



RECEIVED
NOV 08 1996
BUREAU OF
AIR REGULATION

November 7, 1996

Mr. Clair Fancy
Florida Department of Environmental Protection
2600 Blair Stone Rd.
Tallahassee, Florida 32399-2400

Dear Mr. Fancy:

Re: Air Construction Permit Application for Combustion Turbine Natural Gas Conversion
at FPC's DeBary Plant Site (DEP Permit No. AO64-233544; PSD FL-167)

This letter serves to transmit Florida Power Corporation's (FPC) application for an air construction permit to install natural gas-firing capability for combustion turbines at the above-referenced site. Please find enclosed four copies of the application, as well as a check in the amount of \$250.00 for the processing of this application.

FPC has the opportunity to use, on an interruptible basis, natural gas as a supplemental fuel in peaking units P7-P10 at DeBary. Because the natural gas will be supplied on an interruptible basis, the currently permitted No. 2 fuel oil will continue to be the primary fuel for these units.

If you should have any questions or require additional information, please do not hesitate to contact me at (813) 866-5158.

Sincerely,

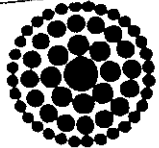
A handwritten signature in black ink, appearing to read "S. Osbourn", written in a cursive style.

Scott H. Osbourn
Senior Environmental Engineer

Enclosure

cc: Vivian Garfein, DEP Central District
Ken Kosky, P.E., KBN

Accounts Payable Department C2N
P.O. Box 14042
St. Petersburg, FL 33733-4042



Florida Power
CORPORATION

DATE 10/16/96 CHECK NO. 1845422

63-115
631

PAY:

\$250 DOLLARS AND 00 CENTS

*****250.00

Void after 60 days

SunBank / Mid-Florida

TO
THE
ORDER
OF

STATE OF FLORIDA
DEPARTMENT OF ENVIRON PROT
2600 BLAIR STONE RD FL 32399-2400
TALLAHASSEE

J. V. Smallwood
Treasurer

⑈ 1001845422 ⑈ ⑆ 06310115316990032052736 ⑈

FPC/ DeBary Plant

**Air Construction Permit Application for
Natural Gas Conversion at Combustion
Turbines P7, P8, P9 and P10**

Department of Environmental Protection

DIVISION OF AIR RESOURCES MANAGEMENT

APPLICATION FOR AIR PERMIT - LONG FORM

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

RECEIVED
NOV 08 1996
BUREAU OF
AIR REGULATION

I. APPLICATION INFORMATION

This section of the Application for Air Permit form identifies the facility and provides general information on the scope and purpose of this application. This section also includes information on the owner or authorized representative of the facility (or the responsible official in the case of a Title V source) and the necessary statements for the applicant and professional engineer, where required, to sign and date for formal submittal of the Application for Air Permit to the Department. If the application form is submitted to the Department using ELSA, this section of the Application for Air Permit must also be submitted in hard-copy.

Identification of Facility Addressed in This Application


Enter the name of the corporation, business, governmental entity, or individual that has ownership or control of the facility; the facility site name, if any; and the facility's physical location. If known, also enter the facility identification number.

1. Facility Owner/Company Name: Florida Power Corporation	
2. Site Name: DeBary Facility	
3. Facility Identification Number: 1270028 [] Unknown	
4. Facility Location Information: Street Address or Other Locator: West Highbanks Road City: DeBary County: Volusia Zip Code: 33713	
5. Relocatable Facility? [] Yes [x] No	6. Existing Permitted Facility? [x] Yes [] No

Application Processing Information (DEP Use)

1. Date of Receipt of Application:	11-8-96
2. Permit Number:	1270028-002-AC
3. PSD Number (if applicable):	PSD-F1-167A1
4. Siting Number (if applicable):	

Owner/Authorized Representative or Responsible Official

1. Name and Title of Owner/Authorized Representative or Responsible Official: W. Jeffrey Pardue, C.E.P., Director Environmental Services Dep
2. Owner/Authorized Representative or Responsible Official Mailing Address: Organization/Firm: Florida Power Corporation Street Address: 3201 34th Street South City: St. Petersburg State: FL Zip Code: 33711
3. Owner/Authorized Representative or Responsible Official Telephone Numbers: Telephone: (813) 866-4387 Fax: (813) 866-4926
4. Owner/Authorized Representative or Responsible Official Statement: <i>I, the undersigned, am the owner or authorized representative* of the non-Title V source addressed in this Application for Air Permit or the responsible official, as defined in Rule 62-210.200, F.A.C., 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.</i>  Signature _____ Date <u>11/2/96</u>

* Attach letter of authorization if not currently on file.

Scope of Application

This Application for Air Permit addresses the following emissions unit(s) at the facility. An Emissions Unit Information Section (a Section III of the form) must be included for each emissions unit listed.

Emissions Unit ID	Description of Emissions Unit	Permit Type
Unit # Unit ID		
1R	* Combustion Turbine Units 7,8,9 and 10	ACM2

See individual Emissions Unit (EU) sections for more detailed descriptions.
Multiple EU IDs indicated with an asterisk (*). Regulated EU indicated with an "R".

Purpose of Application and Category

Check one (except as otherwise indicated):

Category I: All Air Operation Permit Applications Subject to Processing Under Chapter 62-213, F.A.C.

This Application for Air Permit is submitted to obtain:

Initial air operation permit under Chapter 62-213, F.A.C., for an existing facility which is classified as a Title V source.

Initial air operation permit under Chapter 62-213, F.A.C., 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: _____

Air operation permit renewal under Chapter 62-213, F.A.C., for a Title V source.

Operation permit to be renewed: _____

Air operation permit revision for a Title V source to address one or more newly constructed or modified emissions units addressed in this application.

Current construction permit number: _____

Operation permit to be renewed: _____

Air operation permit revision or administrative correction for a Title V source to address one or more proposed new or modified emissions units and to be processed concurrently with the air construction permit application. Also check Category III.

Operation permit to be revised/corrected: _____

Air operation permit revision for a Title V source 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 to be revised: _____

Reason for revision: _____

Category II: All Air Construction Permit Applications Subject to Processing Under Rule 62-210.300(2)(b), F.A.C.

This Application for Air Permit is submitted to obtain:

- Initial air operation permit under Rule 62-210.300(2)(b), F.A.C., for an existing facility seeking classification as a synthetic non-Title V source.

Current operation/construction permit number(s): _____

- Renewal air operation permit under Rule 62-210.300(2)(b), F.A.C., for a synthetic non-Title V source.

Operation permit to be renewed: _____

- Air operation permit revision for a synthetic non-Title V source. Give reason for revision; e.g., to address one or more newly constructed or modified emissions units.

Operation permit to be revised: _____

Reason for revision: _____

Category III: All Air Construction Permit Applications for All Facilities and Emissions Units.

This Application for Air Permit is submitted to obtain:

- Air construction permit to construct or modify one or more emissions units within a facility (including any facility classified as a Title V source).

Current operation permit number(s), if any: _____
AO64-233544

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

Current operation permit number(s): _____

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

Application Processing Fee

Check one:

Attached - Amount: \$ \$ 250.00

Not Applicable.

Construction/Modification Information

1. Description of Proposed Project or Alterations: This application is for the installation of natural gas firing for combustion turbine units P7, P8, P9 and P10.
2. Projected or Actual Date of Commencement of Construction : 1 Jan 1997
3. Projected Date of Completion of Construction : 1 Apr 1997

Professional Engineer Certification

1. Professional Engineer Name: Kennard F. Kosky Registration Number: 14996
2. Professional Engineer Mailing Address: Organization/Firm: KBN Eng. and Applied Sciences, 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)366-6603

4. Professional Engineer's Statement:

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

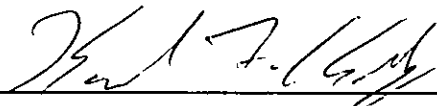
(1) To the best of my knowledge, there is reasonable assurance that the air pollutant emissions unit(s) and the air pollution control equipment described in this Application for Air Permit, when properly operated and maintained, will comply with all applicable standards for control of air pollutant emissions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

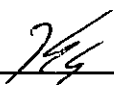
If the purpose of this application is to obtain a Title V source air operation permit (check here [] if so), I further certify that each emissions unit described in this Application for Air Permit, when properly operated and maintained, will comply with the applicable requirements identified in this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

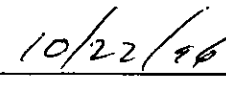
If the purpose of this application is to obtain an air construction permit for one or more proposed new or modified emissions units (check here [X] if so), I further certify that the engineering features of each such emissions unit described in this application have been designed or examined by me or 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
(seal)




Date

* Attach any exception to certification statement.

Application Contact

1. Name and Title of Application Contact: Scott H. Osbourn, Senior Environmental Engineer
2. Application Contact Mailing Address: Organization/Firm: Florida Power Corporation Street Address: 3201 34th St. South City: St. Petersburg State: FL Zip Code: 33711
3. Application Contact Telephone Numbers: Telephone: (813) 866-5158 Fax: (813) 866-4926

Application Comment

See Attachment DB-AI-AC

ATTACHMENT DB-AI-AC
APPLICATION COMMENT

ATTACHMENT DB-AI-AC

This application is for the Florida Power Corporation's DeBary Facility. The application's structure for regulated emission units is as follows:

Emission Unit	EU1
General	Combustion Turbine Units 7, 8, 9, and 10
Emission Points	1 Stack per unit
Segments	No. 2 fuel oil Natural Gas
Pollutants	SO ₂ , PM/PM10, NO _x , CO, VOC, SAM
CMS	SO ₂ , NO _x ; water-to-fuel ratio
PSD	SO ₂ , PM/PM10, NO _x

II. FACILITY INFORMATION

A. GENERAL FACILITY INFORMATION

Facility Location and Type

1. Facility UTM Coordinates: Zone: 17 East (km): 467.5 North (km): 3197.2			
2. Facility Latitude/Longitude: Latitude (DD/MM/SS): 28 / 54 / 17 Longitude: (DD/MM/SS): 81 / 19 / 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): The DeBary Facility consists of 6 combustion turbine peaking units which are fired by No. 6 or No. 2 fuel oil and 4 combustion turbines, which are fired by No. 2 fuel oil and limited in hours of operation. This application is for a permit to construct the capability for natural gas firing at the DeBary site for the 4 combustion turbines operated under Permit No. AO64-233544.			

Facility Contact

1. Name and Title of Facility Contact: W.B. Hicks, Plant Manager			
2. Facility Contact Mailing Address: Organization/Firm: Florida Power Corporation Street Address: P.O. Box 79 City: Debary State: FL Zip Code: 32713			
3. Facility Contact Telephone Numbers: Telephone: (407) 668-5103 Fax: (407) 646-8370			

Facility Regulatory Classifications

1. Small Business Stationary Source? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown
2. Title V Source? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
3. Synthetic Non-Title V Source? <input type="checkbox"/> Yes, <input checked="" type="checkbox"/> No
4. Major Source of Pollutants Other than Hazardous Air Pollutants (HAPs)? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
5. Synthetic Minor Source of Pollutants Other than HAPs? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
6. Major Source of Hazardous Air Pollutants (HAPs)? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
7. Synthetic Minor Source of HAPs? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
8. One or More Emissions Units Subject to NSPS? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
9. One or More Emissions Units Subject to NESHAP? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
10. Title V Source by EPA Designation? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
11. Facility Regulatory Classifications Comment (limit to 200 characters): Combustion Turbine Nos. 7,8,9,10 - NSPS, 40 CFR 60 Subpart GG.

