0	0	0	0
Fluoride (lb/hr) = Basis (lb/10^{12} Btu) x Heat Input (MMBtu/hr) / 1,000,000 MMBtu/10^{12} Btu				
Basis (b) , lb/10^{12} Btu	0	0	0	0
Heat Input Rate (MMBtu/hr)	1,195	1,157	1,121	1,066
Emission Rate (lb/hr)	0	0	0	0
(TPY)	0	0	0	0
Mercury (lb/hr) = Basis (lb/10^{12} Btu) x Heat Input (MMBtu/hr) / 1,000,000 MMBtu/10^{12} Btu				
Basis (a) , lb/10^{12} Btu	7.48E-04	7.48E-04	7.48E-04	7.48E-04
Heat Input Rate (MMBtu/hr)	1,195	1,157	1,121	1,066
Emission Rate (lb/hr)	8.94E-07	8.65E-07	8.38E-07	7.97E-07
(TPY)	3.92E-06	3.79E-06	3.67E-06	3.49E-06
Sulfuric Acid Mist = Fuel Use (lb/hr) x sulfur (S) content (fraction) x conversion of S to H_2SO_4 (%) x MW H_2SO_4 /MW S (98/32)				
Fuel Usage (cf/hr)	1,154,037	1,117,062	1,082,231	1,029,181
Sulfur (lb/hr)	1.65	1.60	1.55	1.47
lb H_2SO_4 /lb S (98/32)	3.0625	3.0625	3.0625	3.0625
Conversion to H_2SO_4 (%) (c)	5	5	5	5
Emission Rate (lb/hr)	0.25	0.24	0.24	0.23
(TPY)	1.11	1.07	1.04	0.99

Sources: (a) Golder Associates, 2000; (b) EPA, 1981; (c) Assumed.

Table A-12. Maximum Emissions for Hazardous Air Pollutants for FPL Fort Myers Simple Cycle CT Project
GE Frame 7FA, Dry Low NOx Combustor, Natural Gas, 50% Load

Parameter	Turbine Inlet Temperature 35 °F	59 °F	75 °F	95 °F
Hours of Operation	8,760	8,760	8,760	8,760
Acetalhyde (lb/hr) = Basis (lb/10^{12} Btu) x Heat Input (MMBtu/hr) / 1,000,000 MMBtu/10^{12} Btu				
Basis (a) , lb/10^{12} Btu	40.0	40.0	40.0	40.0
Heat Input Rate (MMBtu/hr)	1,195	1,157	1,121	1,066
Emission Rate (lb/hr)	4.78E-02	4.63E-02	4.48E-02	4.26E-02
(TPY)	2.09E-01	2.03E-01	1.96E-01	1.87E-01
Benzene (lb/hr) = Basis (lb/10^{12} Btu) x Heat Input (MMBtu/hr) / 1,000,000 MMBtu/10^{12} Btu				
Basis (a) , lb/10^{12} Btu	12.0	12.0	12.0	12.0
Heat Input Rate (MMBtu/hr)	1,195	1,157	1,121	1,066
Emission Rate (lb/hr)	1.43E-02	1.39E-02	1.35E-02	1.28E-02
(TPY)	6.28E-02	6.08E-02	5.89E-02	5.60E-02
1,3 Butadiene (lb/hr) = Basis (lb/10^{12} Btu) x Heat Input (MMBtu/hr) / 1,000,000 MMBtu/10^{12} Btu				
Basis (a) , lb/10^{12} Btu	0.43	0.43	0.43	0.43
Heat Input Rate (MMBtu/hr)	1,195	1,157	1,121	1,066
Emission Rate (lb/hr)	5.14E-04	4.97E-04	4.82E-04	4.58E-04
(TPY)	2.25E-03	2.18E-03	2.11E-03	2.01E-03
Acrolein (lb/hr) = Basis (lb/10^{12} Btu) x Heat Input (MMBtu/hr) / 1,000,000 MMBtu/10^{12} Btu				
Basis (a) , lb/10^{12} Btu	6.4	6.4	6.4	6.4
Heat Input Rate (MMBtu/hr)	1,195	1,157	1,121	1,066
Emission Rate (lb/hr)	7.65E-03	7.40E-03	7.17E-03	6.82E-03
(TPY)	3.35E-02	3.24E-02	3.14E-02	2.99E-02
Formaldehyde (lb/hr) = Basis (lb/10^{12} Btu) x Heat Input (MMBtu/hr) / 1,000,000 MMBtu/10^{12} Btu				
Basis (a) , lb/10^{12} Btu	150	150	150	150
Heat Input Rate (MMBtu/hr)	1,195	1,157	1,121	1,066
Emission Rate (lb/hr)	1.79E-01	1.74E-01	1.68E-01	1.60E-01
(TPY)	7.85E-01	7.60E-01	7.36E-01	7.00E-01
Ethylbenzene (lb/hr) = Basis (lb/10^{12} Btu) x Heat Input (MMBtu/hr) / 1,000,000 MMBtu/10^{12} Btu				
Basis (a) , lb/10^{12} Btu	32.0	32.0	32.0	32.0
Heat Input Rate (MMBtu/hr)	1.20E+03	1.16E+03	1.12E+03	1.07E+03
Emission Rate (lb/hr)	3.82E-02	3.70E-02	3.59E-02	3.41E-02
(TPY)	1.68E-01	1.62E-01	1.57E-01	1.49E-01
Napthalene (lb/hr) = Basis (lb/10^{12} Btu) x Heat Input (MMBtu/hr) / 1,000,000 MMBtu/10^{12} Btu				
Basis (a) , lb/10^{12} Btu	1.3	1.3	1.3	1.3
Heat Input Rate (MMBtu/hr)	1,195	1,157	1,121	1,066
Emission Rate (lb/hr)	1.55E-03	1.50E-03	1.46E-03	1.39E-03
(TPY)	6.81E-03	6.59E-03	6.38E-03	6.07E-03
Propylene Oxide (lb/hr) = Basis (lb/10^{12} Btu) x Heat Input (MMBtu/hr) / 1,000,000 MMBtu/10^{12} Btu				
Basis (a) , lb/10^{12} Btu	29.0	29.0	29.0	29.0
Heat Input Rate (MMBtu/hr)	1,195	1,157	1,121	1,066
Emission Rate (lb/hr)	3.47E-02	3.36E-02	3.25E-02	3.09E-02
(TPY)	1.52E-01	1.47E-01	1.42E-01	1.35E-01
Polycyclic Aromatic Hydrocarbons (PAH) (lb/hr) = Basis (lb/10^{12} Btu) x Heat Input (MMBtu/hr) / 1,000,000 MMBtu/10^{12} I				
Basis (b) , lb/10^{12} Btu	22.0	22.0	22.0	22.0
Heat Input Rate (MMBtu/hr)	1,195	1,157	1,121	1,066
Emission Rate (lb/hr)	2.63E-02	2.55E-02	2.47E-02	2.35E-02
(TPY)	1.15E-01	1.11E-01	1.08E-01	1.03E-01
Xylene (lb/hr) = Basis (lb/10^{12} Btu) x Heat Input (MMBtu/hr) / 1,000,000 MMBtu/10^{12} Btu				
Basis (a) , lb/10^{12} Btu	64.0	64.0	64.0	64.0
Heat Input Rate (MMBtu/hr)	1,195	1,157	1,121	1,066
Emission Rate (lb/hr)	7.65E-02	7.40E-02	7.17E-02	6.82E-02
(TPY)	3.35E-01	3.24E-01	3.14E-01	2.99E-01
Toluene (lb/hr) = Basis (lb/10^{12} Btu) x Heat Input (MMBtu/hr) / 1,000,000 MMBtu/10^{12} Btu				
Basis (a) , lb/10^{12} Btu	130	130	130	130
Heat Input Rate (MMBtu/hr)	1,195	1,157	1,121	1,066
Emission Rate (lb/hr)	1.55E-01	1.50E-01	1.46E-01	1.39E-01
(TPY)	6.81E-01	6.59E-01	6.38E-01	6.07E-01

Sources: (a) Golder Associates, 2000; (b) EPA, 2000 (AP-42,Table 3.1-4)

Table A-13. Design Information and Stack Parameters for FPL Fort Myers Simple Cycle CT Project
GE Frame 7FA, Dry Low NOx Combustor, Distillate Oil, Base Load

Parameter	Turbine Inlet Temperature 35 °F	59 °F	75 °F	95 °F
Combustion Turbine Performance				
Net power output (MW)	189.1	180.4	172.5	172.5
Net heat rate (Btu/kWh, LHV)	10,019	10,037	10,101	9,486
(Btu/kWh, HHV)	10,620	10,639	10,707	10,056
Heat Input (MMBtu/hr, LHV)	1,895	1,811	1,743	1,637
(MMBtu/hr, HHV)	2,008	1,919	1,847	1,735
Fuel heating value (Btu/lb, LHV)	18,367	18,367	18,367	18,367
(Btu/lb, HHV)	19,469	19,469	19,469	19,469
(HHV/LHV)	1.060	1.060	1.060	1.060
CT Exhaust Flow				
Mass Flow (lb/hr)- with no margin	3,862,000	3,683,000	3,552,000	3,376,000
- provided	3,862,000	3,683,000	3,552,000	3,376,000
Temperature (°F)	1,074	1,098	1,113	1,131
Moisture (% Vol.)	10.6	11.21	11.68	12.18
Oxygen (% Vol.)	11.19	11.06	11.00	11.00
Molecular Weight	28.39	28.33	28.27	28.21
Fuel Usage				
Fuel usage (lb/hr) = Heat Input (MMBtu/hr) x 1,000,000 Btu/MMBtu (Fuel Heat Content, Btu/lb (LHV))				
Heat input (MMBtu/hr, LHV)	1,895	1,811	1,743	1,637
Heat content (Btu/lb, LHV)	18,367	18,367	18,367	18,367
Fuel usage (lb/hr)- calculated	103,147	98,584	94,871	89,100
CT Stack				
CT - Stack height (ft)	80	80	80	80
Diameter (ft)	20.5	20.5	20.5	20.5
Turbine Flow Conditions				
Turbine Flow (acfm) = [(Mass Flow (lb/hr) x 1,545 x (Temp. (°F)+ 460°F)] / [Molecular weight x 2116.8] / 60 min/hr				
Mass flow (lb/hr)	3,862,000	3,683,000	3,552,000	3,376,000
Temperature (°F)	1,074	1,098	1,113	1,131
Molecular weight	28.39	28.33	28.27	28.21
Volume flow (acfm)- calculated	2,538,306	2,464,273	2,403,828	2,316,007
(ft3/s)- calculated	42,305	41,071	40,064	38,600
HRSG Stack Flow Conditions				
Velocity (ft/sec) = Volume flow (acfm) / [((diameter)² /4) x 3.14159] / 60 sec/min				
CT Temperature (°F)	1,074	1,098	1,113	1,131
CT volume flow (acfm)	2,538,306	2,464,273	2,403,828	2,316,007
Diameter (ft)	20.5	20.5	20.5	20.5
Velocity (ft/sec)- calculated	128.2	124.4	121.4	116.9

Note: Universal gas constant = 1,545 ft-lb(force)/°R; atmospheric pressure = 2,116.8 lb(force)/ft²; 14.7 lb/ft^3
Turbine inlet relative humidity is 20% at 35 °F, 60% at 59 and 75 °F, and 50% at 95 °F.
Source: GE, 2000

Table A-14. Maximum Emissions for Criteria Pollutants for FPL Fort Myers Simple Cycle CT Project
GE Frame 7FA, Dry Low NOx Combustor, Distillate Oil, Base Load

Parameter	Turbine Inlet Temperature 35 °F	59 °F	75 °F	95 °F
Hours of Operation	500	500	500	500
Particulate (lb/hr) = Emission rate (lb/hr) from manufacturer				
Basis (excludes H_2SO_4), lb/hr	17	17	17	17
Emission rate (lb/hr)- provided	17.0	17.0	17.0	17.0
(TPY)	4.3	4.3	4.3	4.3
Sulfur Dioxide (lb/hr) = Natural gas (lb/hr) x sulfur content (%/100) x (lb SO_2 /lb S)				
Fuel Sulfur Content	0.05%	0.05%	0.05%	0.05%
Fuel use (lb/hr)	103,147	98,584	94,871	89,100
lb SO_2 /lb S (64/32)	2	2	2	2
Emission rate (lb/hr)	103.1	98.6	94.9	89.1
(TPY)	25.79	24.65	23.72	22.28
Nitrogen Oxides (lb/hr) = NOx(ppm) x {[20.9 x (1 - Moisture(%)/100)] - Oxygen(%)} x 2116.8 x Volume flow (acfm) x 46 (mole. wgt NOx) x 60 min/hr / [1545 x (CT temp.(°F) + 460°F) x 5.9 x 1,000,000 (adj. for ppm)]				
Basis, ppmvd @15% O_2	42	42	42	42
Moisture (%)	10.6	11.21	11.68	12.18
Oxygen (%)	11.19	11.06	11	11
Turbine Flow (acfm)	2,538,306	2,464,273	2,403,828	2,288,566
Turbine Exhaust Temperature (°F)	1,074	1,098	1,113	1,131
Emission rate (lb/hr)	333.8	319.2	306.8	284.8
(TPY)	83.5	79.8	76.7	71.2
Carbon Monoxide (lb/hr) = CO(ppm) x [1 - Moisture(%)/100] x 2116.8 lb/ft2 x Volume flow (acfm) x 28 (mole. wgt CO) x 60 min/hr / [1545 x (CT temp.(°F) + 460°F) x 1,000,000 (adj. for ppm)]				
Basis, ppmvd	20	20	20	20
Moisture (%)	10.6	11.21	11.68	12.18
Turbine Flow (acfm)	2,538,306	2,464,273	2,403,828	2,288,566
Turbine Exhaust Temperature (°F)	1,074	1,098	1,113	1,131
Emission rate (lb/hr)	68.1	64.7	62.1	58.2
(TPY)	17.0	16.2	15.5	14.5
VOCs (lb/hr) = VOC(ppmvw) x 2116.8 lb/ft2 x Volume flow (acfm) x 16 (mole. wgt as methane) x 60 min/hr / [1545 x (CT temp.(°F) + 460°F) x 1,000,000 (adj. for ppm)]				
Basis, ppmvw	3.5	3.5	3.5	3.5
Turbine Flow (acfm)	2,538,306	2,464,273	2,403,828	2,288,566
Turbine Exhaust Temperature (°F)	1,074	1,098	1,113	1,131
Emission rate (lb/hr)	7.62	7.28	7.04	6.62
(TPY)	1.9	1.8	1.8	1.7
Lead (lb/hr)= NA				
Emission Rate Basis (lb/10^{12} Btu)	14	14	14	14
Emission rate (lb/hr)	0.0281	0.0269	0.0259	0.0243
(TPY)	0.0070	0.0067	0.0065	0.0061

Note: ppmvd= parts per million, volume dry; O_2= oxygen.

Source: GE, 2000; Golder Associates, 2000; EPA, 2000.

Table A-15. Maximum Emissions for Other Regulated PSD Pollutants for FPL Fort Myers Simple Cycle CT Project
GE Frame 7FA, Dry Low NOx Combustor, Distillate Oil, Base Load

Parameter	Turbine Inlet Temperature 35 °F	59 °F	75 °F	95 °F
Hours of Operation	500	500	500	500
2,3,7,8 TCDD Equivalents (lb/hr) = Basis (lb/10^{12} Btu) x Heat Input (MMBtu/hr) / 1,000,000 MMBtu/10^{12} Btu				
Basis (a) , lb/10^{12} Btu	3.80E-04	3.80E-04	3.80E-04	3.80E-04
Heat Input Rate (MMBtu/hr)	2.01E+03	1.92E+03	1.85E+03	1.85E+03
Emission Rate (lb/hr)	7.63E-07	7.29E-07	7.02E-07	7.02E-07
(TPY)	1.91E-07	1.82E-07	1.75E-07	1.75E-07
Beryllium (lb/hr) = Basis (lb/10^{12} Btu) x Heat Input (MMBtu/hr) / 1,000,000 MMBtu/10^{12} Btu				
Basis (a) , lb/10^{12} Btu	0.31	0.31	0.31	0.31
Heat Input Rate (MMBtu/hr)	2,008	1,919	1,847	1,847
Emission Rate (lb/hr)	6.23E-04	5.95E-04	5.73E-04	5.73E-04
(TPY)	1.56E-04	1.49E-04	1.43E-04	1.43E-04
Fluoride (lb/hr) = Basis (lb/10^{12} Btu) x Heat Input (MMBtu/hr) / 1,000,000 MMBtu/10^{12} Btu				
Basis (b) , lb/10^{12} Btu	32.54	32.54	32.54	32.54
Heat Input Rate (MMBtu/hr)	2,008	1,919	1,847	1,847
Emission Rate (lb/hr)	6.53E-02	6.25E-02	6.01E-02	6.01E-02
(TPY)	1.63E-02	1.56E-02	1.50E-02	1.50E-02
Hydrogen Chloride (lb/hr) = Basis (lb/10^{12} Btu) x Heat Input (MMBtu/hr) / 1,000,000 MMBtu/10^{12} Btu				
Basis (c) , lb/10^{12} Btu	2.11E+02	2.11E+02	2.11E+02	2.11E+02
Heat Input Rate (MMBtu/hr)	2,008	1,919	1,847	1,847
Emission Rate (lb/hr)	4.24E-01	4.05E-01	3.90E-01	3.90E-01
(TPY)	1.06E-01	1.01E-01	9.75E-02	9.75E-02
Mercury (lb/hr) = Basis (lb/10^{12} Btu) x Heat Input (MMBtu/hr) / 1,000,000 MMBtu/10^{12} Btu				
Basis (a) , lb/10^{12} Btu	1.2	1.2	1.2	1.2
Heat Input Rate (MMBtu/hr)	2,008	1,919	1,847	1,847
Emission Rate (lb/hr)	2.41E-03	2.30E-03	2.22E-03	2.22E-03
(TPY)	6.02E-04	5.76E-04	5.54E-04	5.54E-04
Sulfuric Acid Mist = Fuel Use (lb/hr) x sulfur (S) content (fraction) x conversion of S to H_2SO_4 (%) x MW H_2SO_4 /MW S (98/32)				
Fuel Usage (cf/hr)	103,147	98,584	94,871	89,100
Sulfur (lb/hr)	51.57	49.29	47.44	44.55
lb H_2SO_4 /lb S (98/32)	3.0625	3.0625	3.0625	3.0625
Conversion to H_2SO_4 (%) (d)	5	5	5	5
Emission Rate (lb/hr)	7.90	7.55	7.26	6.82
(TPY)	1.97	1.89	1.82	1.71

Sources: (a) EPA, 2000 (AP-42); (b) EPA, 1981; (c) 4 ppm assumed based on ASTM D2880
(d) assumed based on combustion estimates from GE

Table A-16. Maximum Emissions for Hazardous Air Pollutants for FPL Fort Myers Simple Cycle CT Project
GE Frame 7FA, Dry Low NOx Combustor, Distillate Oil, Base Load

Parameter	Turbine Inlet Temperature 35 °F	59 °F	75 °F	95 °F
Hours of Operation	500	500	500	500
Arsenic (lb/hr) = Basis (lb/10^{12} Btu) x Heat Input (MMBtu/hr) / 1,000,000 MMBtu/10^{12} Btu				
Basis, lb/10^{12} Btu	11.0	11.0	11.0	11.0
Heat Input Rate (MMBtu/hr)	2,008	1,919	1,847	1,847
Emission Rate (lb/hr)	2.21E-02	2.11E-02	2.03E-02	2.03E-02
(TPY)	5.52E-03	5.28E-03	5.08E-03	5.08E-03
Benzene (lb/hr) = Basis (lb/10^{12} Btu) x Heat Input (MMBtu/hr) / 1,000,000 MMBtu/10^{12} Btu				
Basis, lb/10^{12} Btu	55.0	55.0	55.0	55.0
Heat Input Rate (MMBtu/hr)	2,008	1,919	1,847	1,847
Emission Rate (lb/hr)	1.10E-01	1.06E-01	1.02E-01	1.02E-01
(TPY)	2.76E-02	2.64E-02	2.54E-02	2.54E-02
Cadmium (lb/hr) = Basis (lb/10^{12} Btu) x Heat Input (MMBtu/hr) / 1,000,000 MMBtu/10^{12} Btu				
Basis, lb/10^{12} Btu	4.8	4.8	4.8	4.8
Heat Input Rate (MMBtu/hr)	2,008	1,919	1,847	1,847
Emission Rate (lb/hr)	9.64E-03	9.21E-03	8.87E-03	8.87E-03
(TPY)	2.41E-03	2.30E-03	2.22E-03	2.22E-03
Chromium (lb/hr) = Basis (lb/10^{12} Btu) x Heat Input (MMBtu/hr) / 1,000,000 MMBtu/10^{12} Btu				
Basis, lb/10^{12} Btu	11	11	11	11
Heat Input Rate (MMBtu/hr)	2,008	1,919	1,847	1,847
Emission Rate (lb/hr)	2.21E-02	2.11E-02	2.03E-02	2.03E-02
(TPY)	5.52E-03	5.28E-03	5.08E-03	5.08E-03
Formaldehyde (lb/hr) = Basis (lb/10^{12} Btu) x Heat Input (MMBtu/hr) / 1,000,000 MMBtu/10^{12} Btu				
Basis, lb/10^{12} Btu	280	280	280	280
Heat Input Rate (MMBtu/hr)	2,008	1,919	1,847	1,847
Emission Rate (lb/hr)	5.62E-01	5.37E-01	5.17E-01	5.17E-01
(TPY)	1.41E-01	1.34E-01	1.29E-01	1.29E-01
Napthalene (lb/hr) = Basis (lb/10^{12} Btu) x Heat Input (MMBtu/hr) / 1,000,000 MMBtu/10^{12} Btu				
Basis, lb/10^{12} Btu	35	35	35	35
Heat Input Rate (MMBtu/hr)	2.01E+03	1.92E+03	1.85E+03	1.85E+03
Emission Rate (lb/hr)	7.03E-02	6.72E-02	6.46E-02	6.46E-02
(TPY)	1.76E-02	1.68E-02	1.62E-02	1.62E-02
Manganese (lb/hr) = Basis (lb/10^{12} Btu) x Heat Input (MMBtu/hr) / 1,000,000 MMBtu/10^{12} Btu				
Basis, lb/10^{12} Btu	790	790	790	790
Heat Input Rate (MMBtu/hr)	2,008	1,919	1,847	1,847
Emission Rate (lb/hr)	1.59E+00	1.52E+00	1.46E+00	1.46E+00
(TPY)	3.97E-01	3.79E-01	3.65E-01	3.65E-01
Nickel (lb/hr) = Basis (lb/10^{12} Btu) x Heat Input (MMBtu/hr) / 1,000,000 MMBtu/10^{12} Btu				
Basis, lb/10^{12} Btu	4.6	4.6	4.6	4.6
Heat Input Rate (MMBtu/hr)	2,008	1,919	1,847	1,847
Emission Rate (lb/hr)	9.24E-03	8.83E-03	8.50E-03	8.50E-03
(TPY)	2.31E-03	2.21E-03	2.12E-03	2.12E-03
1,3 Butadiene (lb/hr) = Basis (lb/10^{12} Btu) x Heat Input (MMBtu/hr) / 1,000,000 MMBtu/10^{12} Btu				
Basis, lb/10^{12} Btu	16	16	16	16
Heat Input Rate (MMBtu/hr)	2,008	1,919	1,847	1,847
Emission Rate (lb/hr)	0.03213072	0.030709472	0.0295528	0.0295528
(TPY)	0.00803268	0.007677368	0.0073882	0.0073882
Selenium (lb/hr) = Basis (lb/10^{12} Btu) x Heat Input (MMBtu/hr) / 1,000,000 MMBtu/10^{12} Btu				
Basis, lb/10^{12} Btu	25	25	25	25
Heat Input Rate (MMBtu/hr)	2,008	1,919	1,847	1,847
Emission Rate (lb/hr)	5.02E-02	4.80E-02	4.62E-02	4.62E-02
(TPY)	1.26E-02	1.20E-02	1.15E-02	1.15E-02
Polycyclic Aromatic Hydrocarbons (PAH) (lb/hr) = Basis (lb/10^{12} Btu) x Heat Input (MMBtu/hr) / 1,000,000 MMBtu/10^{12}				
Basis, lb/10^{12} Btu	40	40	40	40
Heat Input Rate (MMBtu/hr)	2,008	1,919	1,847	1,847
Emission Rate (lb/hr)	8.03E-02	7.68E-02	7.39E-02	7.39E-02
(TPY)	2.01E-02	1.92E-02	1.85E-02	1.85E-02

Sources: EPA, 2000 (AP-42)

Table A-17. Design Information and Stack Parameters for FPL Fort Myers Simple Cycle CT Project
GE Frame 7FA, Dry Low NOx Combustor, Distillate Oil, 75% Load

Parameter	Turbine Inlet Temperature 35 °F	59 °F	75 °F	95 °F
Combustion Turbine Performance				
Net power output (MW)	141.5	135.0	129.1	119.1
Net heat rate (Btu/kWh, LHV)	10,654	10,730	10,866	11,138
(Btu/kWh, HHV)	11,293	11,373	11,518	11,807
Heat Input (MMBtu/hr, LHV)	1,508	1,449	1,403	1,327
(MMBtu/hr, HHV)	1,598	1,536	1,487	1,406
Fuel heating value (Btu/lb, LHV)	18,387	18,387	18,387	18,387
(Btu/lb, HHV)	19,490	19,490	19,490	19,490
(HHV/LHV)	1.060	1.060	1.060	1.060
CT Exhaust Flow				
Mass Flow (lb/hr)- with no margin	3,024,000	2,936,000	2,871,000	2,758,000
- provided	3,024,000	2,936,000	2,871,000	2,758,000
Temperature (°F)	1,121	1,137	1,149	1,166
Moisture (% Vol.)	10.23	10.68	11.06	11.54
Oxygen (% Vol.)	11.22	11.21	11.22	11.25
Molecular Weight	28.44	28.38	28.33	28.27
Fuel Usage				
Fuel usage (lb/hr) = Heat Input (MMBtu/hr) x 1,000,000 Btu/MMBtu (Fuel Heat Content, Btu/lb (LHV))				
Heat input (MMBtu/hr, LHV)	1,508	1,449	1,403	1,327
Heat content (Btu/lb, LHV)	18,387	18,387	18,387	18,387
Fuel usage (lb/hr)- calculated	81,993	78,784	76,298	72,154
CT Stack				
CT - Stack height (ft)	80	80	80	80
Diameter (ft)	20.5	20.5	20.5	20.5
Turbine Flow Conditions				
Turbine Flow (acfm) = [(Mass Flow (lb/hr) x 1,545 x (Temp. (°F)+ 460°F)] / [Molecular weight x 2116.8] / 60 min/hr				
Mass flow (lb/hr)	3,024,000	2,936,000	2,871,000	2,758,000
Temperature (°F)	1,121	1,137	1,149	1,166
Molecular weight	28.44	28.38	28.33	28.27
Volume flow (acfm)- calculated	2,045,011	2,009,479	1,983,445	1,929,486
(ft3/s)- calculated	34,084	33,491	33,057	32,158
Stack Flow Conditions				
Velocity (ft/sec) = Volume flow (acfm) / [((diameter)^2 /4) x 3.14159] / 60 sec/min				
CT Temperature (°F)	1,121	1,137	1,149	1,166
CT volume flow (acfm)	2,045,011	2,009,479	1,983,445	1,929,486
Diameter (ft)	20.5	20.5	20.5	20.5
Velocity (ft/sec)- calculated	103.3	101.5	100.2	97.4

Note: Universal gas constant = 1,545 ft-lb(force)/°R; atmospheric pressure = 2,116.8 lb(force)/ft^2; 14.7 lb/ft^3
Turbine inlet relative humidity is 20% at 35 °F, 60% at 59 and 75 °F, and 50% at 95 °F.
Source: GE, 2000

NSPS Calculation:

Heat Rate at 59oF	10,730	Btu/kWh (LHV)
	11.31970224	kJ/W
	14.4	kJ/W (NSPS)
	75	ppmvd @ 15% O2
	95.40887001	ppmvd @ 15% O2

FAC1 > 1
factor applied to mass flow to obtain emissions' margin

Table A-18. Maximum Emissions for Criteria Pollutants for FPL Fort Myers Simple Cycle CT Project
GE Frame 7FA, Dry Low NOx Combustor, Distillate Oil, 75% Load

Parameter	Turbine Inlet Temperature 35 °F	59 °F	75 °F	95 °F
Hours of Operation	500	500	500	500
Particulate (lb/hr) = Emission rate (lb/hr) from manufacturer				
Basis (excludes H_2SO_4), lb/hr	17	17	17	17
Emission rate (lb/hr)- provided	17.0	17.0	17.0	17.0
(TPY)	4.3	4.3	4.3	4.3
Sulfur Dioxide (lb/hr) = Natural gas (lb/hr) x sulfur content (%/100) x (lb SO_2 /lb S)				
Fuel Sulfur Content	0.05%	0.05%	0.05%	0.05%
Fuel use (lb/hr)	81,993	78,784	76,298	72,154
lb SO_2 /lb S (64/32)	2	2	2	2
Emission rate (lb/hr)	82.0	78.8	76.3	72.2
(TPY)	20.50	19.70	19.07	18.04
Nitrogen Oxides (lb/hr) = NOx(ppm) x {[20.9 x (1 - Moisture(%)/100)] - Oxygen(%)} x 2116.8 x Volume flow (acfm) x 46 (mole. wgt NOx) x 60 min/hr / [1545 x (CT temp.(°F) + 460°F) x 5.9 x 1,000,000 (adj. for ppm)]				
Basis, ppmvd @15% O_2	42	42	42	42
Moisture (%)	10.23	10.68	11.06	11.54
Oxygen (%)	11.22	11.21	11.22	11.25
Turbine Flow (acfm)	2,045,011	2,009,479	1,983,445	1,929,486
Turbine Exhaust Temperature (°F)	1,121	1,137	1,149	1,166
Emission rate (lb/hr)	262.6	252.6	244.5	231.2
(TPY)	65.7	63.2	61.1	57.8
Carbon Monoxide (lb/hr) = CO(ppm) x [1 - Moisture(%)/100] x 2116.8 lb/ft2 x Volume flow (acfm) x 28 (mole. wgt CO) x 60 min/hr / [1545 x (CT temp.(°F) + 460°F) x 1,000,000 (adj. for ppm)]				
Basis, ppmvd	24	24	24	24
Moisture (%)	10.23	10.68	11.06	11.54
Turbine Flow (acfm)	2,045,011	2,009,479	1,983,445	1,929,486
Turbine Exhaust Temperature (°F)	1,121	1,137	1,149	1,166
Emission rate (lb/hr)	64.1	62.1	60.6	58.0
(TPY)	16.0	15.5	15.1	14.5
VOCs (lb/hr) = VOC(ppmvw) x 2116.8 lb/ft2 x Volume flow (acfm) x 16 (mole. wgt as methane) x 60 min/hr / [1545 x (CT temp.(°F) + 460°F) x 1,000,000 (adj. for ppm)]				
Basis, ppmvw	3.5	3.5	3.5	3.5
Turbine Flow (acfm)	2,045,011	2,009,479	1,983,445	1,929,486
Turbine Exhaust Temperature (°F)	1,121	1,137	1,149	1,166
Emission rate (lb/hr)	5.95	5.79	5.67	5.46
(TPY)	1.5	1.4	1.4	1.4
Lead (lb/hr)= NA				
Emission Rate Basis (lb/10^{12} Btu)	14	14	14	14
Emission rate (lb/hr)	0.0224	0.0215	0.0208	0.0197
(TPY)	0.0056	0.0054	0.0052	0.0049

Note: ppmvd= parts per million, volume dry; O_2= oxygen.

