Memorandum

Florida Department of
Environmental Protection

TO: Michael G. Cooke MGC

THRU: Trina L. Vielhauer TV
A.Linero aal 8/26

FROM: Teresa Heron TH

DATE: August 25, 2003

SUBJECT: Peaking Mode of Operation for the Eight Combined Cycle Combustion Turbines.
FPL Sanford 2200 MW Project
DEP File No. 1270009-009-AC and PSD-FL-270D

Attached is the final permit package for the above facility.

The application is for a permit modification to allow peak operation mode up to 400 hours per year for each of the existing eight combined cycle turbines. Peaking is expected to increase short term NOx emissions from 9 to 15 ppmvd for each turbine and 68 TPY for all eight turbines due to higher temperatures during this mode. However, due to the substantial emissions decrease of this pollutant during the permitting of the repowering project, this project will not result in a net increase of NO_X emissions or any other criteria pollutants.

We have determined that the project nets out of PSD for all pollutants because of the very substantial emissions reductions resulting from the 1999 repowering project at the site.

We recommend your approval of the attached final permit package.

AAL/th

Attachments

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
NOTICE OF PERMIT

In the Matter of an
Application for Permit Modification by:

Ms. Roxane Kennedy, Plant General Manager
FPL Sanford Plant
950 South Highway 17-92
DeBary, Florida 32713

DEP File No. 1270009-009-AC and PSD-FL-270D
Peak Mode of Operation Project
2200 MW Combined Cycle Combustion Turbines
Volusia County

_____/

Enclosed is the Final Permit Number 1270009-009-AC and PSD-FL-270D for an air construction permit to authorize peak mode operation for each 250 MW combined cycle turbine at the Sanford Power Plant in Volusia County. This permit is issued pursuant to Chapter 403, Florida Statutes.

Any party to this order (permit) has the right to seek judicial review of the permit pursuant to Section 120.68, F.S., by the filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the Clerk of the Department in the Legal Office; and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 30 (thirty) days from the date this Notice is filed with the Clerk of the Department.

Executed in Tallahassee, Florida.

Trina L. Vielhauer

Trina L. Vielhauer, Chief
Bureau of Air Regulation

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this NOTICE OF FINAL PERMIT (including the FINAL permit) was sent by certified mail (*) and copies were mailed by U.S. Mail before the close of business on 9/4/03 to the person(s) listed:

Roxane Kennedy, FPL*
Len Kozlov, DEP CD
Gregg Worley, EPA
John Bunyak, NPS
Ken Kosky, P.E., Golder Associates

Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED, on this date, pursuant to §120.52, Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

Victoria Gibson September 4, 2003
(Clerk) (Date)

FINAL DETERMINATION

Florida Power and Light Company (FPL)
Sanford Power Plant, Volusia County
2200 MW Combined Cycle Turbines Peak Mode of Operation
DEP File No. 1270009-009-AC and PSD-FL-270 D

An Intent to Issue an air construction permit authorizing peak operation mode up to 400 hours per year for each of the eight combined cycle turbines at the Sanford Power Plant in Volusia County was distributed on April 22, 2003. The applicant's name and address are Florida Power & Light, Sanford Plant, 950 South Highway 17-92, DeBary, Florida 32713.

The Public Notice of Intent to Issue Air Construction Permit was published in The News-Journal on July 31, 2003. Comments from FPL and the DEP Central District were received as a result of the Public Notice.

FPL requested to revise Specific Condition No. 50 to clarify that the lb/hr emissions are at ISO conditions and to revise Specific Condition No. 51 to include testing requirement for only two of the eight units. The Central District requested to define full load and peak load in terms of the heat input based on high or low heating value or in a manner that allows the field inspector to determine whether the turbine is operating at full or peak load. They also commented on the need for compliance stack testing for all eight units but are agreeable with representative testing for peak operation.

The Department considered FPL's request and revised Specific Conditions No. 50 and 51 as follows:

50. Peaking Mode Operation Limits:

The combined cycle gas turbines are subject to the following emission limits during peaking mode operation. Emissions limits are corrected to 15% O_2 **(lb/hr at ISO Conditions)**.

Emission Unit ARMS 005-012	NO_X	CO	VOC	PM/Visibility (% Opacity)	Technology and Comments
Combustion Turbines (each)	15 ppmvd (24-hr block avg) 102 lb/hr	9 ppmvd 29 lb/hr	1.4 ppmvd 3 lb/hr	10	Dry Low NO_X Combustors Natural Gas, Good Combustion

Averaging Time: A 24-hour block shall begin at midnight of each operating day and shall be calculated from 24 consecutive hourly average emission rate values. If a unit operates less than 24 hours during the block, the 24-hour block average shall be the average of available valid hourly average emission rate values for the 24-hour block. For purposes of determining compliance with the 24-hour CEMS standards, missing (or excluded) data shall not be substituted. Instead, the 24-hour block average shall be determined using the remaining hourly data in the 24-hour block. CEMS data collected during peaking mode operation shall be excluded from the demonstration of compliance with the NOx standards during normal gas firing.

[Applicant Request, Rules 62-210.200 (Definitions-Potential Emissions), and 62-4.070(3), F.A.C.].

51. Compliance Procedures: Compliance with the allowable emission limiting standards shall be determined within 60 days after achieving the maximum production rate at which each unit will

be operated, but not later than 180 days following initial operation of the unit in the *peaking* mode, by using the following reference methods as described in 40 CFR 60, Appendix A, and adopted by reference in Chapter 62-204.800, F.A.C.

The following reference methods shall be used. No other test methods may be used for compliance testing unless prior DEP approval is received in writing.

EPA Reference Method 9, "Visual Determination of the Opacity of Emissions from Stationary Sources."

EPA Reference Method 7, "Determination of Nitrogen Oxides Emissions from Stationary Sources."

Compliance for each pollutant after the initial tests shall be the same as outlined in the original permit 0710002-004-AC issued on 11/25/98.

Testing for peak operation may be carried out on two of the units. The Department will consider testing of two of the units to be representative of all eight units.

[Application; Rules 62-210.200(PTE) and 62-4.070 (3), F.A.C.]

Regarding the Central District's comment, we refer to Specific Condition 49 (revised as shown below) that states the heat input based on the maximum heat input rate at high-temperature peak mode. This is, 1,838 million Btu per hour (HHV) which is equivalent to 1,656 million Btu per hour (LHV).

This condition is modified as follows:

49. Each gas turbine may operate in a *high-temperature peaking mode* when firing natural gas to generate additional direct, shaft-driven electrical power to respond to peak demands. During any consecutive 12 months, each combined cycle gas turbine shall operate in this peaking mode for no more than 400 hours of operation. The maximum heat input rate to each gas turbine is 1,838 MMBtu per hour in peak mode operation (based on a compressor inlet air temperature of 59° F and the ~~lower~~ **higher** heating value (~~L~~**H**HV) of natural gas~~, and 100% load~~). [Applicant Request, Rules 62-210.200 (Definitions-Potential Emissions), and 62-4.070(3), F.A.C.].

In reference to the *full load,* Specific Condition No. 9 of the original PSD-Fl-270 permit states: "The design heat input rates for natural gas firing, based on the high heating value (HHV) of the fuel to *each* combustion turbine at compressor inlet conditions of 59°F, 60% relative humidity, 100% load, and 14.7 psia is 1,776 million Btu per hour (MMBtu/hr). The design heat input for oil firing is 1,930 MMBtu/hr (HHV, 60% relative humidity, 100% load, 59°F compressor inlet and 14.7 psia)". The 1,776 million Btu per hour (HHV) is equivalent to 1,600 million Btu per hour (LHV) for gas firing and the 1,930 million Btu per hour (HHV) is equivalent to 1,820 million Btu per hour (LHV) for oil firing.

Regarding testing, we consider testing of two units to be representative of all eight units. These units are identical. This facility did not trigger PSD review for NOx or CO due to the substantial contemporaneous decreases as a result of the repowering project.

The sequence of the permit numeration was revised to PSD-FL-270~~C~~ **D**. The project modification No.1270009-008-AC/PSD-FL-270~~A~~**C** issued on 3/18/03 was added to the language in Specific Condition 48.

The final action of the Department will be to issue the permit with the changes noted above.

Department of Environmental Protection

Jeb Bush
Governor

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

David B. Struhs
Secretary

PERMITTEE:

Florida Power & Light Company
Sanford Power Plant
950 South Highway 17-92
DeBary, Florida 32713

Permit No.	1270009-009-AC (PSD-FL-270 D)
Project:	2200 MW Repowering Project
SIC No.	4911
Expires:	July 1, 2004

Authorized Representative:

Roxane Kennedy
Plant General Manager

PROJECT AND LOCATION:

This permit modification authorizes peak operation mode for up to 400 hours per year for each of the existing eight combined cycle combustion turbines that comprise the 2200 MW repowering project. The eight combined cycle units have been constructed, tested, and are in operation. Each unit is a 170 megawatt General Electric MS7241FA gas-fired combustion turbine-generator with an unfired heat recovery steam generator (HRSG) that raises sufficient steam to produce another 80 MW via the existing steam-driven electrical generators.