B. FACILITY REGULATIONS

Rule Applicability Analysis (Required for Category II applications and Category III applications involving non Title-V sources. See Instructions.)

Not Applicable

List of Applicable Regulations (Required for Category I applications and Category III applications involving Title-V sources. See Instructions.)

See Attachment DB-FI-B

C. FACILITY POLLUTANTS

Facility Pollutant Information

1. Pollutant Emitted	2. Pollutant Classification
SO2 Sulfur Dioxide	A
PM Particulate Matter - Total	A
PM10 Particulate Matter - PM10	A
NOX Nitrogen Oxides	A
CO Carbon Monoxide	A
VOC Volatile Organic Compounds	A
SAM Sulfuric Acid Mist	A

D. FACILITY POLLUTANT DETAIL INFORMATION

Facility Pollutant Detail Information:

1. Pollutant Emitted:		
2. Requested Emissions Cap:	(lb/hr)	(tons/yr)
3. Basis for Emissions Cap Code:		
4. Facility Pollutant Comment (limit to 400 characters):		

Facility Pollutant Detail Information:

1. Pollutant Emitted:		
2. Requested Emissions Cap:	(lb/hr)	(tons/yr)
3. Basis for Emissions Cap Code:		
4. Facility Pollutant Comment (limit to 400 characters):		

E. FACILITY SUPPLEMENTAL INFORMATION

Supplemental Requirements for All Applications

1. Area Map Showing Facility Location: <input checked="" type="checkbox"/> Attached, Document ID: <u>DB-FI-E1</u> <input type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
2. Facility Plot Plan: <input checked="" type="checkbox"/> Attached, Document ID: <u>DB-FI-E2</u> <input type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
3. Process Flow Diagram(s): <input checked="" type="checkbox"/> Attached, Document ID(s): <u>DB-FI-E3</u> <input type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
4. Precautions to Prevent Emissions of Unconfined Particulate Matter: <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
5. Fugitive Emissions Identification: <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> Waiver Requested
6. Supplemental Information for Construction Permit Application: <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

Additional Supplemental Requirements for Category I Applications Only

7. List of Proposed Exempt Activities: <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
8. List of Equipment/Activities Regulated under Title VI: <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Equipment/Activities On site but Not Required to be Individually Listed <input checked="" type="checkbox"/> Not Applicable
9. Alternative Methods of Operation: <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
10. Alternative Modes of Operation (Emissions Trading): <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

<p>11. Identification of Additional Applicable Requirements:</p> <p><input type="checkbox"/> Attached, Document ID: _____</p> <p><input checked="" type="checkbox"/> Not Applicable</p>
<p>12. Compliance Assurance Monitoring Plan:</p> <p><input type="checkbox"/> Attached, Document ID: _____</p> <p><input checked="" type="checkbox"/> Not Applicable</p>
<p>13. Risk Management Plan Verification:</p> <p><input type="checkbox"/> Plan Submitted to Implementing Agency - Verification Attached Document ID: _____</p> <p><input type="checkbox"/> Plan to be Submitted to Implementing Agency by Required Date</p> <p><input checked="" type="checkbox"/> Not Applicable</p>
<p>14. Compliance Report and Plan</p> <p><input type="checkbox"/> Attached, Document ID: _____</p> <p><input checked="" type="checkbox"/> Not Applicable</p>
<p>15. Compliance Statement (Hard-copy Required)</p> <p><input type="checkbox"/> Attached, Document ID: _____</p> <p><input checked="" type="checkbox"/> Not Applicable</p>

ATTACHMENT DB-FI-B

(The following requirements are consistent with the requirements identified in the Title V application.)

**ATTACHMENT DB-FI-B
APPLICABLE REQUIREMENTS LISTING - POWER PLANTS**

FACILITY: FPC DeBary Plant

FDEP Rules:

General Permits:

- 62-4.030
- 62-4.040(1)(a) - Exemptions from permitting
- 62-4.040(1)(b) - Exemptions from permitting
- 62-4.100
- 62-4.130

Asbestos NESHAP:

- 62-204.800(8)(b)8.(State Only) - Asbestos Removal
- 62-204.800(8)(d) (State Only) - General Provisions (Asbestos)

Stationary Sources-General:

62-210.300(2)

Exemptions - Plant Specific:

- 62-210.300(3)(a)4. - comfort heating < 1 mmBtu/hr
- 62-210.300(3)(a)5. - mobile sources
- 62-210.300(3)(a)7. - non-industrial vacuum cleaning
- 62-210.300(3)(a)8. - refrigeration equipment
- 62-210.300(3)(a)9. - vacuum pumps for labs
- 62-210.300(3)(a)10. - steam cleaning equipment
- 62-210.300(3)(a)11. - sanders < 5 ft²
- 62-210.300(3)(a)12. - space heating equip.; (non-boilers)
- 62-210.300(3)(a)14. - bakery ovens
- 62-210.300(3)(a)15. - lab equipment
- 62-210.300(3)(a)16. - brazing, soldering or welding
- 62-210.300(3)(a)17. - laundry dryers
- 62-210.300(3)(a)20. - emergency generators < 32,000 gal/yr
- 62-210.300(3)(a)21. - general purpose engines < 32,000 gal.yr
- 62-210.300(3)(a)22. - fire and safety equipment
- 62-210.300(3)(a)23. - surface coating > 5% VOC; 6 gal/month
- 62-210.300(3)(a)24. - surface coating < 5% VOC
- 62-210.300(3)(b) - Temporary Exemptions
- 62-210.370(3) - AOR's
- 62-210.900(5) - AOR Form

Title V Permits:

- 62-213.205(1)(a) - Fees
- 62-213.205(1)(b)
- 62-213.205(1)(c)
- 62-213.205(1)(e)
- 62-213.205(1)(f)
- 62-213.205(1)(g)
- 62-213.205(1)(i)
- 62-213.205(1)(j)
- 62-213.400 - Permits/Revisions
- 62-213.410 - Changes without permit revisions
- 62-213.420.(1)(b)2. - Permits-allows continued operation
- 62-213.420.(1)(b)3. - Permits-additional information
- 62-213.460 - Permit Shield
- 62-213.900(1) - Fee Form

Open Burning:

- 62-256.300 - Prohibitions
- 62-256.700 - Open burning Allowed

Asbestos Removal:

- 62-257.301 - Notification and Fee
- 62-257.400 - Fee Schedule
- 62-257.900 - Form

Stationary Sources-Emission Standards:

- 62-296.320(2) (State Only) - Odor
- 62-296.320(3)(b)(State Only) - Emergency Open Burning
- 62-296.320(4)(b) - General VE Standard
- 62-296.320(4)(c) - Unconfined Emissions of Particulate Matter

Stationary Sources-Emission Monitoring

- 62-297.310(7)(a)10. - Exemption of annual VE for 210.300(3)(a) sources/Gen. Per.

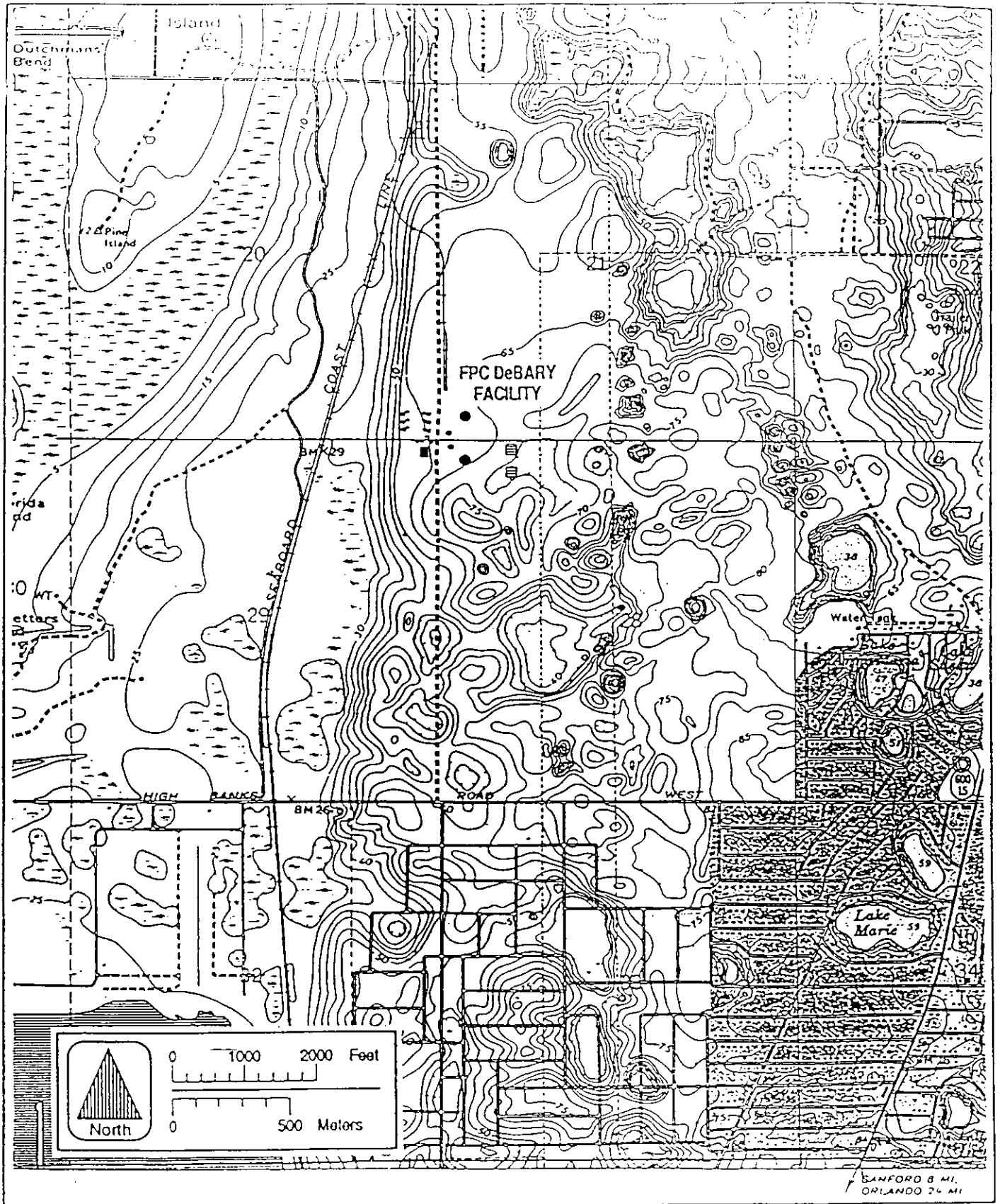
Federal Regulations:

Asbestos Removal:

- 40 CFR 61.05 - Prohibited Activities
- 40 CFR 61.12(b) - Compliance with work practice standard
- 40 CFR 61.14 - Monitoring Requirements (if required)
- 40 CFR 61.19 - Circumvention
- 40 CRF 61.145 - Demolition and Renovation
- 40 CFR 61.148 - Standard for Insulating Material