Source: GE, 2000; Golder Associates, 2000; EPA, 2000 (AP-42)

Table A-19. Maximum Emissions for Other Regulated PSD Pollutants for FPL Fort Myers Simple Cycle Project
GE Frame 7FA, Dry Low NOx Combustor, Distillate Oil, 75% Load

Parameter	Turbine Inlet Temperature 35 °F	59 °F	75 °F	95 °F
Hours of Operation	500	500	500	500
2,3,7,8 TCDD Equivalents (lb/hr) = Basis (lb/10^{12} Btu) x Heat Input (MMBtu/hr) / 1,000,000 MMBtu/10^{12} Btu				
Basis (a) , lb/10^{12} Btu	3.80E-04	3.80E-04	3.80E-04	3.80E-04
Heat Input Rate (MMBtu/hr)	1.60E+03	1.54E+03	1.49E+03	1.49E+03
Emission Rate (lb/hr)	6.07E-07	5.83E-07	5.65E-07	5.65E-07
(TPY)	1.52E-07	1.46E-07	1.41E-07	1.41E-07
Beryllium (lb/hr) = Basis (lb/10^{12} Btu) x Heat Input (MMBtu/hr) / 1,000,000 MMBtu/10^{12} Btu				
Basis (a) , lb/10^{12} Btu	0.31	0.31	0.31	0.31
Heat Input Rate (MMBtu/hr)	1,598	1,536	1,487	1,487
Emission Rate (lb/hr)	4.95E-04	4.76E-04	4.61E-04	4.61E-04
(TPY)	1.24E-04	1.19E-04	1.15E-04	1.15E-04
Fluoride (lb/hr) = Basis (lb/10^{12} Btu) x Heat Input (MMBtu/hr) / 1,000,000 MMBtu/10^{12} Btu				
Basis (b) , lb/10^{12} Btu	32.54	32.54	32.54	32.54
Heat Input Rate (MMBtu/hr)	1,598	1,536	1,487	1,487
Emission Rate (lb/hr)	5.20E-02	5.00E-02	4.84E-02	4.84E-02
(TPY)	1.30E-02	1.25E-02	1.21E-02	1.21E-02
Hydrogen Chloride (lb/hr) = Basis (lb/10^{12} Btu) x Heat Input (MMBtu/hr) / 1,000,000 MMBtu/10^{12} Btu				
Basis (c) , lb/10^{12} Btu	2.11E+02	2.11E+02	2.11E+02	2.11E+02
Heat Input Rate (MMBtu/hr)	1,598	1,536	1,487	1,487
Emission Rate (lb/hr)	3.38E-01	3.24E-01	3.14E-01	3.14E-01
(TPY)	8.44E-02	8.11E-02	7.85E-02	7.85E-02
Mercury (lb/hr) = Basis (lb/10^{12} Btu) x Heat Input (MMBtu/hr) / 1,000,000 MMBtu/10^{12} Btu				
Basis (a) , lb/10^{12} Btu	1.2	1.2	1.2	1.2
Heat Input Rate (MMBtu/hr)	1,598	1,536	1,487	1,487
Emission Rate (lb/hr)	1.92E-03	1.84E-03	1.78E-03	1.78E-03
(TPY)	4.79E-04	4.61E-04	4.46E-04	4.46E-04
Sulfuric Acid Mist = Fuel Use (lb/hr) x sulfur (S) content (fraction) x conversion of S to H_2SO_4 (%) x MW H_2SO_4 /MW S (98/32)				
Fuel Usage (cf/hr)	81,993	78,784	76,298	72,154
Sulfur (lb/hr)	41.00	39.39	38.15	36.08
lb H_2SO_4 /lb S (98/32)	3.0625	3.0625	3.0625	3.0625
Conversion to H_2SO_4 (%) (d)	5	5	5	5
Emission Rate (lb/hr)	6.28	6.03	5.84	5.52
(TPY)	1.57	1.51	1.46	1.38

Sources: (a) EPA, 2000 (AP-42); (b) EPA, 1981; (c) 4 ppm assumed based on ASTM D2880
(d) assumed based on combustion estimates from GE.

Table A-20. Maximum Emissions for Hazardous Air Pollutants for FPL Fort Myers Simple Cycle CT Project
GE Frame 7FA, Dry Low NOx Combustor, Distillate Oil, 75% Load

Parameter	Turbine Inlet Temperature 35 °F	59 °F	75 °F	95 °F
Hours of Operation	500	500	500	500
Arsenic (lb/hr) = Basis (lb/10^{12} Btu) x Heat Input (MMBtu/hr) / 1,000,000 MMBtu/10^{12} Btu				
Basis, lb/10^{12} Btu	11.0	11.0	11.0	11.0
Heat Input Rate (MMBtu/hr)	1,598	1,536	1,487	1,487
Emission Rate (lb/hr)	1.76E-02	1.69E-02	1.64E-02	1.64E-02
(TPY)	4.39E-03	4.22E-03	4.09E-03	4.09E-03
Benzene (lb/hr) = Basis (lb/10^{12} Btu) x Heat Input (MMBtu/hr) / 1,000,000 MMBtu/10^{12} Btu				
Basis, lb/10^{12} Btu	55.0	55.0	55.0	55.0
Heat Input Rate (MMBtu/hr)	1,598	1,536	1,487	1,487
Emission Rate (lb/hr)	8.79E-02	8.45E-02	8.18E-02	8.18E-02
(TPY)	2.20E-02	2.11E-02	2.04E-02	2.04E-02
Cadmium (lb/hr) = Basis (lb/10^{12} Btu) x Heat Input (MMBtu/hr) / 1,000,000 MMBtu/10^{12} Btu				
Basis, lb/10^{12} Btu	4.8	4.8	4.8	4.8
Heat Input Rate (MMBtu/hr)	1,598	1,536	1,487	1,487
Emission Rate (lb/hr)	7.67E-03	7.37E-03	7.14E-03	7.14E-03
(TPY)	1.92E-03	1.84E-03	1.78E-03	1.78E-03
Chromium (lb/hr) = Basis (lb/10^{12} Btu) x Heat Input (MMBtu/hr) / 1,000,000 MMBtu/10^{12} Btu				
Basis, lb/10^{12} Btu	11	11	11	11
Heat Input Rate (MMBtu/hr)	1,598	1,536	1,487	1,487
Emission Rate (lb/hr)	1.76E-02	1.69E-02	1.64E-02	1.64E-02
(TPY)	4.39E-03	4.22E-03	4.09E-03	4.09E-03
Formaldehyde (lb/hr) = Basis (lb/10^{12} Btu) x Heat Input (MMBtu/hr) / 1,000,000 MMBtu/10^{12} Btu				
Basis, lb/10^{12} Btu	280	280	280	280
Heat Input Rate (MMBtu/hr)	1,598	1,536	1,487	1,487
Emission Rate (lb/hr)	4.47E-01	4.30E-01	4.16E-01	4.16E-01
(TPY)	1.12E-01	1.07E-01	1.04E-01	1.04E-01
Naphthalene (lb/hr) = Basis (lb/10^{12} Btu) x Heat Input (MMBtu/hr) / 1,000,000 MMBtu/10^{12} Btu				
Basis, lb/10^{12} Btu	35	35	35	35
Heat Input Rate (MMBtu/hr)	1.60E+03	1.54E+03	1.49E+03	1.49E+03
Emission Rate (lb/hr)	5.59E-02	5.37E-02	5.20E-02	5.20E-02
(TPY)	1.40E-02	1.34E-02	1.30E-02	1.30E-02
Manganese (lb/hr) = Basis (lb/10^{12} Btu) x Heat Input (MMBtu/hr) / 1,000,000 MMBtu/10^{12} Btu				
Basis, lb/10^{12} Btu	790	790	790	790
Heat Input Rate (MMBtu/hr)	1,598	1,536	1,487	1,487
Emission Rate (lb/hr)	1.26E+00	1.21E+00	1.17E+00	1.17E+00
(TPY)	3.18E-01	3.03E-01	2.94E-01	2.94E-01
Nickel (lb/hr) = Basis (lb/10^{12} Btu) x Heat Input (MMBtu/hr) / 1,000,000 MMBtu/10^{12} Btu				
Basis, lb/10^{12} Btu	4.6	4.6	4.6	4.6
Heat Input Rate (MMBtu/hr)	1,598	1,536	1,487	1,487
Emission Rate (lb/hr)	7.35E-03	7.06E-03	6.64E-03	6.84E-03
(TPY)	1.64E-03	1.77E-03	1.71E-03	1.71E-03
1,3 Butadiene (lb/hr) = Basis (lb/10^{12} Btu) x Heat Input (MMBtu/hr) / 1,000,000 MMBtu/10^{12} Btu				
Basis, lb/10^{12} Btu	16	16	16	16
Heat Input Rate (MMBtu/hr)	1,598	1,536	1,487	1,487
Emission Rate (lb/hr)	2.56E-02	2.46E-02	2.38E-02	2.38E-02
(TPY)	6.39E-03	6.14E-03	5.95E-03	5.95E-03
Selenium (lb/hr) = Basis (lb/10^{12} Btu) x Heat Input (MMBtu/hr) / 1,000,000 MMBtu/10^{12} Btu				
Basis, lb/10^{12} Btu	25	25	25	25
Heat Input Rate (MMBtu/hr)	1,598	1,536	1,487	1,487
Emission Rate (lb/hr)	4.00E-02	3.64E-02	3.72E-02	3.72E-02
(TPY)	9.99E-03	9.60E-03	9.29E-03	9.29E-03
Polycyclic Aromatic Hydrocarbons (PAH) (lb/hr) = Basis (lb/10^{12} Btu) x Heat Input (MMBtu/hr) / 1,000,000 MMBtu/10^{12} I				
Basis, lb/10^{12} Btu	40	40	40	40
Heat Input Rate (MMBtu/hr)	1,598	1,536	1,487	1,487
Emission Rate (lb/hr)	6.39E-02	6.14E-02	5.95E-02	5.95E-02
(TPY)	1.60E-02	1.54E-02	1.49E-02	1.49E-02

Sources: EPA, 2000 (AP-42)

Table A-21. Design Information and Stack Parameters for FPL Martin Fort Myers Cycle CT Project
GE Frame 7FA, Dry Low NOx Combustor, Distillate Oil, 50% Load

Parameter	Turbine Inlet Temperature 35 °F	59 °F	75 °F	95 °F
Combustion Turbine Performance				
Net power output (MW)	93.8	89.5	85.6	78.9
Net heat rate (Btu/kWh, LHV)	12,685	12,867	13,069	13,453
(Btu/kWh, HHV)	13,446	13,639	13,853	14,260
Heat Input (MMBtu/hr, LHV)	1,190	1,152	1,119	1,062
(MMBtu/hr, HHV)	1,261	1,221	1,186	1,125
Fuel heating value (Btu/lb, LHV)	18,387	18,387	18,387	18,387
(Btu/lb, HHV)	19,490	19,490	19,490	19,490
(HHV/LHV)	1.060	1.060	1.060	1.060
CT Exhaust Flow				
Mass Flow (lb/hr)- with no margin	2,487,000	2,435,000	2,389,000	2,323,000
- provided	2,487,000	2,435,000	2,389,000	2,323,000
Temperature (°F)	1,168	1,182	1,193	1,200
Moisture (% Vol.)	9.29	9.77	10.17	10.6
Oxygen (% Vol.)	11.76	11.76	11.77	11.86
Molecular Weight	28.51	28.46	28.40	28.34
Fuel Usage				
Fuel usage (lb/hr) = Heat Input (MMBtu/hr) x 1,000,000 Btu/MMBtu (Fuel Heat Content, Btu/lb (LHV))				
Heat input (MMBtu/hr, LHV)	1,190	1,152	1,119	1,062
Heat content (Btu/lb, LHV)	18,387	18,387	18,387	18,387
Fuel usage (lb/hr)- calculated	64,720	62,637	60,847	57,736
CT Stack				
CT - Stack height (ft)	80	80	80	80
Diameter (ft)	20.5	20.5	20.5	20.5
Turbine Flow Conditions				
Turbine Flow (acfm) = [(Mass Flow (lb/hr) x 1,545 x (Temp. (°F)+ 460°F)] / [Molecular weight x 2116.8] / 60 min/hr				
Mass flow (lb/hr)	2,487,000	2,435,000	2,389,000	2,323,000
Temperature (°F)	1,168	1,182	1,193	1,200
Molecular weight	28.51	28.46	28.40	28.34
Volume flow (acfm)- calculated	1,727,369	1,709,200	1,691,211	1,654,983
(ft3/s)- calculated	28,789	28,487	28,187	27,583
Stack Flow Conditions				
Velocity (ft/sec) = Volume flow (acfm) / [((diameter)^2 /4) x 3.14159] / 60 sec/min				
CT Temperature (°F)	1,168	1,182	1,193	1,200
CT volume flow (acfm)	1,727,369	1,709,200	1,691,211	1,654,983
Diameter (ft)	20.5	20.5	20.5	20.5
Velocity (ft/sec)- calculated	87.2	86.3	85.4	83.6

Note: Universal gas constant = 1,545 ft-lb(force)/°R; atmospheric pressure = 2,116.8 lb(force)/ft^2; 14.7 lb/ft^3
Turbine inlet relative humidity is 20% at 35 °F, 60% at 59 and 75 °F, and 50% at 95 °F.
Source: GE, 2000

NSPS Calculation:

Heat Rate at 59oF	12,867	Btu/kWh (LHV)
	13.57438834	kJ/W
	14.4	kJ/W (NSPS)
	75	ppmvd @ 15% O2
	79.56159594	ppmvd @ 15% O2

FAC1 > 1
factor applied to mass flow to obtain emissions' margin

Table A-22. Maximum Emissions for Criteria Pollutants for FPL Martin Fort Myers Cycle CT Project
GE Frame 7FA, Dry Low NOx Combustor, Distillate Oil, 50% Load

Parameter	Turbine Inlet Temperature 35 °F	59 °F	75 °F	95 °F
Hours of Operation	500	500	500	500
Particulate (lb/hr) = Emission rate (lb/hr) from manufacturer				
Basis (excludes H_2SO_4), lb/hr	17	17	17	17
Emission rate (lb/hr)- provided	17.0	17.0	17.0	17.0
(TPY)	4.3	4.3	4.3	4.3
Sulfur Dioxide (lb/hr) = Natural gas (lb/hr) x sulfur content (%/100) x (lb SO_2 /lb S)				
Fuel Sulfur Content	0.05%	0.05%	0.05%	0.05%
Fuel use (lb/hr)	64,720	62,637	60,847	57,736
lb SO_2 /lb S (64/32)	2	2	2	2
Emission rate (lb/hr)	64.7	62.6	60.8	57.7
(TPY)	16.18	15.66	15.21	14.43
Nitrogen Oxides (lb/hr) = NOx(ppm) x {[20.9 x (1 - Moisture(%)/100)] - Oxygen(%)} x 2116.8 x Volume flow (acfm) x 46 (mole. wgt NOx) x 60 min/hr / [1545 x (CT temp.(°F) + 460°F) x 5.9 x 1,000,000 (adj. for ppm)]				
Basis, ppmvd @15% O_2	42	42	42	42
Moisture (%)	9.29	9.77	10.17	10.6
Oxygen (%)	11.76	11.76	11.77	11.86
Turbine Flow (acfm)	1,727,369	1,709,200	1,691,211	1,654,983
Turbine Exhaust Temperature (°F)	1,168	1,182	1,193	1,200
Emission rate (lb/hr)	205.6	198.9	192.9	183.2
(TPY)	51.4	49.7	48.2	45.8
Carbon Monoxide (lb/hr) = CO(ppm) x [1 - Moisture(%)/100] x 2116.8 lb/ft2 x Volume flow (acfm) x 28 (mole. wgt CO) x 60 min/hr / [1545 x (CT temp.(°F) + 460°F) x 1,000,000 (adj. for ppm)]				
Basis, ppmvd	35	35	35	35
Moisture (%)	9.29	9.77	10.17	10.6
Turbine Flow (acfm)	1,727,369	1,709,200	1,691,211	1,654,983
Turbine Exhaust Temperature (°F)	1,168	1,182	1,193	1,200
Emission rate (lb/hr)	77.5	75.7	74.0	71.8
(TPY)	19.4	18.9	18.5	18.0
VOCs (lb/hr) = VOC(ppmvw) x 2116.8 lb/ft2 x Volume flow (acfm) x 16 (mole. wgt as methane) x 60 min/hr / [1545 x (CT temp.(°F) + 460°F) x 1,000,000 (adj. for ppm)]				
Basis, ppmvw	3.5	3.5	3.5	3.5
Turbine Flow (acfm)	1,727,369	1,709,200	1,691,211	1,654,983
Turbine Exhaust Temperature (°F)	1,168	1,182	1,193	1,200
Emission rate (lb/hr)	4.88	4.79	4.71	4.59
(TPY)	1.2	1.2	1.2	1.1
Lead (lb/hr)= NA				
Emission Rate Basis (lb/10^{12} Btu)	14	14	14	14
Emission rate (lb/hr)	0.0177	0.0171	0.0166	0.0158
(TPY)	0.0044	0.0043	0.0042	0.0039

Note: ppmvd= parts per million, volume dry; O_2= oxygen.

Source: GE, 2000; Golder Associates, 2000; EPA, 2000 (AP-42)

Table A-23. Maximum Emissions for Other Regulated PSD Pollutants for FPL Fort Myers Simple Cycle CT Project
GE Frame 7FA, Dry Low NOx Combustor, Distillate Oil, 50% Load

Parameter	Turbine Inlet Temperature 35 °F	59 °F	75 °F	95 °F
Hours of Operation	500	500	500	500
2,3,7,8 TCDD Equivalents (lb/hr) = Basis (lb/10^{12} Btu) x Heat Input (MMBtu/hr) / 1,000,000 MMBtu/10^{12} Btu				
Basis (a) , lb/10^{12} Btu	3.80E-04	3.80E-04	3.80E-04	3.80E-04
Heat Input Rate (MMBtu/hr)	1.26E+03	1.22E+03	1.19E+03	1.19E+03
Emission Rate (lb/hr)	4.79E-07	4.64E-07	4.51E-07	4.51E-07
(TPY)	1.20E-07	1.16E-07	1.13E-07	1.13E-07
Beryllium (lb/hr) = Basis (lb/10^{12} Btu) x Heat Input (MMBtu/hr) / 1,000,000 MMBtu/10^{12} Btu				
Basis (a) , lb/10^{12} Btu	0.31	0.31	0.31	0.31
Heat Input Rate (MMBtu/hr)	1,261	1,221	1,186	1,186
Emission Rate (lb/hr)	3.91E-04	3.78E-04	3.68E-04	3.68E-04
(TPY)	9.78E-05	9.46E-05	9.19E-05	9.19E-05
Fluoride (lb/hr) = Basis (lb/10^{12} Btu) x Heat Input (MMBtu/hr) / 1,000,000 MMBtu/10^{12} Btu				
Basis (b) , lb/10^{12} Btu	32.54	32.54	32.54	32.54
Heat Input Rate (MMBtu/hr)	1,261	1,221	1,186	1,186
Emission Rate (lb/hr)	4.10E-02	3.97E-02	3.86E-02	3.86E-02
(TPY)	1.03E-02	9.93E-03	9.65E-03	9.65E-03
Hydrogen Chloride (lb/hr) = Basis (lb/10^{12} Btu) x Heat Input (MMBtu/hr) / 1,000,000 MMBtu/10^{12} Btu				
Basis (c) , lb/10^{12} Btu	2.11E+02	2.11E+02	2.11E+02	2.11E+02
Heat Input Rate (MMBtu/hr)	1,261	1,221	1,186	1,186
Emission Rate (lb/hr)	2.66E-01	2.58E-01	2.51E-01	2.51E-01
(TPY)	6.66E-02	6.45E-02	6.26E-02	6.26E-02
Mercury (lb/hr) = Basis (lb/10^{12} Btu) x Heat Input (MMBtu/hr) / 1,000,000 MMBtu/10^{12} Btu				
Basis (a) , lb/10^{12} Btu	1.2	1.2	1.2	1.2
Heat Input Rate (MMBtu/hr)	1,261	1,221	1,186	1,186
Emission Rate (lb/hr)	1.51E-03	1.46E-03	1.42E-03	1.42E-03
(TPY)	3.78E-04	3.66E-04	3.56E-04	3.56E-04
Sulfuric Acid Mist = Fuel Use (lb/hr) x sulfur (S) content (fraction) x conversion of S to H_2SO_4 (%) x MW H_2SO_4 /MW S (98/32)				
Fuel Usage (cf/hr)	64,720	62,637	60,847	57,736
Sulfur (lb/hr)	32.36	31.32	30.42	28.87
lb H_2SO_4 /lb S (98/32)	3.0625	3.0625	3.0625	3.0625
Conversion to H_2SO_4 (%) (d)	5	5	5	5
Emission Rate (lb/hr)	4.96	4.80	4.66	4.42
(TPY)	1.24	1.20	1.16	1.11

Sources: (a) EPA, 2000 (AP-42); (b) EPA, 1981; (c) 4 ppm assumed based on ASTM D2880
(d) assumed based on combustion estimates from GE.

Table A-24. Maximum Emissions for Hazardous Air Pollutants for FPL Fort Myers Simple Cycle CT Project
GE Frame 7FA, Dry Low NOx Combustor, Distillate Oil, 50% Load

Parameter	Turbine Inlet Temperature 35 °F	59 °F	75 °F	95 °F
Hours of Operation	500	500	500	500
Arsenic (lb/hr) = Basis (lb/10^{12} Btu) x Heat Input (MMBtu/hr) / 1,000,000 MMBtu/10^{12} Btu				
Basis, lb/10^{12} Btu	11.0	11.0	11.0	11.0
Heat Input Rate (MMBtu/hr)	1,261	1,221	1,186	1,186
Emission Rate (lb/hr)	1.39E-02	1.34E-02	1.30E-02	1.30E-02
(TPY)	3.47E-03	3.36E-03	3.26E-03	3.26E-03
Benzene (lb/hr) = Basis (lb/10^{12} Btu) x Heat Input (MMBtu/hr) / 1,000,000 MMBtu/10^{12} Btu				
Basis, lb/10^{12} Btu	55.0	55.0	55.0	55.0
Heat Input Rate (MMBtu/hr)	1,261	1,221	1,186	1,186
Emission Rate (lb/hr)	6.94E-02	6.71E-02	6.52E-02	6.52E-02
(TPY)	1.73E-02	1.68E-02	1.63E-02	1.63E-02
Cadmium (lb/hr) = Basis (lb/10^{12} Btu) x Heat Input (MMBtu/hr) / 1,000,000 MMBtu/10^{12} Btu				
Basis, lb/10^{12} Btu	4.8	4.8	4.8	4.8
Heat Input Rate (MMBtu/hr)	1,261	1,221	1,186	1,186
Emission Rate (lb/hr)	6.05E-03	5.86E-03	5.69E-03	5.69E-03
(TPY)	1.51E-03	1.46E-03	1.42E-03	1.42E-03
Chromium (lb/hr) = Basis (lb/10^{12} Btu) x Heat Input (MMBtu/hr) / 1,000,000 MMBtu/10^{12} Btu				
Basis, lb/10^{12} Btu	11	11	11	11
Heat Input Rate (MMBtu/hr)	1,261	1,221	1,186	1,186
Emission Rate (lb/hr)	1.39E-02	1.34E-02	1.30E-02	1.30E-02
(TPY)	3.47E-03	3.36E-03	3.26E-03	3.26E-03
Formaldehyde (lb/hr) = Basis (lb/10^{12} Btu) x Heat Input (MMBtu/hr) / 1,000,000 MMBtu/10^{12} Btu				
Basis, lb/10^{12} Btu	280	280	280	280
Heat Input Rate (MMBtu/hr)	1,261	1,221	1,186	1,186
Emission Rate (lb/hr)	3.53E-01	3.42E-01	3.32E-01	3.32E-01
(TPY)	8.83E-02	8.55E-02	8.30E-02	8.30E-02
Napthalene (lb/hr) = Basis (lb/10^{12} Btu) x Heat Input (MMBtu/hr) / 1,000,000 MMBtu/10^{12} Btu				
Basis, lb/10^{12} Btu	35	35	35	35
Heat Input Rate (MMBtu/hr)	1.26E+03	1.22E+03	1.19E+03	1.19E+03
Emission Rate (lb/hr)	4.41E-02	4.27E-02	4.15E-02	4.15E-02
(TPY)	1.10E-02	1.07E-02	1.04E-02	1.04E-02
Manganese (lb/hr) = Basis (lb/10^{12} Btu) x Heat Input (MMBtu/hr) / 1,000,000 MMBtu/10^{12} Btu				
Basis, lb/10^{12} Btu	790	790	790	790
Heat Input Rate (MMBtu/hr)	1,261	1,221	1,186	1,186
Emission Rate (lb/hr)	9.97E-01	9.64E-01	9.37E-01	9.37E-01
(TPY)	2.49E-01	2.41E-01	2.34E-01	2.34E-01
Nickel (lb/hr) = Basis (lb/10^{12} Btu) x Heat Input (MMBtu/hr) / 1,000,000 MMBtu/10^{12} Btu				
Basis, lb/10^{12} Btu	4.6	4.6	4.6	4.6
Heat Input Rate (MMBtu/hr)	1,261	1,221	1,186	1,186
Emission Rate (lb/hr)	5.80E-03	5.62E-03	5.46E-03	5.46E-03
(TPY)	1.45E-03	1.40E-03	1.36E-03	1.36E-03
1,3 Butadiene (lb/hr) = Basis (lb/10^{12} Btu) x Heat Input (MMBtu/hr) / 1,000,000 MMBtu/10^{12} Btu				
Basis, lb/10^{12} Btu	16	16	16	16
Heat Input Rate (MMBtu/hr)	1,261	1,221	1,186	1,186
Emission Rate (lb/hr)	0.0201824	0.019532832	0.018974848	0.018974848
(TPY)	0.0050456	0.004883208	0.004743712	0.004743712
Selenium (lb/hr) = Basis (lb/10^{12} Btu) x Heat Input (MMBtu/hr) / 1,000,000 MMBtu/10^{12} Btu				
Basis, lb/10^{12} Btu	25	25	25	25
Heat Input Rate (MMBtu/hr)	1,261	1,221	1,186	1,186
Emission Rate (lb/hr)	3.15E-02	3.05E-02	2.96E-02	2.96E-02
(TPY)	7.88E-03	7.63E-03	7.41E-03	7.41E-03
Polycyclic Aromatic Hydrocarbons (PAH) (lb/hr) = Basis (lb/10^{12} Btu) x Heat Input (MMBtu/hr) / 1,000,000 MMBtu/10^{12} I				
Basis, lb/10^{12} Btu	40	40	40	40
Heat Input Rate (MMBtu/hr)	1,261	1,221	1,186	1,186
Emission Rate (lb/hr)	5.05E-02	4.88E-02	4.74E-02	4.74E-02
(TPY)	1.26E-02	1.22E-02	1.19E-02	1.19E-02

Sources: EPA, 2000 (AP-42)

Table A-25. Design Information and Stack Parameters for Fort Myers Simple Cycle CT Project
GE Frame 7FA, Dry Low NOx Combustor, Natural Gas, Higher Power Modes

Parameter	Ambient Inlet Temperature 35 °F	59 °F	75 °F	95 °F
Combustion Turbine Performance				
Net power output (MW)	190.3	182.44	174.64	165.54
Net heat rate (Btu/kWh, LHV)	9,080	9,210	9,330	9,482
(Btu/kWh, HHV)	10,079	10,223	10,356	10,525
Heat Input (MMBtu/hr, LHV)	1,728	1,680	1,629	1,570
(MMBtu/hr, HHV)	1,918	1,865	1,809	1,742
Fuel heating value (Btu/lb, LHV)	20,835	20,835	20,835	20,835
(Btu/lb, HHV)	23,127	23,127	23,127	23,127
(HHV/LHV)	1.110	1.110	1.110	1.110
CT Exhaust Flow				
Mass Flow (lb/hr)- with no margin	3,713,000	3,558,000	3,478,000	3,356,000
- provided	3,713,000	3,558,000	3,478,000	3,356,000
Temperature (°F)	1,109	1,130	1,145	1,158
Moisture (% Vol.)	7.74	8.84	9.61	10.73
Oxygen (% Vol.)	12.39	12.15	12.01	11.81
Molecular Weight	28.48	28.36	28.27	28.15
Fuel Usage				
Fuel usage (lb/hr) = Heat Input (MMBtu/hr) x 1,000,000 Btu/MMBtu (Fuel Heat Content, Btu/lb (LHV))				
Heat input (MMBtu/hr, LHV)	1,728	1,680	1,629	1,570
Heat content (Btu/lb, LHV)	20,835	20,835	20,835	20,835
Fuel usage (lb/hr)- calculated	82,933	80,648	78,205	75,335
CT Stack				
CT- Stack height (ft)	80	80	80	80
Diameter (ft)	20.5	20.5	20.5	20.5
Turbine Flow Conditions (CT Stack-Unit 4 only)				
Turbine Flow (acfm) = [(Mass Flow (lb/hr) x 1,545 x (Temp. (°F)+ 460°F)] / [Molecular weight x 2116.8] / 60 min/hr				
Mass flow (lb/hr)	3,713,000	3,558,000	3,478,000	3,356,000
Temperature (°F)	1,109	1,130	1,145	1,158
Molecular weight	28.48	28.36	28.27	28.15
Volume flow (acfm)- calculated	2,488,641	2,426,858	2,402,002	2,346,741
(ft3/s)- calculated	41,477	40,448	40,033	39,112
Stack Flow Conditions				
Velocity (ft/sec) = Volume flow (acfm) / [((diameter)^2 /4) x 3.14159] / 60 sec/min				
CT Temperature (°F)	1,109	1,130	1,145	1,158
CT volume flow (acfm)	2,488,641	2,426,858	2,402,002	2,346,741
Diameter (ft)	20.5	20.5	20.5	20.5
Velocity (ft/sec)- calculated	125.7	122.5	121.3	118.5

Note: Universal gas constant = 1,545 ft-lb(force)/°R; atmospheric pressure = 2,116.8 lb(force)/ft^2; 14.7 lb/ft^3
Turbine inlet relative humidity is 20% at 35 °F, 60% at 59 and 75 °F, and 50% at 95 °F.
Source: GE, 2000.

NSPS Calculation:

Heat Rate at 59oF	9,210 Btu/kWh (LHV)
	9.716709603 kJ/W
	14.4 kJ/W (NSPS)
	75 ppmvd @ 15% O2
	111.148737 ppmvd @ 15% O2

FAC1 > 1
factor applied to mass flow to obtain emissions' margin

Table A-26. Maximum Emissions for Criteria Pollutants for FPL Fort Myers Repowering Project
GE Frame 7FA, Dry Low NOx Combustor, Natural Gas, Higher Power Modes

Parameter	Ambient Inlet Temperature 35 °F	59 °F	75 °F	95 °F
Hours of Operation	500	500	500	500
Particulate (lb/hr) = Emission rate (lb/hr) from manufacturer				
Basis (excludes H_2SO_4), lb/hr	10	10	10	10
Emission rate (lb/hr)- provided	10.0	10.0	10.0	10.0
(TPY)	2.5	2.5	2.5	2.5
Sulfur Dioxide (lb/hr) = Natural gas (cf/hr) x sulfur content(gr/100 cf) x 1 lb/7000 gr x (lb SO_2 /lb S) /100				
Fuel density (lb/ft^3)	0.0448	0.0448	0.0448	0.0448
Fuel use (cf/hr)	1,851,839	1,800,825	1,746,274	1,682,185
Sulfur content (grains/ 100 cf)	1	1	1	1
lb SO_2 /lb S (64/32)	2	2	2	2
Emission rate (lb/hr)	5.3	5.1	5.0	4.8
(TPY)	1.32	1.29	1.25	1.20
Nitrogen Oxides (lb/hr) = NOx(ppm) x {[20.9 x (1 - Moisture(%)/100)] - Oxygen(%)} x 2116.8 x Volume flow (acfm) x 46 (mole. wgt NOx) x 60 min/hr / [1545 x (CT temp.(°F) + 460°F) x 5.9 x 1,000,000 (adj. for ppm)]				
Basis, ppmvd @15% O_2	15	15	15	15
Moisture (%)	7.74	8.84	9.61	10.73
Oxygen (%)	12.39	12.15	12.01	11.81
Turbine Flow (acfm)	2,488,641	2,426,858	2,402,002	2,346,741
Turbine Exhaust Temperature (°F)	1,109	1,130	1,145	1,158
Emission rate (lb/hr)	105.1	101.3	99.0	95.5
(TPY)	26.3	25.3	24.8	23.9
Carbon Monoxide (lb/hr) = CO(ppm) x [1 - Moisture(%)/100] x 2116.8 lb/ft2 x Volume flow (acfm) x 28 (mole. wgt CO) x 60 min/hr / [1545 x (CT temp.(°F) + 460°F) x 1,000,000 (adj. for ppm)]				
Basis, ppmvd	15	15	15	15
Moisture (%)	7.74	8.84	9.61	10.73
Turbine Flow (acfm)	2,488,641	2,426,858	2,402,002	2,346,741
Turbine Exhaust Temperature (°F)	1,109	1,130	1,145	1,158
Emission rate (lb/hr)	50.5	48.0	46.7	44.7
(TPY)	12.6	12.0	11.7	11.2
VOCs (lb/hr) = VOC(ppmvd) x [1-Moisture(%)/100] x 2116.8 lb/ft2 x Volume flow (acfm) x 16 (mole. wgt as methane) x 60 min/hr / [1545 x (CT temp.(°F) + 460°F) x 1,000,000 (adj. for ppm)]				
Basis, ppmvd	1.5	1.5	1.5	1.5
Moisture (%)	7.74	8.84	9.61	10.73
Turbine Flow (acfm)	2,488,641	2,426,858	2,402,002	2,346,741
Turbine Exhaust Temperature (°F)	1,109	1,130	1,145	1,158
Emission rate (lb/hr)	2.89	2.75	2.67	2.55
(TPY)	0.7	0.7	0.7	0.6
Lead (lb/hr)= NA				
Emission Rate Basis	NA	NA	NA	NA
Emission rate (lb/hr)	NA	NA	NA	NA
(TPY)	NA	NA	NA	NA

Note: ppmvd= parts per million, volume dry; O_2= oxygen.