This facility is located at 950 South Highway 17-92, DeBary, Volusia County. UTM coordinates are: Zone 17; 468.3 km E and 3,190.3 km N.

STATEMENT OF BASIS:

This construction permit is issued under the provisions of Chapter 403 of the Florida Statutes (F.S.), and Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297 of the Florida Administrative Code (F.A.C.). The above named permittee is authorized to modify the facility in accordance with the conditions of this permit and as described in the application, approved drawings, plans, and other documents on file with the Department of Environmental Protection (Department).

Michael G. Cooke, Director
Division of Air Resources
Management

47. This permit modification (No.1270009-009-AC/PSD-FL-270D) regulates emissions during high temperature peaking mode operation and modifies original Permit No.1270009-004-AC/PSD-FL-270 issued on 9/14/99.

48. The provisions of the original air construction permit No.1270009-004-AC/PSD-FL-270 issued on 9/14/99, the administrative correction (No.1270009-004-AC/PSD-FL-270A) issued on 5/2/00, the authorization for excess emissions following a rotor blade change-out (No.1270009-004-AC/PSD-FL-270B) issued on 3/18/03 and the modification of Specific Conditions 24, 33 and 46 (No.1270009-008-AC/PSD-FL-270C) issued on 3/18/03 remain as originally issued except for these additional new specific conditions.

49. Each gas turbine may operate in a *high-temperature peaking mode* when firing natural gas to generate additional direct, shaft-driven electrical power to respond to peak demands. During any consecutive 12 months, each combined cycle gas turbine shall operate in this peaking mode for no more than 400 hours of operation. The maximum heat input rate to each gas turbine is 1838 MMBtu per hour in peak mode operation (based on a compressor inlet air temperature of 59° F and the higher heating value (HHV) of natural gas).

    [Applicant Request, Rules 62-210.200 (Definitions-Potential Emissions), and 62-4.070(3), F.A.C.].

50. Peaking Mode Operation Limits:

    The combined cycle gas turbines are subject to the following emission limits during peaking mode operation. Emissions limits are corrected to 15% O_2 (lb/hr at ISO Conditions).

Emission Unit ARMS 005-012	NO_X	CO	VOC	PM/Visibility (% Opacity)	Technology and Comments
Combustion Turbines (each)	15 ppmvd (24-hr block avg) 102 lb/hr	9 ppmvd 29 lb/hr	1.4 ppmvd 3 lb/hr	10	Dry Low NO_X Combustors Natural Gas, Good Combustion

Averaging Time: A 24-hour block shall begin at midnight of each operating day and shall be calculated from 24 consecutive hourly average emission rate values. If a unit operates less than 24 hours during the block, the 24-hour block average shall be the average of available valid hourly average emission rate values for the 24-hour block. For purposes of determining compliance with the 24-hour CEMS standards, missing (or excluded) data shall not be substituted. Instead, the 24-hour block average shall be determined using the remaining hourly data in the 24-hour block. CEMS data collected during peaking mode operation shall be excluded from the demonstration of compliance with the NOx standards during normal gas firing.

    [Applicant Request, Rules 62-210.200 (Definitions-Potential Emissions), and 62-4.070(3), F.A.C.].

51. Compliance Procedures: Compliance with the allowable emission limiting standards shall be determined within 60 days after achieving the maximum production rate at which each unit will be operated, but not later than 180 days following initial operation of the unit in the *peaking* mode, by using the following reference methods as described in 40 CFR 60, Appendix A, and adopted by reference in Chapter 62-204.800, F.A.C.

The following reference methods shall be used. No other test methods may be used for compliance testing unless prior DEP approval is received in writing.

EPA Reference Method 9, "Visual Determination of the Opacity of Emissions from Stationary Sources."

EPA Reference Method 7, "Determination of Nitrogen Oxides Emissions from Stationary Sources."

Compliance for each pollutant after the initial tests shall be the same as outlined in the original permit 0710002-004-AC issued on 11/25/98.

Testing for peak operation may be carried out on two of the units. The Department will consider testing of two of the units to be representative of all eight units.

[Application; Rules 62-210.200(PTE) and 62-4.070 (3), F.A.C.]

52. Title V Permit: This permit authorizes modification of the emissions units and initial operation to determine compliance with Department rules. A Title V operation permit is required for regular operation of the permitted emissions unit. The permittee shall apply for a Title V operation permit at least 90 days prior to expiration of this permit, but no later than 180 days after commencing operation. To apply for a Title V operation permit, the applicant shall submit the appropriate application form, compliance test results, and such additional information as the Department may by law require. [Rules 62-4.030, 62-4.050, 62-4.220, and Chapter 62-213, F.A.C.]

53. Expiration Date: The expiration date of original permit No.1270009-004-AC/PSD-FL-270 is extended from December 31, 2003 to July 1, 2004.

SENDER: *COMPLETE THIS SECTION*

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Ms. Roxane Kennedy
Plant General Manager
FPL - Sanford Plant
950 South Highway 17-92
DeBary, FL 32713

COMPLETE THIS SECTION ON DELIVERY

A. Received by *(Please Print Clearly)* DALE G. DYKES
B. Date of Delivery 9-9-03

C. Signature
X Dale G Dykes
☐ Agent
☐ Addressee

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

DEBARY, FL
SEP 09 2003
USPS - 32713

3. Service Type
☑ Certified Mail ☐ Express Mail
☐ Registered ☐ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? *(Extra Fee)* ☐ Yes

2. 7001 0320 0001 3692 5344

PS Form 3811, July 1999 Domestic Return Receipt 102595-99-M-1789

U.S. Postal Service
CERTIFIED MAIL RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)

OFFICIAL USE

Postage	$
Certified Fee	
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	$

Postmark Here

Sent To
Roxane Kennedy
Street, Apt. No.; or PO Box No. 950 S. Hwy. 17-92
City, State, ZIP+4
DeBary, FL 32713

7001 0320 0001 3692 5344

PS Form 3800, January 2001 See Reverse for Instructions

The News-Journal

Published Daily and Sunday
Daytona Beach, Volusia County, Florida

State of Florida,
County of Volusia:

Before the undersigned authority personally appeared

Kathleen Mayes

Who, on oath says that she is

Classified Sales Manager

of The News-Journal, a daily and Sunday newspape published at Daytona Beach in Volusia County, Florid that the attached copy of advertisement, being a

Public Notice

in the matter of of Intent to Issue Air Constructio Permit Modification
in the Court
was published in said newspaper in the issues
July 31, 2003

Affiant further says that The News-Journal is newspaper published at Daytona Beach, in said Volusi County, Florida, and that the said newspaper ha heretofore been continuously published in said Volusia County, Florida, each day and Sunday and has beei entered as second-class mail matter at the post office i Daytona Beach, in said Volusia County, Florida, for a period of one year next preceding the first publication o the attached copy of advertisement; and affiant furthe says that she has neither paid nor promised an person, firm or corporation any discount, rebate commission or refund for the purpose of securing thi advertisement for publication in the said newspaper.

Sworn to and subscribed before me

this 31st day of July

A.D. 2003

ANITA MARIE SAUNDERS
Notary Public, State of Florida
My Comm. Exp. Aug. 30, 2003
Comm. No. CC 857646

LEGAL ADVERTISEMENT

PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT MODIFICATION
DEP File No. 1270009-009-AC
and PSD-FL-270C
Florida Power & Light
Sanford Plant
Peak Mode of Operation for the
2200 Megawatt Combined Cycle
Combustion Turbines
Volusia County

The Department of Environmental Protection (Department) gives notice of its intent to issue an air construction permit modification to Florida Power & Light Company (FPL). The original permit issued on September 4, 1999 allowed the installation of eight combined cycle units that replaced two (2) residual oil and gas fired steam generators at the Sanford Plant near DeBary, Volusia County. A Best Available Control Technology (BACT) determination was required for the original project (VOC emissions only) and is not required for this project pursuant to Rule 62-212.400, F.A.C. The applicant's name and address are Florida Power & Light, Sanford Plant, 950 South Highway 17-92, DeBary, Florida 32713.

The permit modification is to allow peak operation mode up to 400 hours per year for each of the eight combined cycle combustion turbines. Peaking is expected to increase short term NOx emissions from 9 to 15 ppmvd for each turbine and 68 TPY for all eight turbines due to higher temperatures during this mode. However, due to the substantial emissions decrease of this pollutant during the permitting of the repowering project, this project will not result in a PSD significant net increase of NOx emissions or any other criteria pollutants. Therefore, an air quality impact analysis was not required.