ATTACHMENT DB-FI-E1

AREA MAP

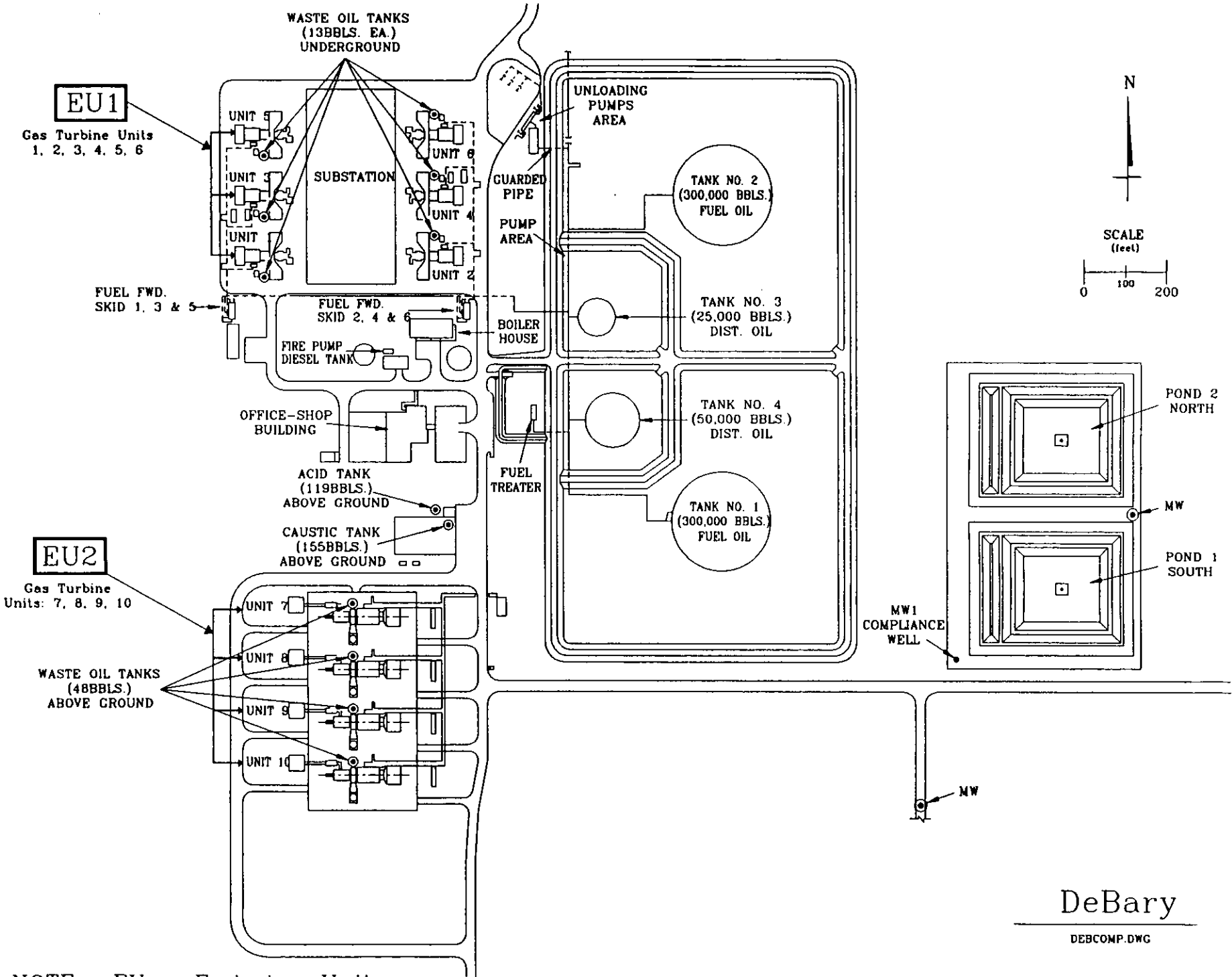


LOCATION OF THE FPC DeBARY FACILITY



ATTACHMENT DB-FI-E2

FACILITY PLOT PLAN

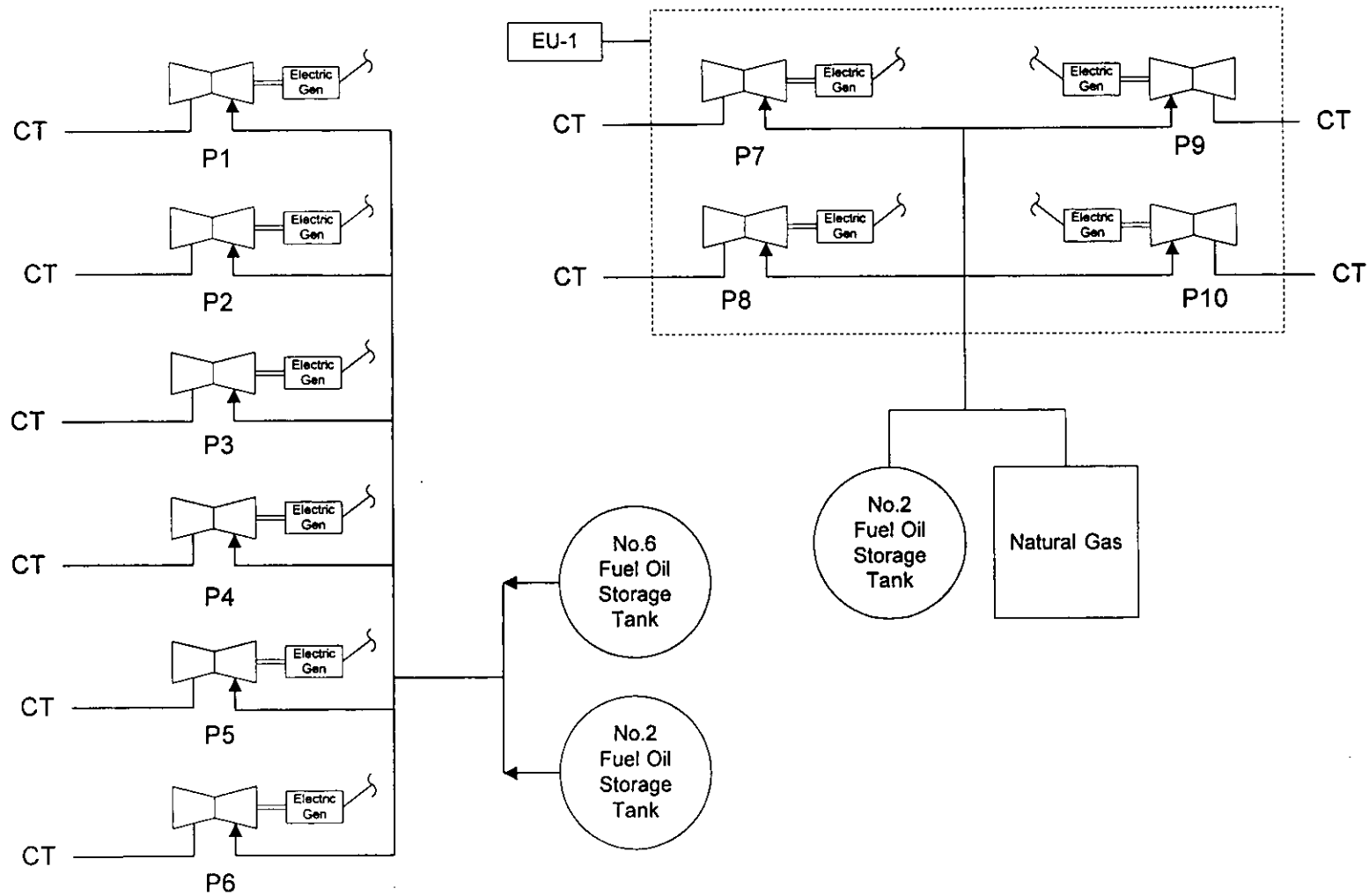


NOTE: EU = Emission Unit

DeBary

DEBCOMP.DWG

ATTACHMENT DB-FI-E3
PROCESS FLOW DIAGRAM



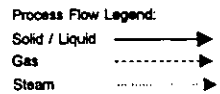
Note:

GT = Gas Turbine

EU = Emission Unit Number

See segment section for the operating rate of each emission unit

Florida Power Corporation
DeBary, Florida
Facility Process Flow Diagram



Emission Unit: Overall Plant
Process Area: Overall Plant
Filename: FPCDBGAS.VSD
Latest Revision Date: 10/30/96



KBN

Engineering and
Applied Sciences, Inc.

III. EMISSIONS UNIT INFORMATION

A separate Emissions Unit Information Section (including subsections A through L 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. Some of the subsections comprising the Emissions Unit Information Section of the form are intended for regulated emissions units only. Others are intended for both regulated and unregulated emissions units. Each subsection is appropriately marked.

**A. TYPE OF EMISSIONS UNIT
(Regulated and Unregulated Emissions Units)****Type of Emissions Unit Addressed in This Section**

1. Regulated or Unregulated Emissions Unit? Check one:

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.

2. Single Process, Group of Processes, or Fugitive Only? 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).

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.

**B. GENERAL EMISSIONS UNIT INFORMATION
(Regulated and Unregulated Emissions Units)**

Emissions Unit Description and Status

1. Description of Emissions Unit Addressed in This Section (limit to 60 characters): Combustion Turbine Units 7, 8, 9 and 10		
2. Emissions Unit Identification Number: <input type="checkbox"/> No Corresponding ID <input type="checkbox"/> Unknown *		
3. Emissions Unit Status Code: A	4. Acid Rain Unit? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	5. Emissions Unit Major Group SIC Code: 49
6. Emissions Unit Comment (limit to 500 characters): ID No.: P7, P8, P9, P10, 015, 016, 017, 018. Each turbine is currently permitted to burn fuel oil and operate up to the equivalent of 3,390 hrs/yr at peak or other lesser loads and 38.7% capacity factor. The capacity factor shall be limited to 33% based on a weighted 12-month rolling average sulfur content not to exceed 0.3%. If the sulfur content is less than 0.3%, the capacity factor can be adjusted up to 38.7%. This application is for the installation of natural gas firing.		

Emissions Unit Control Equipment Information

A.

1. Description (limit to 200 characters): Water injection
2. Control Device or Method Code: 28

B.

1. Description (limit to 200 characters):
2. Control Device or Method Code:

C.

1. Description (limit to 200 characters):
2. Control Device or Method Code:

**C. EMISSIONS UNIT DETAIL INFORMATION
(Regulated Emissions Units Only)**

Emissions Unit Details

1. Initial Startup Date: 1 Nov 1992		
2. Long-term Reserve Shutdown Date:		
3. Package Unit: Manufacturer: General Electric Model Number: PG7111EA		
4. Generator Nameplate Rating: 96 MW		
5. Incinerator Information: Dwell Temperature: °F Dwell Time: seconds Incinerator Afterburner Temperature: °F		

Emissions Unit Operating Capacity

1. Maximum Heat Input Rate:	1,159	mmBtu/hr
2. Maximum Incineration Rate:	lbs/hr	tons/day
3. Maximum Process or Throughput Rate:		
4. Maximum Production Rate:		
5. Operating Capacity Comment (limit to 200 characters): Max. heat input rate based on natural gas firing at 20°F. Gen. nameplate rating at ISO conditions (59 °F) during natural gas firing.		