Source: GE, 2000; Golder Associates, 2000; EPA, 1996

Table A-27. Maximum Emissions for Other Regulated PSD Pollutants for FPL Fort Myers Simple Cycle CT Project
GE Frame 7FA, Dry Low NOx Combustor, Natural Gas, Higher Power Modes

Parameter	Ambient Inlet Temperature 35 °F	59 °F	75 °F	95 °F
Hours of Operation	500	500	500	500
2,3,7,8 TCDD Equivalents (lb/hr) = Basis (lb/10^{12} Btu) x Heat Input (MMBtu/hr) / 1,000,000 MMBtu/10^{12} Btu				
Basis (a) , lb/10^{12} Btu	1.20E-06	1.20E-06	1.20E-06	1.20E-06
Heat Input Rate (MMBtu/hr)	1.92E+03	1.87E+03	1.81E+03	1.74E+03
Emission Rate (lb/hr)	2.30E-09	2.24E-09	2.17E-09	2.09E-09
(TPY)	5.75E-10	5.60E-10	5.43E-10	5.23E-10
Beryllium (lb/hr) = Basis (lb/10^{12} Btu) x Heat Input (MMBtu/hr) / 1,000,000 MMBtu/10^{12} Btu				
Basis (a) , lb/10^{12} Btu	0	0	0	0
Heat Input Rate (MMBtu/hr)	1,918	1,865	1,809	1,742
Emission Rate (lb/hr)	0	0	0	0
(TPY)	0	0	0	0
Fluoride (lb/hr) = Basis (lb/10^{12} Btu) x Heat Input (MMBtu/hr) / 1,000,000 MMBtu/10^{12} Btu				
Basis (b) , lb/10^{12} Btu	0	0	0	0
Heat Input Rate (MMBtu/hr)	1,918	1,865	1,809	1,742
Emission Rate (lb/hr)	0	0	0	0
(TPY)	0	0	0	0
Mercury (lb/hr) = Basis (lb/10^{12} Btu) x Heat Input (MMBtu/hr) / 1,000,000 MMBtu/10^{12} Btu				
Basis (a) , lb/10^{12} Btu	7.48E-04	7.48E-04	7.48E-04	7.48E-04
Heat Input Rate (MMBtu/hr)	1,918	1,865	1,809	1,742
Emission Rate (lb/hr)	1.43E-06	1.40E-06	1.35E-06	1.30E-06
(TPY)	3.59E-07	3.49E-07	3.38E-07	3.26E-07
Sulfuric Acid Mist = Fuel Use (lb/hr) x sulfur (S) content (fraction) x conversion of S to H_2SO_4 (%) x MW H_2SO_4 /MW S (98/32)				
Fuel Usage (cf/hr)	1,851,839	1,800,825	1,746,274	1,682,185
Sulfur (lb/hr)	2.65	2.57	2.49	2.40
lb H_2SO_4 /lb S (98/32)	3.0625	3.0625	3.0625	3.0625
Conversion to H_2SO_4 (%) (c)	5	5	5	5
Emission Rate (lb/hr)	0.41	0.39	0.38	0.37
(TPY)	0.10	0.10	0.10	0.09

Sources: (a) Golder Associates, 2000; (b) EPA, 1981; (c) Assumed.

Note: No Emission Factors for Hydrogen chloride (HCl) from natural gas firing.

Table A-28. Maximum Emissions for Hazardous Air Pollutants for FPL Fort Myers Simple Cycle CT Project
GE Frame 7FA, Dry Low NOx Combustor, Natural Gas, Higher Power Modes

Parameter	Ambient Inlet Temperature 35 °F	59 °F	75 °F	95 °F
Hours of Operation	500	500	500	500
Acetalhyde (lb/hr) = Basis (lb/10^{12} Btu) x Heat Input (MMBtu/hr) / 1,000,000 MMBtu/10^{12} Btu				
Basis (a) , lb/10^{12} Btu	40.0	40.0	40.0	40.0
Heat Input Rate (MMBtu/hr)	1,918	1,865	1,809	1,742
Emission Rate (lb/hr)	7.67E-02	7.46E-02	7.23E-02	6.97E-02
(TPY)	1.92E-02	1.87E-02	1.81E-02	1.74E-02
Benzene (lb/hr) = Basis (lb/10^{12} Btu) x Heat Input (MMBtu/hr) / 1,000,000 MMBtu/10^{12} Btu				
Basis (a) , lb/10^{12} Btu	12.0	12.0	12.0	12.0
Heat Input Rate (MMBtu/hr)	1,918	1,865	1,809	1,742
Emission Rate (lb/hr)	2.30E-02	2.24E-02	2.17E-02	2.09E-02
(TPY)	5.75E-03	5.60E-03	5.43E-03	5.23E-03
1,3 Butadiene (lb/hr) = Basis (lb/10^{12} Btu) x Heat Input (MMBtu/hr) / 1,000,000 MMBtu/10^{12} Btu				
Basis (a) , lb/10^{12} Btu	0.43	0.43	0.43	0.43
Heat Input Rate (MMBtu/hr)	1,918	1,865	1,809	1,742
Emission Rate (lb/hr)	8.25E-04	8.02E-04	7.78E-04	7.49E-04
(TPY)	2.06E-04	2.01E-04	1.94E-04	1.87E-04
Acrolein (lb/hr) = Basis (lb/10^{12} Btu) x Heat Input (MMBtu/hr) / 1,000,000 MMBtu/10^{12} Btu				
Basis (a) , lb/10^{12} Btu	6.4	6.4	6.4	6.4
Heat Input Rate (MMBtu/hr)	1,918	1,865	1,809	1,742
Emission Rate (lb/hr)	1.23E-02	1.19E-02	1.16E-02	1.12E-02
(TPY)	3.07E-03	2.98E-03	2.89E-03	2.79E-03
Formaldehyde (lb/hr) = Basis (lb/10^{12} Btu) x Heat Input (MMBtu/hr) / 1,000,000 MMBtu/10^{12} Btu				
Basis (a) , lb/10^{12} Btu	150	150	150	150
Heat Input Rate (MMBtu/hr)	1,918	1,865	1,809	1,742
Emission Rate (lb/hr)	2.88E-01	2.80E-01	2.71E-01	2.61E-01
(TPY)	7.19E-02	6.99E-02	6.78E-02	6.53E-02
Ethylbenzene (lb/hr) = Basis (lb/10^{12} Btu) x Heat Input (MMBtu/hr) / 1,000,000 MMBtu/10^{12} Btu				
Basis (a) , lb/10^{12} Btu	32.0	32.0	32.0	32.0
Heat Input Rate (MMBtu/hr)	1.92E+03	1.87E+03	1.81E+03	1.74E+03
Emission Rate (lb/hr)	6.14E-02	5.97E-02	5.79E-02	5.58E-02
(TPY)	1.53E-02	1.49E-02	1.45E-02	1.39E-02
Napthalene (lb/hr) = Basis (lb/10^{12} Btu) x Heat Input (MMBtu/hr) / 1,000,000 MMBtu/10^{12} Btu				
Basis (a) , lb/10^{12} Btu	1.3	1.3	1.3	1.3
Heat Input Rate (MMBtu/hr)	1,918	1,865	1,809	1,742
Emission Rate (lb/hr)	2.49E-03	2.42E-03	2.35E-03	2.26E-03
(TPY)	6.23E-04	6.06E-04	5.88E-04	5.66E-04
Propylene Oxide (lb/hr) = Basis (lb/10^{12} Btu) x Heat Input (MMBtu/hr) / 1,000,000 MMBtu/10^{12} Btu				
Basis (a) , lb/10^{12} Btu	29.0	29.0	29.0	29.0
Heat Input Rate (MMBtu/hr)	1,918	1,865	1,809	1,742
Emission Rate (lb/hr)	5.56E-02	5.41E-02	5.25E-02	5.05E-02
(TPY)	1.39E-02	1.35E-02	1.31E-02	1.26E-02
Polycyclic Aromatic Hyrdocarbons (PAH) (lb/hr) = Basis (lb/10^{12} Btu) x Heat Input (MMBtu/hr) / 1,000,000 MMBtu/10^{12} I				
Basis (b) , lb/10^{12} Btu	22	22	22	22
Heat Input Rate (MMBtu/hr)	1,918	1,865	1,809	1,742
Emission Rate (lb/hr)	4.22E-02	4.10E-02	3.98E-02	3.83E-02
(TPY)	1.05E-02	1.03E-02	9.95E-03	9.58E-03
Xylene (lb/hr) = Basis (lb/10^{12} Btu) x Heat Input (MMBtu/hr) / 1,000,000 MMBtu/10^{12} Btu				
Basis (a) , lb/10^{12} Btu	64.0	64.0	64.0	64.0
Heat Input Rate (MMBtu/hr)	1,918	1,865	1,809	1,742
Emission Rate (lb/hr)	1.23E-01	1.19E-01	1.16E-01	1.12E-01
(TPY)	3.07E-02	2.98E-02	2.89E-02	2.79E-02
Toluene (lb/hr) = Basis (lb/10^{12} Btu) x Heat Input (MMBtu/hr) / 1,000,000 MMBtu/10^{12} Btu				
Basis (a) , lb/10^{12} Btu	130	130	130	130
Heat Input Rate (MMBtu/hr)	1,918	1,865	1,809	1,742
Emission Rate (lb/hr)	2.49E-01	2.42E-01	2.35E-01	2.26E-01
(TPY)	6.23E-02	6.06E-02	5.88E-02	5.66E-02

Sources: (a) Golder Associates, 2000; (b) EPA, 2000 (AP-42,Table 3.1-4)

APPENDIX B

BUILDING DOWNWASH INFORMATION FROM BPIP

```
'BPIP data for FPL Ft. Myers, Origin Between New HRSG Stacks 3 and 4 5/16/00'
'ST'
'FEET' .3048
'UTMN' -23.
33
'CT1HRSG' 1 0.0
4 86
 -395    10
 -395    78
 -355    78
 -355    10
'CT2HRSG' 1 0.0
4 86
 -245    10
 -245    78
 -205    78
 -205    10
'CT3HRSG' 1 0.0
4 86
  -95    10
  -95    78
  -55    78
  -55    10
'CT4HRSG' 1 0.0
4 86
   55    10
   55    78
   95    78
   95    10
'CT5HRSG' 1 0.0
4 86
  205    10
  205    78
  245    78
  245    10
'CT6HRSG' 1 0.0
4 86
  355    10
  355    78
  395    78
  395    10
'CT1AIRIN' 1 0.0
4 55
 -399   190
 -399   210
 -351   210
 -351   190
'CT2AIRIN' 1 0.0
4 55
 -249   190
 -249   210
 -201   210
 -201   190
'CT3AIRIN' 1 0.0
4 55
  -99   190
  -99   210
  -51   210
  -51   190
'CT4AIRIN' 1 0.0
4 55
   51   190
   51   210
   99   210
   99   190
'CT5AIRIN' 1 0.0
4 55
  201   190
  201   210
  249   210
  249   190
'CT6AIRIN' 1 0.0
4 55
  351   190
  351   210
  399   210
  399   190
```

```
'PROPERTY-CORN' 1 0.0
24 0.0
-2945     625
-2555     565
-2345     415
-2105     355
-1595     445
-1445     385
-1235     445
-1085     475
 -815     475
 -665     415
  445     445
 1375     565
 2035     565
 2215     535
 2365     475
 1915    -755
 1495    -815
 1585   -1265
  415   -1415
  -95   -1535
-2735   -1895
-2765   -1655
-2525   -1025
-3425    -665
'GT12 GENBLD' 1 0.0
4 32
      -310.0  -790.0
      -310.0  -850.0
      -280.0  -850.0
      -280.0  -790.0
'GT11 GENBLD' 1 0.0
4 32
      -385.0  -790.0
      -385.0  -850.0
      -355.0  -850.0
      -355.0  -790.0
'GT10 GENBLD' 1 0.0
4 32
      -460.0  -790.0
      -460.0  -850.0
      -430.0  -850.0
      -430.0  -790.0
'GT9 GENBLD' 1 0.0
4 32
      -535.0  -790.0
      -535.0  -850.0
      -505.0  -850.0
      -505.0  -790.0
'GT8 GENBLD' 1 0.0
4 32
      -610.0  -790.0
      -610.0  -850.0
      -580.0  -850.0
      -580.0  -790.0
'GT7 GENBLD' 1 0.0
4 32
      -685.0  -790.0
      -685.0  -850.0
      -655.0  -850.0
      -655.0  -790.0
'GT6 GENBLD' 1 0.0
4 32
      -310.0  -950.0
      -310.0  -890.0
      -280.0  -890.0
      -280.0  -950.0
'GT5 GENBLD' 1 0.0
4 32
      -385.0  -950.0
      -385.0  -890.0
      -355.0  -890.0
      -355.0  -950.0
'GT4 GENBLD' 1 0.0
4 32
      -460.0  -950.0
```

```
      -460.0  -890.0
      -430.0  -890.0
      -430.0  -950.0
'GT3 GENBLD' 1 0.0
4 32
      -535.0  -950.0
      -535.0  -890.0
      -505.0  -890.0
      -505.0  -950.0
'GT2 GENBLD' 1 0.0
4 32
      -610.0  -950.0
      -610.0  -890.0
      -580.0  -890.0
      -580.0  -950.0
'GT1 GENBLD' 1 0.0
4 32
      -685.0  -950.0
      -685.0  -890.0
      -655.0  -890.0
      -655.0  -950.0
'GT Maintenance Bldg' 1 0.0
4 36
  -875.0  -830.0
  -875.0  -755.0
  -820.0  -755.0
  -820.0  -830.0
'Oil Tank #2' 1 0.0
8 50
    -547.0  -170.0
    -520.6  -106.4
    -457.0   -80.0
    -393.4  -106.4
    -367.0  -170.0
    -393.4  -233.6
    -457.0  -260.0
    -520.6  -233.6
'Oil Tank #1' 1 0.0
8 43
    -524.0  -377.0
    -504.4  -329.6
    -457.0  -310.0
    -409.6  -329.6
    -390.0  -377.0
    -409.6  -424.4
    -457.0  -444.0
    -504.4  -424.4
'CT7AIRIN' 1 0.0
4 55
 -899  -289
 -879  -289
 -879  -241
 -899  -241
'CT7BLDG' 1 0.0
4 22
 -981  -280
 -945  -280
 -945  -250
 -981  -250
'CT8BLDG' 1 0.0
4 22
 -981  -430
 -945  -430
 -945  -400
 -981  -400
'CT8AIRIN' 1 0.0
4 55
 -899  -439
 -879  -439
 -879  -391
 -899  -391
'Cooling Tower' 1 0.0
4 31.00
35      -817
74.13   -785.87
435.19  -1239.79
396.06  -1270.91
```

```
38
' GT#12'  0.0   32.00   -341.0  -765.0
' GT#11'  0.0   32.00   -415.8  -765.0
' GT#10'  0.0   32.00   -491.0  -765.0
' GT#9 '  0.0   32.00   -566.1  -765.0
' GT#8 '  0.0   32.00   -640.9  -765.0
' GT#7 '  0.0   32.00   -695.0  -765.0
' GT#6 '  0.0   32.00   -341.0  -975.0
' GT#5 '  0.0   32.00   -415.8  -975.0
' GT#4 '  0.0   32.00   -491.0  -975.0
' GT#3 '  0.0   32.00   -566.1  -975.0
' GT#2 '  0.0   32.00   -640.9  -975.0
' GT#1 '  0.0   32.00   -695.0  -975.0
'HRSG1 '  0.0  125.00   -375.0     0.0
'HRSG2 '  0.0  125.00   -225.0     0.0
'HRSG3 '  0.0  125.00    -75.0     0.0
'HRSG4 '  0.0  125.00     75.0     0.0
'HRSG5 '  0.0  125.00    225.0     0.0
'HRSG6 '  0.0  125.00    375.0     0.0
'  CT1 '  0.0   98.00   -375.0   120.0
'  CT2 '  0.0   98.00   -225.0   120.0
'  CT3 '  0.0   98.00    -75.0   120.0
'  CT4 '  0.0   98.00     75.0   120.0
'  CT5 '  0.0   98.00    225.0   120.0
'  CT6 '  0.0   98.00    375.0   120.0
'  CT7 '  0.0   80.00  -1010.0  -265.0
'  CT8 '  0.0   80.00  -1010.0  -415.0
'cool01'  0.0   45.00    77.6    -830.4
'cool02'  0.0   45.00   106.23   -866.4
'cool03'  0.0   45.00   134.87   -902.4
'cool04'  0.0   45.00   163.51   -938.4
'cool05'  0.0   45.00   192.14   -974.4
'cool06'  0.0   45.00   220.78  -1010.4
'cool07'  0.0   45.00   249.41  -1046.4
'cool08'  0.0   45.00   278.05  -1082.4
'cool09'  0.0   45.00   306.68  -1118.4
'cool10'  0.0   45.00   335.32  -1154.4
'cool11'  0.0   45.00   363.96  -1190.4
'cool12'  0.0   45.00   392.59  -1226.4
0
```

BPIP (Dated: 95086)
DATE : 05/16/00
TIME : 10:06:31
BPIP data for FPL Ft. Myers, Origin Between New HRSG Stacks 3 and 4 5/16/00

==========
BPIP PROCESSING INFORMATION:
==========

The ST flag has been set for processing for an ISCST2 run.

Inputs entered in FEET will be converted to meters using a conversion factor of 0.3048. Output will be in meters.

UTMP is set to UTMN. The input is assumed to be in a local X-Y coordinate system as opposed to a UTM coordinate system. True North is in the positive Y direction.

Plant north is set to -23.00 degrees with respect to True North.

BPIP data for FPL Ft. Myers, Origin Between New HRSG Stacks 3 and 4 5/16/00

PRELIMINARY* GEP STACK HEIGHT RESULTS TABLE
(Output Units: meters)

Stack Name	Stack Height	Stack-Building Base Elevation Differences	GEP** EQN1	Preliminary* GEP Stack Height Value
GT#12	9.75	0.00	24.38	65.00
GT#11	9.75	0.00	24.38	65.00
GT#10	9.75	0.00	24.38	65.00
GT#9	9.75	0.00	24.38	65.00
GT#8	9.75	0.00	27.43	65.00
GT#7	9.75	0.00	27.43	65.00
GT#6	9.75	0.00	24.38	65.00
GT#5	9.75	0.00	24.38	65.00
GT#4	9.75	0.00	24.38	65.00
GT#3	9.75	0.00	24.38	65.00
GT#2	9.75	0.00	24.38	65.00
GT#1	9.75	0.00	24.38	65.00
HRSG1	38.10	0.00	62.28	65.00
HRSG2	38.10	0.00	62.28	65.00
HRSG3	38.10	0.00	62.28	65.00
HRSG4	38.10	0.00	62.28	65.00
HRSG5	38.10	0.00	62.28	65.00
HRSG6	38.10	0.00	62.28	65.00
CT1	29.87	0.00	62.28	65.00
CT2	29.87	0.00	62.28	65.00
CT3	29.87	0.00	62.28	65.00
CT4	29.87	0.00	62.28	65.00
CT5	29.87	0.00	62.28	65.00
CT6	29.87	0.00	62.28	65.00
CT7	24.38	0.00	40.13	65.00
CT8	24.38	0.00	40.13	65.00
cool01	13.72	0.00	23.62	65.00
cool02	13.72	0.00	23.62	65.00
cool03	13.72	0.00	23.62	65.00
cool04	13.72	0.00	23.62	65.00
cool05	13.72	0.00	23.62	65.00
cool06	13.72	0.00	23.62	65.00
cool07	13.72	0.00	23.62	65.00
cool08	13.72	0.00	23.62	65.00
cool09	13.72	0.00	23.62	65.00
cool10	13.72	0.00	23.62	65.00
cool11	13.72	0.00	23.62	65.00
cool12	13.72	0.00	23.62	65.00

* Results are based on Determinants 1 & 2 on pages 1 & 2 of the GEP Technical Support Document. Determinant 3 may be investigated for additional stack height credit. Final values result after

Determinant 3 has been taken into consideration.
** Results were derived from Equation 1 on page 6 of GEP Technical Support Document. Values have been adjusted for any stack-building base elevation differences.

Note: Criteria for determining stack heights for modeling emission limitations for a source can be found in Table 3.1 of the GEP Technical Support Document.

BPIP (Dated: 95086)

DATE : 05/16/00
TIME : 10:06:31

BPIP data for FPL Ft. Myers, Origin Between New HRSG Stacks 3 and 4 5/16/00

BPIP output is in meters

SO BUILDHGT	GT#12	9.75	9.75	9.75	9.75	9.75	9.75
SO BUILDHGT	GT#12	0.00	9.75	9.75	9.75	9.75	9.75
SO BUILDHGT	GT#12	9.75	9.75	0.00	9.75	9.75	9.75
SO BUILDHGT	GT#12	9.75	9.75	9.75	9.75	9.75	0.00
SO BUILDHGT	GT#12	0.00	9.75	9.75	9.75	9.75	9.75
SO BUILDHGT	GT#12	9.75	9.75	9.75	9.75	9.75	9.75
SO BUILDWID	GT#12	17.63	19.16	20.11	20.45	20.16	19.27
SO BUILDWID	GT#12	0.00	19.88	20.41	20.32	19.61	18.31
SO BUILDWID	GT#12	16.45	14.09	0.00	10.09	13.02	15.56
SO BUILDWID	GT#12	17.63	19.16	20.11	20.45	20.16	0.00
SO BUILDWID	GT#12	0.00	19.88	20.41	20.32	19.61	18.31
SO BUILDWID	GT#12	16.45	14.09	11.30	10.09	13.02	15.56
SO BUILDHGT	GT#11	9.75	9.75	9.75	9.75	9.75	9.75
SO BUILDHGT	GT#11	0.00	9.75	9.75	9.75	9.75	9.75
SO BUILDHGT	GT#11	9.75	9.75	0.00	9.75	9.75	9.75
SO BUILDHGT	GT#11	9.75	9.75	9.75	9.75	9.75	0.00
SO BUILDHGT	GT#11	0.00	9.75	9.75	9.75	9.75	9.75
SO BUILDHGT	GT#11	9.75	9.75	9.75	9.75	9.75	9.75
SO BUILDWID	GT#11	17.63	19.16	20.11	20.45	20.16	19.27
SO BUILDWID	GT#11	0.00	19.88	20.41	20.32	19.61	18.31
SO BUILDWID	GT#11	16.45	14.09	0.00	10.09	13.02	15.56
SO BUILDWID	GT#11	17.63	19.16	20.11	20.45	20.16	0.00
SO BUILDWID	GT#11	0.00	19.88	20.41	20.32	19.61	18.31
SO BUILDWID	GT#11	16.45	14.09	11.30	10.09	13.02	15.56
SO BUILDHGT	GT#10	9.75	9.75	9.75	9.75	9.75	9.75
SO BUILDHGT	GT#10	0.00	9.75	9.75	9.75	9.75	9.75
SO BUILDHGT	GT#10	9.75	9.75	0.00	9.75	9.75	9.75
SO BUILDHGT	GT#10	9.75	9.75	9.75	9.75	9.75	0.00
SO BUILDHGT	GT#10	0.00	9.75	9.75	9.75	9.75	9.75
SO BUILDHGT	GT#10	9.75	9.75	9.75	9.75	9.75	9.75
SO BUILDWID	GT#10	17.63	19.16	20.11	20.45	20.16	19.27
SO BUILDWID	GT#10	0.00	19.88	20.41	20.32	19.61	18.31
SO BUILDWID	GT#10	16.45	14.09	0.00	10.09	13.02	15.56
SO BUILDWID	GT#10	17.63	19.16	20.11	20.45	20.16	0.00
SO BUILDWID	GT#10	0.00	19.88	20.41	20.32	19.61	18.31
SO BUILDWID	GT#10	16.45	14.09	11.30	10.09	13.02	15.56
SO BUILDHGT	GT#9	9.75	9.75	9.75	9.75	9.75	9.75
SO BUILDHGT	GT#9	0.00	9.75	9.75	9.75	9.75	9.75
SO BUILDHGT	GT#9	9.75	9.75	0.00	9.75	9.75	9.75
SO BUILDHGT	GT#9	9.75	9.75	9.75	9.75	9.75	0.00
SO BUILDHGT	GT#9	0.00	9.75	9.75	9.75	9.75	9.75
SO BUILDHGT	GT#9	9.75	9.75	9.75	9.75	9.75	9.75
SO BUILDWID	GT#9	17.63	19.16	20.11	20.45	20.16	19.27
SO BUILDWID	GT#9	0.00	19.88	20.41	20.32	19.61	18.31
SO BUILDWID	GT#9	16.45	14.09	0.00	10.09	13.02	15.56
SO BUILDWID	GT#9	17.63	19.16	20.11	20.45	20.16	0.00
SO BUILDWID	GT#9	0.00	19.88	20.41	20.32	19.61	18.31
SO BUILDWID	GT#9	16.45	14.09	11.30	10.09	13.02	15.56

SO BUILDHGT	GT#8	9.75	9.75	9.75	9.75	10.97	10.97
SO BUILDHGT	GT#8	10.97	9.75	9.75	9.75	9.75	9.75
SO BUILDHGT	GT#8	9.75	9.75	0.00	9.75	9.75	9.75
SO BUILDHGT	GT#8	9.75	9.75	9.75	9.75	9.75	0.00
SO BUILDHGT	GT#8	0.00	9.75	9.75	9.75	9.75	9.75
SO BUILDHGT	GT#8	9.75	9.75	9.75	9.75	9.75	9.75
SO BUILDWID	GT#8	17.63	19.16	20.11	20.45	26.76	24.73
SO BUILDWID	GT#8	23.71	19.88	20.41	20.32	19.61	18.31
SO BUILDWID	GT#8	16.45	14.09	0.00	10.09	13.02	15.56
SO BUILDWID	GT#8	17.63	19.16	20.11	20.45	20.16	0.00
SO BUILDWID	GT#8	0.00	19.88	20.41	20.32	19.61	18.31
SO BUILDWID	GT#8	16.45	14.09	11.30	10.09	13.02	15.56
SO BUILDHGT	GT#7	0.00	0.00	0.00	10.97	10.97	10.97
SO BUILDHGT	GT#7	10.97	9.75	9.75	9.75	9.75	9.75
SO BUILDHGT	GT#7	9.75	9.75	9.75	9.75	9.75	0.00
SO BUILDHGT	GT#7	0.00	0.00	0.00	0.00	0.00	0.00
SO BUILDHGT	GT#7	0.00	9.75	9.75	9.75	9.75	9.75
SO BUILDHGT	GT#7	9.75	9.75	9.75	9.75	9.75	0.00
SO BUILDWID	GT#7	0.00	0.00	0.00	27.98	26.76	24.73
SO BUILDWID	GT#7	23.71	19.88	20.41	20.32	19.61	18.31
SO BUILDWID	GT#7	16.45	14.09	11.30	10.09	13.02	0.00
SO BUILDWID	GT#7	0.00	0.00	0.00	0.00	0.00	0.00
SO BUILDWID	GT#7	0.00	19.88	20.41	20.32	19.61	18.31
SO BUILDWID	GT#7	16.45	14.09	11.30	10.09	13.02	0.00
SO BUILDHGT	GT#6	9.75	9.75	9.75	9.75	9.75	0.00
SO BUILDHGT	GT#6	0.00	9.75	9.75	9.75	9.75	9.75
SO BUILDHGT	GT#6	9.75	9.75	9.75	9.75	9.75	9.75
SO BUILDHGT	GT#6	9.75	9.75	9.75	9.75	9.75	0.00
SO BUILDHGT	GT#6	0.00	9.75	9.75	9.75	9.75	9.75
SO BUILDHGT	GT#6	9.75	9.75	9.75	9.75	9.75	9.75
SO BUILDWID	GT#6	17.63	19.16	20.11	20.45	20.16	0.00
SO BUILDWID	GT#6	0.00	19.88	20.41	20.32	19.61	18.31
SO BUILDWID	GT#6	16.45	14.09	11.30	10.09	13.02	15.56
SO BUILDWID	GT#6	17.63	19.16	20.11	20.45	20.16	0.00
SO BUILDWID	GT#6	0.00	19.88	20.41	20.32	19.61	18.31
SO BUILDWID	GT#6	16.45	14.09	11.30	10.09	13.02	15.56
SO BUILDHGT	GT#5	9.75	9.75	9.75	9.75	9.75	0.00
SO BUILDHGT	GT#5	0.00	9.75	9.75	9.75	9.75	9.75
SO BUILDHGT	GT#5	9.75	9.75	9.75	9.75	9.75	9.75
SO BUILDHGT	GT#5	9.75	9.75	9.75	9.75	9.75	9.75
SO BUILDHGT	GT#5	0.00	9.75	9.75	9.75	9.75	9.75
SO BUILDHGT	GT#5	9.75	9.75	9.75	9.75	9.75	9.75
SO BUILDWID	GT#5	17.63	19.16	20.11	20.45	20.16	0.00
SO BUILDWID	GT#5	0.00	19.88	20.41	20.32	19.61	18.31
SO BUILDWID	GT#5	16.45	14.09	11.30	10.09	13.02	15.56
SO BUILDWID	GT#5	17.63	19.16	20.11	20.45	20.16	19.27
SO BUILDWID	GT#5	0.00	19.88	20.41	20.32	19.61	18.31
SO BUILDWID	GT#5	16.45	14.09	11.30	10.09	13.02	15.56
SO BUILDHGT	GT#4	9.75	9.75	9.75	9.75	9.75	0.00
SO BUILDHGT	GT#4	0.00	9.75	9.75	9.75	9.75	9.75
SO BUILDHGT	GT#4	9.75	9.75	9.75	9.75	9.75	9.75
SO BUILDHGT	GT#4	9.75	9.75	9.75	9.75	9.75	9.75
SO BUILDHGT	GT#4	0.00	9.75	9.75	9.75	9.75	9.75
SO BUILDHGT	GT#4	9.75	9.75	9.75	9.75	9.75	9.75
SO BUILDWID	GT#4	17.63	19.16	20.11	20.45	20.16	0.00
SO BUILDWID	GT#4	0.00	19.88	20.41	20.32	19.61	18.31
SO BUILDWID	GT#4	16.45	14.09	11.30	10.09	13.02	15.56
SO BUILDWID	GT#4	17.63	19.16	20.11	20.45	20.16	19.27
SO BUILDWID	GT#4	0.00	19.88	20.41	20.32	19.61	18.31
SO BUILDWID	GT#4	16.45	14.09	11.30	10.09	13.02	15.56
SO BUILDHGT	GT#3	9.75	9.75	9.75	9.75	9.75	0.00
SO BUILDHGT	GT#3	0.00	9.75	9.75	9.75	9.75	9.75
SO BUILDHGT	GT#3	9.75	9.75	9.75	9.75	9.75	9.75
SO BUILDHGT	GT#3	9.75	9.75	9.75	9.75	9.75	9.75
SO BUILDHGT	GT#3	0.00	9.75	9.75	9.75	9.75	9.75