The Department will issue the FINAL permit modification with the attached conditions unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

The Department will accept written comments concerning the proposed permit modification issuance action for a period of fourteen (14) days from the date of publication of "Public Notice of Intent to Issue Air Construction Permit Modification." Written comments should be provided to the Department's Bureau of Air Regulation at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, FL 32399-2400. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in the proposed agency action, the Department shall revise the proposed permit modification and require, if applicable, another Public Notice.

This Sanford Project is not subject to review under Section 403.506 F.S. (Power Plant Siting Act), because it provides for no expansion in steam generating capacity.

The Department will issue the permit modification with the attached conditions unless a timely petition for an administrative hearing is filed pursuant to Sections 120.569 and 120.57 F.S., before the deadline for filing a petition. The procedures for petitioning for a hearing are set forth below. Mediation is not available in this proceeding.

A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative proceeding (hearing) under Sections 120.569 and 120.57 of the Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000. Petitions filed by the permit applicant or any of the parties listed below must be filed within fourteen days of receipt of this notice of intent. Petitions filed by any persons other than those entitled to written notice under Section 120.60(3) of the Florida Statutes must be filed within fourteen days of publication of the public notice or within fourteen days of receipt of this notice of intent, whichever occurs first. Under Section 120.60(3), F.S., however, any person who asked the Department for notice of agency action may file a petition within fourteen days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above, at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57, F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205 of the Florida Administrative Code.

A petition that disputes the material facts on which the Department's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address and telephone number of the petitioner; the name, address and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination; (c) A statement of how and when petitioner received notice of the agency action or proposed action; (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate; (e) A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the agency's proposed action; (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action; and (g) A statement of the relief sought by the petitioner, stating precisely the action petitioner wishes the agency to take with respect to the agency's proposed action.

A petition that does not dispute the material facts upon which the Department's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Department's final action may be different from the position taken by it in this notice. Persons whose substantial interests will be affected by any such final decision of the Department on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

A complete project file is available for public inspection during normal business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at:
Florida Department of
Environmental Protection
Bureau of Air Regulation
111 S. Magnolia Drive, Suite 4
Tallahassee, Florida 32301
Telephone: 850/488-1344
Fax: 850/922-6979
Florida Department of
Environmental Protection
Central District Office
3319 Maguire Boulevard, Suite 232
Orlando, Florida 32803-3767
Telephone: 407/894-7555
Fax: 407/897-5963

The complete project file includes the application, technical evaluation, Draft Permit Modification, and the information submitted by the responsible official, exclusive of confidential records under Section 403.111, F.S. Interested persons may contact the Administrator, New Resource Review Section at 111 South Magnolia Drive, Suite 4, Tallahassee, Florida 32301, or call 850/488-0114, for additional information. The Department's technical evaluation and Draft Modification can be viewed at www.dep.state.fl.us/air/permitting.htm by clicking on Construction Permits.
Legal L51744. July 31, 2003 1t.

Memorandum

Florida Department of
Environmental Protection

TO: Trina L. Vielhauer

THRU: For A. A. Linero JK

FROM: Teresa Heron

DATE: July 11, 2003

SUBJECT: Peaking Mode of Operation for the Eight Combined Cycle Combustion Turbines.
FPL Sanford 2200 MW Project
DEP File No. 1270009-009-AC and PSD-FL-270C

Attached is the draft public notice package including the Intent to Issue and the Technical Evaluation and Preliminary Determination for the above facility.

The application is for a permit modification to allow peak operation mode up to 400 hours per year for each of the existing eight combined cycle turbines. Peaking is expected to increase short term NOx emissions from 9 to 15 ppmvd for each turbine and 68 TPY for all eight turbines due to higher temperatures during this mode. However, due to the substantial emissions decrease of this pollutant during the permitting of the repowering project, this project will not result in a net increase of NO_X emissions or any other criteria pollutants.

We have determined that the project nets out of PSD for all pollutants because of the very substantial emissions reductions resulting from the 1999 repowering project at the site.

We recommend your approval of the attached Intent to Issue and the cover letter.

AAL/th

Attachments

* Same as Ft. Myers'

P.E. CERTIFICATION STATEMENT

PERMITTEE

FPL Sanford Power Plant
950 South Highway 17/92
Debary, FL 32713

Draft Air Permit No. 1270009-009-AC
Project: Peaking Mode Operation
Emissions Units 005 - 012
Volusia County, Florida

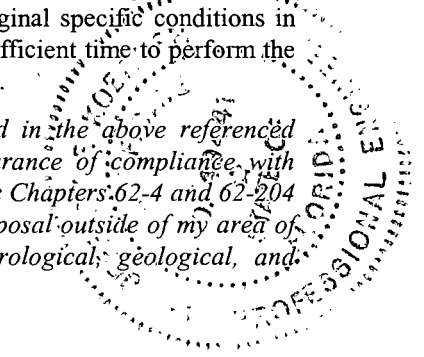
PROJECT DESCRIPTION

FPL requests the capability to operate their eight new combined cycle gas turbines (Units 4A–4D and 5A-5D) in a high temperature peaking mode of operation for up to 400 hours per year per unit. During this mode, a small amount of additional fuel is fired and the automatic gas turbine control system allows a slightly higher combustion temperature. Due to the higher temperatures, NOx emissions may increase from 9 to 15 ppmvd corrected to 15% oxygen. Only small increases of CO, PM, SO_2, and VOC emissions are expected due to the firing of additional fuel. However, CO and VOC emissions may actually decrease due to the higher firing temperature. The eight combined cycle units have been constructed, tested, and are in operation. Only minimal work on the control system is necessary to implement the requested peaking mode of operation.

Based on the application, the project will result in the following potential emissions increases for all eight gas turbines combined: 0.2 TPY of CO; 68 TPY of NOx; 0.3 TPY of SO_2; and negligible increases of PM, SAM, and VOC. These increases represent the differences between 400 hours of normal gas firing and 400 hours of gas firing while in the peaking mode. Only NOx emissions have the potential to exceed the PSD significant emission rate and trigger PSD preconstruction review. However, the original "re-powering" project required the shutdown of existing oil-fired Boilers 4 and 5, which resulted in large emissions decreases for all pollutants and a more than 7000 TPY decrease of NOx from the project. Boilers 4 and 5 were eventually retired in 2001 and 2002, which is well within the 5 year contemporaneous period of the current request. Therefore, there will be no net emissions increases from this project due to the contemporaneous emissions decreases from the previous re-powering project.

The draft permit modification contains performance and testing requirements related only to the peaking mode of operation. The NOx standard during peaking mode will be 15 ppmvd @ 15% oxygen based on a 24-hour block average. Compliance will be demonstrated by data collected from the existing NOx CEMS. This project is considered a permit modification because the original construction permit for the eight combined cycle units does not expire until December of 2003. The specific conditions are in addition to the original specific conditions in Permit PSD-FL-270. The permit expiration date is extended to July 1, 2004 to allow sufficient time to perform the work, conduct testing, and submit an application to revise the Title V air operation permit.

I HEREBY CERTIFY *that the air pollution control engineering features described in the above referenced application and subject to the proposed permit conditions provide reasonable assurance of compliance with applicable provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Chapters 62-4 and 62-204 through 62-297. However, I have not evaluated and I do not certify aspects of the proposal outside of my area of expertise (including, but not limited to, the electrical, mechanical, structural, hydrological, geological, and meteorological features).*



Jeffery J. Koerner 7-10-03

Jeffery F. Koerner, P.E. (Date)
Registration Number: 49441

Department of Environmental Protection

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

Jeb Bush
Governor

David B. Struhs
Secretary

July 11, 2003

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Ms. Roxane Kennedy, Plant General Manager
FPL Sanford Plant
950 South Highway 17-92
DeBary, Florida 32713

Re: DEP File No. 1270009-009-AC, PSD-FL-270C
FPL Sanford Plant – Peak Mode of Operation 2200 MW Combined Cycle Combustion Turbines

Dear Ms. Kennedy,

Enclosed is one copy of the Intent to Issue, Draft Air Construction Permit, and Technical Evaluation and Preliminary Determination for the referenced project at the FPL Sanford Plant, 950 South Highway 17-92, DeBary, Volusia County. The Department's Intent to Issue Air Construction Permit and the "PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT MODIFICATION" are also included.

The "PUBLIC NOTICE" must be published one time only, as soon as possible, in the legal advertisement section of a newspaper of general circulation in the area affected, pursuant to the requirements Chapter 50, Florida Statutes. Proof of publication, i.e., newspaper affidavit, must be provided to the Department's Bureau of Air Regulation office within seven days of publication. Failure to publish the notice and provide proof of publication may result in the denial of the permit.

Please submit any written comments you wish to have considered concerning the Department's proposed action to Mr. A. Linero, P.E. Administrator, New Source Review Section at the above letterhead address. If you have any other questions, please call Ms. Teresa Heron at 850/921-9529 or Mr. Linero 850/921-9523.