Emissions Unit Operating Schedule

1. Requested Maximum Operating Schedule:		
hours/day	days/week	
weeks/yr	3,390	hours/yr

**D. EMISSIONS UNIT REGULATIONS
(Regulated Emissions Units Only)**

Rule Applicability Analysis (Required for Category II Applications and Category III applications involving non Title-V sources. See Instructions.)

Not Applicable

List of Applicable Regulations (Required for Category I applications and Category III applications involving Title-V sources. See Instructions.)

See Attachment DB-E02-D

**E. 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 DB-FI-E2	
2. Emission Point Type Code: <input checked="" type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4	
3. Descriptions of Emissions Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point): Combustion turbine gases exhaust through single stack per turbine.	
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common: Not Applicable	
5. Discharge Type Code: <input type="checkbox"/> D <input type="checkbox"/> F <input type="checkbox"/> H <input type="checkbox"/> P <input type="checkbox"/> R <input checked="" type="checkbox"/> V <input type="checkbox"/> W	
6. Stack Height:	50 feet
7. Exit Diameter:	13.8 feet
8. Exit Temperature:	1,050 °F

9. Actual Volumetric Flow Rate:	1,586,172 acfm
10. Percent Water Vapor:	%
11. Maximum Dry Standard Flow Rate:	dscfm
12. Nonstack Emission Point Height:	feet
13. Emission Point UTM Coordinates:	
Zone:	East (km): North (km):
14. Emission Point Comment (limit to 200 characters):	
	Exit temperature and flow rate given for natural gas firing at an ambient temperature of 59 °F. Stack data for one CT. Exit Diameter = 13.75 ft (rounded to 13.8).

F. SEGMENT (PROCESS/FUEL) INFORMATION
(Regulated and Unregulated Emissions Units)

Segment Description and Rate: Segment 1 of 2

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters): No. 2 fuel oil	
2. Source Classification Code (SCC): 20100101	
3. SCC Units: thousand gallons burned	
4. Maximum Hourly Rate: 8.212	5. Maximum Annual Rate: 27,838
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur: 0.5	8. Maximum Percent Ash: 0.1
9. Million Btu per SCC Unit: 132	
10. Segment Comment (limit to 200 characters): Data for one CT at 59 °F. Heat content - 131.5 (LHV). Max annual rate - 33% capacity factor, weighted 12-mo. roll. 0.3% avg. sulfur content. If 12-mo. avg. less than 0.3%, cap. adj. to 38.7%.	

Segment Description and Rate: Segment 2 of 2

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) (limit to 500 characters): Natural Gas	
2. Source Classification Code (SCC): 2-01-002-01	
3. SCC Units: Million cubic feet	
4. Maximum Hourly Rate: 1.048	5. Maximum Annual Rate: 3,553
6. Estimated Annual Activity Factor:	
7. Maximum Percent Sulfur:	8. Maximum Percent Ash:
9. Million Btu per SCC Unit: 1,000	
10. Segment Comment (limit to 200 characters): Maximum % Sulfur: 1 grain/100cf. 1)Max. hourly rate at 59°F for one CT. Annual rate based on 59°F (1,048 MMBtu/hr) and 3,390 hours (38.7% capacity factor). 2) Heat content - LHV	

**G. EMISSIONS UNIT POLLUTANTS
(Regulated and Unregulated Emissions Units)**

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
SO2			EL
NOX	028		EL
PM			EL
PM10			EL
CO			EL
VOC			EL
SAM			EL

**H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)**

Pollutant Detail Information:

1. Pollutant Emitted: SO2	
2. Total Percent Efficiency of Control:	0 %
3. Potential Emissions:	555 lb/hour 1,925 tons/year
4. Synthetically Limited? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
5. Range of Estimated Fugitive/Other Emissions: <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 _____ to _____ tons/yr	
6. Emission Factor: 0.5 %sulfur content Reference: AC Permit limit	
7. Emissions Method Code: <input checked="" type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5	
8. Calculation of Emissions (limit to 600 characters): <p>The potential emissions were based on No. 2 fuel oil. The capacity factor for these turbines were limited to 33% based on a weighted 12 month rolling maximum sulfur content of 0.3%. However, if the weighted rolling average sulfur content of the fuel oil is less than 0.3%, the capacity factor may be adjusted up to 38.7%. The SO2 emissions from natural gas for one CT are as follows: SO2 (lb/hr) = 2.99; SO2 (tons/yr) = 5.06. Assume 1 gr sulfur/100 cf (maximum sulfur content from fuel analysis).</p>	
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters): <p>Emissions, lb/hr - 1 unit, 0.5% sulfur content fuel oil and ambient temperature of 59 °F. Annual emissions - 4 units, 0.3% sulfur content fuel oil (59°F), 33% capacity factor.</p>	

Emissions Unit Information Section 1 of 1
Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: Other		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units: 0.3 % Sulfur avg.		
4. Equivalent Allowable Emissions:	555 lb/hour	1,925 tons/year
5. Method of Compliance (limit to 60 characters): Fuel Analysis or EPA Method 6		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): Based on Permit Limit from fuel oil firing. Actual and potential emissions while firing natural gas will be lower.		

B.

1. Basis for Allowable Emissions Code:		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units:		
4. Equivalent Allowable Emissions:	lb/hour	tons/year
5. Method of Compliance (limit to 60 characters):		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):		

**H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)**

Pollutant Detail Information:

1. Pollutant Emitted: NOX		
2. Total Percent Efficiency of Control:	80 %	
3. Potential Emissions:	182 lb/hour	1,234 tons/year
4. Synthetically Limited?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
5. Range of Estimated Fugitive/Other Emissions:	[] 1 [] 2 [] 3 _____ to _____ tons/yr	
6. Emission Factor:	42 ppmvd	
	Reference: AC Permit limit	
7. Emissions Method Code:	<input checked="" type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5	
8. Calculation of Emissions (limit to 600 characters):	<p>The potential emissions are based on the permit limit firing fuel oil. The NOx emissions from natural gas for one CT are as follows: NOx (lb/hr) = 107; NOx (ton/yr) = 181.4. Basis is 25 ppmvd @ 15% O2.</p>	
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters):	<p>Emissions, lb/hr - 1 unit, ambient temperature of 59°F. Annual emissions - 4 units, 59 °F and 38.7% capacity factor.</p>	

Emissions Unit Information Section 1 of 1
 Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: OTHER		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units: 42 ppmvd @ 15% O2		
4. Equivalent Allowable Emissions:	182 lb/hour	1,234 tons/year
5. Method of Compliance (limit to 60 characters): Annual compliance test, EPA Method 20		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): Based on permit limit from fuel oil firing. Actual and potential emissions while firing natural gas will be lower.		

B.

1. Basis for Allowable Emissions Code:		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units:		
4. Equivalent Allowable Emissions:	lb/hour	tons/year
5. Method of Compliance (limit to 60 characters):		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):		

**H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)**

Pollutant Detail Information:

1. Pollutant Emitted: PM	
2. Total Percent Efficiency of Control:	%
3. Potential Emissions:	17.2 lb/hour 116 tons/year
4. Synthetically Limited? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
5. Range of Estimated Fugitive/Other Emissions: <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 _____ to _____ tons/yr	
6. Emission Factor: 0.015 lb/MMBtu Reference: AC Permit limit	
7. Emissions Method Code: <input checked="" type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5	
8. Calculation of Emissions (limit to 600 characters): The potential emissions are based on the permit limit firing fuel oil. The PM emissions from natural gas for one CT are as follows: PM (lb/hr) = 7.5; PM (ton/yr) = 12.71.	
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters): Emissions, lb/hr - 1 unit, ambient temperature of 59°F. Annual emissions - 4 units, 59°F and 38.7% capacity factor.	

Emissions Unit Information Section 1 of 1
Allowable Emissions (Pollutant identified on front page)

Particulate Matter - Total

A.

1. Basis for Allowable Emissions Code: OTHER		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units: 0.015 lb/MMBtu		
4. Equivalent Allowable Emissions:	17.2 lb/hour	116 tons/year
5. Method of Compliance (limit to 60 characters): Annual Compliance test, EPA Method 5 or 17		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): Based on permit limit from fuel oil firing. Actual and potential emissions while firing natural gas will be lower. If VE limits are met, PM test is not required.		

B.

1. Basis for Allowable Emissions Code:		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units:		
4. Equivalent Allowable Emissions:	lb/hour	tons/year
5. Method of Compliance (limit to 60 characters):		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):		

**H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)**

Pollutant Detail Information:

1. Pollutant Emitted: PM10		
2. Total Percent Efficiency of Control:		%
3. Potential Emissions:	17.2 lb/hour	116 tons/year
4. Synthetically Limited? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
5. Range of Estimated Fugitive/Other Emissions: <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 _____ to _____ tons/yr		
6. Emission Factor:		0.015 lb/MMBtu
Reference: AC Permit limit		
7. Emissions Method Code: <input checked="" type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5		
8. Calculation of Emissions (limit to 600 characters): <p style="text-align: center;">The potential emissions are based on the permit limit firing fuel oil. The PM10 emissions from natural gas for one CT are as follows: PM10 (lb/hr) = 7.5; PM10 (ton/yr) = 12.71</p>		
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters): <p>Emissions, lb/hr - 1 unit, ambient temperature of 59°F. Annual emissions - 4 units, 59°F and 38.7% capacity factor.</p>		

Emissions Unit Information Section 1 of 1
 Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: OTHER		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units: 0.015 lb/MMBtu		
4. Equivalent Allowable Emissions:	17.2 lb/hour	116 tons/year
5. Method of Compliance (limit to 60 characters): Annual Compliance test, EPA Method 5 or 17		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): Based on permit limit from firing fuel oil. Actual and potential emissions while firing natural gas will be lower. If VE limits are met, PM test is not required.		

B.

1. Basis for Allowable Emissions Code:		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units:		
4. Equivalent Allowable Emissions:	lb/hour	tons/year
5. Method of Compliance (limit to 60 characters):		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):		

**H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)**

Pollutant Detail Information:

1. Pollutant Emitted: CO		
2. Total Percent Efficiency of Control:		%
3. Potential Emissions:	54 lb/hour	365 tons/year
4. Synthetically Limited? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
5. Range of Estimated Fugitive/Other Emissions: <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 _____ to _____ tons/yr		
6. Emission Factor:		25 ppmvd
Reference: AC Permit limit		
7. Emissions Method Code: <input checked="" type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5		
8. Calculation of Emissions (limit to 600 characters): <p style="text-align: center;">The potential emissions are based on the permit limit firing fuel oil. The CO emissions from natural gas for one CT are as follows: CO (lb/hr) = 21.3; CO (ton/yr) = 36.1.</p>		
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters): <p>Emissions, lb/hr - 1 unit, ambient temperature of 59°F. Annual emissions - 4 units, 59°F and 38.7% capacity factor.</p>		

Emissions Unit Information Section 1 of 1
Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: OTHER		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units: 54 lb/hr		
4. Equivalent Allowable Emissions:	54 lb/hour	365 tons/year
5. Method of Compliance (limit to 60 characters): Annual Compliance test, EPA Method 10		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): Based on permit limit from fuel oil firing. Actual and potential emissions while firing natural gas will be lower.		