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 SO BUILDHGT  GT#3      9.75    9.75    9.75    9.75    9.75    9.75
 SO BUILDWID  GT#3     17.63   19.16   20.11   20.45   20.16    0.00
 SO BUILDWID  GT#3      0.00   19.88   20.41   20.32   19.61   18.31
 SO BUILDWID  GT#3     16.45   14.09   11.30   10.09   13.02   15.56
 SO BUILDWID  GT#3     17.63   19.16   20.11   20.45   20.16   19.27
 SO BUILDWID  GT#3      0.00   19.88   20.41   20.32   19.61   18.31
 SO BUILDWID  GT#3     16.45   14.09   11.30   10.09   13.02   15.56

 SO BUILDHGT  GT#2      9.75    9.75    9.75    9.75    9.75    0.00
 SO BUILDHGT  GT#2      0.00    9.75    9.75    9.75    9.75    9.75
 SO BUILDHGT  GT#2      9.75    9.75    9.75    9.75    9.75    9.75
 SO BUILDHGT  GT#2      9.75    9.75    9.75    9.75    9.75    9.75
 SO BUILDHGT  GT#2      0.00    9.75    9.75    9.75    9.75    9.75
 SO BUILDHGT  GT#2      9.75    9.75    9.75    9.75    9.75    9.75
 SO BUILDWID  GT#2     17.63   19.16   20.11   20.45   20.16    0.00
 SO BUILDWID  GT#2      0.00   19.88   20.41   20.32   19.61   18.31
 SO BUILDWID  GT#2     16.45   14.09   11.30   10.09   13.02   15.56
 SO BUILDWID  GT#2     17.63   19.16   20.11   20.45   20.16   19.27
 SO BUILDWID  GT#2      0.00   19.88   20.41   20.32   19.61   18.31
 SO BUILDWID  GT#2     16.45   14.09   11.30   10.09   13.02   15.56

 SO BUILDHGT  GT#1      9.75    9.75    9.75    9.75    9.75    0.00
 SO BUILDHGT  GT#1      0.00    0.00    0.00    0.00    0.00    0.00
 SO BUILDHGT  GT#1      0.00    0.00    9.75    9.75    9.75    9.75
 SO BUILDHGT  GT#1      9.75    9.75    9.75    9.75    9.75    9.75
 SO BUILDHGT  GT#1      0.00    0.00    0.00    0.00    0.00    0.00
 SO BUILDHGT  GT#1      0.00    0.00    9.75    9.75    9.75    9.75
 SO BUILDWID  GT#1     17.63   19.16   20.11   20.45   20.16    0.00
 SO BUILDWID  GT#1      0.00    0.00    0.00    0.00    0.00    0.00
 SO BUILDWID  GT#1      0.00    0.00   11.30   10.09   13.02   15.56
 SO BUILDWID  GT#1     17.63   19.16   20.11   20.45   20.16   19.27
 SO BUILDWID  GT#1      0.00    0.00    0.00    0.00    0.00    0.00
 SO BUILDWID  GT#1      0.00    0.00   11.30   10.09   13.02   15.56

 SO BUILDHGT HRSG1     26.21   26.21   26.21   26.21   26.21   26.21
 SO BUILDHGT HRSG1     26.21   26.21   26.21   26.21   26.21   26.21
 SO BUILDHGT HRSG1     26.21   26.21   26.21   26.21   26.21   26.21
 SO BUILDHGT HRSG1     26.21   26.21   26.21   26.21   26.21   26.21
 SO BUILDHGT HRSG1     26.21   26.21   26.21   26.21   26.21   26.21
 SO BUILDHGT HRSG1     26.21   26.21   26.21   26.21   26.21   26.21
 SO BUILDWID HRSG1     21.51   23.05   23.89   24.00   23.39   22.06
 SO BUILDWID HRSG1     21.34   22.94   23.84   24.02   23.47   22.21
 SO BUILDWID HRSG1     20.27   17.72   14.63   13.26   16.54   19.32
 SO BUILDWID HRSG1     21.51   23.05   23.89   24.00   23.39   22.06
 SO BUILDWID HRSG1     21.34   22.94   23.84   24.02   23.47   22.21
 SO BUILDWID HRSG1     20.27   17.72   14.63   13.26   16.54   19.32

 SO BUILDHGT HRSG2     26.21   26.21   26.21   26.21   26.21   26.21
 SO BUILDHGT HRSG2     26.21   26.21   26.21   26.21   26.21   26.21
 SO BUILDHGT HRSG2     26.21   26.21   26.21   26.21   26.21   26.21
 SO BUILDHGT HRSG2     26.21   26.21   26.21   26.21   26.21   26.21
 SO BUILDHGT HRSG2     26.21   26.21   26.21   26.21   26.21   26.21
 SO BUILDHGT HRSG2     26.21   26.21   26.21   26.21   26.21   26.21
 SO BUILDWID HRSG2     21.51   23.05   23.89   24.00   23.39   22.06
 SO BUILDWID HRSG2     21.34   22.94   23.84   24.02   23.47   22.21
 SO BUILDWID HRSG2     20.27   17.72   14.63   13.26   16.54   19.32
 SO BUILDWID HRSG2     21.51   23.05   23.89   24.00   23.39   22.06
 SO BUILDWID HRSG2     21.34   22.94   23.84   24.02   23.47   22.21
 SO BUILDWID HRSG2     20.27   17.72   14.63   13.26   16.54   19.32

 SO BUILDHGT HRSG3     26.21   26.21   26.21   26.21   26.21   26.21
 SO BUILDHGT HRSG3     26.21   26.21   26.21   26.21   26.21   26.21
 SO BUILDHGT HRSG3     26.21   26.21   26.21   26.21   26.21   26.21
 SO BUILDHGT HRSG3     26.21   26.21   26.21   26.21   26.21   26.21
 SO BUILDHGT HRSG3     26.21   26.21   26.21   26.21   26.21   26.21
 SO BUILDHGT HRSG3     26.21   26.21   26.21   26.21   26.21   26.21
 SO BUILDWID HRSG3     21.51   23.05   23.89   24.00   23.39   22.06
 SO BUILDWID HRSG3     21.34   22.94   23.84   24.02   23.47   22.21
 SO BUILDWID HRSG3     20.27   17.72   14.63   13.26   16.54   19.32
 SO BUILDWID HRSG3     21.51   23.05   23.89   24.00   23.39   22.06
 SO BUILDWID HRSG3     21.34   22.94   23.84   24.02   23.47   22.21
 SO BUILDWID HRSG3     20.27   17.72   14.63   13.26   16.54   19.32
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SO BUILDHGT HRSG4      26.21   26.21   26.21   26.21   26.21   26.21
SO BUILDHGT HRSG4      26.21   26.21   26.21   26.21   26.21   26.21
SO BUILDHGT HRSG4      26.21   26.21   26.21   26.21   26.21   26.21
SO BUILDHGT HRSG4      26.21   26.21   26.21   26.21   26.21   26.21
SO BUILDHGT HRSG4      26.21   26.21   26.21   26.21   26.21   26.21
SO BUILDHGT HRSG4      26.21   26.21   26.21   26.21   26.21   26.21
SO BUILDWID HRSG4      21.51   23.05   23.89   24.00   23.39   22.06
SO BUILDWID HRSG4      21.34   22.94   23.84   24.02   23.47   22.21
SO BUILDWID HRSG4      20.27   17.72   14.63   13.26   16.54   19.32
SO BUILDWID HRSG4      21.51   23.05   23.89   24.00   23.39   22.06
SO BUILDWID HRSG4      21.34   22.94   23.84   24.02   23.47   22.21
SO BUILDWID HRSG4      20.27   17.72   14.63   13.26   16.54   19.32

SO BUILDHGT HRSG5      26.21   26.21   26.21   26.21   26.21   26.21
SO BUILDHGT HRSG5      26.21   26.21   26.21   26.21   26.21   26.21
SO BUILDHGT HRSG5      26.21   26.21   26.21   26.21   26.21   26.21
SO BUILDHGT HRSG5      26.21   26.21   26.21   26.21   26.21   26.21
SO BUILDHGT HRSG5      26.21   26.21   26.21   26.21   26.21   26.21
SO BUILDHGT HRSG5      26.21   26.21   26.21   26.21   26.21   26.21
SO BUILDWID HRSG5      21.51   23.05   23.89   24.00   23.39   22.06
SO BUILDWID HRSG5      21.34   22.94   23.84   24.02   23.47   22.21
SO BUILDWID HRSG5      20.27   17.72   14.63   13.26   16.54   19.32
SO BUILDWID HRSG5      21.51   23.05   23.89   24.00   23.39   22.06
SO BUILDWID HRSG5      21.34   22.94   23.84   24.02   23.47   22.21
SO BUILDWID HRSG5      20.27   17.72   14.63   13.26   16.54   19.32

SO BUILDHGT HRSG6      26.21   26.21   26.21   26.21   26.21   26.21
SO BUILDHGT HRSG6      26.21   26.21   26.21   26.21   26.21   26.21
SO BUILDHGT HRSG6      26.21   26.21   26.21   26.21   26.21   26.21
SO BUILDHGT HRSG6      26.21   26.21   26.21   26.21   26.21   26.21
SO BUILDHGT HRSG6      26.21   26.21   26.21   26.21   26.21   26.21
SO BUILDHGT HRSG6      26.21   26.21   26.21   26.21   26.21   26.21
SO BUILDWID HRSG6      21.51   23.05   23.89   24.00   23.39   22.06
SO BUILDWID HRSG6      21.34   22.94   23.84   24.02   23.47   22.21
SO BUILDWID HRSG6      20.27   17.72   14.63   13.26   16.54   19.32
SO BUILDWID HRSG6      21.51   23.05   23.89   24.00   23.39   22.06
SO BUILDWID HRSG6      21.34   22.94   23.84   24.02   23.47   22.21
SO BUILDWID HRSG6      20.27   17.72   14.63   13.26   16.54   19.32

SO BUILDHGT   CT1      26.21   26.21   26.21   26.21   26.21    0.00
SO BUILDHGT   CT1      26.21   26.21   26.21   26.21   26.21   26.21
SO BUILDHGT   CT1      26.21   26.21   26.21   26.21   26.21   26.21
SO BUILDHGT   CT1      26.21   26.21   26.21   26.21   26.21    0.00
SO BUILDHGT   CT1      26.21   26.21   26.21   26.21   26.21   26.21
SO BUILDHGT   CT1      26.21   26.21   26.21   26.21   26.21   26.21
SO BUILDWID   CT1      21.51   23.05   23.89   24.00   23.39    0.00
SO BUILDWID   CT1      21.34   22.94   23.84   24.02   23.47   22.21
SO BUILDWID   CT1      20.27   17.72   14.63   13.26   16.54   19.32
SO BUILDWID   CT1      21.51   23.05   23.89   24.00   23.39    0.00
SO BUILDWID   CT1      21.34   22.94   23.84   24.02   23.47   22.21
SO BUILDWID   CT1      20.27   17.72   14.63   13.26   16.54   19.32

SO BUILDHGT   CT2      26.21   26.21   26.21   26.21   26.21   26.21
SO BUILDHGT   CT2      26.21   26.21   26.21   26.21   26.21   26.21
SO BUILDHGT   CT2      26.21   26.21   26.21   26.21   26.21   26.21
SO BUILDHGT   CT2      26.21   26.21   26.21   26.21   26.21   26.21
SO BUILDHGT   CT2      26.21   26.21   26.21   26.21   26.21   26.21
SO BUILDHGT   CT2      26.21   26.21   26.21   26.21   26.21   26.21
SO BUILDWID   CT2      21.51   23.05   23.89   24.00   23.39   22.06
SO BUILDWID   CT2      21.34   22.94   23.84   24.02   23.47   22.21
SO BUILDWID   CT2      20.27   17.72   14.63   13.26   16.54   19.32
SO BUILDWID   CT2      21.51   23.05   23.89   24.00   23.39   22.06
SO BUILDWID   CT2      21.34   22.94   23.84   24.02   23.47   22.21
SO BUILDWID   CT2      20.27   17.72   14.63   13.26   16.54   19.32