Sincerely,

Trina L Vielhauer

Trina L. Vielhauer, Chief,
Bureau of Air Regulation

TLV/th

Enclosures

In the Matter of an
Application for Permit Modification by:

Ms. Roxane Kennedy, Plant General Manager
FPL Sanford Plant
950 South Highway 17-92
DeBary, Florida 32713

DEP File No. 1270009-009-AC and PSD-FL-270C
Peak Mode of Operation Project
2200 MW Combined Cycle Combustion Turbines
Volusia County

/

INTENT TO ISSUE AIR CONSTRUCTION PERMIT MODIFICATION

The Department of Environmental Protection (Department) gives notice of its intent to issue an air construction permit modification (copy of DRAFT Permit Modification attached) for the proposed project, detailed in the application specified above and the attached Technical Evaluation and Preliminary Determination, for the reasons stated below.

The applicant, Florida Power & Light Company (FPL), applied on May 15, 2003 to the Department to modify and operate the eight (8) combustion turbines associated with Units 4A through 4D and Units 5A through 5D in Peak Firing Mode for up to 400 hours per year at the Sanford Plant near DeBary, Volusia County.

The Department has permitting jurisdiction under the provisions of Chapter 403, Florida Statutes (F.S.), and Chapters 62-4, 62-210, and 62-212 of the Florida Administrative Code (F.A.C.). The above actions are not exempt from permitting procedures. The Department has determined that an air construction permit modification is required to perform proposed work.

The Department intends to issue this air construction permit modification based on the belief that the applicant has provided reasonable assurances to indicate that operation of these emission units will not adversely impact air quality, and the emission units will comply with all appropriate provisions of Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-296, and 62-297, F.A.C.

Pursuant to Section 403.815, F.S., and Rule 62-110.106(7)(a)1., F.A.C., you (the applicant) are required to publish at your own expense the enclosed Public Notice of Intent to Issue Air Construction Permit Modification. The notice shall be published one time only in the legal advertisement section of a newspaper of general circulation in the area affected. Rule 62-110.106(7)(b), F.A.C., requires that the applicant cause the notice to be published as soon as possible after notification by the Department of its intended action. For the purpose of these rules, "publication in a newspaper of general circulation in the area affected" means publication in a newspaper meeting the requirements of Sections 50.011 and 50.031, F.S., in the county where the activity is to take place. If you are uncertain that a newspaper meets these requirements, please contact the Department at the address or telephone number listed below. The applicant shall provide proof of publication to the Department's Bureau of Air Regulation, at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, Florida 32399-2400 (Telephone: 850/488-0114 / Fax 850/ 922-6979). You must provide proof of publication within seven days of publication, pursuant to Rule 62-110.106(5), F.A.C. No permitting action for which published notice is required shall be granted until proof of publication of notice is made by furnishing a uniform affidavit in substantially the form prescribed in section 50.051, F.S. to the office of the Department issuing the permit modification. Failure to publish the notice and provide proof of publication may result in the denial of the permit modification pursuant to Rules 62-110.106(9) & (11), F.A.C.

The Department will issue the final permit modification with the attached conditions unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

The Department will accept written comments concerning the proposed permit modification issuance action for a period of 14 (fourteen) days from the date of publication of Public Notice of Intent to Issue Air Permit Modification. Written comments and requests for public meetings should be provided to the Department's Bureau of Air Regulation at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, FL 32399-2400. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in the proposed agency action, the Department shall revise the proposed permit modification and require, if applicable, another Public Notice.

The Department will issue the permit modification with the attached conditions unless a timely petition for an administrative hearing is filed pursuant to sections 120.569 and 120.57 F.S., before the deadline for filing a petition. The procedures for petitioning for a hearing are set forth below.

A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative proceeding (hearing) under sections 120.569 and 120.57 of the Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida, 32399-3000. Petitions filed by the permit applicant or any of the parties listed below must be filed within fourteen days of receipt of this notice of intent. Petitions filed by any persons other than those entitled to written notice under section 120.60(3) of the Florida Statutes must be filed within fourteen days of publication of the public notice or within fourteen days of receipt of this notice of intent, whichever occurs first. Under section 120.60(3), however, any person who asked the Department for notice of agency action may file a petition within fourteen days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under sections 120.569 and 120.57 F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205 of the Florida Administrative Code.

A petition that disputes the material facts on which the Department's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address, and telephone number of the petitioner, the name, address, and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination; (c) A statement of how and when petitioner received notice of the agency action or proposed action; (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate; (e) A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the agency's proposed action; (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action; and (g) A statement of the relief sought by the petitioner, stating precisely the action petitioner wishes the agency to take with respect to the agency's proposed action.

A petition that does not dispute the material facts upon which the Department's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Department's final action may be different from the position taken by it in this notice. Persons whose substantial interests will be affected by any such final decision of the Department on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

In addition to the above, a person subject to regulation has a right to apply for a variance from or waiver of the requirements of particular rules, on certain conditions, under Section 120.542 F.S. The relief provided by this state statute applies only to state rules, not statutes, and not to any federal regulatory requirements. Mediation is not available in this proceeding. Applying for a variance or waiver does not substitute or extend the time for filing a petition for an administrative hearing or exercising any other right that a person may have in relation to the action proposed in this notice of intent.

The application for a variance or waiver is made by filing a petition with the Office of General Counsel of the Department, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000. The petition must specify the following information: (a) The name, address, and telephone number of the petitioner; (b) The name, address, and telephone number of the attorney or qualified representative of the petitioner, if any; (c) Each rule or portion of a rule from which a variance or waiver is requested; (d) The citation to the statute underlying (implemented

by) the rule identified in (c) above; (e) The type of action requested; (f) The specific facts that would justify a variance or waiver for the petitioner; (g) The reason why the variance or waiver would serve the purposes of the underlying statute (implemented by the rule); and (h) A statement whether the variance or waiver is permanent or temporary and, if temporary, a statement of the dates showing the duration of the variance or waiver requested.

The Department will grant a variance or waiver when the petition demonstrates both that the application of the rule would create a substantial hardship or violate principles of fairness, as each of those terms is defined in Section 120.542(2) F.S., and that the purpose of the underlying statute will be or has been achieved by other means by the petitioner.

Persons subject to regulation pursuant to any federally delegated or approved air program should be aware that Florida is specifically not authorized to issue variances or waivers from any requirements of any such federally delegated or approved program. The requirements of the program remain fully enforceable by the Administrator of the EPA and by any person under the Clean Air Act unless and until the Administrator separately approves any variance or waiver in accordance with the procedures of the federal program.

Executed in Tallahassee, Florida.

Trina L. Vielhauer, Chief
Bureau of Air Regulation

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this INTENT TO ISSUE AIR CONSTRUCTION PERMIT MODIFICATION (including the PUBLIC NOTICE, Technical Evaluation and Preliminary Determination, and the DRAFT permit modification) was sent by certified mail (*) and copies were mailed by U.S. Mail before the close of business on 7/15/03 to the person(s) listed:

Roxane Kennedy, FPL*
Len Kozlov, DEP CD
Gregg Worley, EPA
John Bunyak, NPS
Ken Kosky, P.E., Golder Associates

Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED, on this date, pursuant to §120.52, Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

Victoria Gibson (Clerk) July 15, 2003 (Date)

PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT MODIFICATION

DEP File No. 1270009-009-AC and PSD-FL-270C
Florida Power & Light Sanford Plant
Peak Mode of Operation for the 2200 Megawatt Combined Cycle Combustion Turbines
Volusia County

The Department of Environmental Protection (Department) gives notice of its intent to issue an air construction permit modification to Florida Power & Light Company (FPL). The original permit issued on September 4, 1999 allowed the installation of eight combined cycle units that replaced two (2) residual oil and gas fired steam generators at the at the Sanford Plant near DeBary, Volusia County. A Best Available Control Technology (BACT) determination was required for the original project (VOC emissions only) and is not required for this project pursuant to Rule 62-212.400, F.A.C. The applicant's name and address are Florida Power & Light, Sanford Plant, 950 South Highway 17-92, DeBary, Florida 32713.

The permit modification is to allow peak operation mode up to 400 hours per year for each of the eight combined cycle combustion turbines. Peaking is expected to increase short term NOx emissions from 9 to 15 ppmvd for each turbine and 68 TPY for all eight turbines due to higher temperatures during this mode. However, due to the substantial emissions decrease of this pollutant during the permitting of the repowering project, this project will not result in a PSD significant net increase of NOx emissions or any other criteria pollutants. Therefore, an air quality impact analysis was not required.

The Department will issue the FINAL permit modification with the attached conditions unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

The Department will accept written comments concerning the proposed permit modification issuance action for a period of fourteen (14) days from the date of publication of "Public Notice of Intent to Issue Air Construction Permit Modification." Written comments should be provided to the Department's Bureau of Air Regulation at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, FL 32399-2400. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in the proposed agency action, the Department shall revise the proposed permit modification and require, if applicable, another Public Notice.