B.

1. Basis for Allowable Emissions Code:		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units:		
4. Equivalent Allowable Emissions:	lb/hour	tons/year
5. Method of Compliance (limit to 60 characters):		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):		

**H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)**

Pollutant Detail Information:

1. Pollutant Emitted: VOC		
2. Total Percent Efficiency of Control:		%
3. Potential Emissions:	5 lb/hour	34 tons/year
4. Synthetically Limited? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
5. Range of Estimated Fugitive/Other Emissions: <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 _____ to _____ tons/yr		
6. Emission Factor:		5 ppmvd
Reference: AC Permit limit		
7. Emissions Method Code: <input checked="" type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5		
8. Calculation of Emissions (limit to 600 characters): <p style="text-align: center;">The potential emissions are based on the permit limit firing fuel oil. The VOC emissions from natural gas for one CT are as follows: VOC (lb/hr) = 3.0; VOC (ton/yr) = 5.08.</p>		
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters): <p>Emissions, lb/hr - 1 unit, ambient temperature of 59°F. Annual emissions - 4 units, 59°F and 38.7% capacity factor.</p>		

Emissions Unit Information Section 1 of 1
Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: OTHER		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units: 5 lb/hr		
4. Equivalent Allowable Emissions:	5 lb/hour	34 tons/year
5. Method of Compliance (limit to 60 characters): Annual Compliance test, EPA Method 25A		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): Based on permit limit from firing fuel oil. Actual and potential emissions while firing natural gas will be lower. Testing not required if compliance with CO limit is shown.		

B.

1. Basis for Allowable Emissions Code:		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units:		
4. Equivalent Allowable Emissions:	lb/hour	tons/year
5. Method of Compliance (limit to 60 characters):		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):		

**H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)**

Pollutant Detail Information:

1. Pollutant Emitted: SAM		
2. Total Percent Efficiency of Control:		%
3. Potential Emissions:	69 lb/hour	469 tons/year
4. Synthetically Limited? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
5. Range of Estimated Fugitive/Other Emissions: <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 _____ to _____ tons/yr		
6. Emission Factor:		0.5 % sulfur - max*
Reference: AC Permit limit		
7. Emissions Method Code: <input checked="" type="checkbox"/> 0 <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5		
8. Calculation of Emissions (limit to 600 characters): <p>The potential emissions are based on the permit limit firing fuel oil. The SAM emissions from natural gas for one CT are as follows: SAM (lb/hr) = 0.44; SAM (ton/yr) = 0.75. Basis is 1 gr S/100 cf and 10% conversion to H2SO4.</p>		
9. Pollutant Potential/Estimated Emissions Comment (limit to 200 characters): <p>* 0.3% S - avg, 12-mo. roll. avg. Emissions, lb/hr - 1 unit, 0.5% sulfur content fuel oil & ambient temp. 59°F. Annual emissions - 4 units, 0.3% sulfur content fuel oil (59°F), 33% capacity factor.</p>		

Emissions Unit Information Section 1 of 1
Allowable Emissions (Pollutant identified on front page)

A.

1. Basis for Allowable Emissions Code: OTHER		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units: 0.5 % sulfur max*		
4. Equivalent Allowable Emissions:	69 lb/hour	469 tons/year
5. Method of Compliance (limit to 60 characters): Fuel analysis or EPA Method 8		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters): * 0.3% sulfur avg (12-mo. rolling avg). If the %S is met, SAM test not required. Based on permit limit from fuel oil firing. Actual and potential emissions while firing natural gas will be lower.		

B.

1. Basis for Allowable Emissions Code:		
2. Future Effective Date of Allowable Emissions:		
3. Requested Allowable Emissions and Units:		
4. Equivalent Allowable Emissions:	lb/hour	tons/year
5. Method of Compliance (limit to 60 characters):		
6. Pollutant Allowable Emissions Comment (Desc. of Related Operating Method/Mode) (limit to 200 characters):		

**I. VISIBLE EMISSIONS INFORMATION
(Regulated Emissions Units Only)**

Visible Emissions Limitations: Visible Emissions Limitation 1 of 2

1.	Visible Emissions Subtype: VE10
2.	Basis for Allowable Opacity: <input type="checkbox"/> Rule <input checked="" type="checkbox"/> Other
3.	Requested Allowable Opacity Normal Conditions: 10 % Exceptional Conditions: 20 % Maximum Period of Excess Opacity Allowed: min/hour
4.	Method of Compliance: Annual compliance test. EPA Method 9
5.	Visible Emissions Comment (limit to 200 characters): 1. Based on permit limit. 2. Visible emission limit under normal conditions at full load; exceptional conditions are specified for other loads.

Visible Emissions Limitations: Visible Emissions Limitation 2 of 2

1.	Visible Emissions Subtype: VE
2.	Basis for Allowable Opacity: <input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
3.	Requested Allowable Opacity Normal Conditions: % Exceptional Conditions: 100 % Maximum Period of Excess Opacity Allowed: 60 min/hour
4.	Method of Compliance: Best operation practice
5.	Visible Emissions Comment (limit to 200 characters): Not to exceed 2 hr in 24 hrs for startup, shutdown, and malfunction. Rule 62-210.700(1), F.A.C.

**J. CONTINUOUS MONITOR INFORMATION
(Regulated Emissions Units Only)**

Continuous Monitoring System Continuous Monitor 1 of 2

1. Parameter Code: EM	2. Pollutant(s): NOx
3. CMS Requirement: <input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other	
4. Monitor Information: Monitor Manufacturer: Model Number: Serial Number:	
5. Installation Date: 01 Nov 1992	
6. Performance Specification Test Date: 01 Nov 1992	
7. Continuous Monitor Comment (limit to 200 characters): Water to fuel ratio is monitored on a continuous basis (40 CFR 60.334).	

Continuous Monitoring System Continuous Monitor 2 of 2

1. Parameter Code: EM	2. Pollutant(s): NOx
3. CMS Requirement: <input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other	
4. Monitor Information: Monitor Manufacturer: Model Number: Serial Number:	
5. Installation Date: 01 Nov 1995	
6. Performance Specification Test Date: 01 Nov 1995	
7. Continuous Monitor Comment (limit to 200 characters): 40 CFR 75, Appendix E	

**K. PREVENTION OF SIGNIFICANT DETERIORATION (PSD) INCREMENT
TRACKING INFORMATION
(Regulated and Unregulated Emissions Units)**

PSD Increment Consumption Determination

1. Increment Consuming for Particulate Matter or Sulfur Dioxide?

If the emissions unit addressed in this section emits particulate matter or sulfur dioxide, answer the following series of questions to make a preliminary determination as to whether or not the emissions unit consumes PSD increment for particulate matter or sulfur dioxide. Check the first statement, if any, that applies and skip remaining statements.

-] The emissions unit is undergoing PSD review as part of this application, or has undergone PSD review previously, for particulate matter or sulfur dioxide. If so, emissions unit consumes increment.
-] The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after January 6, 1975. If so, baseline emissions are zero, and the emissions unit consumes increment.
-] The facility addressed in this application is classified as an EPA major source and the emissions unit began initial operation after January 6, 1975, but before December 27, 1977. If so, baseline emissions are zero, and the emissions unit consumes increment.
-] For any facility, the emissions unit began (or will begin) initial operation after December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.
-] None of the above apply. If so, the baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

2. Increment Consuming for Nitrogen Dioxide?

If the emissions unit addressed in this section emits nitrogen oxides, answer the following series of questions to make a preliminary determination as to whether or not the emissions unit consumes PSD increment for nitrogen dioxide. Check first statement, if any, that applies and skip remaining statements.

-] The emissions unit addressed in this section is undergoing PSD review as part of this application, or has undergone PSD review previously, for nitrogen dioxide. If so, emissions unit consumes increment.
-] The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after February 8, 1988. If so, baseline emissions are zero, and the source consumes increment.
-] The facility addressed in this application is classified as an EPA major source and the emissions unit began initial operation after February 8, 1988, but before March 28, 1988. If so, baseline emissions are zero, and the source consumes increment.
-] For any facility, the emissions unit began (or will begin) initial operation after March 28, 1988. If so, baseline emissions are zero, and the emissions unit consumes increment.
-] None of the above apply. If so, baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

3.	Increment Consuming/Expanding Code:		
	PM	<input checked="" type="checkbox"/>] C	<input type="checkbox"/>] E <input type="checkbox"/>] Unknown
	SO ₂	<input checked="" type="checkbox"/>] C	<input type="checkbox"/>] E <input type="checkbox"/>] Unknown
	NO ₂	<input checked="" type="checkbox"/>] C	<input type="checkbox"/>] E <input type="checkbox"/>] Unknown
4.	Baseline Emissions:		
	PM	lb/hour	tons/year
	SO ₂	lb/hour	tons/year
	NO ₂		tons/year
5.	PSD Comment (limit to 200 characters):		

**L. EMISSIONS UNIT SUPPLEMENTAL INFORMATION
(Regulated Emissions Units Only)**

Supplemental Requirements for All Applications

1.	Process Flow Diagram	<input checked="" type="checkbox"/> Attached, Document ID: <u>DB-E02-L1</u>	<input type="checkbox"/> Waiver Requested
		<input type="checkbox"/> Not Applicable	
2.	Fuel Analysis or Specification	<input checked="" type="checkbox"/> Attached, Document ID: <u>DB-E02-L2</u>	<input type="checkbox"/> Waiver Requested
		<input type="checkbox"/> Not Applicable	
3.	Detailed Description of Control Equipment	<input checked="" type="checkbox"/> Attached, Document ID: <u>DB-E02-L3</u>	<input type="checkbox"/> Waiver Requested
		<input type="checkbox"/> Not Applicable	
4.	Description of Stack Sampling Facilities	<input checked="" type="checkbox"/> Attached, Document ID: <u>DB-E02-L4</u>	<input type="checkbox"/> Waiver Requested
		<input type="checkbox"/> Not Applicable	
5.	Compliance Test Report	<input type="checkbox"/> Attached, Document ID: _____	<input checked="" type="checkbox"/> Not Applicable
		<input type="checkbox"/> Previously Submitted, Date: _____	
6.	Procedures for Startup and Shutdown	<input checked="" type="checkbox"/> Attached, Document ID: <u>DB-E02-L6</u>	<input type="checkbox"/> Not Applicable
7.	Operation and Maintenance Plan	<input type="checkbox"/> Attached, Document ID: _____	<input checked="" type="checkbox"/> Not Applicable
8.	Supplemental Information for Construction Permit Application	<input type="checkbox"/> Attached, Document ID: _____	<input checked="" type="checkbox"/> Not Applicable
9.	Other Information Required by Rule or Statute	<input type="checkbox"/> Attached, Document ID: _____	<input checked="" type="checkbox"/> Not Applicable