SO BUILDHGT   CT3      26.21   26.21   26.21   26.21   26.21   26.21
SO BUILDHGT   CT3      26.21   26.21   26.21   26.21   26.21   26.21
SO BUILDHGT   CT3      26.21   26.21   26.21   26.21   26.21   26.21
SO BUILDHGT   CT3      26.21   26.21   26.21   26.21   26.21   26.21
SO BUILDHGT   CT3      26.21   26.21   26.21   26.21   26.21   26.21
```

SO BUILDHGT	CT3	26.21	26.21	26.21	26.21	26.21	26.21
SO BUILDWID	CT3	21.51	23.05	23.89	24.00	23.39	22.06
SO BUILDWID	CT3	21.34	22.94	23.84	24.02	23.47	22.21
SO BUILDWID	CT3	20.27	17.72	14.63	13.26	16.54	19.32
SO BUILDWID	CT3	21.51	23.05	23.89	24.00	23.39	22.06
SO BUILDWID	CT3	21.34	22.94	23.84	24.02	23.47	22.21
SO BUILDWID	CT3	20.27	17.72	14.63	13.26	16.54	19.32
SO BUILDHGT	CT4	26.21	26.21	26.21	26.21	26.21	26.21
SO BUILDHGT	CT4	26.21	26.21	26.21	26.21	26.21	26.21
SO BUILDHGT	CT4	26.21	26.21	26.21	26.21	26.21	26.21
SO BUILDHGT	CT4	26.21	26.21	26.21	26.21	26.21	26.21
SO BUILDHGT	CT4	26.21	26.21	26.21	26.21	26.21	26.21
SO BUILDHGT	CT4	26.21	26.21	26.21	26.21	26.21	26.21
SO BUILDWID	CT4	21.51	23.05	23.89	24.00	23.39	22.06
SO BUILDWID	CT4	21.34	22.94	23.84	24.02	23.47	22.21
SO BUILDWID	CT4	20.27	17.72	14.63	13.26	16.54	19.32
SO BUILDWID	CT4	21.51	23.05	23.89	24.00	23.39	22.06
SO BUILDWID	CT4	21.34	22.94	23.84	24.02	23.47	22.21
SO BUILDWID	CT4	20.27	17.72	14.63	13.26	16.54	19.32
SO BUILDHGT	CT5	26.21	26.21	26.21	26.21	26.21	26.21
SO BUILDHGT	CT5	26.21	26.21	26.21	26.21	26.21	26.21
SO BUILDHGT	CT5	26.21	26.21	26.21	26.21	26.21	26.21
SO BUILDHGT	CT5	26.21	26.21	26.21	26.21	26.21	26.21
SO BUILDHGT	CT5	26.21	26.21	26.21	26.21	26.21	26.21
SO BUILDHGT	CT5	26.21	26.21	26.21	26.21	26.21	26.21
SO BUILDWID	CT5	21.51	23.05	23.89	24.00	23.39	22.06
SO BUILDWID	CT5	21.34	22.94	23.84	24.02	23.47	22.21
SO BUILDWID	CT5	20.27	17.72	14.63	13.26	16.54	19.32
SO BUILDWID	CT5	21.51	23.05	23.89	24.00	23.39	22.06
SO BUILDWID	CT5	21.34	22.94	23.84	24.02	23.47	22.21
SO BUILDWID	CT5	20.27	17.72	14.63	13.26	16.54	19.32
SO BUILDHGT	CT6	26.21	26.21	26.21	26.21	26.21	26.21
SO BUILDHGT	CT6	0.00	26.21	26.21	26.21	26.21	26.21
SO BUILDHGT	CT6	26.21	26.21	26.21	26.21	26.21	26.21
SO BUILDHGT	CT6	26.21	26.21	26.21	26.21	26.21	26.21
SO BUILDHGT	CT6	0.00	26.21	26.21	26.21	26.21	26.21
SO BUILDHGT	CT6	26.21	26.21	26.21	26.21	26.21	26.21
SO BUILDWID	CT6	21.51	23.05	23.89	24.00	23.39	22.06
SO BUILDWID	CT6	0.00	22.94	23.84	24.02	23.47	22.21
SO BUILDWID	CT6	20.27	17.72	14.63	13.26	16.54	19.32
SO BUILDWID	CT6	21.51	23.05	23.89	24.00	23.39	22.06
SO BUILDWID	CT6	0.00	22.94	23.84	24.02	23.47	22.21
SO BUILDWID	CT6	20.27	17.72	14.63	13.26	16.54	19.32
SO BUILDHGT	CT7	0.00	6.71	6.71	6.71	16.76	6.71
SO BUILDHGT	CT7	6.71	6.71	16.76	6.71	6.71	0.00
SO BUILDHGT	CT7	0.00	0.00	0.00	0.00	0.00	0.00
SO BUILDHGT	CT7	0.00	6.71	6.71	6.71	16.76	16.76
SO BUILDHGT	CT7	16.76	16.76	16.76	6.71	16.76	16.76
SO BUILDHGT	CT7	0.00	0.00	0.00	0.00	0.00	0.00
SO BUILDWID	CT7	0.00	14.26	13.91	13.13	15.58	10.41
SO BUILDWID	CT7	9.71	11.38	15.58	13.65	14.17	0.00
SO BUILDWID	CT7	0.00	0.00	0.00	0.00	0.00	0.00
SO BUILDWID	CT7	0.00	14.26	13.91	13.13	15.58	15.26
SO BUILDWID	CT7	14.93	15.58	15.58	13.65	14.86	13.67
SO BUILDWID	CT7	0.00	0.00	0.00	0.00	0.00	0.00
SO BUILDHGT	CT8	0.00	6.71	6.71	6.71	16.76	6.71
SO BUILDHGT	CT8	6.71	6.71	16.76	6.71	6.71	0.00
SO BUILDHGT	CT8	0.00	0.00	0.00	0.00	0.00	0.00
SO BUILDHGT	CT8	16.76	16.76	16.76	6.71	16.76	16.76
SO BUILDHGT	CT8	16.76	16.76	16.76	6.71	6.71	0.00
SO BUILDHGT	CT8	0.00	0.00	0.00	0.00	0.00	0.00
SO BUILDWID	CT8	0.00	14.26	13.91	13.13	15.58	10.41
SO BUILDWID	CT8	9.71	11.38	15.58	13.65	14.17	0.00
SO BUILDWID	CT8	0.00	0.00	0.00	0.00	0.00	0.00
SO BUILDWID	CT8	13.08	14.44	15.35	13.13	15.58	15.26
SO BUILDWID	CT8	14.93	15.58	15.58	13.65	14.17	0.00
SO BUILDWID	CT8	0.00	0.00	0.00	0.00	0.00	0.00

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SO BUILDHGT cool01     9.45    9.45    9.45    9.45    9.45    9.45
SO BUILDHGT cool01     9.45    9.45    9.45    9.45    9.45    9.45
SO BUILDHGT cool01     9.45    9.45    9.45    9.45    9.45    9.45
SO BUILDHGT cool01     9.45    9.45    9.45    9.45    9.45    9.45
SO BUILDHGT cool01     9.45    9.45    9.45    9.45    9.45    9.45
SO BUILDHGT cool01     9.45    9.45    9.45    9.45    9.45    9.45
SO BUILDWID cool01   172.49  177.10  177.12  176.27  170.07  158.70
SO BUILDWID cool01   142.50  121.98   97.75   70.55   41.20   19.86
SO BUILDWID cool01    50.18   78.97  105.36  128.56  147.84  162.63
SO BUILDWID cool01   172.49  177.10  177.12  176.27  170.07  158.70
SO BUILDWID cool01   142.50  121.98   97.75   70.55   41.20   19.86
SO BUILDWID cool01    50.18   78.97  105.36  128.56  147.84  162.63

SO BUILDHGT cool02     9.45    9.45    9.45    9.45    9.45    9.45
SO BUILDHGT cool02     9.45    9.45    9.45    9.45    9.45    9.45
SO BUILDHGT cool02     9.45    9.45    9.45    9.45    9.45    9.45
SO BUILDHGT cool02     9.45    9.45    9.45    9.45    9.45    9.45
SO BUILDHGT cool02     9.45    9.45    9.45    9.45    9.45    9.45
SO BUILDHGT cool02     9.45    9.45    9.45    9.45    9.45    9.45
SO BUILDWID cool02   172.49  177.10  177.12  176.27  170.07  158.70
SO BUILDWID cool02   142.50  121.98   97.75   70.55   41.20   19.86
SO BUILDWID cool02    50.18   78.97  105.36  128.56  147.84  162.63
SO BUILDWID cool02   172.49  177.10  177.12  176.27  170.07  158.70
SO BUILDWID cool02   142.50  121.98   97.75   70.55   41.20   19.86
SO BUILDWID cool02    50.18   78.97  105.36  128.56  147.84  162.63

SO BUILDHGT cool03     9.45    9.45    9.45    9.45    9.45    9.45
SO BUILDHGT cool03     9.45    9.45    9.45    9.45    9.45    9.45
SO BUILDHGT cool03     9.45    9.45    9.45    9.45    9.45    9.45
SO BUILDHGT cool03     9.45    9.45    9.45    9.45    9.45    9.45
SO BUILDHGT cool03     9.45    9.45    9.45    9.45    9.45    9.45
SO BUILDHGT cool03     9.45    9.45    9.45    9.45    9.45    9.45
SO BUILDWID cool03   172.49  177.10  177.12  176.27  170.07  158.70
SO BUILDWID cool03   142.50  121.98   97.75   70.55   41.20   19.86
SO BUILDWID cool03    50.18   78.97  105.36  128.56  147.84  162.63
SO BUILDWID cool03   172.49  177.10  177.12  176.27  170.07  158.70
SO BUILDWID cool03   142.50  121.98   97.75   70.55   41.20   19.86
SO BUILDWID cool03    50.18   78.97  105.36  128.56  147.84  162.63

SO BUILDHGT cool04     9.45    9.45    9.45    9.45    9.45    9.45
SO BUILDHGT cool04     9.45    9.45    9.45    9.45    9.45    9.45
SO BUILDHGT cool04     9.45    9.45    9.45    9.45    9.45    9.45
SO BUILDHGT cool04     9.45    9.45    9.45    9.45    9.45    9.45
SO BUILDHGT cool04     9.45    9.45    9.45    9.45    9.45    9.45
SO BUILDHGT cool04     9.45    9.45    9.45    9.45    9.45    9.45
SO BUILDWID cool04   172.49  177.10  177.12  176.27  170.07  158.70
SO BUILDWID cool04   142.50  121.98   97.75   70.55   41.20   19.86
SO BUILDWID cool04    50.18   78.97  105.36  128.56  147.84  162.63
SO BUILDWID cool04   172.49  177.10  177.12  176.27  170.07  158.70
SO BUILDWID cool04   142.50  121.98   97.75   70.55   41.20   19.86
SO BUILDWID cool04    50.18   78.97  105.36  128.56  147.84  162.63

SO BUILDHGT cool05     9.45    9.45    9.45    9.45    9.45    9.45
SO BUILDHGT cool05     9.45    9.45    9.45    9.45    9.45    9.45
SO BUILDHGT cool05     9.45    9.45    9.45    9.45    9.45    9.45
SO BUILDHGT cool05     9.45    9.45    9.45    9.45    9.45    9.45
SO BUILDHGT cool05     9.45    9.45    9.45    9.45    9.45    9.45
SO BUILDHGT cool05     9.45    9.45    9.45    9.45    9.45    9.45
SO BUILDWID cool05   172.49  177.10  177.12  176.27  170.07  158.70
SO BUILDWID cool05   142.50  121.98   97.75   70.55   41.20   19.86
SO BUILDWID cool05    50.18   78.97  105.36  128.56  147.84  162.63
SO BUILDWID cool05   172.49  177.10  177.12  176.27  170.07  158.70
SO BUILDWID cool05   142.50  121.98   97.75   70.55   41.20   19.86
SO BUILDWID cool05    50.18   78.97  105.36  128.56  147.84  162.63

SO BUILDHGT cool06     9.45    9.45    9.45    9.45    9.45    9.45
SO BUILDHGT cool06     9.45    9.45    9.45    9.45    9.45    9.45
SO BUILDHGT cool06     9.45    9.45    9.45    9.45    9.45    9.45
SO BUILDHGT cool06     9.45    9.45    9.45    9.45    9.45    9.45
SO BUILDHGT cool06     9.45    9.45    9.45    9.45    9.45    9.45
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 SO BUILDHGT cool06     9.45    9.45    9.45    9.45    9.45    9.45
 SO BUILDWID cool06   172.49  177.10  177.12  176.27  170.07  158.70
 SO BUILDWID cool06   142.50  121.98   97.75   70.55   41.20   19.86
 SO BUILDWID cool06    50.18   78.97  105.36  128.56  147.84  162.63
 SO BUILDWID cool06   172.49  177.10  177.12  176.27  170.07  158.70
 SO BUILDWID cool06   142.50  121.98   97.75   70.55   41.20   19.86
 SO BUILDWID cool06    50.18   78.97  105.36  128.56  147.84  162.63

 SO BUILDHGT cool07     9.45    9.45    9.45    9.45    9.45    9.45
 SO BUILDHGT cool07     9.45    9.45    9.45    9.45    9.45    9.45
 SO BUILDHGT cool07     9.45    9.45    9.45    9.45    9.45    9.45
 SO BUILDHGT cool07     9.45    9.45    9.45    9.45    9.45    9.45
 SO BUILDHGT cool07     9.45    9.45    9.45    9.45    9.45    9.45
 SO BUILDHGT cool07     9.45    9.45    9.45    9.45    9.45    9.45
 SO BUILDWID cool07   172.49  177.10  177.12  176.27  170.07  158.70
 SO BUILDWID cool07   142.50  121.98   97.75   70.55   41.20   19.86
 SO BUILDWID cool07    50.18   78.97  105.36  128.56  147.84  162.63
 SO BUILDWID cool07   172.49  177.10  177.12  176.27  170.07  158.70
 SO BUILDWID cool07   142.50  121.98   97.75   70.55   41.20   19.86
 SO BUILDWID cool07    50.18   78.97  105.36  128.56  147.84  162.63

 SO BUILDHGT cool08     9.45    9.45    9.45    9.45    9.45    9.45
 SO BUILDHGT cool08     9.45    9.45    9.45    9.45    9.45    9.45
 SO BUILDHGT cool08     9.45    9.45    9.45    9.45    9.45    9.45
 SO BUILDHGT cool08     9.45    9.45    9.45    9.45    9.45    9.45
 SO BUILDHGT cool08     9.45    9.45    9.45    9.45    9.45    9.45
 SO BUILDHGT cool08     9.45    9.45    9.45    9.45    9.45    9.45
 SO BUILDWID cool08   172.49  177.10  177.12  176.27  170.07  158.70
 SO BUILDWID cool08   142.50  121.98   97.75   70.55   41.20   19.86
 SO BUILDWID cool08    50.18   78.97  105.36  128.56  147.84  162.63
 SO BUILDWID cool08   172.49  177.10  177.12  176.27  170.07  158.70
 SO BUILDWID cool08   142.50  121.98   97.75   70.55   41.20   19.86
 SO BUILDWID cool08    50.18   78.97  105.36  128.56  147.84  162.63

 SO BUILDHGT cool09     9.45    9.45    9.45    9.45    9.45    9.45
 SO BUILDHGT cool09     9.45    9.45    9.45    9.45    9.45    9.45
 SO BUILDHGT cool09     9.45    9.45    9.45    9.45    9.45    9.45
 SO BUILDHGT cool09     9.45    9.45    9.45    9.45    9.45    9.45
 SO BUILDHGT cool09     9.45    9.45    9.45    9.45    9.45    9.45
 SO BUILDHGT cool09     9.45    9.45    9.45    9.45    9.45    9.45
 SO BUILDWID cool09   172.49  177.10  177.12  176.27  170.07  158.70
 SO BUILDWID cool09   142.50  121.98   97.75   70.55   41.20   19.86
 SO BUILDWID cool09    50.18   78.97  105.36  128.56  147.84  162.63
 SO BUILDWID cool09   172.49  177.10  177.12  176.27  170.07  158.70
 SO BUILDWID cool09   142.50  121.98   97.75   70.55   41.20   19.86
 SO BUILDWID cool09    50.18   78.97  105.36  128.56  147.84  162.63

 SO BUILDHGT cool10     9.45    9.45    9.45    9.45    9.45    9.45
 SO BUILDHGT cool10     9.45    9.45    9.45    9.45    9.45    9.45
 SO BUILDHGT cool10     9.45    9.45    9.45    9.45    9.45    9.45
 SO BUILDHGT cool10     9.45    9.45    9.45    9.45    9.45    9.45
 SO BUILDHGT cool10     9.45    9.45    9.45    9.45    9.45    9.45
 SO BUILDHGT cool10     9.45    9.45    9.45    9.45    9.45    9.45
 SO BUILDWID cool10   172.49  177.10  177.12  176.27  170.07  158.70
 SO BUILDWID cool10   142.50  121.98   97.75   70.55   41.20   19.86
 SO BUILDWID cool10    50.18   78.97  105.36  128.56  147.84  162.63
 SO BUILDWID cool10   172.49  177.10  177.12  176.27  170.07  158.70
 SO BUILDWID cool10   142.50  121.98   97.75   70.55   41.20   19.86
 SO BUILDWID cool10    50.18   78.97  105.36  128.56  147.84  162.63

 SO BUILDHGT cool11     9.45    9.45    9.45    9.45    9.45    9.45
 SO BUILDHGT cool11     9.45    9.45    9.45    9.45    9.45    9.45
 SO BUILDHGT cool11     9.45    9.45    9.45    9.45    9.45    9.45
 SO BUILDHGT cool11     9.45    9.45    9.45    9.45    9.45    9.45
 SO BUILDHGT cool11     9.45    9.45    9.45    9.45    9.45    9.45
 SO BUILDHGT cool11     9.45    9.45    9.45    9.45    9.45    9.45
 SO BUILDWID cool11   172.49  177.10  177.12  176.27  170.07  158.70
 SO BUILDWID cool11   142.50  121.98   97.75   70.55   41.20   19.86
 SO BUILDWID cool11    50.18   78.97  105.36  128.56  147.84  162.63
 SO BUILDWID cool11   172.49  177.10  177.12  176.27  170.07  158.70
 SO BUILDWID cool11   142.50  121.98   97.75   70.55   41.20   19.86
 SO BUILDWID cool11    50.18   78.97  105.36  128.56  147.84  162.63
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SO	BUILDHGT	cool12	9.45	9.45	9.45	9.45	9.45	9.45
SO	BUILDHGT	cool12	9.45	9.45	9.45	9.45	9.45	9.45
SO	BUILDHGT	cool12	9.45	9.45	9.45	9.45	9.45	9.45
SO	BUILDHGT	cool12	9.45	9.45	9.45	9.45	9.45	9.45
SO	BUILDHGT	cool12	9.45	9.45	9.45	9.45	9.45	9.45
SO	BUILDHGT	cool12	9.45	9.45	9.45	9.45	9.45	9.45
SO	BUILDWID	cool12	172.49	177.10	177.12	176.27	170.07	158.70
SO	BUILDWID	cool12	142.50	121.98	97.75	70.55	41.20	19.86
SO	BUILDWID	cool12	50.18	78.97	105.36	128.56	147.84	162.63
SO	BUILDWID	cool12	172.49	177.10	177.12	176.27	170.07	158.70
SO	BUILDWID	cool12	142.50	121.98	97.75	70.55	41.20	19.86
SO	BUILDWID	cool12	50.18	78.97	105.36	128.56	147.84	162.63

APPENDIX C

DETAILED SUMMARY OF ISCST MODEL RESULTS

ISCBOB3 RELEASE 98056

ISCST3 OUTPUT FILE NUMBER 1 :GENNGC2.087
ISCST3 OUTPUT FILE NUMBER 2 :GENNGC2.088
ISCST3 OUTPUT FILE NUMBER 3 :GENNGC2.089
ISCST3 OUTPUT FILE NUMBER 4 :GENNGC2.090
ISCST3 OUTPUT FILE NUMBER 5 :GENNGC2.091
First title for last output file is: 1987 FPL FT. MYERS PROPOSED 2 SIMPLE CYCLE CTS 7/14/00
Second title for last output file is: SIGNIFICANT IMPACT ANALYSIS, SITE VICINITY, GENERIC 10G/S, NAT. GAS

AVERAGING TIME	YEAR	CONC (ug/m3)	DIR (deg) or X (m)	DIST (m) or Y (m)	PERIOD ENDING (YYMMDDHH)
SOURCE GROUP ID:	BASE35				
Annual					
	1987	0.01146	200.	16000.	87123124
	1988	0.01302	240.	16000.	88123124
	1989	0.01028	300.	14000.	89123124
	1990	0.01917	240.	16000.	90123124
	1991	0.01367	250.	14000.	91123124
HIGH 24-Hour					
	1987	0.24959	250.	8000.	87081824
	1988	0.20649	180.	20000.	88121824
	1989	0.13791	190.	12000.	89012424
	1990	0.18432	230.	6000.	90051124
	1991	0.16110	250.	18000.	91111424
HIGH 8-Hour					
	1987	0.41591	250.	20000.	87081808
	1988	0.41353	180.	18000.	88121808
	1989	0.36656	140.	20000.	89012308
	1990	0.44932	300.	20000.	90022208
	1991	0.40785	250.	20000.	91113008
HIGH 3-Hour					
	1987	0.77435	210.	18000.	87110706
	1988	0.79695	260.	20000.	88091703
	1989	0.63749	260.	1500.	89073115
	1990	0.88450	180.	2000.	90041815
	1991	0.84738	180.	2000.	91081615
HIGH 1-Hour					
	1987	1.96541	10.	1500.	87070612
	1988	1.91011	40.	1500.	88060513
	1989	1.91181	260.	1500.	89073114
	1990	1.91188	50.	1500.	90062013
	1991	2.04240	60.	1500.	91041513
SOURCE GROUP ID:	BASE59				
Annual					
	1987	0.01178	200.	16000.	87123124
	1988	0.01332	240.	16000.	88123124
	1989	0.01058	300.	14000.	89123124
	1990	0.01970	240.	16000.	90123124
	1991	0.01393	250.	14000.	91123124
HIGH 24-Hour					
	1987	0.25263	250.	8000.	87081824
	1988	0.21049	180.	20000.	88121824
	1989	0.14001	190.	12000.	89012424
	1990	0.18626	230.	6000.	90051124
	1991	0.22163	60.	6000.	91070224
HIGH 8-Hour					
	1987	0.42506	250.	20000.	87081808
	1988	0.42150	180.	18000.	88121808
	1989	0.37440	140.	20000.	89012308
	1990	0.45802	300.	20000.	90022208
	1991	0.46694	60.	5000.	91070216
HIGH 3-Hour					
	1987	0.78895	210.	18000.	87110706
	1988	0.81247	260.	20000.	88091703
	1989	0.69461	40.	1500.	89061115
	1990	0.88721	180.	2000.	90041815
	1991	0.84902	180.	2000.	91081615
HIGH 1-Hour					
	1987	2.09957	160.	1500.	87080314
	1988	2.08112	230.	1500.	88081714
	1989	2.08384	40.	1500.	89061114
	1990	1.91831	50.	1500.	90062013
	1991	2.04864	60.	1500.	91041513
SOURCE GROUP ID:	BASE95				

Annual					
	1987	0.01255	200.	14000.	87123124
	1988	0.01427	240.	14000.	88123124
	1989	0.01124	300.	12000.	89123124
	1990	0.02102	240.	14000.	90123124
	1991	0.01491	250.	14000.	91123124
HIGH 24-Hour					
	1987	0.30424	250.	8000.	87081824
	1988	0.22016	180.	20000.	88121824
	1989	0.16816	310.	14000.	89091224
	1990	0.19135	230.	6000.	90051124
	1991	0.22297	60.	6000.	91070224
HIGH 8-Hour					
	1987	0.52714	250.	6000.	87081816
	1988	0.44068	180.	18000.	88121808
	1989	0.39348	140.	20000.	89012308
	1990	0.47923	300.	20000.	90022208
	1991	0.46881	60.	5000.	91070216
HIGH 3-Hour					
	1987	0.82439	210.	18000.	87110706
	1988	0.85043	260.	20000.	88091703
	1989	0.73578	270.	1500.	89060212
	1990	0.89368	180.	2000.	90041815
	1991	0.85297	180.	2000.	91081615
HIGH 1-Hour					
	1987	2.20332	80.	1500.	87062213
	1988	2.09815	230.	1500.	88081714
	1989	2.20735	270.	1500.	89060211
	1990	2.18674	180.	1500.	90090912
	1991	2.16289	210.	1500.	91072614
SOURCE GROUP ID:	LD7535				
Annual					
	1987	0.01428	200.	14000.	87123124
	1988	0.01632	240.	14000.	88123124
	1989	0.01355	300.	10000.	89123124
	1990	0.02416	240.	14000.	90123124
	1991	0.01739	250.	12000.	91123124
HIGH 24-Hour					
	1987	0.32366	250.	8000.	87081824
	1988	0.24544	180.	18000.	88121824
	1989	0.19138	320.	8000.	89091424
	1990	0.20512	230.	6000.	90051124
	1991	0.25087	170.	1500.	91081624
HIGH 8-Hour					
	1987	0.55261	250.	6000.	87081816
	1988	0.48610	180.	16000.	88121808
	1989	0.44216	320.	8000.	89091416
	1990	0.52973	300.	18000.	90022208
	1991	0.64508	170.	1500.	91081616
HIGH 3-Hour					
	1987	0.86853	210.	20000.	87110706
	1988	0.94123	260.	20000.	88091703
	1989	0.81760	50.	1500.	89072812
	1990	1.36824	50.	1500.	90090812
	1991	0.88472	180.	1500.	91081615
HIGH 1-Hour					
	1987	2.49150	20.	1500.	87092013
	1988	2.47138	230.	1500.	88080912
	1989	2.45281	50.	1500.	89072812
	1990	2.43161	50.	1500.	90090811
	1991	2.36237	330.	1500.	91072212
SOURCE GROUP ID:	LD7559				
Annual					
	1987	0.01449	200.	14000.	87123124
	1988	0.01659	240.	14000.	88123124
	1989	0.01369	300.	10000.	89123124
	1990	0.02453	240.	14000.	90123124
	1991	0.01757	250.	12000.	91123124
HIGH 24-Hour					
	1987	0.32565	250.	8000.	87081824
	1988	0.24794	180.	18000.	88121824
	1989	0.19251	320.	8000.	89091424
	1990	0.20656	230.	6000.	90051124
	1991	0.25175	170.	1500.	91081624
HIGH 8-Hour					
	1987	0.55527	250.	6000.	87081816
	1988	0.49109	180.	16000.	88121808

	1989	0.44422	320.	6000.	89091416
	1990	0.53510	300.	18000.	90022208
	1991	0.64735	170.	1500.	91081616
HIGH 3-Hour					
	1987	0.87703	210.	20000.	87110706
	1988	0.95031	260.	20000.	88091703
	1989	0.81896	50.	1500.	89072812
	1990	1.37024	50.	1500.	90090812
	1991	0.88892	180.	1500.	91081615
HIGH 1-Hour					
	1987	2.57880	20.	1500.	87092113
	1988	2.47540	230.	1500.	88080912
	1989	2.45689	50.	1500.	89072812
	1990	2.57189	80.	1500.	90082212
	1991	2.46086	300.	1500.	91090112
SOURCE GROUP ID:	LD7595				
Annual					
	1987	0.01500	200.	14000.	87123124
	1988	0.01742	240.	14000.	88123124
	1989	0.01420	300.	10000.	89123124
	1990	0.02551	240.	14000.	90123124
	1991	0.01819	250.	12000.	91123124
HIGH 24-Hour					
	1987	0.33177	250.	8000.	87081824
	1988	0.25543	180.	18000.	88121824
	1989	0.19645	310.	12000.	89091224
	1990	0.21106	230.	6000.	90051124
	1991	0.25448	170.	1500.	91081624
HIGH 8-Hour					
	1987	0.56357	250.	6000.	87081816
	1988	0.50599	180.	16000.	88121808
	1989	0.45799	140.	20000.	89012308
	1990	0.55138	300.	18000.	90022208
	1991	0.65439	170.	1500.	91081616
HIGH 3-Hour					
	1987	0.90319	210.	18000.	87110706
	1988	0.97790	260.	20000.	88091703
	1989	0.87816	180.	1500.	89061115
	1990	1.37680	50.	1500.	90090812
	1991	0.90844	250.	20000.	91111424
HIGH 1-Hour					
	1987	2.66102	50.	1500.	87080313
	1988	2.62463	10.	1500.	88081713
	1989	2.63449	180.	1500.	89061113
	1990	2.65241	250.	1500.	90100112
	1991	2.64971	160.	1500.	91091311
SOURCE GROUP ID:	LD5035				
Annual					
	1987	0.01697	200.	12000.	87123124
	1988	0.01927	240.	12000.	88123124
	1989	0.01576	240.	12000.	89123124
	1990	0.02863	240.	14000.	90123124
	1991	0.02046	250.	12000.	91123124
HIGH 24-Hour					
	1987	0.35193	250.	8000.	87081824
	1988	0.28295	180.	16000.	88121824
	1989	0.24988	230.	1500.	89073024
	1990	0.22856	240.	16000.	90121424
	1991	0.26350	170.	1500.	91081624
HIGH 8-Hour					
	1987	0.59136	250.	6000.	87081816
	1988	0.55207	180.	16000.	88121808
	1989	0.74960	230.	1500.	89073016
	1990	0.60279	300.	18000.	90022208
	1991	0.67757	170.	1500.	91081616
HIGH 3-Hour					
	1987	0.98746	190.	18000.	87100506
	1988	1.07004	260.	18000.	88091703
	1989	1.49920	230.	1500.	89073015
	1990	1.40171	50.	1500.	90090812
	1991	1.00454	250.	20000.	91111424
HIGH 1-Hour					
	1987	2.91234	200.	1500.	87091412
	1988	2.73264	310.	1500.	88071812
	1989	2.88139	50.	1500.	89051611
	1990	2.89973	80.	1500.	90070412
	1991	2.84672	240.	1500.	91091913

SOURCE GROUP ID: LD5059

Annual					
	1987	0.01725	200.	12000.	87123124
	1988	0.01964	240.	12000.	88123124
	1989	0.01585	240.	12000.	89123124
	1990	0.02881	240.	14000.	90123124
	1991	0.02070	250.	12000.	91123124
HIGH 24-Hour					
	1987	0.35326	250.	8000.	87081824
	1988	0.28462	180.	16000.	88121824
	1989	0.25018	230.	1500.	89073024
	1990	0.26294	230.	6000.	90051124
	1991	0.26407	170.	1500.	91081624
HIGH 8-Hour					
	1987	0.59315	250.	6000.	87081816
	1988	0.55529	180.	16000.	88121808
	1989	0.75048	230.	1500.	89073016
	1990	0.61973	230.	6000.	90051116
	1991	0.67905	170.	1500.	91081616
HIGH 3-Hour					
	1987	0.99315	190.	18000.	87100506
	1988	1.07610	260.	18000.	88091703
	1989	1.50096	230.	1500.	89073015
	1990	1.40347	50.	1500.	90090812
	1991	1.01100	250.	20000.	91111424
HIGH 1-Hour					
	1987	2.91490	200.	1500.	87091412
	1988	2.94588	280.	1500.	88072612
	1989	2.88393	50.	1500.	89051611
	1990	2.90220	80.	1500.	90070412
	1991	2.84910	240.	1500.	91091913

SOURCE GROUP ID: LD5095

Annual					
	1987	0.01787	200.	12000.	87123124
	1988	0.02031	240.	12000.	88123124
	1989	0.01645	240.	12000.	89123124
	1990	0.03000	240.	12000.	90123124
	1991	0.02145	250.	12000.	91123124
HIGH 24-Hour					
	1987	0.36043	250.	8000.	87081824
	1988	0.29306	180.	16000.	88121824
	1989	0.25181	230.	1500.	89073024
	1990	0.26830	230.	6000.	90051124
	1991	0.26720	170.	1500.	91081624
HIGH 8-Hour					
	1987	0.60293	250.	6000.	87081816
	1988	0.57162	180.	14000.	88121808
	1989	0.75539	230.	1500.	89073016
	1990	0.63213	230.	6000.	90051116
	1991	0.68709	170.	1500.	91081616
HIGH 3-Hour					
	1987	1.02361	190.	16000.	87100506
	1988	1.06357	260.	20000.	88091703
	1989	1.51077	230.	1500.	89073015
	1990	1.41324	50.	1500.	90090812
	1991	1.04477	250.	20000.	91111424
HIGH 1-Hour					
	1987	2.92870	200.	1500.	87091412
	1988	2.95958	280.	1500.	88072612
	1989	2.90680	230.	1500.	89081712
	1990	2.91561	80.	1500.	90070412
	1991	2.99581	360.	1500.	91041913

SOURCE GROUP ID: HPM35

Annual					
	1987	0.01123	200.	16000.	87123124
	1988	0.01282	240.	16000.	88123124
	1989	0.01010	300.	14000.	89123124
	1990	0.01886	240.	16000.	90123124
	1991	0.01347	250.	14000.	91123124
HIGH 24-Hour					
	1987	0.24729	250.	8000.	87081824
	1988	0.20363	180.	20000.	88121824
	1989	0.13638	190.	12000.	89012424
	1990	0.18288	230.	6000.	90051124
	1991	0.15902	250.	18000.	91111424
HIGH 8-Hour					
	1987	0.40900	250.	20000.	87081808

	1988	0.40784	180.	18000.	88121808
	1989	0.36089	140.	20000.	89012308
	1990	0.44283	300.	20000.	90022208
	1991	0.40148	250.	20000.	91113008
HIGH 3-Hour					
	1987	0.76355	210.	18000.	87110706
	1988	0.78523	260.	20000.	88091703
	1989	0.63591	260.	1500.	89073115
	1990	0.88239	180.	2000.	90041815
	1991	0.84607	180.	2000.	91081615
HIGH 1-Hour					
	1987	1.96065	10.	1500.	87070612
	1988	1.90443	40.	1500.	88060513
	1989	1.90711	260.	1500.	89073114
	1990	1.90714	50.	1500.	90062013
	1991	1.96586	250.	1500.	91062813
SOURCE GROUP ID:	HPM59				
Annual					
	1987	0.01149	200.	16000.	87123124
	1988	0.01307	240.	16000.	88123124
	1989	0.01030	300.	14000.	89123124
	1990	0.01922	240.	16000.	90123124
	1991	0.01370	250.	14000.	91123124
HIGH 24-Hour					
	1987	0.24987	250.	8000.	87081824
	1988	0.20707	180.	20000.	88121824
	1989	0.13818	190.	12000.	89012424
	1990	0.18448	230.	6000.	90051124
	1991	0.16141	250.	18000.	91111424
HIGH 8-Hour					
	1987	0.41683	250.	20000.	87081808
	1988	0.41471	180.	18000.	88121808
	1989	0.36762	140.	20000.	89012308
	1990	0.45031	300.	20000.	90022208
	1991	0.40881	250.	20000.	91113008
HIGH 3-Hour					
	1987	0.77612	210.	18000.	87110706
	1988	0.79856	260.	20000.	88091703
	1989	0.63767	260.	1500.	89073115
	1990	0.88474	180.	2000.	90041815
	1991	0.84751	180.	2000.	91081615
HIGH 1-Hour					
	1987	1.96595	10.	1500.	87070612
	1988	2.07526	230.	1500.	88081714
	1989	1.91233	260.	1500.	89073114
	1990	1.91239	50.	1500.	90062013
	1991	2.04296	60.	1500.	91041513
SOURCE GROUP ID:	HPM95				
Annual					
	1987	0.01184	200.	16000.	87123124
	1988	0.01339	240.	16000.	88123124
	1989	0.01063	300.	14000.	89123124
	1990	0.01980	240.	16000.	90123124
	1991	0.01414	250.	14000.	91123124
HIGH 24-Hour					
	1987	0.25332	250.	8000.	87081824
	1988	0.21162	180.	20000.	88121824
	1989	0.14057	190.	12000.	89012424
	1990	0.18669	230.	6000.	90051124
	1991	0.22173	60.	6000.	91070224
HIGH 8-Hour					
	1987	0.42721	250.	20000.	87081808
	1988	0.42377	180.	18000.	88121808
	1989	0.37653	140.	20000.	89012308
	1990	0.46018	300.	20000.	90022208
	1991	0.46705	60.	5000.	91070216
HIGH 3-Hour					
	1987	0.79268	210.	18000.	87110706
	1988	0.81614	260.	20000.	88091703
	1989	0.69506	40.	1500.	89061115
	1990	0.88779	180.	2000.	90041815
	1991	0.84937	180.	2000.	91081615
HIGH 1-Hour					
	1987	2.10094	160.	1500.	87080314
	1988	2.08254	230.	1500.	88081714
	1989	2.08518	40.	1500.	89061114
	1990	1.91971	50.	1500.	90062013

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                1991      2.06336          240.        1500.      91062513
 All receptor computations reported with respect to a user-specified origin
GRID          -242.89       -215.68
DISCRETE        0.00          0.00
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ISCBOB3 RELEASE 98056

ISCST3 OUTPUT FILE NUMBER 1 :GENNGC1.087
ISCST3 OUTPUT FILE NUMBER 2 :GENNGC1.088
ISCST3 OUTPUT FILE NUMBER 3 :GENNGC1.089
ISCST3 OUTPUT FILE NUMBER 4 :GENNGC1.090
ISCST3 OUTPUT FILE NUMBER 5 :GENNGC1.091
First title for last output file is: 1987 FPL FT. MYERS PROPOSED 2 SIMPLE CYCLE CTS 7/14/00
Second title for last output file is: SIGNIFICANT IMPACT ANALYSIS, EVERGLADES NP, GENERIC 10G/S, NAT. GAS

AVERAGING TIME	YEAR	CONC (ug/m3)	DIR (deg) or X (m)	DIST (m) or Y (m)	PERIOD ENDING (YYMMDDHH)
SOURCE GROUP ID:	BASE35				
Annual					
	1987	0.00213	454000.	2863200.	87123124
	1988	0.00174	550300.	2848600.	88123124
	1989	0.00192	459500.	2863200.	89123124
	1990	0.00161	459500.	2863200.	90123124
	1991	0.00156	459500.	2863200.	91123124
HIGH 24-Hour					
	1987	0.06082	464000.	2860000.	87021224
	1988	0.05267	454000.	2863200.	88012324
	1989	0.05547	514500.	2843000.	89012324
	1990	0.04129	488500.	2845500.	90032024
	1991	0.03828	500000.	2832500.	91022524
HIGH 8-Hour					
	1987	0.13320	459500.	2863200.	87091824
	1988	0.16251	495000.	2832500.	88121324
	1989	0.14842	514500.	2843000.	89012308
	1990	0.12030	459500.	2863200.	90051108
	1991	0.10672	473500.	2860000.	91021008
HIGH 3-Hour					
	1987	0.23190	459500.	2863200.	87091824
	1988	0.29210	454000.	2863200.	88012303
	1989	0.30014	514500.	2848600.	89102903
	1990	0.24588	454000.	2863200.	90010824
	1991	0.22278	488500.	2845500.	91022521
HIGH 1-Hour					
	1987	0.52653	469000.	2860000.	87080907
	1988	0.51596	473500.	2857000.	88110118
	1989	0.52035	473500.	2857000.	89120419
	1990	0.55031	464000.	2860000.	90081221
	1991	0.51920	459500.	2863200.	91053023
SOURCE GROUP ID:	BASE59				
Annual					
	1987	0.00217	454000.	2863200.	87123124
	1988	0.00175	550300.	2848600.	88123124
	1989	0.00195	459500.	2863200.	89123124
	1990	0.00163	459500.	2863200.	90123124
	1991	0.00159	459500.	2863200.	91123124
HIGH 24-Hour					
	1987	0.06172	464000.	2860000.	87021224
	1988	0.05317	454000.	2863200.	88012324
	1989	0.05603	514500.	2843000.	89012324
	1990	0.04165	488500.	2845500.	90032024
	1991	0.03863	500000.	2832500.	91022524
HIGH 8-Hour					
	1987	0.13552	459500.	2863200.	87091824
	1988	0.16440	495000.	2832500.	88121324
	1989	0.14995	514500.	2843000.	89012308
	1990	0.12209	459500.	2863200.	90051108
	1991	0.10909	473500.	2860000.	91021008
HIGH 3-Hour					
	1987	0.23665	459500.	2863200.	87091824
	1988	0.29495	454000.	2863200.	88012303
	1989	0.30569	514500.	2848600.	89102903
	1990	0.24870	454000.	2863200.	90010824
	1991	0.22488	488500.	2845500.	91022521
HIGH 1-Hour					
	1987	0.53312	469000.	2860000.	87080907
	1988	0.52232	473500.	2857000.	88110118
	1989	0.52680	473500.	2857000.	89120419
	1990	0.55821	464000.	2860000.	90081221
	1991	0.52591	459500.	2863200.	91053023
SOURCE GROUP ID:	BASE95				

Annual					
	1987	0.00225	454000.	2863200.	87123124
	1988	0.00179	550300.	2848600.	88123124
	1989	0.00201	459500.	2863200.	89123124
	1990	0.00169	459500.	2863200.	90123124
	1991	0.00165	459500.	2863200.	91123124
HIGH 24-Hour					
	1987	0.06391	464000.	2860000.	87021224
	1988	0.05433	454000.	2863200.	88012324
	1989	0.05737	514500.	2843000.	89012324
	1990	0.04250	488500.	2845500.	90032024
	1991	0.03946	500000.	2832500.	91022524
HIGH 8-Hour					
	1987	0.14118	459500.	2863200.	87091824
	1988	0.16892	495000.	2832500.	88121324
	1989	0.15358	514500.	2843000.	89012308
	1990	0.12643	459500.	2863200.	90051108
	1991	0.11486	473500.	2860000.	91021008
HIGH 3-Hour					
	1987	0.24832	459500.	2863200.	87091824
	1988	0.30166	454000.	2863200.	88012303
	1989	0.31916	514500.	2848600.	89102903
	1990	0.25544	454000.	2863200.	90010824
	1991	0.22990	488500.	2845500.	91022521
HIGH 1-Hour					
	1987	0.54898	469000.	2860000.	87080907
	1988	0.53757	473500.	2857000.	88110118
	1989	0.54218	473500.	2857000.	89120419
	1990	0.57730	464000.	2860000.	90081221
	1991	0.54203	459500.	2863200.	91053023
SOURCE GROUP ID:	LD7535				
Annual					
	1987	0.00248	454000.	2863200.	87123124
	1988	0.00194	550300.	2848600.	88123124
	1989	0.00221	459500.	2863200.	89123124
	1990	0.00188	459500.	2863200.	90123124
	1991	0.00176	459500.	2863200.	91123124
HIGH 24-Hour					
	1987	0.06907	464000.	2860000.	87021224
	1988	0.05692	454000.	2863200.	88012324
	1989	0.06039	514500.	2843000.	89012324
	1990	0.04442	488500.	2845500.	90032024
	1991	0.04133	500000.	2832500.	91022524
HIGH 8-Hour					
	1987	0.15473	459500.	2863200.	87091824
	1988	0.17923	495000.	2832500.	88121324
	1989	0.16178	514500.	2843000.	89012308
	1990	0.13667	459500.	2863200.	90051108
	1991	0.12864	473500.	2860000.	91021008
HIGH 3-Hour					
	1987	0.27651	459500.	2863200.	87091824
	1988	0.31662	454000.	2863200.	88012303
	1989	0.35089	514500.	2848600.	89102903
	1990	0.27074	454000.	2863200.	90010824
	1991	0.24123	488500.	2845500.	91022521
HIGH 1-Hour					
	1987	0.58560	469000.	2860000.	87080907
	1988	0.57253	473500.	2857000.	88110118
	1989	0.57709	473500.	2857000.	89120419
	1990	0.62168	464000.	2860000.	90081221
	1991	0.57914	459500.	2863200.	91053023
SOURCE GROUP ID:	LD7559				
Annual					
	1987	0.00249	454000.	2863200.	87123124
	1988	0.00195	550300.	2848600.	88123124
	1989	0.00223	459500.	2863200.	89123124
	1990	0.00192	459500.	2863200.	90123124
	1991	0.00180	459500.	2863200.	91123124
HIGH 24-Hour					
	1987	0.06959	464000.	2860000.	87021224
	1988	0.05718	454000.	2863200.	88012324
	1989	0.06069	514500.	2843000.	89012324
	1990	0.04460	488500.	2845500.	90032024
	1991	0.04151	500000.	2832500.	91022524
HIGH 8-Hour					
	1987	0.15607	459500.	2863200.	87091824
	1988	0.18028	495000.	2832500.	88121324

	1989	0.16260	514500.	2843000.	89012308
	1990	0.13770	459500.	2863200.	90051108
	1991	0.13008	473500.	2860000.	91021008
HIGH 3-Hour					
	1987	0.27933	459500.	2863200.	87091824
	1988	0.31812	454000.	2863200.	88012303
	1989	0.35411	514500.	2848600.	89102903
	1990	0.27224	454000.	2863200.	90010824
	1991	0.24233	488500.	2845500.	91022521
HIGH 1-Hour					
	1987	0.58913	469000.	2860000.	87080907
	1988	0.57594	473500.	2857000.	88110118
	1989	0.58057	473500.	2857000.	89120419
	1990	0.62602	464000.	2860000.	90081221
	1991	0.58277	459500.	2863200.	91053023
SOURCE GROUP ID:	LD7595				
Annual					
	1987	0.00254	454000.	2863200.	87123124
	1988	0.00199	550300.	2848600.	88123124
	1989	0.00228	459500.	2863200.	89123124
	1990	0.00196	459500.	2863200.	90123124
	1991	0.00189	459500.	2863200.	91123124
HIGH 24-Hour					
	1987	0.07129	459500.	2863200.	87091824
	1988	0.05794	454000.	2863200.	88012324
	1989	0.06159	514500.	2843000.	89012324
	1990	0.04516	488500.	2845500.	90032024
	1991	0.04205	500000.	2832500.	91022524
HIGH 8-Hour					
	1987	0.16015	459500.	2863200.	87091824
	1988	0.18338	495000.	2832500.	88121324
	1989	0.16504	514500.	2843000.	89012308
	1990	0.14080	459500.	2863200.	90051108
	1991	0.13443	473500.	2860000.	91021008
HIGH 3-Hour					
	1987	0.28792	459500.	2863200.	87091824
	1988	0.32253	454000.	2863200.	88012303
	1989	0.36381	514500.	2848600.	89102903
	1990	0.27674	454000.	2863200.	90010824
	1991	0.24560	488500.	2845500.	91022521
HIGH 1-Hour					
	1987	0.59979	469000.	2860000.	87080907
	1988	0.58618	473500.	2857000.	88110118
	1989	0.59094	473500.	2857000.	89120419
	1990	0.63911	464000.	2860000.	90081221
	1991	0.59366	459500.	2863200.	91053023
SOURCE GROUP ID:	LD5035				
Annual					
	1987	0.00269	454000.	2863200.	87123124
	1988	0.00209	550300.	2848600.	88123124
	1989	0.00253	459500.	2863200.	89123124
	1990	0.00215	459500.	2863200.	90123124
	1991	0.00201	459500.	2863200.	91123124
HIGH 24-Hour					
	1987	0.07704	459500.	2863200.	87091824
	1988	0.06020	454000.	2863200.	88012324
	1989	0.06427	514500.	2843000.	89012324
	1990	0.04753	459500.	2863200.	90051124
	1991	0.04443	473500.	2860000.	91021024
HIGH 8-Hour					
	1987	0.17309	459500.	2863200.	87091824
	1988	0.19280	495000.	2832500.	88121324
	1989	0.17234	514500.	2843000.	89012308
	1990	0.15051	459500.	2863200.	90051108
	1991	0.14809	473500.	2860000.	91021008
HIGH 3-Hour					
	1987	0.31538	459500.	2863200.	87091824
	1988	0.33565	454000.	2863200.	88012303
	1989	0.39403	514500.	2848600.	89102903
	1990	0.30071	459500.	2863200.	90061203