This Sanford Project is not subject to review under Section 403.506 F.S. (Power Plant Siting Act), because it provides for no expansion in steam generating capacity.

The Department will issue the permit modification with the attached conditions unless a timely petition for an administrative hearing is filed pursuant to Sections 120.569 and 120.57 F.S., before the deadline for filing a petition. The procedures for petitioning for a hearing are set forth below. Mediation is not available in this proceeding.

A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative proceeding (hearing) under Sections 120.569 and 120.57 of the Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station # 35, Tallahassee, Florida, 32399-3000. Petitions filed by the permit applicant or any of the parties listed below must be filed within fourteen days of receipt of this notice of intent. Petitions filed by any persons other than those entitled to written notice under Section 120.60(3) of the Florida Statutes must be filed within fourteen days of publication of the public notice or within fourteen days of receipt of this notice of intent, whichever occurs first. Under Section 120.60(3), however, any person who asked the Department for

notice of agency action may file a petition within fourteen days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57 F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205 of the Florida Administrative Code.

A petition that disputes the material facts on which the Department's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address, and telephone number of the petitioner, the name, address, and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination; (c) A statement of how and when petitioner received notice of the agency action or proposed action; (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate; (e) A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the agency's proposed action; (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action; and (g) A statement of the relief sought by the petitioner, stating precisely the action petitioner wishes the agency to take with respect to the agency's proposed action.

A petition that does not dispute the material facts upon which the Department's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Department's final action may be different from the position taken by it in this notice. Persons whose substantial interests will be affected by any such final decision of the Department on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

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

Florida Department of Environmental Protection
Bureau of Air Regulation
111 S. Magnolia Drive, Suite 4
Tallahassee, Florida, 32301
Telephone: 850/488-1344
Fax: 850/922-6979

Florida Department of Environmental Protection
Central District Office
3319 Maguire Boulevard, Suite 232
Orlando, Florida 32803-3767
Telephone: 407/894-7555
Fax: 407/897-5963

The complete project file includes the application, technical evaluations, Draft Permit Modification, and the information submitted by the responsible official, exclusive of confidential records under Section 403.111, F.S. Interested persons may contact the Administrator, New Resource Review Section at 111 South Magnolia Drive, Suite 4, Tallahassee, Florida 32301, or call 850/488-0114, for additional information. The Department's technical evaluations and Draft Modification can be viewed at www.dep.state.fl.us/air/permitting.htm by clicking on Construction Permits.

TECHNICAL EVALUATION

AND

PRELIMINARY DETERMINATION

Florida Power & Light Company

Sanford Power Plant
Peak Mode of Operation
Volusia County

DEP File No. 1270009-009-AC/PSD-FL-270C

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

July 11, 2003

1. APPLICATION INFORMATION

1.1 Applicant Name and Address

Florida Power & Light Company
Sanford Power Plant
950 South Highway 17-92
DeBary, Florida 32713

Authorized Representative: Roxane Kennedy, Plant General Manager

1.2 Reviewing and Process Schedule

05-15-03: Date of Receipt of Application
05-15-03: Application completed
07-11-03: Intent Issued

2. FACILITY INFORMATION

2.1 Facility Location

Refer to Figure 1 and 2. The Sanford Plant is located in the City of DeBary, Volusia County, on 1,700 acres, west of Highway 17-92 and approximately 3 miles northeast of Sanford. This site is approximately 130 kilometers from Chassahowitzka National Wilderness Area, a Class I PSD Area.

The UTM coordinates of this facility are Zone 17; 468.3 km E; 3,190.3 km N.

Figure 1 – Regional Location

Figure 2 – Location of Plant

2.2 Standard Industrial Classification Codes (SIC)

Industry Group No.	49	Electric, Gas, and Sanitary Services
Industry No.	4911	Electric Services

2.3 Facility Category

The FPL Sanford generates electric power from eight natural gas/oil fired combined cycle combustion turbines (2200 MW) and a residual 156 MW fuel oil-fired and gas-fired steam unit (Unit 3). The new eight natural gas/oil fired combined cycle units replaced two residual fuel oil-fired units (Units 4 &5) and are repowering the existing electrical generators associated with those units. The 1999 project increased the nominal capacity of the plant from 1028 MW to approximately 2356 MW. Figure 3 shows a similar project at Ft.Myers.

The facility is classified as a Major or Title V Source of air pollution because emissions of at least one regulated air pollutant, such as particulate matter (PM/PM_{10}), sulfur dioxide (SO_2), nitrogen oxides (NO_X), carbon monoxide (CO), or volatile organic compounds (VOC) exceeds 100 TPY.

This facility is within an industry included in the list of the 28 Major Facility Categories per Table 62-212.400-1, F.A.C. Because emissions are greater than 100 TPY for at least one criteria pollutant, the facility is also a major facility with respect to Rule 62-212.400, Prevention of Significant Deterioration (PSD). No review per the PSD rules and determination for Best Available Control Technology (BACT) per Rule 62-212.400, F.A.C., is required for this project.

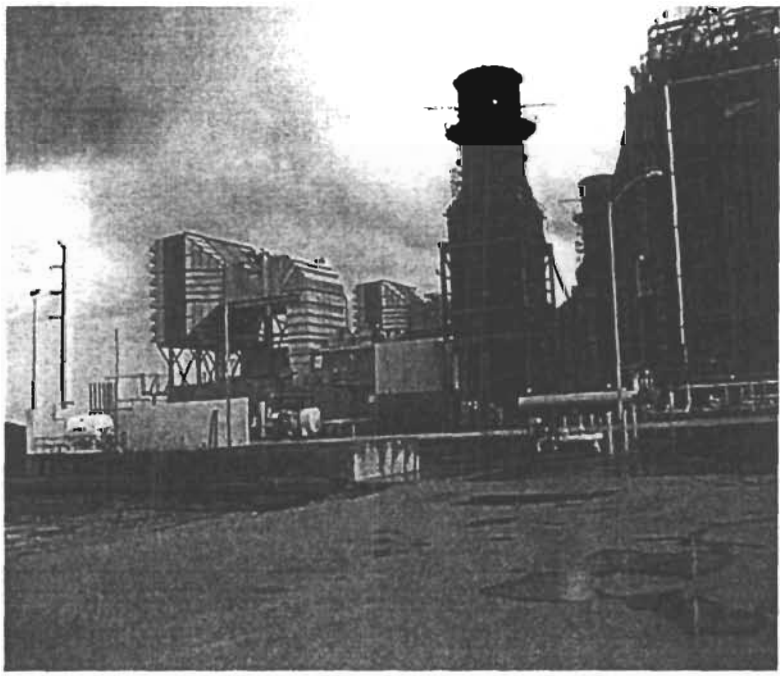


Figure 3

View of Combined Cycle Combustion Gas Turbines at the Ft.Myers Plant

3. PROJECT DESCRIPTION

This permit addresses the following emissions units:

EMISSION UNIT NO.	SYSTEM	EMISSION UNIT DESCRIPTION
ARMS No. 005-012	Power Generation	Eight (8) Combined Cycle Combustion Turbine-Generators with Unfired Heat Recovery Steam Generators

These units were permitted in 1999 as a result of the shutdown of boilers No. 4 and No. 5.

FPL proposes to operate the combustion turbines associated with Units 4A through 4D and 5A through 5D (ARMS Units 005-012) in peak firing mode for up to 400 hours per year. *Peaking* is simply running the unit at greater than design fuel input. *Peaking* allows gas turbine temperatures to drift higher than normal and results in increased in shaft-driven electrical power production. *Peaking* is expected to increase NOx emissions from the gas turbine due to higher temperatures.

Emissions increases due to this project will occur. According to the application, estimated emissions for each turbine operating at capacity for 400 hours of peaking are 5.78 tons per year of CO, 1.02 TPY of SO_2, 1.8 TPY of PM/PM_{10}, 20.24 TPY of NO_X, and 0.56 TPY of VOC.

An evaluation of the HAP emissions, as presented by the applicant in the original 1999 application, indicates that emissions are less than 25 tons/year for all HAPs and less than 10 tons/yr for a single HAP. This project will not have any significant increase of these emissions.

The additional project information related to the combustor design, and control measures to minimize pollutant emissions from these units are given in the original permit 1270009-004-AC and Technical Evaluation and Preliminary Determination issued in 1999.

4. RULE APPLICABILITY

This facility is subject to applicable requirements under the provisions of Chapter 403, Florida Statutes, and Chapters 62-4, 62-204, 62-210, 62-212, 62-214, 62-296, and 62-297 of the Florida Administrative Code (F.A.C.) including applicable portions of the Code of Federal Regulations 40 CFR part 60, Part 72, Part 73, Part 75 and Part 77 incorporated therein.