Additional Supplemental Requirements for Category I Applications Only

10. Alternative Methods of Operation <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
11. Alternative Modes of Operation (Emissions Trading) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
12. Identification of Additional Applicable Requirements <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
13. Compliance Assurance Monitoring Plan <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
14. Acid Rain Permit Application (Hard Copy Required) <input type="checkbox"/> Acid Rain Part - Phase II (Form No. 62-210.900(1)(a)) Attached, Document ID: _____ <input type="checkbox"/> Repowering Extension Plan (Form No. 62-210.900(1)(a)1.) Attached, Document ID: _____ <input type="checkbox"/> New Unit Exemption (Form No. 62-210.900(1)(a)2.) Attached, Document ID: _____ <input type="checkbox"/> Retired Unit Exemption (Form No. 62-210.900(1)(a)3.) Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

ATTACHMENT DB-E01-D

EMISSION UNIT REGULATIONS

**(The following requirements are consistent with the requirements
identified in the Title V application.)**

**ATTACHMENT DB-E02-D
APPLICABLE REQUIREMENTS LISTING - POWER PLANTS**

EMISSION UNIT: Combustion Turbines 7-10 - FPC DeBary Plant

FDEP Rules:

Air Pollution Control-General Provisions:

- 62-204.800(7)(b)37.(State Only) - NSPS Subpart GG
- 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

Stationary Sources-General:

- 62-210.700(1) - Startup/shutdown/malfunction
- 62-210.700(4) - maintenance
- 62-210.700(6)

Acid Rain:

- 62-214.300 - Acid Rain Units (Applicability)
- 62-214.320 - Acid Rain Units (Application Shield)
- 62-214.330 - Compliance Options (if 62-214.430)
- 62-214.350(2),(3),(6) - Acid Rain Units (Certification)
- 62-214.370 - Revisions; corrections; (potentially applicable)
- 62-214.430 - Acid Rain Units (Compliance Options)

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

- 62-297.310(1) - Test Runs-Mass Emission
- 62-297.310(2)(b) - Operating Rate; other than CTs
- 62-297.310(3) - Calculation of Emission
- 62-297.310(4)(a) - Applicable Test Procedures;Sampling time
- 62-297.310(4)(b) - Sample Volume
- 62-297.310(4)(c) - Required Flow Rate Range-PM/H2SO4/F
- 62-297.310(4)(d) - Calibration
- 62-297.310(4)(e) - EPA Method 5-only
- 62-297.310(5) - Determination of Process Variables
- 62-297.310(6)(a) - Permanent Test Facilities-general
- 62-297.310(6)(c) - Sampling Ports
- 62-297.310(6)(d) - Work Platforms
- 62-297.310(6)(e) - Access
- 62-297.310(6)(f) - Electrical Power
- 62-297.310(6)(g) - Equipment Support
- 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.
 - 62-297.310(7)(a)5.
 - 62-297.310(7)(a)6.
 - 62-297.310(7)(a)9.
 - 62-297.310(7)(c)
 - 62-297.310(8)
- PM exemption if < 400 hrs/yr
 - PM exemption if < 200 hrs/6 month
 - FDEP Notification - 15 days
 - Waiver of Compliance Tests (fuel sampling)
 - Test Reports

Federal Rules:

NSPS General Requirements:

- 40 CFR 60.7(b)
 - 40 CFR 60.7(f)
 - 40 CFR 60.8(c)
 - 40 CFR 60.8(e)
 - 40 CFR 60.8(f)
 - 40 CFR 60.11(a)
 - 40 CFR 60.11(d)
 - 40 CFR 60.12
- Notification/Recordkeeping (startup/shutdown/malfunction)
 - Notification/Recordkeeping (maintain records-2 years)
 - Performance Tests (representative conditions)
 - Performance Tests (Provide stack sampling facilities)
 - Test Runs
 - Compliance (ref. S. 60.8)
 - Compliance (maintain air pollution control equipment)
 - Circumvention

NSPS Subpart GG:

- 40 CFR 60.332(a)(1)
 - 40 CFR 60.333
 - 40 CFR 60.334
 - 40 CFR 60.335
- NOx for Electric Utility CTs
 - SO2 limits (0.8% sulfur)
 - Monitoring of Operations (WTF ratio)
 - Test Methods

Acid Rain-Permits:

- 40 CFR 72.9(a)
 - 40 CFR 72.9(b)
 - 40 CFR 72.9(c)(1)
 - 40 CFR 72.9(c)(2)
 - 40 CFR 72.9(c)(1)(iv)
 - 40 CFR 72.9(c)(4)
 - 40 CFR 72.9(c)(5)
 - 40 CFR 72.9(e)
 - 40 CFR 72.9(f)
 - 40 CFR 72.9(g)
 - 40 CFR 72.20(a)
 - 40 CFR 72.20(b)
 - 40 CFR 72.20(c)
 - 40 CFR 72.21
 - 40 CFR 72.22
 - 40 CFR 72.23
 - 40 CFR 72.30(a)
 - 40 CFR 72.30(c)
 - 40 CFR 72.30(d)
- Permit Requirements
 - Monitoring Requirements
 - SO2 Allowances-hold allowances
 - SO2 Allowances-violation
 - SO2 Allowances- other utility units
 - SO2 Allowances-allowances held in ATS
 - SO2 Allowances-no deduction for 72.9(c)(1)(i)
 - Excess Emission Requirements
 - Recordkeeping and Reporting
 - Liability
 - Designated Representative; required
 - Designated Representative; legally binding
 - Designated Representative; certification requirements
 - Submissions
 - Alternate Designated Representative
 - Changing representatives; owners
 - Requirements to Apply (operate)
 - Requirements to Apply (reapply before expiration)
 - Requirements to Apply (submittal requirements)

- 40 CFR 72.32
 - 40 CFR 72.33(b)
 - 40 CFR 72.33(c)
 - 40 CFR 72.33(d)
 - 40 CFR 72.40(a)
 - 40 CFR 72.40(b)
 - 40 CFR 72.40(c)
 - 40 CFR 72.40(d)
 - 40 CFR 72.51
 - 40 CFR 72.90
- Permit Application Shield
 - Dispatch System ID;unit/system ID
 - Dispatch System ID;ID requirements
 - Dispatch System ID;ID change
 - General; compliance plan
 - General; multi-unit compliance options
 - General; conditional approval
 - General; termination of compliance options
 - Permit Shield
 - Annual Compliance Certification

Monitoring Part 75:

- 40 CFR 75.5
 - 40 CFR 75.10(a)(2)
 - 40 CFR 75.10(b)
 - 40 CFR 75.10(c)
 - 40 CFR 75.10(f)
 - 40 CFR 75.10(g)
 - 40 CFR 75.11(d)
 - 40 CFR 75.11(e)
 - 40 CFR 75.12(b)
- Prohibitions
 - Primary Measurement; NOx; except 75.12&.17; Subpart E
 - Primary Measurement; Performance Requirements
 - Primary Measurement; Heat Input; Appendix F
 - Primary Measurement; Minimum Measurement
 - Primary Measurement; Minimum Recording
 - SO2 Monitoring; Gas- and Oil-fired units
 - SO2 Monitoring; Gaseous fuel firing
 - NOx Monitoring; Determination of NOx emission rate; Appendix F
- 40 CFR 75.20(a)(5)
 - 40 CFR 75.20(b)
 - 40 CFR 75.20(c)
 - 40 CFR 75.20(g)
 - 40 CFR 75.21(a)
 - 40 CFR 75.21(b)
 - 40 CFR 75.21(c)
 - 40 CFR 75.21(d)
 - 40 CFR 75.21(e)
 - 40 CFR 75.21(f)
 - 40 CFR 75.22
 - 40 CFR 75.24
 - 40 CFR 75.30(a)(3)
 - 40 CFR 75.32
 - 40 CFR 75.33
 - 40 CFR 75.36
 - 40 CFR 75.53
 - 40 CFR 75.54(a)
 - 40 CFR 75.54(b)
 - 40 CFR 75.54(d)
 - 40 CFR 75.55(c);(e)
 - 40 CFR 75.56
- Initial Certification Approval Process; Loss of Certification
 - Recertification Procedures
 - Certification Procedures
 - Exceptions to CEMS; oil/gas/diesel; Addendix D & E
 - QA/QC; CEMS;
 - QA/QC; Opacity;
 - QA/QC; Calibration Gases
 - QA/QC; Notification of RATA
 - QA/QC; Audits
 - QA/QC; CEMS
 - Reference Methods
 - Out-of-Control Periods; CEMS
 - General Missing Data Procedures; NOx
 - Monitoring Data Availability for Missing Data
 - Standard Missing Data Porcedures
 - Missing Data Procedures for Heat Input
 - Monitoring Plan (revisions)
 - Recordkeeping-general
 - Recordkeeping-operating parameter
 - Recordkeeping-NOx
 - Recordkeeping; Special Situations (gas & oil firing)
 - Certification; QA/QC Provisions

- 40 CFR 75.60
 - 40 CFR 75.61
 - 40 CFR 75.63
 - 40 CFR 75.64(a)
 - 40 CFR 75.64(b)
 - 40 CFR 75.64(c)
 - 40 CFR 75.64(d)
 - Appendix A-3.
 - Appendix A-4.
 - Appendix A-5.
 - Appendix A-6.
 - Appendix B
 - Appendix C-1.
 - Appendix C-2.
 - Appendix F
 - Appendix G-2.
 - Appendix H
 - 40 CFR Part 77.3
 - 40 CFR Part 77.5(b)
 - 40 CFR Part 77.6
- Reporting Requirements-General
 - Reporting Requirements-Notification cert/recertification
 - Reporting Requirements-Certification/Recertification
 - Reporting Requirements-Quarterly reports; submission
 - Reporting Requirements-Quarterly reports; DR statement
 - Rep. Req.; Quarterly reports; Compliance Certification
 - Rep. Req.; Quarterly reports; Electronic format
 - Performance Specifications
 - Data Handling and Acquisition Systems
 - Calibration Gases
 - Certification Tests and Procedures
 - QA/QC Procedures
 - Missing Data; SO₂/NO_x for controlled sources
 - Missing Data; Load-Based Procedure; NO_x & flow
 - Conversion Procedures
 - Determination of CO₂; from combustion sources
 - Traceability Protocol
 - Offset Plans (future)
 - Deductions of Allowances (future)
 - Excess Emissions Penalties SO₂ and NO_x

ATTACHMENT DB-E01-H8
CALCULATION OF EMISSIONS

Table DB-EU1-H8. Design Information and Stack Parameters for DeBary, Simple Cycle-GE PG7111(EA), Quiet Combustor, Natural Gas, Peak Load