	1991	0.25694	514500.	2843000.	91030503
HIGH 1-Hour					
	1987	0.63263	469000.	2860000.	87080907
	1988	0.61748	473500.	2857000.	88110118
	1989	0.62224	473500.	2857000.	89120419
	1990	0.67961	464000.	2860000.	90081221
	1991	0.62708	459500.	2863200.	91053023

SOURCE GROUP ID: LD5059

Annual					
	1987	0.00270	454000.	2863200.	87123124
	1988	0.00210	550300.	2848600.	88123124
	1989	0.00254	459500.	2863200.	89123124
	1990	0.00216	459500.	2863200.	90123124
	1991	0.00202	459500.	2863200.	91123124
HIGH 24-Hour					
	1987	0.07741	459500.	2863200.	87091824
	1988	0.06035	454000.	2863200.	88012324
	1989	0.06445	514500.	2843000.	89012324
	1990	0.04773	459500.	2863200.	90051124
	1991	0.04471	473500.	2860000.	91021024
HIGH 8-Hour					
	1987	0.17392	459500.	2863200.	87091824
	1988	0.19344	495000.	2832500.	88121324
	1989	0.17283	514500.	2843000.	89012308
	1990	0.15121	459500.	2863200.	90061208
	1991	0.14904	473500.	2860000.	91021008
HIGH 3-Hour					
	1987	0.31717	459500.	2863200.	87091824
	1988	0.33652	454000.	2863200.	88012303
	1989	0.39605	514500.	2848600.	89102903
	1990	0.30242	459500.	2863200.	90061203
	1991	0.25785	514500.	2843000.	91030503
HIGH 1-Hour					
	1987	0.63471	469000.	2860000.	87080907
	1988	0.61949	473500.	2857000.	88110118
	1989	0.62431	473500.	2857000.	89120419
	1990	0.68220	464000.	2860000.	90081221
	1991	0.62922	459500.	2863200.	91053023

SOURCE GROUP ID: LD5095

Annual					
	1987	0.00280	454000.	2863200.	87123124
	1988	0.00214	550300.	2848600.	88123124
	1989	0.00266	459500.	2863200.	89123124
	1990	0.00220	459500.	2863200.	90123124
	1991	0.00206	459500.	2863200.	91123124
HIGH 24-Hour					
	1987	0.07938	459500.	2863200.	87091824
	1988	0.06110	454000.	2863200.	88012324
	1989	0.06535	514500.	2843000.	89012324
	1990	0.04878	459500.	2863200.	90051124
	1991	0.04616	473500.	2860000.	91021024
HIGH 8-Hour					
	1987	0.17836	459500.	2863200.	87091824
	1988	0.19663	495000.	2832500.	88121324
	1989	0.17528	514500.	2843000.	89012308
	1990	0.15575	459500.	2863200.	90061208
	1991	0.15385	473500.	2860000.	91021008
HIGH 3-Hour					
	1987	0.32667	459500.	2863200.	87091824
	1988	0.34088	454000.	2863200.	88012303
	1989	0.40645	514500.	2848600.	89102903
	1990	0.31150	459500.	2863200.	90061203
	1991	0.26250	514500.	2843000.	91030503
HIGH 1-Hour					
	1987	0.64563	469000.	2860000.	87080907
	1988	0.62993	473500.	2857000.	88110118
	1989	0.63480	473500.	2857000.	89120419
	1990	0.69580	464000.	2860000.	90081221
	1991	0.64039	459500.	2863200.	91053023

SOURCE GROUP ID: HPM35

Annual					
	1987	0.00212	454000.	2863200.	87123124
	1988	0.00172	550300.	2848600.	88123124
	1989	0.00190	459500.	2863200.	89123124
	1990	0.00159	459500.	2863200.	90123124
	1991	0.00152	459500.	2863200.	91123124
HIGH 24-Hour					
	1987	0.06015	464000.	2860000.	87021224
	1988	0.05231	454000.	2863200.	88012324
	1989	0.05506	514500.	2843000.	89012324
	1990	0.04102	488500.	2845500.	90032024
	1991	0.03802	500000.	2832500.	91022524
HIGH 8-Hour					
	1987	0.13143	459500.	2863200.	87091824

	1988	0.16113	495000.	2832500.	88121324
	1989	0.14729	514500.	2843000.	89012308
	1990	0.11896	459500.	2863200.	90051108
	1991	0.10552	514500.	2843000.	91030508
HIGH 3-Hour					
	1987	0.22829	459500.	2863200.	87091824
	1988	0.29003	454000.	2863200.	88012303
	1989	0.29603	514500.	2848600.	89102903
	1990	0.24377	454000.	2863200.	90010824
	1991	0.22118	488500.	2845500.	91022521
HIGH 1-Hour					
	1987	0.52148	469000.	2860000.	87080907
	1988	0.51116	473500.	2857000.	88110118
	1989	0.51559	473500.	2857000.	89120419
	1990	0.54429	464000.	2860000.	90081221
	1991	0.51412	459500.	2863200.	91053023
SOURCE GROUP ID:	HPM59				
Annual					
	1987	0.00214	454000.	2863200.	87123124
	1988	0.00174	550300.	2848600.	88123124
	1989	0.00192	459500.	2863200.	89123124
	1990	0.00161	459500.	2863200.	90123124
	1991	0.00156	459500.	2863200.	91123124
HIGH 24-Hour					
	1987	0.06093	464000.	2860000.	87021224
	1988	0.05274	454000.	2863200.	88012324
	1989	0.05555	514500.	2843000.	89012324
	1990	0.04133	488500.	2845500.	90032024
	1991	0.03832	500000.	2832500.	91022524
HIGH 8-Hour					
	1987	0.13342	459500.	2863200.	87091824
	1988	0.16277	495000.	2832500.	88121324
	1989	0.14862	514500.	2843000.	89012308
	1990	0.12050	459500.	2863200.	90051108
	1991	0.10705	473500.	2860000.	91021008
HIGH 3-Hour					
	1987	0.23236	459500.	2863200.	87091824
	1988	0.29251	454000.	2863200.	88012303
	1989	0.30082	514500.	2848600.	89102903
	1990	0.24622	454000.	2863200.	90010824
	1991	0.22301	488500.	2845500.	91022521
HIGH 1-Hour					
	1987	0.52717	469000.	2860000.	87080907
	1988	0.51666	473500.	2857000.	88110118
	1989	0.52120	473500.	2857000.	89120419
	1990	0.55112	464000.	2860000.	90081221
	1991	0.51993	459500.	2863200.	91053023
SOURCE GROUP ID:	HPM95				
Annual					
	1987	0.00218	454000.	2863200.	87123124
	1988	0.00176	550300.	2848600.	88123124
	1989	0.00196	459500.	2863200.	89123124
	1990	0.00164	459500.	2863200.	90123124
	1991	0.00160	459500.	2863200.	91123124
HIGH 24-Hour					
	1987	0.06196	464000.	2860000.	87021224
	1988	0.05330	454000.	2863200.	88012324
	1989	0.05618	514500.	2843000.	89012324
	1990	0.04174	488500.	2845500.	90032024
	1991	0.03872	500000.	2832500.	91022524
HIGH 8-Hour					
	1987	0.13605	459500.	2863200.	87091824
	1988	0.16492	495000.	2832500.	88121324
	1989	0.15036	514500.	2843000.	89012308
	1990	0.12253	459500.	2863200.	90051108
	1991	0.10974	473500.	2860000.	91021008
HIGH 3-Hour					
	1987	0.23774	459500.	2863200.	87091824
	1988	0.29574	454000.	2863200.	88012303
	1989	0.30712	514500.	2848600.	89102903
	1990	0.24942	454000.	2863200.	90010824
	1991	0.22539	488500.	2845500.	91022521
HIGH 1-Hour					
	1987	0.53461	469000.	2860000.	87080907
	1988	0.52385	473500.	2857000.	88110118
	1989	0.52851	473500.	2857000.	89120419
	1990	0.56006	464000.	2860000.	90081221

	1991	0.52752	459500.	2863200.	91053023

All receptor computations reported with respect to a user-specified origin

GRID	0.00	0.00
DISCRETE	0.00	0.00

ISCBOB3 RELEASE 98056

ISCST3 OUTPUT FILE NUMBER 1 :GENFOC2.087
ISCST3 OUTPUT FILE NUMBER 2 :GENFOC2.088
ISCST3 OUTPUT FILE NUMBER 3 :GENFOC2.089
ISCST3 OUTPUT FILE NUMBER 4 :GENFOC2.090
ISCST3 OUTPUT FILE NUMBER 5 :GENFOC2.091
First title for last output file is: 1987 FPL FT. MYERS PROPOSED 2 SIMPLE CYCLE CTS 7/14/00
Second title for last output file is: SIGNIFICANT IMPACT ANALYSIS, SITE VICINITY, GENERIC 10G/S, FUEL OIL

AVERAGING TIME	YEAR	CONC (ug/m3)	DIR (deg) or X (m)	DIST (m) or Y (m)	PERIOD ENDING (YYMMDDHH)
SOURCE GROUP ID:	BASE35				
Annual					
	1987	0.01115	200.	16000.	87123124
	1988	0.01266	240.	16000.	88123124
	1989	0.00994	230.	16000.	89123124
	1990	0.01871	240.	16000.	90123124
	1991	0.01336	250.	14000.	91123124
HIGH 24-Hour					
	1987	0.24625	250.	8000.	87081824
	1988	0.20204	180.	20000.	88121824
	1989	0.13560	190.	12000.	89012424
	1990	0.18226	230.	6000.	90051124
	1991	0.15799	250.	18000.	91111424
HIGH 8-Hour					
	1987	0.40575	250.	20000.	87081808
	1988	0.40468	180.	20000.	88121808
	1989	0.35787	140.	20000.	89012308
	1990	0.43962	300.	20000.	90022208
	1991	0.39834	250.	20000.	91113008
HIGH 3-Hour					
	1987	0.75807	210.	18000.	87110706
	1988	0.77966	260.	20000.	88091703
	1989	0.63523	260.	1500.	89073115
	1990	0.88144	180.	2000.	90041815
	1991	0.84550	180.	2000.	91081615
HIGH 1-Hour					
	1987	1.95860	10.	1500.	87070612
	1988	1.90205	40.	1500.	88060513
	1989	1.90510	260.	1500.	89073114
	1990	1.90514	50.	1500.	90062013
	1991	1.96384	250.	1500.	91062813
SOURCE GROUP ID:	BASE59				
Annual					
	1987	0.01138	200.	16000.	87123124
	1988	0.01299	240.	16000.	88123124
	1989	0.01026	300.	14000.	89123124
	1990	0.01912	240.	16000.	90123124
	1991	0.01363	250.	14000.	91123124
HIGH 24-Hour					
	1987	0.24922	250.	8000.	87081824
	1988	0.20604	180.	20000.	88121824
	1989	0.13767	190.	12000.	89012424
	1990	0.18409	230.	6000.	90051124
	1991	0.16077	250.	18000.	91111424
HIGH 8-Hour					
	1987	0.41481	250.	20000.	87081808
	1988	0.41263	180.	18000.	88121808
	1989	0.36567	140.	20000.	89012308
	1990	0.44829	300.	20000.	90022208
	1991	0.40684	250.	20000.	91113008
HIGH 3-Hour					
	1987	0.77264	210.	18000.	87110706
	1988	0.79509	260.	20000.	88091703
	1989	0.63724	260.	1500.	89073115
	1990	0.88417	180.	2000.	90041815
	1991	0.84717	180.	2000.	91081615
HIGH 1-Hour					
	1987	1.96464	10.	1500.	87070612
	1988	1.90918	40.	1500.	88060513
	1989	1.91105	260.	1500.	89073114
	1990	1.91111	50.	1500.	90062013
	1991	2.02965	300.	1500.	91042613
SOURCE GROUP ID:	BASE95				

Annual					
	1987	0.01230	200.	16000.	87123124
	1988	0.01395	240.	16000.	88123124
	1989	0.01112	300.	12000.	89123124
	1990	0.02058	240.	14000.	90123124
	1991	0.01465	250.	14000.	91123124
HIGH 24-Hour					
	1987	0.30222	250.	8000.	87081824
	1988	0.21761	180.	20000.	88121824
	1989	0.16616	310.	14000.	89091224
	1990	0.18999	230.	6000.	90051124
	1991	0.22256	60.	6000.	91070224
HIGH 8-Hour					
	1987	0.52466	250.	6000.	87081816
	1988	0.43564	180.	18000.	88121808
	1989	0.38846	140.	20000.	89012308
	1990	0.47370	300.	20000.	90022208
	1991	0.46822	60.	5000.	91070216
HIGH 3-Hour					
	1987	0.81514	210.	18000.	87110706
	1988	0.84054	260.	20000.	88091703
	1989	0.73438	270.	1500.	89060212
	1990	0.89202	180.	2000.	90041815
	1991	0.85196	180.	2000.	91081615
HIGH 1-Hour					
	1987	2.19210	270.	1500.	87052012
	1988	2.09357	230.	1500.	88081714
	1989	2.20315	270.	1500.	89060211
	1990	1.93087	50.	1500.	90062013
	1991	2.15868	210.	1500.	91072614
SOURCE GROUP ID:	LD7535				
Annual					
	1987	0.01406	200.	14000.	87123124
	1988	0.01607	240.	14000.	88123124
	1989	0.01337	300.	10000.	89123124
	1990	0.02371	240.	14000.	90123124
	1991	0.01712	250.	12000.	91123124
HIGH 24-Hour					
	1987	0.32084	250.	8000.	87081824
	1988	0.24049	180.	18000.	88121824
	1989	0.18975	320.	8000.	89091424
	1990	0.20306	230.	6000.	90051124
	1991	0.24960	170.	1500.	91081624
HIGH 8-Hour					
	1987	0.54880	250.	6000.	87081816
	1988	0.47932	180.	16000.	88121808
	1989	0.43931	320.	8000.	89091416
	1990	0.52251	300.	20000.	90022208
	1991	0.64182	170.	1500.	91081616
HIGH 3-Hour					
	1987	0.89781	210.	16000.	87110706
	1988	0.92835	260.	20000.	88091703
	1989	0.81566	50.	1500.	89072812
	1990	0.90634	180.	2000.	90041815
	1991	0.87865	180.	1500.	91081615
HIGH 1-Hour					
	1987	2.48573	20.	1500.	87092013
	1988	2.46564	230.	1500.	88080912
	1989	2.44697	50.	1500.	89072812
	1990	2.42579	50.	1500.	90090811
	1991	2.35630	330.	1500.	91072212
SOURCE GROUP ID:	LD7559				
Annual					
	1987	0.01423	200.	14000.	87123124
	1988	0.01626	240.	14000.	88123124
	1989	0.01351	300.	10000.	89123124
	1990	0.02399	240.	14000.	90123124
	1991	0.01732	250.	12000.	91123124
HIGH 24-Hour					
	1987	0.32298	250.	8000.	87081824
	1988	0.24472	180.	18000.	88121824
	1989	0.19098	320.	8000.	89091424
	1990	0.20461	230.	6000.	90051124
	1991	0.25055	170.	1500.	91081624
HIGH 8-Hour					
	1987	0.55165	250.	6000.	87081816
	1988	0.48470	180.	16000.	88121808

	1989	0.44145	320.	8000.	89091416
	1990	0.52804	300.	20000.	90022208
	1991	0.64427	170.	1500.	91081616
HIGH 3-Hour					
	1987	0.86587	210.	20000.	87110706
	1988	0.93821	260.	20000.	88091703
	1989	0.81712	50.	1500.	89072812
	1990	0.91001	180.	1500.	90041815
	1991	0.88320	180.	1500.	91081615
HIGH 1-Hour					
	1987	2.49006	20.	1500.	87092013
	1988	2.46996	230.	1500.	88080912
	1989	2.45136	50.	1500.	89072812
	1990	2.43017	50.	1500.	90090811
	1991	2.36086	330.	1500.	91072212
SOURCE GROUP ID:	LD7595				
Annual					
	1987	0.01473	200.	14000.	87123124
	1988	0.01700	240.	14000.	88123124
	1989	0.01399	300.	10000.	89123124
	1990	0.02492	240.	14000.	90123124
	1991	0.01786	250.	12000.	91123124
HIGH 24-Hour					
	1987	0.32862	250.	8000.	87081824
	1988	0.25167	180.	18000.	88121824
	1989	0.19421	320.	8000.	89091424
	1990	0.20873	230.	6000.	90051124
	1991	0.25307	170.	1500.	91081624
HIGH 8-Hour					
	1987	0.55926	250.	6000.	87081816
	1988	0.49852	180.	16000.	88121808
	1989	0.45078	140.	20000.	89012308
	1990	0.54310	300.	18000.	90022208
	1991	0.65074	170.	1500.	91081616
HIGH 3-Hour					
	1987	0.88966	210.	20000.	87110706
	1988	0.96381	260.	20000.	88091703
	1989	0.85547	90.	1500.	89051212
	1990	1.37334	50.	1500.	90090812
	1991	0.89519	180.	1500.	91081615
HIGH 1-Hour					
	1987	2.58467	20.	1500.	87092113
	1988	2.59219	20.	1500.	88082612
	1989	2.56642	90.	1500.	89051212
	1990	2.57776	80.	1500.	90082212
	1991	2.56650	270.	1500.	91062812
SOURCE GROUP ID:	LD5035				
Annual					
	1987	0.01668	200.	12000.	87123124
	1988	0.01903	240.	12000.	88123124
	1989	0.01558	240.	12000.	89123124
	1990	0.02824	240.	14000.	90123124
	1991	0.02006	250.	12000.	91123124
HIGH 24-Hour					
	1987	0.34936	250.	8000.	87081824
	1988	0.27999	180.	16000.	88121824
	1989	0.24932	230.	1500.	89073024
	1990	0.22575	240.	16000.	90121424
	1991	0.26236	170.	1500.	91081624
HIGH 8-Hour					
	1987	0.58782	250.	6000.	87081816
	1988	0.54632	180.	16000.	88121808
	1989	0.74790	230.	1500.	89073016
	1990	0.59636	300.	18000.	90022208
	1991	0.67464	170.	1500.	91081616
HIGH 3-Hour					
	1987	0.97688	190.	18000.	87100506
	1988	1.05849	260.	18000.	88091703
	1989	1.49579	230.	1500.	89073015
	1990	1.39832	50.	1500.	90090812
	1991	0.99244	250.	20000.	91111424
HIGH 1-Hour					
	1987	2.69617	50.	1500.	87080313
	1988	2.72814	310.	1500.	88071812
	1989	2.87644	50.	1500.	89051611
	1990	2.78467	10.	1500.	90040513
	1991	2.84203	240.	1500.	91091913

SOURCE GROUP ID: LD5059

Annual					
	1987	0.01687	200.	12000.	87123124
	1988	0.01915	240.	12000.	88123124
	1989	0.01567	240.	12000.	89123124
	1990	0.02841	240.	14000.	90123124
	1991	0.02023	250.	12000.	91123124
HIGH 24-Hour					
	1987	0.35063	250.	8000.	87081824
	1988	0.28155	180.	16000.	88121824
	1989	0.24959	230.	1500.	89073024
	1990	0.22719	240.	16000.	90121424
	1991	0.26291	170.	1500.	91081624
HIGH 8-Hour					
	1987	0.58953	250.	6000.	87081816
	1988	0.54936	180.	16000.	88121808
	1989	0.74872	230.	1500.	89073016
	1990	0.59962	300.	18000.	90022208
	1991	0.67606	170.	1500.	91081616
HIGH 3-Hour					
	1987	0.98229	190.	18000.	87100506
	1988	1.06426	260.	18000.	88091703
	1989	1.49744	230.	1500.	89073015
	1990	1.39997	50.	1500.	90090812
	1991	0.99857	250.	20000.	91111424
HIGH 1-Hour					
	1987	2.90978	200.	1500.	87091412
	1988	2.73033	310.	1500.	88071812
	1989	2.87886	50.	1500.	89051611
	1990	2.78701	10.	1500.	90040513
	1991	2.84430	240.	1500.	91091913

SOURCE GROUP ID: LD5095

Annual					
	1987	0.01749	200.	12000.	87123124
	1988	0.01989	240.	12000.	88123124
	1989	0.01606	240.	12000.	89123124
	1990	0.02930	240.	12000.	90123124
	1991	0.02094	250.	12000.	91123124
HIGH 24-Hour					
	1987	0.35594	250.	8000.	87081824
	1988	0.28783	180.	16000.	88121824
	1989	0.25078	230.	1500.	89073024
	1990	0.26493	230.	6000.	90051124
	1991	0.26524	170.	1500.	91081624
HIGH 8-Hour					
	1987	0.59678	250.	6000.	87081816
	1988	0.56147	180.	16000.	88121808
	1989	0.75228	230.	1500.	89073016
	1990	0.62433	230.	6000.	90051116
	1991	0.68204	170.	1500.	91081616
HIGH 3-Hour					
	1987	1.00431	190.	18000.	87100506
	1988	1.04356	260.	20000.	88091703
	1989	1.50457	230.	1500.	89073015
	1990	1.40706	50.	1500.	90090812
	1991	1.02375	250.	20000.	91111424
HIGH 1-Hour					
	1987	2.92005	200.	1500.	87091412
	1988	2.95098	280.	1500.	88072612
	1989	2.88904	50.	1500.	89051611
	1990	2.90720	80.	1500.	90070412
	1991	2.85392	240.	1500.	91091913

All receptor computations reported with respect to a user-specified origin

GRID	-242.89	-215.68
DISCRETE	0.00	0.00

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ISCST3 OUTPUT FILE NUMBER 1 :GENFOC1.087
ISCST3 OUTPUT FILE NUMBER 2 :GENFOC1.088
ISCST3 OUTPUT FILE NUMBER 3 :GENFOC1.089
ISCST3 OUTPUT FILE NUMBER 4 :GENFOC1.090
ISCST3 OUTPUT FILE NUMBER 5 :GENFOC1.091
First title for last output file is: 1987 FPL FT. MYERS PROPOSED 2 SIMPLE CYCLE CTS 7/14/00
Second title for last output file is: SIGNIFICANT IMPACT ANALYSIS, EVERGLADES NP, GENERIC 10G/S, FUEL OIL

AVERAGING TIME	YEAR	CONC (ug/m3)	DIR (deg) or X (m)	DIST (m) or Y (m)	PERIOD ENDING (YYMMDDHH)
SOURCE GROUP ID:	BASE35				
Annual					
	1987	0.00211	454000.	2863200.	87123124
	1988	0.00171	550300.	2848600.	88123124
	1989	0.00189	459500.	2863200.	89123124
	1990	0.00159	459500.	2863200.	90123124
	1991	0.00151	459500.	2863200.	91123124
HIGH 24-Hour					
	1987	0.05980	464000.	2860000.	87021224
	1988	0.05211	454000.	2863200.	88012324
	1989	0.05483	514500.	2843000.	89012324
	1990	0.04088	488500.	2845500.	90032024
	1991	0.03789	500000.	2832500.	91022524
HIGH 8-Hour					
	1987	0.13061	459500.	2863200.	87091824
	1988	0.16039	495000.	2832500.	88121324
	1989	0.14669	514500.	2843000.	89012308
	1990	0.11830	459500.	2863200.	90051108
	1991	0.10500	514500.	2843000.	91030508
HIGH 3-Hour					
	1987	0.22687	459500.	2863200.	87013124
	1988	0.28889	454000.	2863200.	88012303
	1989	0.29394	514500.	2848600.	89102903
	1990	0.24270	454000.	2863200.	90010824
	1991	0.22040	488500.	2845500.	91022521
HIGH 1-Hour					
	1987	0.51912	469000.	2860000.	87080907
	1988	0.50880	473500.	2857000.	88110118
	1989	0.51308	473500.	2857000.	89120419
	1990	0.54143	464000.	2860000.	90081221
	1991	0.51165	459500.	2863200.	91053023
SOURCE GROUP ID:	BASE59				
Annual					
	1987	0.00213	454000.	2863200.	87123124
	1988	0.00173	550300.	2848600.	88123124
	1989	0.00192	459500.	2863200.	89123124
	1990	0.00161	459500.	2863200.	90123124
	1991	0.00156	459500.	2863200.	91123124
HIGH 24-Hour					
	1987	0.06071	464000.	2860000.	87021224
	1988	0.05262	454000.	2863200.	88012324
	1989	0.05540	514500.	2843000.	89012324
	1990	0.04124	488500.	2845500.	90032024
	1991	0.03824	500000.	2832500.	91022524
HIGH 8-Hour					
	1987	0.13292	459500.	2863200.	87091824
	1988	0.16229	495000.	2832500.	88121324
	1989	0.14824	514500.	2843000.	89012308
	1990	0.12009	459500.	2863200.	90051108
	1991	0.10645	473500.	2860000.	91021008
HIGH 3-Hour					
	1987	0.23132	459500.	2863200.	87091824
	1988	0.29178	454000.	2863200.	88012303
	1989	0.29949	514500.	2848600.	89102903
	1990	0.24555	454000.	2863200.	90010824
	1991	0.22253	488500.	2845500.	91022521
HIGH 1-Hour					
	1987	0.52573	469000.	2860000.	87080907
	1988	0.51520	473500.	2857000.	88110118
	1989	0.51960	473500.	2857000.	89120419
	1990	0.54935	464000.	2860000.	90081221
	1991	0.51840	459500.	2863200.	91053023
SOURCE GROUP ID:	BASE95				

Annual					
	1987	0.00224	454000.	2863200.	87123124
	1988	0.00178	550300.	2848600.	88123124
	1989	0.00200	459500.	2863200.	89123124
	1990	0.00168	459500.	2863200.	90123124
	1991	0.00163	459500.	2863200.	91123124
HIGH 24-Hour					
	1987	0.06334	464000.	2860000.	87021224
	1988	0.05403	454000.	2863200.	88012324
	1989	0.05703	514500.	2843000.	89012324
	1990	0.04228	488500.	2845500.	90032024
	1991	0.03925	500000.	2832500.	91022524
HIGH 8-Hour					
	1987	0.13971	459500.	2863200.	87091824
	1988	0.16774	495000.	2832500.	88121324
	1989	0.15264	514500.	2843000.	89012308
	1990	0.12530	459500.	2863200.	90051108
	1991	0.11334	473500.	2860000.	91021008
HIGH 3-Hour					
	1987	0.24528	459500.	2863200.	87091824
	1988	0.29992	454000.	2863200.	88012303
	1989	0.31564	514500.	2848600.	89102903
	1990	0.25370	454000.	2863200.	90010824
	1991	0.22861	488500.	2845500.	91022521
HIGH 1-Hour					
	1987	0.54489	469000.	2860000.	87080907
	1988	0.53363	473500.	2857000.	88110118
	1989	0.53819	473500.	2857000.	89120419
	1990	0.57236	464000.	2860000.	90081221
	1991	0.53787	459500.	2863200.	91053023
SOURCE GROUP ID:	LD7535				
Annual					
	1987	0.00246	454000.	2863200.	87123124
	1988	0.00191	550300.	2848600.	88123124
	1989	0.00219	459500.	2863200.	89123124
	1990	0.00187	459500.	2863200.	90123124
	1991	0.00175	459500.	2863200.	91123124
HIGH 24-Hour					
	1987	0.06833	464000.	2860000.	87021224
	1988	0.05656	454000.	2863200.	88012324
	1989	0.05997	514500.	2843000.	89012324
	1990	0.04415	488500.	2845500.	90032024
	1991	0.04107	500000.	2832500.	91022524
HIGH 8-Hour					
	1987	0.15281	459500.	2863200.	87091824
	1988	0.17779	495000.	2832500.	88121324
	1989	0.16064	514500.	2843000.	89012308
	1990	0.13523	459500.	2863200.	90051108
	1991	0.12665	473500.	2860000.	91021008
HIGH 3-Hour					
	1987	0.27250	459500.	2863200.	87091824
	1988	0.31455	454000.	2863200.	88012303
	1989	0.34639	514500.	2848600.	89102903
	1990	0.26862	454000.	2863200.	90010824
	1991	0.23967	488500.	2845500.	91022521
HIGH 1-Hour					
	1987	0.58053	469000.	2860000.	87080907
	1988	0.56768	473500.	2857000.	88110118
	1989	0.57223	473500.	2857000.	89120419
	1990	0.61550	464000.	2860000.	90081221
	1991	0.57399	459500.	2863200.	91053023
SOURCE GROUP ID:	LD7559				
Annual					
	1987	0.00247	454000.	2863200.	87123124
	1988	0.00193	550300.	2848600.	88123124
	1989	0.00221	459500.	2863200.	89123124
	1990	0.00188	459500.	2863200.	90123124
	1991	0.00176	459500.	2863200.	91123124
HIGH 24-Hour					
	1987	0.06891	464000.	2860000.	87021224
	1988	0.05684	454000.	2863200.	88012324
	1989	0.06030	514500.	2843000.	89012324
	1990	0.04436	488500.	2845500.	90032024
	1991	0.04127	500000.	2832500.	91022524
HIGH 8-Hour					
	1987	0.15427	459500.	2863200.	87091824
	1988	0.17892	495000.	2832500.	88121324

	1989	0.16154	514500.	2843000.	89012308
	1990	0.13634	459500.	2863200.	90051108
	1991	0.12821	473500.	2860000.	91021008
HIGH 3-Hour					
	1987	0.27556	459500.	2863200.	87091824
	1988	0.31618	454000.	2863200.	88012303
	1989	0.34989	514500.	2848600.	89102903
	1990	0.27026	454000.	2863200.	90010824
	1991	0.24087	488500.	2845500.	91022521
HIGH 1-Hour					
	1987	0.58440	469000.	2860000.	87080907
	1988	0.57141	473500.	2857000.	88110118
	1989	0.57603	473500.	2857000.	89120419
	1990	0.62023	464000.	2860000.	90081221
	1991	0.57795	459500.	2863200.	91053023
SOURCE GROUP ID:	LD7595				
Annual					
	1987	0.00252	454000.	2863200.	87123124
	1988	0.00196	550300.	2848600.	88123124
	1989	0.00226	459500.	2863200.	89123124
	1990	0.00194	459500.	2863200.	90123124
	1991	0.00181	459500.	2863200.	91123124
HIGH 24-Hour					
	1987	0.07038	464000.	2860000.	87021224
	1988	0.05756	454000.	2863200.	88012324
	1989	0.06114	514500.	2843000.	89012324
	1990	0.04488	488500.	2845500.	90032024
	1991	0.04178	500000.	2832500.	91022524
HIGH 8-Hour					
	1987	0.15806	459500.	2863200.	87091824
	1988	0.18182	495000.	2832500.	88121324
	1989	0.16381	514500.	2843000.	89012308
	1990	0.13922	459500.	2863200.	90051108
	1991	0.13224	473500.	2860000.	91021008
HIGH 3-Hour					
	1987	0.28352	459500.	2863200.	87091824
	1988	0.32033	454000.	2863200.	88012303
	1989	0.35890	514500.	2848600.	89102903
	1990	0.27447	454000.	2863200.	90010824
	1991	0.24394	488500.	2845500.	91022521
HIGH 1-Hour					
	1987	0.59435	469000.	2860000.	87080907
	1988	0.58098	473500.	2857000.	88110118
	1989	0.58573	473500.	2857000.	89120419
	1990	0.63244	464000.	2860000.	90081221
	1991	0.58813	459500.	2863200.	91053023
SOURCE GROUP ID:	LD5035				
Annual					
	1987	0.00268	454000.	2863200.	87123124
	1988	0.00208	550300.	2848600.	88123124
	1989	0.00248	459500.	2863200.	89123124
	1990	0.00212	459500.	2863200.	90123124
	1991	0.00200	459500.	2863200.	91123124
HIGH 24-Hour					
	1987	0.07632	459500.	2863200.	87091824
	1988	0.05993	454000.	2863200.	88012324
	1989	0.06394	514500.	2843000.	89012324
	1990	0.04715	459500.	2863200.	90051124
	1991	0.04391	473500.	2860000.	91021024
HIGH 8-Hour					
	1987	0.17148	459500.	2863200.	87091824
	1988	0.19165	495000.	2832500.	88121324
	1989	0.17145	514500.	2843000.	89012308
	1990	0.14930	459500.	2863200.	90051108
	1991	0.14638	473500.	2860000.	91021008
HIGH 3-Hour					
	1987	0.31194	459500.	2863200.	87091824
	1988	0.33406	454000.	2863200.	88012303
	1989	0.39027	514500.	2848600.	89102903
	1990	0.29743	459500.	2863200.	90061203
	1991	0.25526	514500.	2843000.	91030503
HIGH 1-Hour					
	1987	0.62862	469000.	2860000.	87080907
	1988	0.61366	473500.	2857000.	88110118
	1989	0.61842	473500.	2857000.	89120419
	1990	0.67463	464000.	2860000.	90081221
	1991	0.62299	459500.	2863200.	91053023

SOURCE GROUP ID: LD5059

Annual					
	1987	0.00268	454000.	2863200.	87123124
	1988	0.00209	550300.	2848600.	88123124
	1989	0.00249	459500.	2863200.	89123124
	1990	0.00214	459500.	2863200.	90123124
	1991	0.00200	459500.	2863200.	91123124
HIGH 24-Hour					
	1987	0.07668	459500.	2863200.	87091824
	1988	0.06007	454000.	2863200.	88012324
	1989	0.06411	514500.	2843000.	89012324
	1990	0.04734	459500.	2863200.	90051124
	1991	0.04418	473500.	2860000.	91021024
HIGH 8-Hour					
	1987	0.17227	459500.	2863200.	87091824
	1988	0.19225	495000.	2832500.	88121324
	1989	0.17192	514500.	2843000.	89012308
	1990	0.14991	459500.	2863200.	90051108
	1991	0.14727	473500.	2860000.	91021008
HIGH 3-Hour					
	1987	0.31365	459500.	2863200.	87091824
	1988	0.33489	454000.	2863200.	88012303
	1989	0.39220	514500.	2848600.	89102903
	1990	0.29906	459500.	2863200.	90061203
	1991	0.25613	514500.	2843000.	91030503
HIGH 1-Hour					
	1987	0.63061	469000.	2860000.	87080907
	1988	0.61559	473500.	2857000.	88110118
	1989	0.62040	473500.	2857000.	89120419
	1990	0.67712	464000.	2860000.	90081221
	1991	0.62505	459500.	2863200.	91053023

SOURCE GROUP ID: LD5095

Annual					
	1987	0.00273	454000.	2863200.	87123124
	1988	0.00212	550300.	2848600.	88123124
	1989	0.00262	459500.	2863200.	89123124
	1990	0.00217	459500.	2863200.	90123124
	1991	0.00204	459500.	2863200.	91123124
HIGH 24-Hour					
	1987	0.07815	459500.	2863200.	87091824
	1988	0.06064	454000.	2863200.	88012324
	1989	0.06479	514500.	2843000.	89012324
	1990	0.04813	459500.	2863200.	90051124
	1991	0.04526	473500.	2860000.	91021024
HIGH 8-Hour					
	1987	0.17559	459500.	2863200.	87091824
	1988	0.19466	495000.	2832500.	88121324
	1989	0.17377	514500.	2843000.	89012308
	1990	0.15291	459500.	2863200.	90061208
	1991	0.15088	473500.	2860000.	91021008
HIGH 3-Hour					
	1987	0.32073	459500.	2863200.	87091824
	1988	0.33820	454000.	2863200.	88012303
	1989	0.40000	514500.	2848600.	89102903
	1990	0.30583	459500.	2863200.	90061203
	1991	0.25963	514500.	2843000.	91030503
HIGH 1-Hour					
	1987	0.63882	469000.	2860000.	87080907
	1988	0.62345	473500.	2857000.	88110118
	1989	0.62833	473500.	2857000.	89120419
	1990	0.68734	464000.	2860000.	90081221
	1991	0.63345	459500.	2863200.	91053023

All receptor computations reported with respect to a user-specified origin

GRID	0.00	0.00
DISCRETE	0.00	0.00

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CO STARTING
CO TITLEONE 1987 FPL FT. MYERS PROPOSED 2 SIMPLE CYCLE CTS          7/14/00
CO TITLETWO SIGNIFICANT IMPACT ANALYSIS, SITE VICINITY, GENERIC 10G/S, NAT. GAS
CO MODELOPT DFAULT CONC   RURAL NOCMPL
CO AVERTIME PERIOD 24 8 3 1
CO POLLUTID GEN
CO DCAYCOEF   .000000
CO RUNORNOT RUN
CO FINISHED

SO STARTING

** Source Location Cards:
** MODELING ORIGIN IS MIDWAY BETWEEN HRSG 3 AND 4 STACK LOCATIONS, NOT A STACK
** LOCATION IS USED FOR POLAR DISCRETE RECEPTORS.
SO LOCATION  ORIGIN   POINT   0.00      0.00    0.00
SO SRCPARAM  ORIGIN    0.0    10.0      500.0     30.00    10.00

**  CT STACK LETTER CODE
** ------------------------
**  A -  CT7 (NORTH) STACK
**  B -  CT8 (SOUTH) STACK
**          SRCID SRCTYP         XS          YS       ZS
**   UTM                         (m)         (m)      (m)
SO LOCATION  BASE35A  POINT    -251.82     -194.64   0.0
SO LOCATION  BASE35B  POINT    -233.95     -236.72   0.0

SO LOCATION  BASE59A  POINT    -251.82     -194.64   0.0
SO LOCATION  BASE59B  POINT    -233.95     -236.72   0.0

SO LOCATION  BASE95A  POINT    -251.82     -194.64   0.0
SO LOCATION  BASE95B  POINT    -233.95     -236.72   0.0

SO LOCATION  LD7535A  POINT    -251.82     -194.64   0.0
SO LOCATION  LD7535B  POINT    -233.95     -236.72   0.0

SO LOCATION  LD7559A  POINT    -251.82     -194.64   0.0
SO LOCATION  LD7559B  POINT    -233.95     -236.72   0.0

SO LOCATION  LD7595A  POINT    -251.82     -194.64   0.0
SO LOCATION  LD7595B  POINT    -233.95     -236.72   0.0

SO LOCATION  LD5035A  POINT    -251.82     -194.64   0.0
SO LOCATION  LD5035B  POINT    -233.95     -236.72   0.0

SO LOCATION  LD5059A  POINT    -251.82     -194.64   0.0
SO LOCATION  LD5059B  POINT    -233.95     -236.72   0.0

SO LOCATION  LD5095A  POINT    -251.82     -194.64   0.0
SO LOCATION  LD5095B  POINT    -233.95     -236.72   0.0


SO LOCATION  HPM35A   POINT    -251.82     -194.64   0.0
SO LOCATION  HPM35B   POINT    -233.95     -236.72   0.0

SO LOCATION  HPM59A   POINT    -251.82     -194.64   0.0
SO LOCATION  HPM59B   POINT    -233.95     -236.72   0.0

SO LOCATION  HPM95A   POINT    -251.82     -194.64   0.0
SO LOCATION  HPM95B   POINT    -233.95     -236.72   0.0
** Source Parameter Cards:
** POINT:   SRCID          QS      HS        TS        VS       DS
**                       (g/s)    (m)       (K)      (m/s)     (m)
SO SRCPARAM   BASE35A     5.0     24.4      863.7     37.86     6.25
SO SRCPARAM   BASE35B     5.0     24.4      863.7     37.86     6.25

SO SRCPARAM   BASE59A     5.0     24.4      875.4     36.79     6.25
SO SRCPARAM   BASE59B     5.0     24.4      875.4     36.79     6.25

SO SRCPARAM   BASE95A     5.0     24.4      890.4     34.63     6.25
SO SRCPARAM   BASE95B     5.0     24.4      890.4     34.63     6.25

SO SRCPARAM   LD7535A     5.0     24.4      878.7     30.97     6.25
SO SRCPARAM   LD7535B     5.0     24.4      878.7     30.97     6.25

SO SRCPARAM   LD7559A     5.0     24.4      888.2     30.45     6.25
SO SRCPARAM   LD7559B     5.0     24.4      888.2     30.45     6.25
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SO SRCPARAM   LD7595A     5.0    24.4      905.4     29.14     6.25
SO SRCPARAM   LD7595B     5.0    24.4      905.4     29.14     6.25

SO SRCPARAM   LD5035A     5.0    24.4      904.3     26.24     6.25
SO SRCPARAM   LD5035B     5.0    24.4      904.3     26.24     6.25

SO SRCPARAM   LD5059A     5.0    24.4      913.2     25.94     6.25
SO SRCPARAM   LD5059B     5.0    24.4      913.2     25.94     6.25

SO SRCPARAM   LD5095A     5.0    24.4      922.0     24.93     6.25
SO SRCPARAM   LD5095B     5.0    24.4      922.0     24.93     6.25

SO SRCPARAM   HPM35A      5.0    24.4      871.5     38.31     6.25
SO SRCPARAM   HPM35B      5.0    24.4      871.5     38.31     6.25

SO SRCPARAM   HPM59A      5.0    24.4      883.2     37.34     6.25
SO SRCPARAM   HPM59B      5.0    24.4      883.2     37.34     6.25

SO SRCPARAM   HPM95A      5.0    24.4      898.7     36.12     6.25
SO SRCPARAM   HPM95B      5.0    24.4      898.7     36.12     6.25

SO BUILDHGT BASE35A-BASE95A      0.00    6.71    6.71    6.71   16.76    6.71
SO BUILDHGT BASE35A-BASE95A      6.71    6.71   16.76    6.71    6.71    0.00
SO BUILDHGT BASE35A-BASE95A      0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDHGT BASE35A-BASE95A      0.00    6.71    6.71    6.71   16.76   16.76
SO BUILDHGT BASE35A-BASE95A     16.76   16.76   16.76    6.71   16.76   16.76
SO BUILDHGT BASE35A-BASE95A      0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDWID BASE35A-BASE95A      0.00   14.26   13.91   13.13   15.58   10.41
SO BUILDWID BASE35A-BASE95A      9.71   11.38   15.58   13.65   14.17    0.00
SO BUILDWID BASE35A-BASE95A      0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDWID BASE35A-BASE95A      0.00   14.26   13.91   13.13   15.58   15.26
SO BUILDWID BASE35A-BASE95A     14.93   15.58   15.58   13.65   14.86   13.67
SO BUILDWID BASE35A-BASE95A      0.00    0.00    0.00    0.00    0.00    0.00

SO BUILDHGT LD5035A-LD7595A      0.00    6.71    6.71    6.71   16.76    6.71
SO BUILDHGT LD5035A-LD7595A      6.71    6.71   16.76    6.71    6.71    0.00
SO BUILDHGT LD5035A-LD7595A      0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDHGT LD5035A-LD7595A      0.00    6.71    6.71    6.71   16.76   16.76
SO BUILDHGT LD5035A-LD7595A     16.76   16.76   16.76    6.71   16.76   16.76
SO BUILDHGT LD5035A-LD7595A      0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDWID LD5035A-LD7595A      0.00   14.26   13.91   13.13   15.58   10.41
SO BUILDWID LD5035A-LD7595A      9.71   11.38   15.58   13.65   14.17    0.00
SO BUILDWID LD5035A-LD7595A      0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDWID LD5035A-LD7595A      0.00   14.26   13.91   13.13   15.58   15.26
SO BUILDWID LD5035A-LD7595A     14.93   15.58   15.58   13.65   14.86   13.67
SO BUILDWID LD5035A-LD7595A      0.00    0.00    0.00    0.00    0.00    0.00

SO BUILDHGT BASE35B-BASE95B      0.00    6.71    6.71    6.71   16.76    6.71
SO BUILDHGT BASE35B-BASE95B      6.71    6.71   16.76    6.71    6.71    0.00
SO BUILDHGT BASE35B-BASE95B      0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDHGT BASE35B-BASE95B     16.76   16.76   16.76    6.71   16.76   16.76
SO BUILDHGT BASE35B-BASE95B     16.76   16.76   16.76    6.71    6.71    0.00
SO BUILDHGT BASE35B-BASE95B      0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDWID BASE35B-BASE95B      0.00   14.26   13.91   13.13   15.58   10.41
SO BUILDWID BASE35B-BASE95B      9.71   11.38   15.58   13.65   14.17    0.00
SO BUILDWID BASE35B-BASE95B      0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDWID BASE35B-BASE95B     13.08   14.44   15.35   13.13   15.58   15.26
SO BUILDWID BASE35B-BASE95B     14.93   15.58   15.58   13.65   14.17    0.00
SO BUILDWID BASE35B-BASE95B      0.00    0.00    0.00    0.00    0.00    0.00

SO BUILDHGT LD5035B-LD7595B      0.00    6.71    6.71    6.71   16.76    6.71
SO BUILDHGT LD5035B-LD7595B      6.71    6.71   16.76    6.71    6.71    0.00
SO BUILDHGT LD5035B-LD7595B      0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDHGT LD5035B-LD7595B     16.76   16.76   16.76    6.71   16.76   16.76
SO BUILDHGT LD5035B-LD7595B     16.76   16.76   16.76    6.71    6.71    0.00
SO BUILDHGT LD5035B-LD7595B      0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDWID LD5035B-LD7595B      0.00   14.26   13.91   13.13   15.58   10.41
SO BUILDWID LD5035B-LD7595B      9.71   11.38   15.58   13.65   14.17    0.00
SO BUILDWID LD5035B-LD7595B      0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDWID LD5035B-LD7595B     13.08   14.44   15.35   13.13   15.58   15.26
SO BUILDWID LD5035B-LD7595B     14.93   15.58   15.58   13.65   14.17    0.00
SO BUILDWID LD5035B-LD7595B      0.00    0.00    0.00    0.00    0.00    0.00

SO BUILDHGT HPM35A-HPM95A        0.00    6.71    6.71    6.71   16.76    6.71
SO BUILDHGT HPM35A-HPM95A        6.71    6.71   16.76    6.71    6.71    0.00
SO BUILDHGT HPM35A-HPM95A        0.00    0.00    0.00    0.00    0.00    0.00
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SO BUILDHGT HPM35A-HPM95A         0.00    6.71    6.71    6.71   16.76   16.76