This facility is located in Volusia County, an area designated as attainment for all criteria pollutants in accordance with Rule 62-204.360, F.A.C. The proposed project is not subject to PSD review under Rule 62-212.400., F.A.C. for PM/PM_{10}, CO, SO_2, SAM and NO_X. The reason, as discussed below, is that after considering all emissions changes from other contemporaneous projects (including the 1999 repowering project), the net potential emission increases do not exceed the significant emission rates given in Table 62-212.400-2, F.A.C.

5. AIR POLLUTION CONTROL TECHNOLOGY

5.1 Permit Limits

Permit Emissions Rates for Original Permit 1270009-004-AC and the Request for Peaking Mode of Operation

Emission Unit	NO_X	CO	VOC BACT	PM/Visibility (% Opacity)	Technology and Comments
Combustion Turbines	9 ppmvd (baseload gas) 15 pmvd (peaking gas) 42 ppm - oil	12 ppmvd gas 22 ppmvd oil 9 ppmvd (peaking gas)	1.4 ppmvd gas 7 ppmvw oil	10 - gas 20 - oil	Dry Low NO_x Combustors Natural Gas, Good Combustion, Water Injection (oil), Low sulfur distillate oil

Note: Compliance with the NOx standard shall be based on CEMS data.
Standard operation: When burning gas, 30-days average time for an emission rate of 9 ppmvd NOx @ 15% O_2 . When burning oil, 24-hr average time for an emission rate of 42 ppmvd NOx @ 15% O_2.
Peaking Operation: When burning gas, 24-hr block average for an emission rate of 15 ppmvd NOx @ 15% O_2. Peaking mode of operation shall be excluded from compliance with the 30-day rolling average standard rate of 9 ppmvd NOx @ 15% O_2 for standard gas firing.

6. SOURCE IMPACT ANALYSIS

6.1 Emissions

The proposed combustion turbines in the peak mode will primarily emit particulate matter, sulfur dioxide, nitrogen oxides, volatile organic compounds, carbon monoxide, and sulfuric acid mist. The applicant's proposed annual emissions for criteria pollutants are summarized in the Table below and form the basis of the source impact review.

6.2 Emission Summary and Contemporaneous Emission Evaluation

The proposed emission increases due to operation in the peak mode netted out of PSD review pursuant to Rule 62.212.400(2) (e) F.A.C., Net Emissions Increases.

In 1999, the Department issued a PSD construction permit for the 2200 MW repowering project. The project was subject to PSD review and a BACT determination for only VOC emissions. The potential emissions from this project are: PM/PM_{10} 387/374 TPY; SAM 423 TPY; SO_2 279 TPY; NOx 2745 TPY; CO 1719 TPY; and VOC 124 TPY.

In 2001 and 2002, existing Boilers 4 and 5 were permanently retired. The project for peaking mode operation is scheduled for completion in 2003. The emissions increases from the peaking mode project is contemporaneous with the emissions decreases from retiring Boilers 4 and 5.

Under the PSD regulations, Rule 62-212.400 (2)(e), F.A.C., these projects are considered contemporaneous. Therefore, since the decrease from the repowering project is so large, the contemporaneous emissions increases from the proposed project are still under the PSD significant threshold level. The contemporaneous emissions decreases for this facility as a result of the operation in peak mode are summarized as follows:

CONTEMPORANEOUS CREDITABLE CHANGES (TPY)

Pollutant	Past Actual [a] Emissions (Units 4 and 5)	Past Changes [b] Emissions (Repowered)	Future Changes[c] Emissions (Peak Mode)	Total Changes [d] Increase (decrease)	PSD Significance	PSD Review?
PM/PM_{10}	-538	374	Negligible	(164)	25/15	No
SAM	-1,276	42.3	Negligible	(1,234)	7	No
SO_2	-28,729	279	0.32	(28,450)	40	No
NO_X	-9,984	2,757	68	(7,159)	40	No
VOC	-67	124	0.032	57 [e]	40	No
CO	-2,906	1,719	0.16	(1,188)	100	No

Notes:
(a) Decreases from shutdown of Boilers 4 and 5
(b) Past Emissions Increases: Repowering Project (1999).
(c) Future Emissions Increase: Peak Mode Operation for the eight (8) Combined Cycle Combustion Gas Turbines (this represents the difference in potential emissions between normal gas firing and peaking) .
(d) Total Changes: Contemporaneous Emissions Increases from both projects 1999-2003.
(e) This facility went through PSD review and BACT determination for VOC in 1999 during the permitting of the 2200 MW Repowering project. The increase of VOC emissions from the peak mode operation is 0.032 TPY.
Emissions are calculated at a turbine inlet temperature of 59^0 F.

6.3 Air Quality Analysis

The proposed project (when considering contemporaneous changes) will not result in the net increase of emissions of any pollutants in excess of the PSD significant emission rates. Therefore, an analysis of the air quality impact from proposed project is not required.

7. CONCLUSION

Based on the foregoing technical evaluation of the application and other available information, the Department has made a preliminary determination that the proposed project will comply with all applicable state and federal air pollution regulations.

Teresa Heron, Review Engineer
Jeff Koerner, P.E.
New Source Review Section
Bureau of Air Regulation

PERMITTEE:

Florida Power & Light Company
Sanford Power Plant
950 South Highway 17-92
DeBary, Florida 32713

Permit No.	1270009-009-AC (PSD-FL-270C)
Project:	2200 MW Repowering Project
SIC No.	4911
Expires:	July 1, 2004

Authorized Representative:

Roxane Kennedy
Plant General Manager

PROJECT AND LOCATION:

This permit modification authorizes peak operation mode for up to 400 hours per year for each of the existing eight combined cycle combustion turbines that comprise the 2200 MW repowering project. The eight combined cycle units have been constructed, tested, and are in operation. Each unit is a 170 megawatt General Electric MS7241FA gas-fired combustion turbine-generator with an unfired heat recovery steam generator (HRSG) that raises sufficient steam to produce another 80 MW via the existing steam-driven electrical generators.

This facility is located at 950 South Highway 17-92, DeBary, Volusia County. UTM coordinates are: Zone 17; 468.3 km E and 3,190.3 km N.

STATEMENT OF BASIS:

This construction permit is issued under the provisions of Chapter 403 of the Florida Statutes (F.S.), and Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297 of the Florida Administrative Code (F.A.C.). The above named permittee is authorized to modify the facility in accordance with the conditions of this permit and as described in the application, approved drawings, plans, and other documents on file with the Department of Environmental Protection (Department).

Joseph Kahn, Acting Director
Division of Air Resources
Management

47. This permit modification (No.1270009-009-AC/PSD-FL-270C) regulates emissions during high temperature peaking mode operation and modifies original Permit No.1270009-004-AC/PSD-FL-270 issued on 9/14/99.

48. The provisions of the original air construction permit No.1270009-004-AC/PSD-FL-270 issued on 9/14/99, the administrative correction (No.1270009-004-AC/PSD-FL-270A) issued on 5/2/00 and the authorization for excess emissions following a rotor blade change-out (No.1270009-004-AC/PSD-FL-270B) issued on 3/18/03 remain as originally issued except for these additional new specific conditions.

49. Each gas turbine may operate in a high-temperature peaking mode when firing natural gas to generate additional direct, shaft-driven electrical power to respond to peak demands. During any consecutive 12 months, each combined cycle gas turbine shall operate in this peaking mode for no more than 400 hours of operation. The maximum heat input rate to each gas turbine is 1838 MMBtu per hour in peak mode operation (based on a compressor inlet air temperature of 59° F, the lower heating value (LHV) of natural gas, and 100% load). [Applicant Request, Rules 62-210.200 (Definitions-Potential Emissions), and 62-4.070(3), F.A.C.].

50. Peaking Mode Operation Limits:

The combined cycle gas turbines are subject to the following emission limits during peaking mode operation. Emissions limits are corrected to 15% O_2.

Emission Unit ARMS 005-012	NO_x	CO	VOC	PM/Visibility (% Opacity)	Technology and Comments
Combustion Turbines (each)	15 ppmvd (24-hr block avg) 102 lb/hr	9 ppmvd 29 lb/hr	1.4 ppmvd 3 lb/hr	10	Dry Low NO_x Combustors Natural Gas, Good Combustion

Averaging Time: A 24-hour block shall begin at midnight of each operating day and shall be calculated from 24 consecutive hourly average emission rate values. If a unit operates less than 24 hours during the block, the 24-hour block average shall be the average of available valid hourly average emission rate values for the 24-hour block. For purposes of determining compliance with the 24-hour CEMS standards, missing (or excluded) data shall not be substituted. Instead, the 24-hour block average shall be determined using the remaining hourly data in the 24-hour block. CEMS data collected during peaking mode operation shall be excluded from the demonstration of compliance with the NOx standards during normal gas firing.
[Applicant Request, Rules 62-210.200 (Definitions-Potential Emissions), and 62-4.070(3), F.A.C.].