Data	Natural Gas @ 59 F			
	Unit P7	Unit P8	Unit P9	Unit P10
General				
Power (kW)	96,250.0	96,250.0	96,250.0	96,250.0
Estimated Heat Rate (Btu/kwh,	10,890.0	10,890.0	10,890.0	10,890.0
Heat Input (MMBtu/hr, LHV)	1,048.2	1,048.2	1,048.2	1,048.2
Water Flow (lb/hr)	56,480	56,480.0	56,480.0	56,480.0
Hours of Operation	3,390	3,390.0	3,390.0	3,390.0
CT Exhaust Flow				
Mass Flow (lb/hr)	2,418,000	2,418,000.0	2,418,000.0	2,418,000.0
Temperature (oF)	1,050	1,050.0	1,050.0	1,050.0
Moisture (% Vol.)	11.73	11.7	11.7	11.7
Oxygen (% Vol.)	12.10	12.1	12.1	12.1
Molecular Weight	28.00	28.0	28.0	28.0
Natural Gas Consumption (lb/hr)= Heat Input (MMBtu/hr) x 1,000,000 Btu/MMBtu + Fuel Heat Content, LHV (Btu/				
(cf/hr)= Heat Input (MMBtu/hr) x 1,000,000 Btu/MMBtu + Fuel Heat Content, LHV (Bt				
Heat Input (MMBtu/hr, LHV)	1,048.2	1,048.2	1,048.2	1,048.2
Heat Content (Btu/lb, LHV)	21,515	21,515.0	21,515.0	21,515.0
Natural Gas (lb/hr)	48,718	48,717.8	48,717.8	48,717.8
Heat Content, LHV (Btu/cf)	1,000	1,000.0	1,000.0	1,000.0
Natural Gas (cf/hr)	1,048,163	1,048,162.5	1,048,162.5	1,048,162.5
(million cf/yr)	3,553.3	3,553.3	3,553.3	3,553.3
Volume Flow (acfm)= [(Mass Flow (lb/hr) x 1,545 x (Temp. (°F)+ 460°F)] + [Molecular weight x 2116.8] + 60 min/				
Mass Flow (lb/hr)	2,418,000	2,418,000.0	2,418,000.0	2,418,000.0
Temperature (°F)	1,050	1,050.0	1,050.0	1,050.0
Molecular Weight	28.00	28.0	28.0	28.0
Volume Flow (acfm)	1,586,172	1,586,171.8	1,586,171.8	1,586,171.8
Volume Flow (dscfm)= [(Mass Flow (lb/hr) x 1,545 x (68°F + 460°F)] + [Molecular weight x 2116.8] + 60 min/hr				
[(1 - Moisture%)/100]				
Mass Flow (lb/hr)	2,418,000	2,418,000.0	2,418,000.0	2,418,000.0
Temperature (°F)	68	68.0	68.0	68.0
Molecular Weight	28.00	28.0	28.0	28.0
Moisture (% Vol.)	11.73	11.7	11.7	11.7
Volume Flow (dscfm)	489,576	489,576.2	489,576.2	489,576.2
CT Stack Data				
Stack Height (ft)	50	50.0	50.0	50.0
Diameter (ft)	13.8	13.8	13.8	13.8
Velocity (ft/sec)= Volume flow (acfm) from CT + [((diameter) ² + 4) x 3.14159] + 60 sec/min				
Volume Flow (acfm) from CT	1,586,172	1,586,171.8	1,586,171.8	1,586,171.8
Diameter (ft)	13.8	13.8	13.8	13.8
Velocity (ft/sec)	176.7	176.7	176.7	176.7
[Velocity (ft/sec) w/o 5% flow	168.3	168.3	168.3	168.3

Note: Universal gas constant= 1,545 ft-lb(force)/°R; atmospheric pressure= 2,116.8 lb(force)/ft²

Source: GE, 1995.

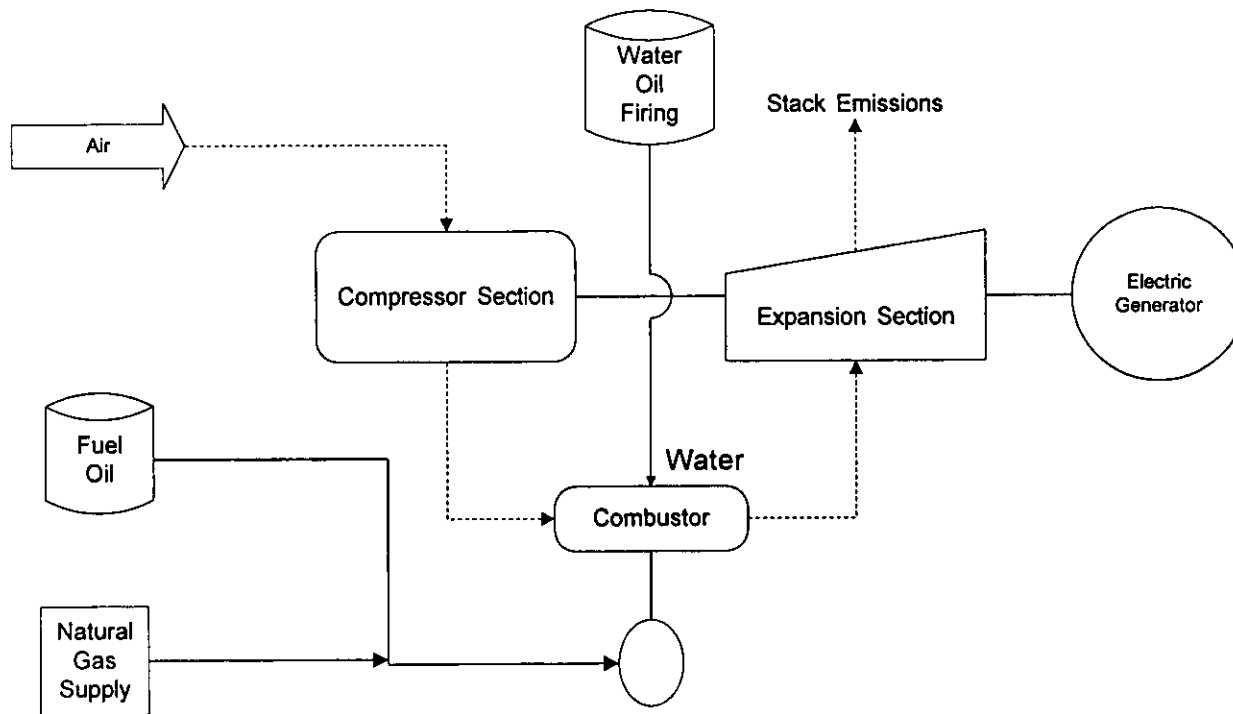
Table DB-EU1-H8b. Maximum Emissions for Criteria Pollutants for DeBary, Simple Cycle-GE PG7111(EA), Quiet Combustor, Natural Gas, Peak Load

Pollutant	Natural Gas @ 59 F			
	Unit P7	Unit P8	Unit P9	Unit P10
Hours of Operation	3,390	3,390	3,390	3390
Particulate (lb/hr)= Emission rate (lb/hr) from manufacturer				
Basis (including H2SO4), lb/hr	7.5	7.5	7.5	7.5
lb/hr	7.5	7.5	7.5	7.5
TPY- 1 Unit	12.7	12.7	12.7	12.7
- 4 Units	50.9	50.9	50.9	50.9
Sulfur Dioxide (lb/hr)= Natural gas (cf/hr) x sulfur content(gr/100 cf) x 1 lb/7000 gr x (lb SO2/lb S) + 100				
Natural Gas (cf/hr)	1,048,163	1,048,163	1,048,163	1,048,163
Basis, gr/100 cf	1.0	1.0	1.0	1.0
lb SO2/lb S (64/32)	2.0	2.0	2.0	2.0
lb/hr	2.99	2.99	2.99	2.99
TPY- 1 Unit	5.08	5.08	5.08	5.08
- 4 Units	20.30	20.30	20.30	20.30
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. f				
Basis, ppmvd @15% O2 (1)	25.0	25.0	25.0	25.0
Moisture (%)	11.73	11.73	11.73	11.73
Oxygen (%)	12.10	12.10	12.10	12.10
Volume Flow (acfm)	1,586,172	1,586,172	1,586,172	1,586,172
Temperature (°F)	1,050	1,050	1,050	1,050
lb/hr	106.85	106.85	106.85	106.85
TPY- 1 Unit	181.12	181.12	181.12	181.12
- 4 Units	724.47	724.47	724.47	724.47
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 p				
Basis, ppmvd (1)	10.0	10.0	10.0	10.0
Moisture (%)	11.73	11.73	11.73	11.73
Volume Flow (acfm)	1,586,172	1,586,172	1,586,172	1,586,172
Temperature (°F)	1,050	1,050	1,050	1,050
lb/hr	21.34	21.34	21.34	21.34
TPY- 1 Unit	36.18	36.18	36.18	36.18
- 4 Units	144.70	144.70	144.70	144.70
VOCs (lb/hr)= VOC(ppm) 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)	2.5	2.5	2.5	2.5
Moisture (%)	11.73	11.73	11.73	11.73
Volume Flow (acfm)	1,586,172	1,586,172	1,586,172	1,586,172
Temperature (°F)	1,050	1,050	1,050	1,050
lb/hr	3.05	3.05	3.05	3.05
TPY- 1 Unit	5.17	5.17	5.17	5.17
- 4 Units	20.67	20.67	20.67	20.67
Sulfuric Acid Mist (lb/hr) = Fuel consumption (lb/hr) x sulfur content (%) x (Conversion (fraction) of S to H2SO4) x 1				
Fuel consumption (lb/hr)	48,718	48,718	48,718	48,718
Sulfur Content (gr/100 cf)	1.0	1.0	1.0	1.0
Fuel density (lb/scf)	0.0486	0.04860	0.04860	0.04860
Sulfur content (%) (a)	0.00294	0.00294	0.00294	0.00294
lb H2SO4/lb S (98/32)	3.06	3.06	3.06	3.06
CT Exhaust- % S Conversion to	10.00	10.00	10.00	10.00
lb/hr	0.44	0.44	0.44	0.44
TPY - 1 Unit	0.74	0.74	0.74	0.74
- 4 Units	3.0	3.0	3.0	3.0

Note: ppmvd= parts per million, volume dry; O2= oxygen.

Source: (1) GE, 1995

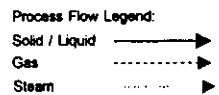
ATTACHMENT DB-E02-L1
PROCESS FLOW DIAGRAM



Note:

GT = Gas Turbine
 EU = Emission Unit Number
 See segment section for the operating rate of each emission unit

Florida Power Corporation
 DeBary, Florida
 Emission Unit Process Flow
 Diagram



Emission Unit: Emission Unit No 1
 Process Area: Turbines 7, 8, 9, 10
 Filename: FPCDBGS1.VSD
 Latest Revision Date: 10/30/96



Engineering and
 Applied Sciences, Inc.

ATTACHMENT DB-E02-L2
FUEL ANALYSIS OR SPECIFICATION

ATTACHMENT DB-E02-L2

FUEL ANALYSIS
NO. 2 FUEL OIL

<u>Parameter</u>	<u>Typical Value</u>	<u>Max Value</u>
API gravity @ 60 F	30 ¹	-
Relative density	7.09 lb/gal ²	
Heat content	18,550 Btu/lb (LHV)	
% sulfur	0.3 ²	0.5 ³
% nitrogen	0.025-0.030	
% ash	negligible	0.10 ¹

Note: The values listed are "typical" values based upon 1) information gathered by laboratory analysis, and 2) FPC's fuel purchasing specifications. However, analytical results from grab samples of fuel taken at any given point in time may vary from those listed.

¹ Data taken from the FPC fuel procurement specification

² Data from laboratory analysis

³ Data from current air permit.