SO BUILDHGT HPM35A-HPM95A        16.76   16.76   16.76    6.71   16.76   16.76
SO BUILDHGT HPM35A-HPM95A         0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDWID HPM35A-HPM95A         0.00   14.26   13.91   13.13   15.58   10.41
SO BUILDWID HPM35A-HPM95A         9.71   11.38   15.58   13.65   14.17    0.00
SO BUILDWID HPM35A-HPM95A         0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDWID HPM35A-HPM95A         0.00   14.26   13.91   13.13   15.58   15.26
SO BUILDWID HPM35A-HPM95A        14.93   15.58   15.58   13.65   14.86   13.67
SO BUILDWID HPM35A-HPM95A         0.00    0.00    0.00    0.00    0.00    0.00

SO BUILDHGT HPM35B-HPM95B         0.00    6.71    6.71    6.71   16.76    6.71
SO BUILDHGT HPM35B-HPM95B         6.71    6.71   16.76    6.71    6.71    0.00
SO BUILDHGT HPM35B-HPM95B         0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDHGT HPM35B-HPM95B        16.76   16.76   16.76    6.71   16.76   16.76
SO BUILDHGT HPM35B-HPM95B        16.76   16.76   16.76    6.71    6.71    0.00
SO BUILDHGT HPM35B-HPM95B         0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDWID HPM35B-HPM95B         0.00   14.26   13.91   13.13   15.58   10.41
SO BUILDWID HPM35B-HPM95B         9.71   11.38   15.58   13.65   14.17    0.00
SO BUILDWID HPM35B-HPM95B         0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDWID HPM35B-HPM95B        13.08   14.44   15.35   13.13   15.58   15.26
SO BUILDWID HPM35B-HPM95B        14.93   15.58   15.58   13.65   14.17    0.00
SO BUILDWID HPM35B-HPM95B         0.00    0.00    0.00    0.00    0.00    0.00

SO EMISUNIT    .100000E+07 (GRAMS/SEC)          (MICROGRAMS/CUBIC-METER)
SO SRCGROUP BASE35 BASE35A BASE35B
SO SRCGROUP BASE59 BASE59A BASE59B
SO SRCGROUP BASE95 BASE95A BASE95B
SO SRCGROUP LD7535 LD7535A LD7535B
SO SRCGROUP LD7559 LD7559A LD7559B
SO SRCGROUP LD7595 LD7595A LD7595B
SO SRCGROUP LD5035 LD5035A LD5035B
SO SRCGROUP LD5059 LD5059A LD5059B
SO SRCGROUP LD5095 LD5095A LD5095B
SO SRCGROUP HPM35 HPM35A HPM35B
SO SRCGROUP HPM59 HPM59A HPM59B
SO SRCGROUP HPM95 HPM95A HPM95B
SO FINISHED

RE STARTING
RE GRIDPOLR POL STA
** POLAR GRID ORIGIN IS MID POINT BETWEEN CT7 AND CT8 STACKS
RE GRIDPOLR POL ORIG  -242.89  -215.68
RE GRIDPOLR POL DIST   1200 1500 2000 2500 3000 3500 4000 5000 6000 8000 10000
RE GRIDPOLR POL DIST  12000 14000 16000 18000 20000 22000 24000 27000 30000
RE GRIDPOLR POL GDIR   36  10.00  10.00
RE GRIDPOLR POL END
** DISCRETE RECEPTOR ORIGIN IS MIDWAY BETWEEN HRSG 3 AND 4 STACK LOCATIONS
** AS USED FOR 8/98 SCA MODELING ANALYSIS
RE DISCPOLR ORIGIN      160.        10
RE DISCPOLR ORIGIN      300.        10
RE DISCPOLR ORIGIN      500.        10
RE DISCPOLR ORIGIN      700.        10
RE DISCPOLR ORIGIN      900.        10
RE DISCPOLR ORIGIN      185.        20
RE DISCPOLR ORIGIN      300.        20
RE DISCPOLR ORIGIN      500.        20
RE DISCPOLR ORIGIN      700.        20
RE DISCPOLR ORIGIN      900.        20
RE DISCPOLR ORIGIN      237.        30
RE DISCPOLR ORIGIN      300.        30
RE DISCPOLR ORIGIN      500.        30
RE DISCPOLR ORIGIN      700.        30
RE DISCPOLR ORIGIN      900.        30
RE DISCPOLR ORIGIN      348.        40
RE DISCPOLR ORIGIN      500.        40
RE DISCPOLR ORIGIN      700.        40
RE DISCPOLR ORIGIN      900.        40
RE DISCPOLR ORIGIN      589.        50
RE DISCPOLR ORIGIN      700.        50
RE DISCPOLR ORIGIN      900.        50
RE DISCPOLR ORIGIN      705.        60
RE DISCPOLR ORIGIN      900.        60
RE DISCPOLR ORIGIN      656.        70
RE DISCPOLR ORIGIN      700.        70
RE DISCPOLR ORIGIN      900.        70
RE DISCPOLR ORIGIN      632.        80
RE DISCPOLR ORIGIN      700.        80
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RE DISCPOLR ORIGIN      900.        80
RE DISCPOLR ORIGIN      600.        90
RE DISCPOLR ORIGIN      700.        90
RE DISCPOLR ORIGIN      900.        90
RE DISCPOLR ORIGIN      556.       100
RE DISCPOLR ORIGIN      700.       100
RE DISCPOLR ORIGIN      900.       100
RE DISCPOLR ORIGIN      577.       110
RE DISCPOLR ORIGIN      700.       110
RE DISCPOLR ORIGIN      900.       110
RE DISCPOLR ORIGIN      511.       120
RE DISCPOLR ORIGIN      700.       120
RE DISCPOLR ORIGIN      900.       120
RE DISCPOLR ORIGIN      471.       130
RE DISCPOLR ORIGIN      500.       130
RE DISCPOLR ORIGIN      700.       130
RE DISCPOLR ORIGIN      900.       130
RE DISCPOLR ORIGIN      450.       140
RE DISCPOLR ORIGIN      500.       140
RE DISCPOLR ORIGIN      700.       140
RE DISCPOLR ORIGIN      900.       140
RE DISCPOLR ORIGIN      451.       150
RE DISCPOLR ORIGIN      500.       150
RE DISCPOLR ORIGIN      700.       150
RE DISCPOLR ORIGIN      900.       150
RE DISCPOLR ORIGIN      467.       160
RE DISCPOLR ORIGIN      500.       160
RE DISCPOLR ORIGIN      700.       160
RE DISCPOLR ORIGIN      900.       160
RE DISCPOLR ORIGIN      492.       170
RE DISCPOLR ORIGIN      500.       170
RE DISCPOLR ORIGIN      700.       170
RE DISCPOLR ORIGIN      900.       170
RE DISCPOLR ORIGIN      535.       180
RE DISCPOLR ORIGIN      700.       180
RE DISCPOLR ORIGIN      900.       180
RE DISCPOLR ORIGIN      607.       190
RE DISCPOLR ORIGIN      700.       190
RE DISCPOLR ORIGIN      900.       190
RE DISCPOLR ORIGIN      727.       200
RE DISCPOLR ORIGIN      900.       200
RE DISCPOLR ORIGIN      941.       210
RE DISCPOLR ORIGIN      906.       220
RE DISCPOLR ORIGIN      919.       230
RE DISCPOLR ORIGIN     1023.       240
RE DISCPOLR ORIGIN      951.       250
RE DISCPOLR ORIGIN      558.       260
RE DISCPOLR ORIGIN      700.       260
RE DISCPOLR ORIGIN      900.       260
RE DISCPOLR ORIGIN      367.       270
RE DISCPOLR ORIGIN      500.       270
RE DISCPOLR ORIGIN      700.       270
RE DISCPOLR ORIGIN      900.       270
RE DISCPOLR ORIGIN      233.       280
RE DISCPOLR ORIGIN      300.       280
RE DISCPOLR ORIGIN      500.       280
RE DISCPOLR ORIGIN      700.       280
RE DISCPOLR ORIGIN      900.       280
RE DISCPOLR ORIGIN      188.       290
RE DISCPOLR ORIGIN      300.       290
RE DISCPOLR ORIGIN      500.       290
RE DISCPOLR ORIGIN      700.       290
RE DISCPOLR ORIGIN      900.       290
RE DISCPOLR ORIGIN      162.       300
RE DISCPOLR ORIGIN      300.       300
RE DISCPOLR ORIGIN      500.       300
RE DISCPOLR ORIGIN      700.       300
RE DISCPOLR ORIGIN      900.       300
RE DISCPOLR ORIGIN      146.       310
RE DISCPOLR ORIGIN      300.       310
RE DISCPOLR ORIGIN      500.       310
RE DISCPOLR ORIGIN      700.       310
RE DISCPOLR ORIGIN      900.       310
RE DISCPOLR ORIGIN      137.       320
RE DISCPOLR ORIGIN      300.       320
RE DISCPOLR ORIGIN      500.       320
RE DISCPOLR ORIGIN      700.       320
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RE DISCPOLR ORIGIN      900.       320
RE DISCPOLR ORIGIN      133.       330
RE DISCPOLR ORIGIN      300.       330
RE DISCPOLR ORIGIN      500.       330
RE DISCPOLR ORIGIN      700.       330
RE DISCPOLR ORIGIN      900.       330
RE DISCPOLR ORIGIN      132.       340
RE DISCPOLR ORIGIN      300.       340
RE DISCPOLR ORIGIN      500.       340
RE DISCPOLR ORIGIN      700.       340
RE DISCPOLR ORIGIN      900.       340
RE DISCPOLR ORIGIN      136.       350
RE DISCPOLR ORIGIN      300.       350
RE DISCPOLR ORIGIN      500.       350
RE DISCPOLR ORIGIN      700.       350
RE DISCPOLR ORIGIN      900.       350
RE DISCPOLR ORIGIN      145.       360
RE DISCPOLR ORIGIN      300.       360
RE DISCPOLR ORIGIN      500.       360
RE DISCPOLR ORIGIN      700.       360
RE DISCPOLR ORIGIN      900.       360
RE FINISHED

ME STARTING
ME INPUTFIL P:\MET\FMYTPA87.MET
ME ANEMHGHT    20 FEET
ME SURFDATA  12835  1987            FTMYERS
ME UAIRDATA  12842  1987            RUSKIN
ME WINDCATS    1.54    3.09    5.14    8.23   10.80
ME FINISHED

OU STARTING
OU RECTABLE ALLAVE FIRST
OU FINISHED
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CO STARTING
CO TITLEONE 1987 FPL FT. MYERS PROPOSED 2 SIMPLE CYCLE CTS          7/14/00
CO TITLETWO SIGNIFICANT IMPACT ANALYSIS, EVERGLADES NP, GENERIC 10G/S, NAT. GAS
CO MODELOPT DFAULT CONC   RURAL NOCMPL
CO AVERTIME PERIOD 24 8 3 1
CO POLLUTID GEN
CO DCAYCOEF   .000000
CO RUNORNOT RUN
CO FINISHED

SO STARTING

** Source Location Cards:
** MODELING ORIGIN IS MIDWAY BETWEEN HRSG 3 AND 4 STACK LOCATIONS, NOT A STACK
** LOCATION IS USED FOR POLAR DISCRETE RECEPTORS.
SO LOCATION  ORIGIN   POINT   0.00      0.00    0.00
SO SRCPARAM  ORIGIN    0.0    10.0      500.0     30.00    10.00

**  CT STACK LETTER CODE
** ------------------------
**  A -  CT7 (NORTH) STACK
**  B -  CT8 (SOUTH) STACK
**           SRCID SRCTYP          XS          YS       ZS
**   UTM                          (m)         (m)      (m)
SO LOCATION  BASE35A  POINT    422100     2952900   0.0
SO LOCATION  BASE35B  POINT    422100     2952900   0.0

SO LOCATION  BASE59A  POINT    422100     2952900   0.0
SO LOCATION  BASE59B  POINT    422100     2952900   0.0

SO LOCATION  BASE95A  POINT    422100     2952900   0.0
SO LOCATION  BASE95B  POINT    422100     2952900   0.0

SO LOCATION  LD7535A  POINT    422100     2952900   0.0
SO LOCATION  LD7535B  POINT    422100     2952900   0.0

SO LOCATION  LD7559A  POINT    422100     2952900   0.0
SO LOCATION  LD7559B  POINT    422100     2952900   0.0

SO LOCATION  LD7595A  POINT    422100     2952900   0.0
SO LOCATION  LD7595B  POINT    422100     2952900   0.0

SO LOCATION  LD5035A  POINT    422100     2952900   0.0
SO LOCATION  LD5035B  POINT    422100     2952900   0.0

SO LOCATION  LD5059A  POINT    422100     2952900   0.0
SO LOCATION  LD5059B  POINT    422100     2952900   0.0

SO LOCATION  LD5095A  POINT    422100     2952900   0.0
SO LOCATION  LD5095B  POINT    422100     2952900   0.0


SO LOCATION  HPM35A   POINT    422100     2952900   0.0
SO LOCATION  HPM35B   POINT    422100     2952900   0.0

SO LOCATION  HPM59A   POINT    422100     2952900   0.0
SO LOCATION  HPM59B   POINT    422100     2952900   0.0

SO LOCATION  HPM95A   POINT    422100     2952900   0.0
SO LOCATION  HPM95B   POINT    422100     2952900   0.0
** Source Parameter Cards:
** POINT:   SRCID          QS      HS       TS        VS       DS
**                        (g/s)   (m)      (K)       (m/s)    (m)
SO SRCPARAM   BASE35A     5.0     24.4     863.7     37.86     6.25
SO SRCPARAM   BASE35B     5.0     24.4     863.7     37.86     6.25

SO SRCPARAM   BASE59A     5.0     24.4     875.4     36.79     6.25
SO SRCPARAM   BASE59B     5.0     24.4     875.4     36.79     6.25

SO SRCPARAM   BASE95A     5.0     24.4     890.4     34.63     6.25
SO SRCPARAM   BASE95B     5.0     24.4     890.4     34.63     6.25

SO SRCPARAM   LD7535A     5.0     24.4     878.7     30.97     6.25
SO SRCPARAM   LD7535B     5.0     24.4     878.7     30.97     6.25

SO SRCPARAM   LD7559A     5.0     24.4     888.2     30.45     6.25
SO SRCPARAM   LD7559B     5.0     24.4     888.2     30.45     6.25
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SO SRCPARAM    LD7595A     5.0    24.4      905.4     29.14     6.25
SO SRCPARAM    LD7595B     5.0    24.4      905.4     29.14     6.25

SO SRCPARAM    LD5035A     5.0    24.4      904.3     26.24     6.25
SO SRCPARAM    LD5035B     5.0    24.4      904.3     26.24     6.25

SO SRCPARAM    LD5059A     5.0    24.4      913.2     25.94     6.25
SO SRCPARAM    LD5059B     5.0    24.4      913.2     25.94     6.25

SO SRCPARAM    LD5095A     5.0    24.4      922.0     24.93     6.25
SO SRCPARAM    LD5095B     5.0    24.4      922.0     24.93     6.25

SO SRCPARAM    HPM35A      5.0    24.4      871.5     38.31     6.25
SO SRCPARAM    HPM35B      5.0    24.4      871.5     38.31     6.25

SO SRCPARAM    HPM59A      5.0    24.4      883.2     37.34     6.25
SO SRCPARAM    HPM59B      5.0    24.4      883.2     37.34     6.25

SO SRCPARAM    HPM95A      5.0    24.4      898.7     36.12     6.25
SO SRCPARAM    HPM95B      5.0    24.4      898.7     36.12     6.25

SO BUILDHGT BASE35A-BASE95A      0.00    6.71    6.71    6.71   16.76    6.71
SO BUILDHGT BASE35A-BASE95A      6.71    6.71   16.76    6.71    6.71    0.00
SO BUILDHGT BASE35A-BASE95A      0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDHGT BASE35A-BASE95A      0.00    6.71    6.71    6.71   16.76   16.76
SO BUILDHGT BASE35A-BASE95A     16.76   16.76   16.76    6.71   16.76   16.76
SO BUILDHGT BASE35A-BASE95A      0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDWID BASE35A-BASE95A      0.00   14.26   13.91   13.13   15.58   10.41
SO BUILDWID BASE35A-BASE95A      9.71   11.38   15.58   13.65   14.17    0.00
SO BUILDWID BASE35A-BASE95A      0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDWID BASE35A-BASE95A      0.00   14.26   13.91   13.13   15.58   15.26
SO BUILDWID BASE35A-BASE95A     14.93   15.58   15.58   13.65   14.86   13.67
SO BUILDWID BASE35A-BASE95A      0.00    0.00    0.00    0.00    0.00    0.00

SO BUILDHGT LD5035A-LD7595A      0.00    6.71    6.71    6.71   16.76    6.71
SO BUILDHGT LD5035A-LD7595A      6.71    6.71   16.76    6.71    6.71    0.00
SO BUILDHGT LD5035A-LD7595A      0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDHGT LD5035A-LD7595A      0.00    6.71    6.71    6.71   16.76   16.76
SO BUILDHGT LD5035A-LD7595A     16.76   16.76   16.76    6.71   16.76   16.76
SO BUILDHGT LD5035A-LD7595A      0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDWID LD5035A-LD7595A      0.00   14.26   13.91   13.13   15.58   10.41
SO BUILDWID LD5035A-LD7595A      9.71   11.38   15.58   13.65   14.17    0.00
SO BUILDWID LD5035A-LD7595A      0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDWID LD5035A-LD7595A      0.00   14.26   13.91   13.13   15.58   15.26
SO BUILDWID LD5035A-LD7595A     14.93   15.58   15.58   13.65   14.86   13.67
SO BUILDWID LD5035A-LD7595A      0.00    0.00    0.00    0.00    0.00    0.00

SO BUILDHGT BASE35B-BASE95B      0.00    6.71    6.71    6.71   16.76    6.71
SO BUILDHGT BASE35B-BASE95B      6.71    6.71   16.76    6.71    6.71    0.00
SO BUILDHGT BASE35B-BASE95B      0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDHGT BASE35B-BASE95B     16.76   16.76   16.76    6.71   16.76   16.76
SO BUILDHGT BASE35B-BASE95B     16.76   16.76   16.76    6.71    6.71    0.00
SO BUILDHGT BASE35B-BASE95B      0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDWID BASE35B-BASE95B      0.00   14.26   13.91   13.13   15.58   10.41
SO BUILDWID BASE35B-BASE95B      9.71   11.38   15.58   13.65   14.17    0.00
SO BUILDWID BASE35B-BASE95B      0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDWID BASE35B-BASE95B     13.08   14.44   15.35   13.13   15.58   15.26
SO BUILDWID BASE35B-BASE95B     14.93   15.58   15.58   13.65   14.17    0.00
SO BUILDWID BASE35B-BASE95B      0.00    0.00    0.00    0.00    0.00    0.00

SO BUILDHGT LD5035B-LD7595B      0.00    6.71    6.71    6.71   16.76    6.71
SO BUILDHGT LD5035B-LD7595B      6.71    6.71   16.76    6.71    6.71    0.00
SO BUILDHGT LD5035B-LD7595B      0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDHGT LD5035B-LD7595B     16.76   16.76   16.76    6.71   16.76   16.76
SO BUILDHGT LD5035B-LD7595B     16.76   16.76   16.76    6.71    6.71    0.00
SO BUILDHGT LD5035B-LD7595B      0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDWID LD5035B-LD7595B      0.00   14.26   13.91   13.13   15.58   10.41
SO BUILDWID LD5035B-LD7595B      9.71   11.38   15.58   13.65   14.17    0.00
SO BUILDWID LD5035B-LD7595B      0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDWID LD5035B-LD7595B     13.08   14.44   15.35   13.13   15.58   15.26
SO BUILDWID LD5035B-LD7595B     14.93   15.58   15.58   13.65   14.17    0.00
SO BUILDWID LD5035B-LD7595B      0.00    0.00    0.00    0.00    0.00    0.00

SO BUILDHGT HPM35A-HPM95A        0.00    6.71    6.71    6.71   16.76    6.71
SO BUILDHGT HPM35A-HPM95A        6.71    6.71   16.76    6.71    6.71    0.00
SO BUILDHGT HPM35A-HPM95A        0.00    0.00    0.00    0.00    0.00    0.00
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SO BUILDHGT HPM35A-HPM95A        0.00    6.71    6.71    6.71   16.76   16.76
SO BUILDHGT HPM35A-HPM95A       16.76   16.76   16.76    6.71   16.76   16.76
SO BUILDHGT HPM35A-HPM95A        0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDWID HPM35A-HPM95A        0.00   14.26   13.91   13.13   15.58   10.41
SO BUILDWID HPM35A-HPM95A        9.71   11.38   15.58   13.65   14.17    0.00
SO BUILDWID HPM35A-HPM95A        0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDWID HPM35A-HPM95A        0.00   14.26   13.91   13.13   15.58   15.26
SO BUILDWID HPM35A-HPM95A       14.93   15.58   15.58   13.65   14.86   13.67
SO BUILDWID HPM35A-HPM95A        0.00    0.00    0.00    0.00    0.00    0.00

SO BUILDHGT HPM35B-HPM95B        0.00    6.71    6.71    6.71   16.76    6.71
SO BUILDHGT HPM35B-HPM95B        6.71    6.71   16.76    6.71    6.71    0.00
SO BUILDHGT HPM35B-HPM95B        0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDHGT HPM35B-HPM95B       16.76   16.76   16.76    6.71   16.76   16.76
SO BUILDHGT HPM35B-HPM95B       16.76   16.76   16.76    6.71    6.71    0.00
SO BUILDHGT HPM35B-HPM95B        0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDWID HPM35B-HPM95B        0.00   14.26   13.91   13.13   15.58   10.41
SO BUILDWID HPM35B-HPM95B        9.71   11.38   15.58   13.65   14.17    0.00
SO BUILDWID HPM35B-HPM95B        0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDWID HPM35B-HPM95B       13.08   14.44   15.35   13.13   15.58   15.26
SO BUILDWID HPM35B-HPM95B       14.93   15.58   15.58   13.65   14.17    0.00
SO BUILDWID HPM35B-HPM95B        0.00    0.00    0.00    0.00    0.00    0.00

SO EMISUNIT    .100000E+07 (GRAMS/SEC)          (MICROGRAMS/CUBIC-METER)
SO SRCGROUP BASE35 BASE35A BASE35B
SO SRCGROUP BASE59 BASE59A BASE59B
SO SRCGROUP BASE95 BASE95A BASE95B
SO SRCGROUP LD7535 LD7535A LD7535B
SO SRCGROUP LD7559 LD7559A LD7559B
SO SRCGROUP LD7595 LD7595A LD7595B
SO SRCGROUP LD5035 LD5035A LD5035B
SO SRCGROUP LD5059 LD5059A LD5059B
SO SRCGROUP LD5095 LD5095A LD5095B
SO SRCGROUP HPM35 HPM35A HPM35B
SO SRCGROUP HPM59 HPM59A HPM59B
SO SRCGROUP HPM95 HPM95A HPM95B
SO FINISHED

RE STARTING
RE DISCCART   557000.00 2789000.00
RE DISCCART   556600.00 2792000.00
RE DISCCART   556000.00 2796000.00
RE DISCCART   553000.00 2796500.00
RE DISCCART   548000.00 2796500.00
RE DISCCART   542700.00 2796500.00
RE DISCCART   542700.00 2800000.00
RE DISCCART   542700.00 2805000.00
RE DISCCART   542700.00 2810000.00
RE DISCCART   542000.00 2811000.00
RE DISCCART   541300.00 2814000.00
RE DISCCART   542700.00 2816000.00
RE DISCCART   544100.00 2820000.00
RE DISCCART   543500.00 2824600.00
RE DISCCART   545000.00 2829000.00
RE DISCCART   545700.00 2832200.00
RE DISCCART   546200.00 2835700.00
RE DISCCART   548600.00 2837500.00
RE DISCCART   550300.00 2839000.00
RE DISCCART   545000.00 2839000.00
RE DISCCART   540000.00 2839000.00
RE DISCCART   550500.00 2844000.00
RE DISCCART   545000.00 2844000.00
RE DISCCART   540000.00 2844000.00
RE DISCCART   550300.00 2848600.00
RE DISCCART   545000.00 2848600.00
RE DISCCART   540000.00 2848600.00
RE DISCCART   535000.00 2848600.00
RE DISCCART   530000.00 2848600.00
RE DISCCART   525000.00 2848600.00
RE DISCCART   520000.00 2848600.00
RE DISCCART   514500.00 2848600.00
RE DISCCART   514500.00 2843000.00
RE DISCCART   514500.00 2838000.00
RE DISCCART   514500.00 2832500.00
RE DISCCART   510000.00 2832500.00
RE DISCCART   505000.00 2832500.00
RE DISCCART   500000.00 2832500.00
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RE DISCCART   495000.00 2832500.00
RE DISCCART   494500.00 2837000.00
RE DISCCART   491500.00 2841000.00
RE DISCCART   488500.00 2845500.00
RE DISCCART   483000.00 2848500.00
RE DISCCART   480000.00 2852500.00
RE DISCCART   475000.00 2854000.00
RE DISCCART   473500.00 2857000.00
RE DISCCART   473500.00 2860000.00
RE DISCCART   469000.00 2860000.00
RE DISCCART   464000.00 2860000.00
RE DISCCART   459500.00 2863200.00
RE DISCCART   454000.00 2863200.00
RE FINISHED

ME STARTING
ME INPUTFIL P:\MET\FMYTPA87.MET
ME ANEMHGHT    20 FEET
ME SURFDATA  12835  1987            FTMYERS
ME UAIRDATA  12842  1987            RUSKIN
ME WINDCATS    1.54    3.09    5.14    8.23   10.80
ME FINISHED

OU STARTING
OU RECTABLE ALLAVE FIRST
OU FINISHED
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CO STARTING
CO TITLEONE 1987 FPL FT. MYERS PROPOSED 2 SIMPLE CYCLE CTS          7/14/00
CO TITLETWO SIGNIFICANT IMPACT ANALYSIS, SITE VICINITY, GENERIC 10G/S, FUEL OIL
CO MODELOPT DFAULT CONC   RURAL NOCMPL
CO AVERTIME PERIOD 24 8 3 1
CO POLLUTID GEN
CO DCAYCOEF   .000000
CO RUNORNOT RUN
CO FINISHED

SO STARTING

** Source Location Cards:
** MODELING ORIGIN IS MIDWAY BETWEEN HRSG 3 AND 4 STACK LOCATIONS, NOT A STACK
** LOCATION IS USED FOR POLAR DISCRETE RECEPTORS.
SO LOCATION  ORIGIN   POINT  0.00      0.00    0.00
SO SRCPARAM  ORIGIN    0.0   10.0      500.0     30.00    10.00

**  CT STACK LETTER CODE
** ----------------------
**  A -  CT7 (NORTH) STACK
**  B -  CT8 (SOUTH) STACK
**          SRCID SRCTYP          XS          YS       ZS
**   UTM                         (m)         (m)      (m)
SO LOCATION  BASE35A  POINT    -251.82     -194.64   0.0
SO LOCATION  BASE35B  POINT    -233.95     -236.72   0.0

SO LOCATION  BASE59A  POINT    -251.82     -194.64   0.0
SO LOCATION  BASE59B  POINT    -233.95     -236.72   0.0

SO LOCATION  BASE95A  POINT    -251.82     -194.64   0.0
SO LOCATION  BASE95B  POINT    -233.95     -236.72   0.0

SO LOCATION  LD7535A  POINT    -251.82     -194.64   0.0
SO LOCATION  LD7535B  POINT    -233.95     -236.72   0.0

SO LOCATION  LD7559A  POINT    -251.82     -194.64   0.0
SO LOCATION  LD7559B  POINT    -233.95     -236.72   0.0

SO LOCATION  LD7595A  POINT    -251.82     -194.64   0.0
SO LOCATION  LD7595B  POINT    -233.95     -236.72   0.0

SO LOCATION  LD5035A  POINT    -251.82     -194.64   0.0
SO LOCATION  LD5035B  POINT    -233.95     -236.72   0.0

SO LOCATION  LD5059A  POINT    -251.82     -194.64   0.0
SO LOCATION  LD5059B  POINT    -233.95     -236.72   0.0

SO LOCATION  LD5095A  POINT    -251.82     -194.64   0.0
SO LOCATION  LD5095B  POINT    -233.95     -236.72   0.0
** Source Parameter Cards:
** POINT:   SRCID          QS      HS       TS        VS       DS
**                       (g/s)    (m)      (K)      (m/s)     (m)
SO SRCPARAM   BASE35A     5.0     24.4     852.0     39.08     6.25
SO SRCPARAM   BASE35B     5.0     24.4     852.0     39.08     6.25

SO SRCPARAM   BASE59A     5.0     24.4     865.4     37.92     6.25
SO SRCPARAM   BASE59B     5.0     24.4     865.4     37.92     6.25

SO SRCPARAM   BASE95A     5.0     24.4     883.7     35.23     6.25
SO SRCPARAM   BASE95B     5.0     24.4     883.7     35.23     6.25

SO SRCPARAM   LD7535A     5.0     24.4     878.2     31.49     6.25
SO SRCPARAM   LD7535B     5.0     24.4     878.2     31.49     6.25

SO SRCPARAM   LD7559A     5.0     24.4     887.0     30.94     6.25
SO SRCPARAM   LD7559B     5.0     24.4     887.0     30.94     6.25

SO SRCPARAM   LD7595A     5.0     24.4     903.2     29.69     6.25
SO SRCPARAM   LD7595B     5.0     24.4     903.2     29.69     6.25

SO SRCPARAM   LD5035A     5.0     24.4     904.3     26.58     6.25
SO SRCPARAM   LD5035B     5.0     24.4     904.3     26.58     6.25

SO SRCPARAM   LD5059A     5.0     24.4     912.0     26.30     6.25
SO SRCPARAM   LD5059B     5.0     24.4     912.0     26.30     6.25
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SO SRCPARAM    LD5095A      5.0    24.4       922.0      25.48      6.25
SO SRCPARAM    LD5095B      5.0    24.4       922.0      25.48      6.25

SO BUILDHGT BASE35A-BASE95A          0.00     6.71     6.71     6.71    16.76     6.71
SO BUILDHGT BASE35A-BASE95A          6.71     6.71    16.76     6.71     6.71     0.00
SO BUILDHGT BASE35A-BASE95A          0.00     0.00     0.00     0.00     0.00     0.00
SO BUILDHGT BASE35A-BASE95A          0.00     6.71     6.71     6.71    16.76    16.76
SO BUILDHGT BASE35A-BASE95A         16.76    16.76    16.76     6.71    16.76    16.76
SO BUILDHGT BASE35A-BASE95A          0.00     0.00     0.00     0.00     0.00     0.00
SO BUILDWID BASE35A-BASE95A          0.00    14.26    13.91    13.13    15.58    10.41
SO BUILDWID BASE35A-BASE95A          9.71    11.38    15.58    13.65    14.17     0.00
SO BUILDWID BASE35A-BASE95A          0.00     0.00     0.00     0.00     0.00     0.00
SO BUILDWID BASE35A-BASE95A          0.00    14.26    13.91    13.13    15.58    15.26
SO BUILDWID BASE35A-BASE95A         14.93    15.58    15.58    13.65    14.86    13.67
SO BUILDWID BASE35A-BASE95A          0.00     0.00     0.00     0.00     0.00     0.00

SO BUILDHGT LD5035A-LD7595A          0.00     6.71     6.71     6.71    16.76     6.71
SO BUILDHGT LD5035A-LD7595A          6.71     6.71    16.76     6.71     6.71     0.00
SO BUILDHGT LD5035A-LD7595A          0.00     0.00     0.00     0.00     0.00     0.00
SO BUILDHGT LD5035A-LD7595A          0.00     6.71     6.71     6.71    16.76    16.76
SO BUILDHGT LD5035A-LD7595A         16.76    16.76    16.76     6.71    16.76    16.76
SO BUILDHGT LD5035A-LD7595A          0.00     0.00     0.00     0.00     0.00     0.00
SO BUILDWID LD5035A-LD7595A          0.00    14.26    13.91    13.13    15.58    10.41
SO BUILDWID LD5035A-LD7595A          9.71    11.38    15.58    13.65    14.17     0.00
SO BUILDWID LD5035A-LD7595A          0.00     0.00     0.00     0.00     0.00     0.00
SO BUILDWID LD5035A-LD7595A          0.00    14.26    13.91    13.13    15.58    15.26
SO BUILDWID LD5035A-LD7595A         14.93    15.58    15.58    13.65    14.86    13.67
SO BUILDWID LD5035A-LD7595A          0.00     0.00     0.00     0.00     0.00     0.00

SO BUILDHGT BASE35B-BASE95B          0.00     6.71     6.71     6.71    16.76     6.71
SO BUILDHGT BASE35B-BASE95B          6.71     6.71    16.76     6.71     6.71     0.00
SO BUILDHGT BASE35B-BASE95B          0.00     0.00     0.00     0.00     0.00     0.00
SO BUILDHGT BASE35B-BASE95B         16.76    16.76    16.76     6.71    16.76    16.76
SO BUILDHGT BASE35B-BASE95B         16.76    16.76    16.76     6.71     6.71     0.00
SO BUILDHGT BASE35B-BASE95B          0.00     0.00     0.00     0.00     0.00     0.00
SO BUILDWID BASE35B-BASE95B          0.00    14.26    13.91    13.13    15.58    10.41
SO BUILDWID BASE35B-BASE95B          9.71    11.38    15.58    13.65    14.17     0.00
SO BUILDWID BASE35B-BASE95B          0.00     0.00     0.00     0.00     0.00     0.00
SO BUILDWID BASE35B-BASE95B         13.08    14.44    15.35    13.13    15.58    15.26
SO BUILDWID BASE35B-BASE95B         14.93    15.58    15.58    13.65    14.17     0.00
SO BUILDWID BASE35B-BASE95B          0.00     0.00     0.00     0.00     0.00     0.00

SO BUILDHGT LD5035B-LD7595B          0.00     6.71     6.71     6.71    16.76     6.71
SO BUILDHGT LD5035B-LD7595B          6.71     6.71    16.76     6.71     6.71     0.00
SO BUILDHGT LD5035B-LD7595B          0.00     0.00     0.00     0.00     0.00     0.00
SO BUILDHGT LD5035B-LD7595B         16.76    16.76    16.76     6.71    16.76    16.76
SO BUILDHGT LD5035B-LD7595B         16.76    16.76    16.76     6.71     6.71     0.00
SO BUILDHGT LD5035B-LD7595B          0.00     0.00     0.00     0.00     0.00     0.00
SO BUILDWID LD5035B-LD7595B          0.00    14.26    13.91    13.13    15.58    10.41
SO BUILDWID LD5035B-LD7595B          9.71    11.38    15.58    13.65    14.17     0.00
SO BUILDWID LD5035B-LD7595B          0.00     0.00     0.00     0.00     0.00     0.00
SO BUILDWID LD5035B-LD7595B         13.08    14.44    15.35    13.13    15.58    15.26
SO BUILDWID LD5035B-LD7595B         14.93    15.58    15.58    13.65    14.17     0.00
SO BUILDWID LD5035B-LD7595B          0.00     0.00     0.00     0.00     0.00     0.00

SO EMISUNIT    .100000E+07 (GRAMS/SEC)          (MICROGRAMS/CUBIC-METER)
SO SRCGROUP BASE35 BASE35A BASE35B
SO SRCGROUP BASE59 BASE59A BASE59B
SO SRCGROUP BASE95 BASE95A BASE95B
SO SRCGROUP LD7535 LD7535A LD7535B
SO SRCGROUP LD7559 LD7559A LD7559B
SO SRCGROUP LD7595 LD7595A LD7595B
SO SRCGROUP LD5035 LD5035A LD5035B
SO SRCGROUP LD5059 LD5059A LD5059B
SO SRCGROUP LD5095 LD5095A LD5095B
SO FINISHED

RE STARTING
RE GRIDPOLR POL STA
** POLAR GRID ORIGIN IS MID POINT BETWEEN CT7 AND CT8 STACKS
RE GRIDPOLR POL ORIG  -242.89  -215.68
RE GRIDPOLR POL DIST   1200 1500 2000 2500 3000 3500 4000 5000 6000 8000 10000
RE GRIDPOLR POL DIST  12000 14000 16000 18000 20000 22000 24000 27000 30000
RE GRIDPOLR POL GDIR   36  10.00  10.00
RE GRIDPOLR POL END
** DISCRETE RECEPTOR ORIGIN IS MIDWAY BETWEEN HRSG 3 AND 4 STACK LOCATIONS
** AS USED FOR 8/98 SCA MODELING ANALYSIS
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RE DISCPOLR ORIGIN      160.        10
RE DISCPOLR ORIGIN      300.        10
RE DISCPOLR ORIGIN      500.        10
RE DISCPOLR ORIGIN      700.        10
RE DISCPOLR ORIGIN      900.        10
RE DISCPOLR ORIGIN      185.        20
RE DISCPOLR ORIGIN      300.        20
RE DISCPOLR ORIGIN      500.        20
RE DISCPOLR ORIGIN      700.        20
RE DISCPOLR ORIGIN      900.        20
RE DISCPOLR ORIGIN      237.        30
RE DISCPOLR ORIGIN      300.        30
RE DISCPOLR ORIGIN      500.        30
RE DISCPOLR ORIGIN      700.        30
RE DISCPOLR ORIGIN      900.        30
RE DISCPOLR ORIGIN      348.        40
RE DISCPOLR ORIGIN      500.        40
RE DISCPOLR ORIGIN      700.        40
RE DISCPOLR ORIGIN      900.        40
RE DISCPOLR ORIGIN      589.        50
RE DISCPOLR ORIGIN      700.        50
RE DISCPOLR ORIGIN      900.        50
RE DISCPOLR ORIGIN      705.        60
RE DISCPOLR ORIGIN      900.        60
RE DISCPOLR ORIGIN      656.        70
RE DISCPOLR ORIGIN      700.        70
RE DISCPOLR ORIGIN      900.        70
RE DISCPOLR ORIGIN      632.        80
RE DISCPOLR ORIGIN      700.        80
RE DISCPOLR ORIGIN      900.        80
RE DISCPOLR ORIGIN      600.        90
RE DISCPOLR ORIGIN      700.        90
RE DISCPOLR ORIGIN      900.        90
RE DISCPOLR ORIGIN      556.       100
RE DISCPOLR ORIGIN      700.       100
RE DISCPOLR ORIGIN      900.       100
RE DISCPOLR ORIGIN      577.       110
RE DISCPOLR ORIGIN      700.       110
RE DISCPOLR ORIGIN      900.       110
RE DISCPOLR ORIGIN      511.       120
RE DISCPOLR ORIGIN      700.       120
RE DISCPOLR ORIGIN      900.       120
RE DISCPOLR ORIGIN      471.       130
RE DISCPOLR ORIGIN      500.       130
RE DISCPOLR ORIGIN      700.       130
RE DISCPOLR ORIGIN      900.       130
RE DISCPOLR ORIGIN      450.       140
RE DISCPOLR ORIGIN      500.       140
RE DISCPOLR ORIGIN      700.       140
RE DISCPOLR ORIGIN      900.       140
RE DISCPOLR ORIGIN      451.       150
RE DISCPOLR ORIGIN      500.       150
RE DISCPOLR ORIGIN      700.       150
RE DISCPOLR ORIGIN      900.       150
RE DISCPOLR ORIGIN      467.       160
RE DISCPOLR ORIGIN      500.       160
RE DISCPOLR ORIGIN      700.       160
RE DISCPOLR ORIGIN      900.       160
RE DISCPOLR ORIGIN      492.       170
RE DISCPOLR ORIGIN      500.       170
RE DISCPOLR ORIGIN      700.       170
RE DISCPOLR ORIGIN      900.       170
RE DISCPOLR ORIGIN      535.       180
RE DISCPOLR ORIGIN      700.       180
RE DISCPOLR ORIGIN      900.       180
RE DISCPOLR ORIGIN      607.       190
RE DISCPOLR ORIGIN      700.       190
RE DISCPOLR ORIGIN      900.       190
RE DISCPOLR ORIGIN      727.       200
RE DISCPOLR ORIGIN      900.       200
RE DISCPOLR ORIGIN      941.       210
RE DISCPOLR ORIGIN      906.       220
RE DISCPOLR ORIGIN      919.       230
RE DISCPOLR ORIGIN     1023.       240
RE DISCPOLR ORIGIN      951.       250
RE DISCPOLR ORIGIN      558.       260
RE DISCPOLR ORIGIN      700.       260
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RE DISCPOLR ORIGIN      900.       260
RE DISCPOLR ORIGIN      367.       270
RE DISCPOLR ORIGIN      500.       270
RE DISCPOLR ORIGIN      700.       270
RE DISCPOLR ORIGIN      900.       270
RE DISCPOLR ORIGIN      233.       280
RE DISCPOLR ORIGIN      300.       280
RE DISCPOLR ORIGIN      500.       280
RE DISCPOLR ORIGIN      700.       280
RE DISCPOLR ORIGIN      900.       280
RE DISCPOLR ORIGIN      188.       290
RE DISCPOLR ORIGIN      300.       290
RE DISCPOLR ORIGIN      500.       290
RE DISCPOLR ORIGIN      700.       290
RE DISCPOLR ORIGIN      900.       290
RE DISCPOLR ORIGIN      162.       300
RE DISCPOLR ORIGIN      300.       300
RE DISCPOLR ORIGIN      500.       300
RE DISCPOLR ORIGIN      700.       300
RE DISCPOLR ORIGIN      900.       300
RE DISCPOLR ORIGIN      146.       310
RE DISCPOLR ORIGIN      300.       310
RE DISCPOLR ORIGIN      500.       310
RE DISCPOLR ORIGIN      700.       310
RE DISCPOLR ORIGIN      900.       310
RE DISCPOLR ORIGIN      137.       320
RE DISCPOLR ORIGIN      300.       320
RE DISCPOLR ORIGIN      500.       320
RE DISCPOLR ORIGIN      700.       320
RE DISCPOLR ORIGIN      900.       320
RE DISCPOLR ORIGIN      133.       330
RE DISCPOLR ORIGIN      300.       330
RE DISCPOLR ORIGIN      500.       330
RE DISCPOLR ORIGIN      700.       330
RE DISCPOLR ORIGIN      900.       330
RE DISCPOLR ORIGIN      132.       340
RE DISCPOLR ORIGIN      300.       340
RE DISCPOLR ORIGIN      500.       340
RE DISCPOLR ORIGIN      700.       340
RE DISCPOLR ORIGIN      900.       340
RE DISCPOLR ORIGIN      136.       350
RE DISCPOLR ORIGIN      300.       350
RE DISCPOLR ORIGIN      500.       350
RE DISCPOLR ORIGIN      700.       350
RE DISCPOLR ORIGIN      900.       350
RE DISCPOLR ORIGIN      145.       360
RE DISCPOLR ORIGIN      300.       360
RE DISCPOLR ORIGIN      500.       360
RE DISCPOLR ORIGIN      700.       360
RE DISCPOLR ORIGIN      900.       360
RE FINISHED

ME STARTING
ME INPUTFIL P:\MET\FMYTPA87.MET
ME ANEMHGHT    20 FEET
ME SURFDATA  12835  1987            FTMYERS
ME UAIRDATA  12842  1987            RUSKIN
ME WINDCATS    1.54    3.09    5.14    8.23   10.80
ME FINISHED

OU STARTING
OU RECTABLE ALLAVE FIRST
OU FINISHED
```