51. Compliance Procedures: Compliance with the allowable emission limiting standards shall be determined within 60 days after achieving the maximum production rate at which each unit will be operated, but not later than 180 days following initial operation of the unit in the *peaking* mode, by using the following reference methods as described in 40 CFR 60, Appendix A, and adopted by reference in Chapter 62-204.800, F.A.C.

The following reference methods shall be used. No other test methods may be used for compliance testing unless prior DEP approval is received in writing.

EPA Reference Method 9, "Visual Determination of the Opacity of Emissions from Stationary Sources".

EPA Reference Method 7, "Determination of Nitrogen Oxides Emissions from Stationary Sources.

Compliance for each pollutant after the initial tests shall be the same as outlined in the original permit 0710002-004-AC issued on 11/25/98.

[Application; Rules 62-210.200(PTE) and 62-4.070 (3), F.A.C.]

52. Title V Permit: This permit authorizes modification of the emissions units and initial operation to determine compliance with Department rules. A Title V operation permit is required for regular operation of the permitted emissions unit. The permittee shall apply for a Title V operation permit at least 90 days prior to expiration of this permit, but no later than 180 days after commencing operation. To apply for a Title V operation permit, the applicant shall submit the appropriate application form, compliance test results, and such additional information as the Department may by law require. [Rules 62-4.030, 62-4.050, 62-4.220, and Chapter 62-213, F.A.C.]

53. Expiration Date: The expiration date of original permit No 1270009-004-AC/PSD-FL-270 is extended from December 31, 2003 to July 1, 2004.

SENDER: *COMPLETE THIS SECTION*

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Ms. Roxane Kennedy, Plant General Manager
FPL Sanford Plant
950 South Highway 17-92
DeBary, FL 32713

COMPLETE THIS SECTION ON DELIVERY

A. Received by *(Please Print Clearly)*: DALE G. DYKES
B. Date of Delivery: 7-18-03

C. Signature
X Dale G Dykes
☒ Agent
☐ Addressee

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

DEBARY FL
JUL 18 2003
USPS 32713

3. Service Type
☒ Certified Mail ☐ Express Mail
☐ Registered ☐ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? *(Extra Fee)* ☐ Yes

2. Ar 7001 0320 0001 3692 5580

PS Form 3811, July 1999 Domestic Return Receipt 102595-99-M-1789

U.S. Postal Service
CERTIFIED MAIL RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)

OFFICIAL USE

Postage	$
Certified Fee	
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	$

Postmark Here

7001 0320 0001 3692 5580

Sent To
Roxane Kennedy
Street, Apt. No.; or PO Box No.
950 South Hwy. 17-92
City, State, ZIP+4
DeBary, FL 32713

PS Form 3800, January 2001 See Reverse for Instructions

PEAK FIRING MODE PERMIT APPLICATION
FLORIDA POWER & LIGHT COMPANY
SANFORD POWER PLANT - UNITS 4 AND 5
DEBARY, FLORIDA

Prepared For:
Florida Power & Light Company
700 Universe Boulevard
Juno Beach, Florida 33408

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

May 2003

0337558

DISTRIBUTION:
4 Copies – FDEP
2 Copy – Florida Power & Light Company
2 Copy – Florida Power & Light Sanford Power Plant
1 Copy – Golder Associates Inc.

Department of Environmental Protection

Division of Air Resources Management

RECEIVED
MAY 15 2003
BUREAU OF AIR REGULATION

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: **Sanford Plant**	
3. Facility Identification Number: **1270009** [ ] Unknown	
4. Facility Location: Street Address or Other Locator: **950 South Highway 17-92** City: **DeBary** County: **Volusia** Zip Code: **32713**	
5. Relocatable Facility? [ ] Yes [**X**] No	6. Existing Permitted Facility? [**X**] Yes [ ] No

Application Contact

1. Name and Title of Application Contact: **Mary Archer, Principal Environmental Specialist**
2. Application Contact Mailing Address: Organization/Firm: **FPL Environmental Services Dept. [JES/JB]** Street Address: **700 Universe Blvd.** City: **Juno Beach** State: **FL** Zip Code: **33408**
3. Application Contact Telephone Numbers: Telephone: (**561**) **691-7057** Fax: (**561**) **691-7070 or 691-7049**

Application Processing Information (DEP Use)

1. Date of Receipt of Application:	5-15-03
2. Permit Number:	1270009-009-AC
3. PSD Number (if applicable):	
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:
   Roxane Kennedy, Plant General Manager
2. Owner/Authorized Representative or Responsible Official Mailing Address:
   Organization/Firm: **FPL Sanford Plant**
   Street Address: **950 South Highway 17-92**
   City: **DeBary** State: **FL** Zip Code: **32713**
3. Owner/Authorized Representative or Responsible Official Telephone Numbers:
   Telephone: (**386**) **575-5211** Fax: (**386**) **575-5233**
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 [**X**], 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.*

Signature _____ Date 5/9/03

* Attach letter of authorization if not currently on file.

Professional Engineer Certification

1. Professional Engineer Name: **Kennard F. Kosky**
   Registration Number: **14966**
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**

***Certification of Authorization # 00001670**

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 5/14/03

Date

(seal)

* Attach any exception to certification statement.

Scope of Application

Emissions Unit ID	Description of Emissions Unit	Permit Type	Processing Fee
004	Combined Cycle Combustion Turbine Generator 4A CT with Heat Recovery Steam Generator	AC1B	NA
005	Combined Cycle Combustion Turbine Generator 4B CT with Heat Recovery Steam Generator	AC1B	NA
006	Combined Cycle Combustion Turbine Generator 4C CT with Heat Recovery Steam Generator	AC1B	NA
007	Combined Cycle Combustion Turbine Generator 4D CT with Heat Recovery Steam Generator	AC1B	NA
009	Combined Cycle Combustion Turbine Generator 5A CT with Heat Recovery Steam Generator	AC1B	NA
010	Combined Cycle Combustion Turbine Generator 5B CT with Heat Recovery Steam Generator	AC1B	NA
011	Combined Cycle Combustion Turbine Generator 5C CT with Heat Recovery Steam Generator	AC1B	NA
012	Combined Cycle Combustion Turbine Generator 5D CT with Heat Recovery Steam Generator	AC1B	NA

Application Processing Fee

Check one: [ ] Attached - Amount: $: _____ [X] Not Applicable

Construction/Modification Information

1. Description of Proposed Project or Alterations:

   This application is requesting a construction permit to operate combustion turbines associated with Units 4A through 4D and Units 5A through 5D in Peak Firing Mode for up to 400 hours per year. See Part II.

2. Projected or Actual Date of Commencement of Construction: **JUNE 1, 2003**

3. Projected Date of Completion of Construction: **JULY 1, 2004**

Application Comment

See Part II.

II. FACILITY INFORMATION

A. GENERAL FACILITY INFORMATION

Facility Location and Type

1. Facility UTM Coordinates: Zone: **17** East (km): **468.3** North (km): **3190.3**			
2. Facility Latitude/Longitude: Latitude (DD/MM/SS): **28 / 50 / 31** Longitude (DD/MM/SS): **81 / 19 / 32**			
3. Governmental Facility Code: **O**	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 existing Sanford facility consists of 1 Fossil-Fired Steam Generators (FFSG) and two combined cycle units. FFSG Unit 3 is fired with No. 6 residual fuel oil, No. 2 fuel oil, and natural gas. The FFSG associated with Units 4 & 5 have been replaced with eight advanced CTs burning natural gas and 8 HRSGs to produce two 4-on-1 combined cycle units. Combined Cycle Units 4 and 5 have commenced operation.**			

Facility Contact

1. Name and Title of Facility Contact: **Mr. Randy Hopkins, Environmental Specialist**
2. Facility Contact Mailing Address: Organization/Firm: **FPL Sanford Plant** Street Address: **950 South Highway 17-92** City: **DeBary** State: **FL** Zip Code: **32713**
3. Facility Contact Telephone Numbers: Telephone: (**386**) **575-5385** Fax: (**386**) **575-5233**

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. [ ] 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): **The CTs are subject to NSPS Subpart GG.**	

List of Applicable Regulations

Facility applicable regulations are listed in the existing Title V permit. No additional facility applicable requirements will result from approval of this construction application.

B. FACILITY POLLUTANTS

List of Pollutants Emitted

1. Pollutant Emitted	2. Pollutant Classif.	3. Requested Emissions Cap		4. Basis for Emissions Cap	5. Pollutant Comment
		lb/hour	tons/year		

C. FACILITY SUPPLEMENTAL INFORMATION

Supplemental Requirements

1. Area Map Showing Facility Location: [ ] Attached, Document ID: _____ [X] Not Applicable [ ] Waiver Requested
2. Facility Plot Plan: [ ] Attached, Document ID: _____ [X] Not Applicable [ ] Waiver Requested
3. Process Flow Diagram(s): [ ] Attached, Document ID: _____ [X] 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: **Part II** [ ] 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:_____ [X] 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
   [X] Not Applicable_____

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

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

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

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

15. Compliance Certification (Hard-copy Required):
    [ ] Attached, Document ID: _____ [X] 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)

[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):
Combustion Turbines 4A through 4D.