ATTACHMENT IC-EU2-L2

FUEL ANALYSIS
NATURAL GAS ANALYSIS

<u>Parameter</u>	<u>Typical Value</u>	<u>Max Value</u>
Relative density	0.58 (compared to air)	
heat content	950 - 1124 Btu/cu ft.	
% sulfur	0.43 grains/CCF ¹	1 grain/100 CF
% nitrogen	0.8% by volume	
% ash	negligible	

Note: The values listed are "typical" values based upon information supplied to FPC by Florida Gas Transmission (FGT). However, analytical results from grab samples of fuel taken at any given point in time may vary from those listed.

¹ Data from laboratory analysis

ATTACHMENT DB-E02-L3

DETAILED DESCRIPTION OF CONTROL EQUIPMENT

GE Mark IV Nox Control Algorithm Description

The GE Mark IV Nox control algorithm utilizes data from digital temperature and humidity monitors located at each combustion turbine. The algorithm receives and processes the ambient temperature and humidity on a continuous basis. A temperature/humidity correction is used in determining the amount of water to inject for Nox control. This correction accounts for the ambient water entering the combustion chamber, and then it adds the correct amount of injection water in order to ensure compliance with the unit's required water to fuel ratio as determined from the water/fuel curve. This algorithm ensures compliance on a continuous basis regardless of the unit load and ambient weather conditions.

ATTACHMENT DB-E02-L4

DESCRIPTION OF STACK SAMPLING FACILITIES

ATTACHMENT DB-E02-L4

Description of Stack Sampling Facilities

The DeBary Combustion Turbine No. 7, 8, 9, and 10 are required by Permit AO64-233544 to perform annual stack testing in accordance with standard EPA reference methods. Pursuant to Rule 62-297.310, F.A.C., the annual stack test required is performed with the required stack sampling facilities. A diagram depicting stack sampling facilities is presented as an attachment. As specified by Rule 62-297.310(6), the permanent test facilities meet the following:

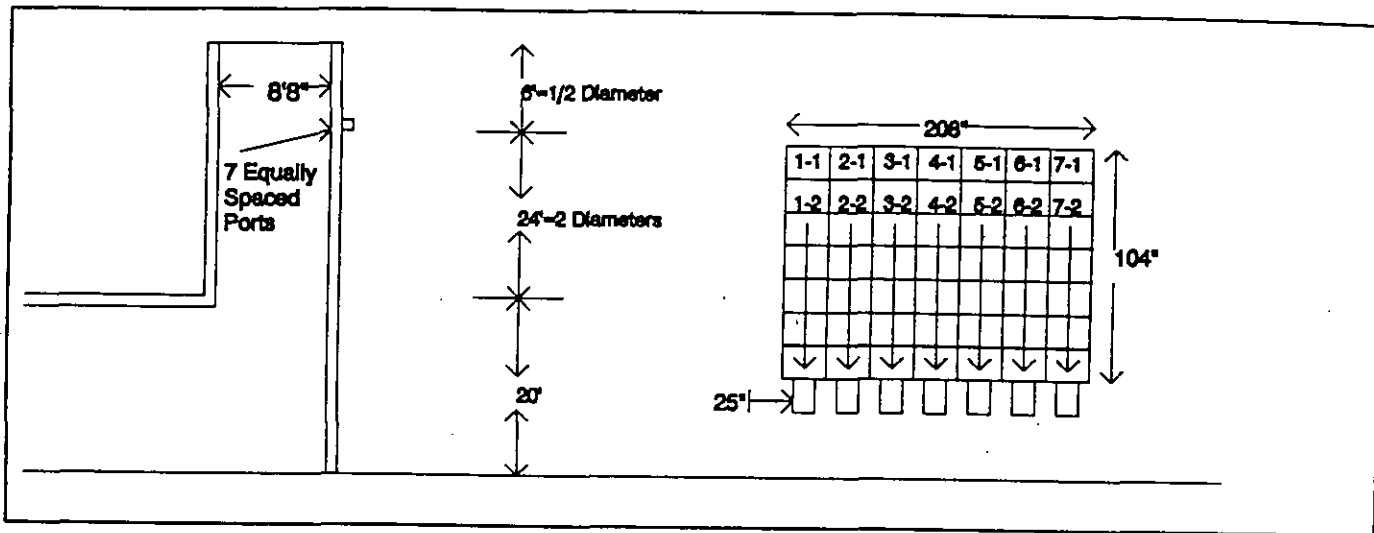
- The sampling ports have a minimum effective diameter of 3 inches.
- The location of the sampling ports are .2 stack diameters downstream and 0.5 stack diameters upstream of flow disturbances.
- Sampling ports are provided to allow access to each sampling point in the cross sectional area of the rectangular stack.
- The working platform is at least 24 square feet in area, at least three feet wide, extends 180 degrees around the stack, has safety rails, toeboards, and a hinged floor opening attached to it. There are no obstructions 14 inches below the port and 6 inches on either side of the port.
- The platform access ladder is equipped with a safety cage.

Rectangular Stack Sampling Traverse Point Layout (EPA Method 1)

Intercession City Power Station

Date: _____ Port + Stack ID: 129 in.
 Plant: Florida Power Corporation Port Extension (Ref. Pt.) 25 in.
 Source: P-7,8,9,10 Stack ID: 104 in.
 Technician(s) _____ Stack Area 150.2 ft.².
 Stack Length (L) 104 in. Total Req'd Trav. Pts (P) 49
 Stack Width (W) 208 in. No. of Traverse Pts. 7 /dimen.
 No. of Traverse Pts. 7 /port

Stack Diagram (Side View showing major unit components, dimensions and nearest upstream & downstream flow disturbances. Top view showing length, width, and sample ports.



Calculate the Equivalent Diameter of Rectangular Stack

$$De = \frac{2 \times L \times W}{(L + W)} \quad 140 \text{ in.} = \frac{2 \times (104 \text{ in.}) \times (208 \text{ in.})}{((104 \text{ in.}) + (208 \text{ in.}))}$$

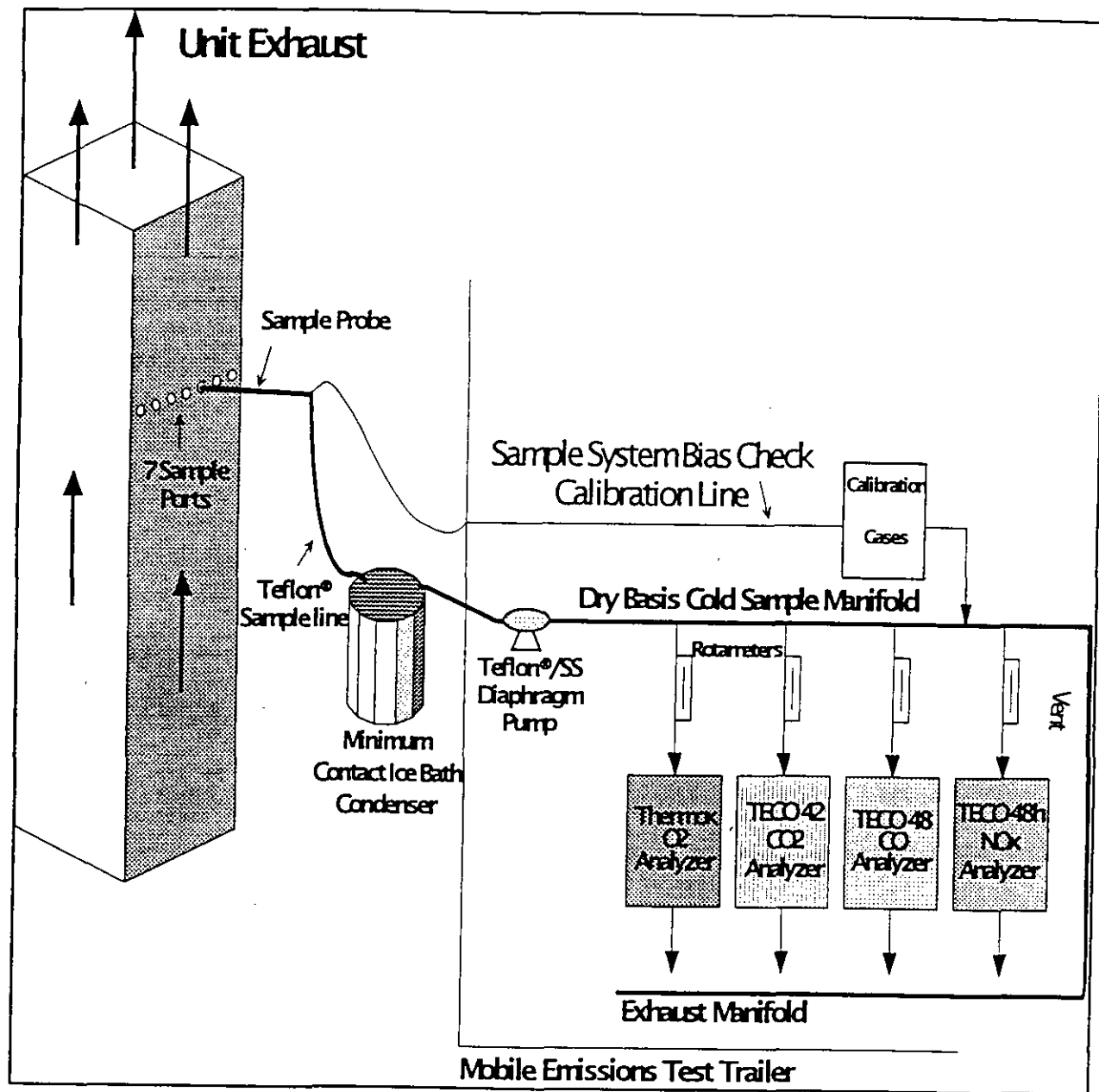
Calculate Distance from Stack Wall to Traverse Points

(Example for Point No. 2)

$$\text{Distance} = \frac{L \times 1.5}{P} \quad 22.3 \text{ in.} = \frac{(104 \text{ in.}) \times 1.5}{7}$$

Point No.	Length Factor	Distance from Ref. Point (inches)	Distance Sample Pt. to Probe Tip
1	0.5	7.4	32.4
2	1.5	22.3	47.3
3	2.5	37.1	62.1
4	3.5	52.0	77.0
5	4.5	66.9	91.9
6	5.5	81.7	106.7
7	6.5	96.6	121.6

Figure 1
Gaseous Sampling and Analysis Diagram



ATTACHMENT DB-E02-L6
PROCEDURES FOR STARTUP AND SHUTDOWN

ATTACHMENT DB-E02-L6

PROCEDURES FOR STARTUP/SHUTDOWN

Startup for the combustion turbines begins with "lighting off" of the machines on distillate oil.

If excess emissions are encountered during startup or shutdown, the nature and cause of any malfunction is identified, along with the corrective actions taken or preventative measures adopted. Corrective actions may include switching the unit from automatic (remote) to local control. Best Operating Practices are adhered to and all efforts to minimize both the level and duration of excess emissions are undertaken.

Shutdown is performed by reducing the unit load (electrical production) to a minimum level, opening the breaker (which disconnects the unit from the system electrical grid), shutting off the fuel and coasting down to stop. The CT is then put "on turning gear" to prevent possible disfiguration of the turbine components.