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CO STARTING
CO TITLEONE 1987 FPL FT. MYERS PROPOSED 2 SIMPLE CYCLE CTS          7/14/00
CO TITLETWO SIGNIFICANT IMPACT ANALYSIS, EVERGLADES NP, GENERIC 10G/S, FUEL OIL
CO MODELOPT DFAULT CONC   RURAL NOCMPL
CO AVERTIME PERIOD 24 8 3 1
CO POLLUTID GEN
CO DCAYCOEF   .000000
CO RUNORNOT RUN
CO FINISHED

SO STARTING

** Source Location Cards:
** MODELING ORIGIN IS MIDWAY BETWEEN HRSG 3 AND 4 STACK LOCATIONS, NOT A STACK
** LOCATION IS USED FOR POLAR DISCRETE RECEPTORS.
SO LOCATION  ORIGIN   POINT   0.00      0.00     0.00
SO SRCPARAM  ORIGIN    0.0    10.0      500.0     30.00    10.00

**  CT STACK LETTER CODE
** ----------------------
**  A -  CT7 (NORTH) STACK
**  B -  CT8 (SOUTH) STACK
**          SRCID SRCTYP         XS          YS       ZS
**   UTM                        (m)         (m)      (m)
SO LOCATION  BASE35A  POINT     422100      2952900   0.0
SO LOCATION  BASE35B  POINT     422100      2952900   0.0

SO LOCATION  BASE59A  POINT     422100      2952900   0.0
SO LOCATION  BASE59B  POINT     422100      2952900   0.0

SO LOCATION  BASE95A  POINT     422100      2952900   0.0
SO LOCATION  BASE95B  POINT     422100      2952900   0.0

SO LOCATION  LD7535A  POINT     422100      2952900   0.0
SO LOCATION  LD7535B  POINT     422100      2952900   0.0

SO LOCATION  LD7559A  POINT     422100      2952900   0.0
SO LOCATION  LD7559B  POINT     422100      2952900   0.0

SO LOCATION  LD7595A  POINT     422100      2952900   0.0
SO LOCATION  LD7595B  POINT     422100      2952900   0.0

SO LOCATION  LD5035A  POINT     422100      2952900   0.0
SO LOCATION  LD5035B  POINT     422100      2952900   0.0

SO LOCATION  LD5059A  POINT     422100      2952900   0.0
SO LOCATION  LD5059B  POINT     422100      2952900   0.0

SO LOCATION  LD5095A  POINT     422100      2952900   0.0
SO LOCATION  LD5095B  POINT     422100      2952900   0.0
** Source Parameter Cards:
** POINT:   SRCID          QS      HS       TS        VS       DS
**                        (g/s)   (m)      (K)       (m/s)    (m)
SO SRCPARAM   BASE35A     5.0     24.4     852.0     39.08     6.25
SO SRCPARAM   BASE35B     5.0     24.4     852.0     39.08     6.25

SO SRCPARAM   BASE59A     5.0     24.4     865.4     37.92     6.25
SO SRCPARAM   BASE59B     5.0     24.4     865.4     37.92     6.25

SO SRCPARAM   BASE95A     5.0     24.4     883.7     35.23     6.25
SO SRCPARAM   BASE95B     5.0     24.4     883.7     35.23     6.25

SO SRCPARAM   LD7535A     5.0     24.4     878.2     31.49     6.25
SO SRCPARAM   LD7535B     5.0     24.4     878.2     31.49     6.25

SO SRCPARAM   LD7559A     5.0     24.4     887.0     30.94     6.25
SO SRCPARAM   LD7559B     5.0     24.4     887.0     30.94     6.25

SO SRCPARAM   LD7595A     5.0     24.4     903.2     29.69     6.25
SO SRCPARAM   LD7595B     5.0     24.4     903.2     29.69     6.25

SO SRCPARAM   LD5035A     5.0     24.4     904.3     26.58     6.25
SO SRCPARAM   LD5035B     5.0     24.4     904.3     26.58     6.25

SO SRCPARAM   LD5059A     5.0     24.4     912.0     26.30     6.25
SO SRCPARAM   LD5059B     5.0     24.4     912.0     26.30     6.25
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SO SRCPARAM    LD5095A     5.0    24.4      922.0      25.48      6.25
SO SRCPARAM    LD5095B     5.0    24.4      922.0      25.48      6.25

SO BUILDHGT BASE35A-BASE95A          0.00    6.71    6.71    6.71   16.76    6.71
SO BUILDHGT BASE35A-BASE95A          6.71    6.71   16.76    6.71    6.71    0.00
SO BUILDHGT BASE35A-BASE95A          0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDHGT BASE35A-BASE95A          0.00    6.71    6.71    6.71   16.76   16.76
SO BUILDHGT BASE35A-BASE95A         16.76   16.76   16.76    6.71   16.76   16.76
SO BUILDHGT BASE35A-BASE95A          0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDWID BASE35A-BASE95A          0.00   14.26   13.91   13.13   15.58   10.41
SO BUILDWID BASE35A-BASE95A          9.71   11.38   15.58   13.65   14.17    0.00
SO BUILDWID BASE35A-BASE95A          0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDWID BASE35A-BASE95A          0.00   14.26   13.91   13.13   15.58   15.26
SO BUILDWID BASE35A-BASE95A         14.93   15.58   15.58   13.65   14.86   13.67
SO BUILDWID BASE35A-BASE95A          0.00    0.00    0.00    0.00    0.00    0.00

SO BUILDHGT LD5035A-LD7595A          0.00    6.71    6.71    6.71   16.76    6.71
SO BUILDHGT LD5035A-LD7595A          6.71    6.71   16.76    6.71    6.71    0.00
SO BUILDHGT LD5035A-LD7595A          0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDHGT LD5035A-LD7595A          0.00    6.71    6.71    6.71   16.76   16.76
SO BUILDHGT LD5035A-LD7595A         16.76   16.76   16.76    6.71   16.76   16.76
SO BUILDHGT LD5035A-LD7595A          0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDWID LD5035A-LD7595A          0.00   14.26   13.91   13.13   15.58   10.41
SO BUILDWID LD5035A-LD7595A          9.71   11.38   15.58   13.65   14.17    0.00
SO BUILDWID LD5035A-LD7595A          0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDWID LD5035A-LD7595A          0.00   14.26   13.91   13.13   15.58   15.26
SO BUILDWID LD5035A-LD7595A         14.93   15.58   15.58   13.65   14.86   13.67
SO BUILDWID LD5035A-LD7595A          0.00    0.00    0.00    0.00    0.00    0.00

SO BUILDHGT BASE35B-BASE95B          0.00    6.71    6.71    6.71   16.76    6.71
SO BUILDHGT BASE35B-BASE95B          6.71    6.71   16.76    6.71    6.71    0.00
SO BUILDHGT BASE35B-BASE95B          0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDHGT BASE35B-BASE95B         16.76   16.76   16.76    6.71   16.76   16.76
SO BUILDHGT BASE35B-BASE95B         16.76   16.76   16.76    6.71    6.71    0.00
SO BUILDHGT BASE35B-BASE95B          0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDWID BASE35B-BASE95B          0.00   14.26   13.91   13.13   15.58   10.41
SO BUILDWID BASE35B-BASE95B          9.71   11.38   15.58   13.65   14.17    0.00
SO BUILDWID BASE35B-BASE95B          0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDWID BASE35B-BASE95B         13.08   14.44   15.35   13.13   15.58   15.26
SO BUILDWID BASE35B-BASE95B         14.93   15.58   15.58   13.65   14.17    0.00
SO BUILDWID BASE35B-BASE95B          0.00    0.00    0.00    0.00    0.00    0.00

SO BUILDHGT LD5035B-LD7595B          0.00    6.71    6.71    6.71   16.76    6.71
SO BUILDHGT LD5035B-LD7595B          6.71    6.71   16.76    6.71    6.71    0.00
SO BUILDHGT LD5035B-LD7595B          0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDHGT LD5035B-LD7595B         16.76   16.76   16.76    6.71   16.76   16.76
SO BUILDHGT LD5035B-LD7595B         16.76   16.76   16.76    6.71    6.71    0.00
SO BUILDHGT LD5035B-LD7595B          0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDWID LD5035B-LD7595B          0.00   14.26   13.91   13.13   15.58   10.41
SO BUILDWID LD5035B-LD7595B          9.71   11.38   15.58   13.65   14.17    0.00
SO BUILDWID LD5035B-LD7595B          0.00    0.00    0.00    0.00    0.00    0.00
SO BUILDWID LD5035B-LD7595B         13.08   14.44   15.35   13.13   15.58   15.26
SO BUILDWID LD5035B-LD7595B         14.93   15.58   15.58   13.65   14.17    0.00
SO BUILDWID LD5035B-LD7595B          0.00    0.00    0.00    0.00    0.00    0.00

SO EMISUNIT    .100000E+07 (GRAMS/SEC)          (MICROGRAMS/CUBIC-METER)
SO SRCGROUP BASE35 BASE35A BASE35B
SO SRCGROUP BASE59 BASE59A BASE59B
SO SRCGROUP BASE95 BASE95A BASE95B
SO SRCGROUP LD7535 LD7535A LD7535B
SO SRCGROUP LD7559 LD7559A LD7559B
SO SRCGROUP LD7595 LD7595A LD7595B
SO SRCGROUP LD5035 LD5035A LD5035B
SO SRCGROUP LD5059 LD5059A LD5059B
SO SRCGROUP LD5095 LD5095A LD5095B
SO FINISHED

RE STARTING
RE DISCCART   557000.00 2789000.00
RE DISCCART   556600.00 2792000.00
RE DISCCART   556000.00 2796000.00
RE DISCCART   553000.00 2796500.00
RE DISCCART   548000.00 2796500.00
RE DISCCART   542700.00 2796500.00
RE DISCCART   542700.00 2800000.00
RE DISCCART   542700.00 2805000.00
RE DISCCART   542700.00 2810000.00
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RE DISCCART   542000.00 2811000.00
RE DISCCART   541300.00 2814000.00
RE DISCCART   542700.00 2816000.00
RE DISCCART   544100.00 2820000.00
RE DISCCART   543500.00 2824600.00
RE DISCCART   545000.00 2829000.00
RE DISCCART   545700.00 2832200.00
RE DISCCART   546200.00 2835700.00
RE DISCCART   548600.00 2837500.00
RE DISCCART   550300.00 2839000.00
RE DISCCART   545000.00 2839000.00
RE DISCCART   540000.00 2839000.00
RE DISCCART   550500.00 2844000.00
RE DISCCART   545000.00 2844000.00
RE DISCCART   540000.00 2844000.00
RE DISCCART   550300.00 2848600.00
RE DISCCART   545000.00 2848600.00
RE DISCCART   540000.00 2848600.00
RE DISCCART   535000.00 2848600.00
RE DISCCART   530000.00 2848600.00
RE DISCCART   525000.00 2848600.00
RE DISCCART   520000.00 2848600.00
RE DISCCART   514500.00 2848600.00
RE DISCCART   514500.00 2843000.00
RE DISCCART   514500.00 2838000.00
RE DISCCART   514500.00 2832500.00
RE DISCCART   510000.00 2832500.00
RE DISCCART   505000.00 2832500.00
RE DISCCART   500000.00 2832500.00
RE DISCCART   495000.00 2832500.00
RE DISCCART   494500.00 2837000.00
RE DISCCART   491500.00 2841000.00
RE DISCCART   488500.00 2845500.00
RE DISCCART   483000.00 2848500.00
RE DISCCART   480000.00 2852500.00
RE DISCCART   475000.00 2854000.00
RE DISCCART   473500.00 2857000.00
RE DISCCART   473500.00 2860000.00
RE DISCCART   469000.00 2860000.00
RE DISCCART   464000.00 2860000.00
RE DISCCART   459500.00 2863200.00
RE DISCCART   454000.00 2863200.00
RE FINISHED

ME STARTING
ME INPUTFIL P:\MET\FMYTPA87.MET
ME ANEMHGHT    20 FEET
ME SURFDATA  12835  1987             FTMYERS
ME UAIRDATA  12842  1987             RUSKIN
ME WINDCATS    1.54    3.09    5.14    8.23   10.80
ME FINISHED

OU STARTING
OU RECTABLE ALLAVE FIRST
OU FINISHED
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