4. Emissions Unit Identification Number:
ID: **004-007**
[ ] No ID
[ ] ID Unknown

5. Emissions Unit Status Code:	6. Initial Startup Date:	7. Emissions Unit Major Group SIC Code:	8. Acid Rain Unit?
A	**MAR 2003**	**49**	[X]

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

The emission units are four General Electric (GE) Frame 7FA Advanced CTs. Unit 4 will use natural gas in peak firing mode. It can be operated in only combined cycle mode. Nameplate ratings, heat input, emissions, etc., are the same for each CT.

Emissions Unit Control Equipment

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

Dry Low NO_x Combustors

2. Control Device or Method Code(s): **025**

Emissions Unit Details

1. Package Unit:
   Manufacturer: **General Electric** Model Number: **7FA**
2. Generator Nameplate Rating: **182** 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:		**1,918**	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	**400**	hours/year

6. Operating Capacity/Schedule Comment (limit to 200 characters):

Maximum heat input for peak firing mode using natural gas at turbine inlet temperature of 35 degrees Fahrenheit (°F), 20% relative humidity, and 14.7 psia. Heat input as High Heating Value (HHV). Generator nameplate Rating - 182 MW (35°F turbine inlet).

C. EMISSIONS UNIT REGULATIONS
(Regulated Emissions Units Only)

List of Applicable Regulations

Applicable regulations do not change as a result of this construction permit application.

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?	2. Emission Point Type Code: **3**	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point): **Unit can exhaust through HRSG stack.**		
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:		
5. Discharge Type Code: **V**	6. Stack Height: **125** feet	7. Exit Diameter: **19** feet
8. Exit Temperature: **220** °F	9. Actual Volumetric Flow Rate: **1,036,915** acfm	10. Water Vapor: **8.6** %
11. Maximum Dry Standard Flow Rate: **738,680** dscfm	12. Nonstack Emission Point Height: feet	
13. Emission Point UTM Coordinates: Zone: **17** East (km): **468.3** North (km): **3190.3**		
14. Emission Point Comment (limit to 200 characters): **Stack conditions for combined cycle operation, peak firing, and turbine inlet of 59°F. Stack conditions vary based on turbine inlet temperature. All CTs equipped with inlet foggers. See Part II.**		

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**		
2. Source Classification Code (SCC): **2-01-002-01**	3. SCC Units: **Million Cubic Feet**	
4. Maximum Hourly Rate: **1.92**	5. Maximum Annual Rate: **718**	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit: **1,024**
10. Segment Comment (limit to 200 characters): **Maximum Hourly Rate = 1,918 (rounded to 1.81)** **Annual based on 59°F turbine inlet (1,838 MMBtu/hr). Million Btu/SCC as HHV.**		

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
PM			WP
SO_2			WP
NO_X	025		EL
CO			EL
VOC			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: **9** lb/hour **1.8** tons/year	4. Synthetically Limited? [**X**]
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year	
6. Emission Factor: **9 lb/hr** Reference: **GE, 2000**	7. Emissions Method Code: **2**
8. Calculation of Emissions (limit to 600 characters): **See Part II.**	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): **Potential emissions for one (1) CT and peak firing mode.**	

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: **10% Opacity**	4. Equivalent Allowable Emissions: **9** lb/hour **1.8** tons/year
5. Method of Compliance (limit to 60 characters): **EPA Method 9**	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): **Peak firing mode with natural gas. Equivalent allowable emissions for one (1) CT.**	

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: **5.1** lb/hour **1.02** tons/year	4. Synthetically Limited? [X]
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year	
6. Emission Factor: **1 grain S/100 cf Gas** Reference: **GE, 2000; Golder, 2003**	7. Emissions Method Code: **2**
8. Calculation of Emissions (limit to 600 characters): **See Part II.**	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): **Potential emissions for one (1) CT and peak firing mode.**	

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:	4. Equivalent Allowable Emissions: **5.1** lb/hour **1.02** tons/year
5. Method of Compliance (limit to 60 characters): **Fuel Sampling; Vendor Sampling Pipeline Quality Natural Gas**	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): **Equivalent allowable emissions for one (1) CT. Allowable based on typical maximum fuel sulfur content. Peak firing mode with natural gas.**	

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: **101.2** lb/hour **20.24** tons/year	4. Synthetically Limited? [**X**]
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year	
6. Emission Factor: **15 ppmvd @ 15% O_2** Reference: **GE, 2000**	7. Emissions Method Code: **2**
8. Calculation of Emissions (limit to 600 characters): **See Part II**	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): **Potential emissions for one (1) CT and peak firing mode.**	

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: **15 ppmvd @ 15% O_2**	4. Equivalent Allowable Emissions: **101.2** lb/hour **20.24** tons/year
5. Method of Compliance (limit to 60 characters): **CEM - Part 75**	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): **Allowable emissions are a 3-hour block average. CEM is installed in HRSG stack. Equivalent allowable emissions for one (1) CT. Peak firing mode with natural gas.**	

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: **28.9** lb/hour **5.78** tons/year	4. Synthetically Limited? [X]
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year	
6. Emission Factor: **9 ppmvd** Reference: **GE, 2000**	7. Emissions Method Code: **2**
8. Calculation of Emissions (limit to 600 characters): **See Part II.**	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): **Potential emissions for one (1) CT and peak firing mode.**	

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: **9 ppmvd**	4. Equivalent Allowable Emissions: **28.9** lb/hour **5.78** tons/year
5. Method of Compliance (limit to 60 characters): **EPA Method 10; Annual Test**	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): **Peak firing mode with natural gas. Equivalent allowable emissions for one (1) CT.**	

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: **2.81** lb/hour **0.56** tons/year	4. Synthetically Limited? [X]
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year	
6. Emission Factor: **1.4 ppmvw** Reference: **GE, 2000**	7. Emissions Method Code: **2**
8. Calculation of Emissions (limit to 600 characters): **See Part II.**	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): **Potential emissions for on (1) CT and peak firing mode.**	

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: **1.4 ppmvw**	4. Equivalent Allowable Emissions: **2.81** lb/hour **0.56** tons/year
5. Method of Compliance (limit to 60 characters): **EPA Method 18 or 25A; Initial Compliance Test only**	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): **Equivalent allowable emissions for one (1) CT. Peak firing mode with natural gas.**	

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): **Peak Firing Mode with Natural Gas**	

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

Continuous Monitoring System: Continuous Monitor 1 of 1

1. Parameter Code: **EM**	2. Pollutant(s): **NO_x**
3. CMS Requirement:	[X] Rule [ ] Other
4. Monitor Information: Manufacturer: **To be provided with initial Title V application.** Model Number: Serial Number:	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment (limit to 200 characters): **CEMs meet 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: **60** min/hour	
4. Method of Compliance: **None**	
5. Visible Emissions Comment (limit to 200 characters): **FDEP Rule 62-210.700(1). Allowed for 2 hours (120 minutes) per 24 hours for start-up, shutdown, and malfunction. (Note: Allowance for cold startup and shutdown specified by Title V permit.)**	

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):	

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

Supplemental Requirements

1. Process Flow Diagram [ ] Attached, Document ID: _____ [X] Not Applicable [ ] Waiver Requested
2. Fuel Analysis or Specification [ ] Attached, Document ID: _____ [ ] Not Applicable [ ] Waiver Requested
3. Detailed Description of Control Equipment [ ] Attached, Document ID: _____ [X] Not Applicable [ ] Waiver Requested
4. Description of Stack Sampling Facilities [ ] Attached, Document ID: _____ [X] 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: **Part II** [ ] Not Applicable
9. Other Information Required by Rule or Statute [ ] Attached, Document ID: _____ [X] Not Applicable
10. Supplemental Requirements Comment:

Additional Supplemental Requirements for Title V Air Operation Permit Applications

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

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

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

14. Compliance Assurance Monitoring Plan
[ ] Attached, Document ID:_____ [X] 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:_____

[X] 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)

[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):
Combustion Turbines 5A through 5D.

4. Emissions Unit Identification Number:
ID: **009-012**
[ ] No ID
[ ] ID Unknown

5. Emissions Unit Status Code:	6. Initial Startup Date:	7. Emissions Unit Major Group SIC Code:	8. Acid Rain Unit?
A	**FEB 2002**	**49**	[X]

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

The emission units are four General Electric (GE) Frame 7FA Advanced CTs. Unit 5 will use natural gas in peak firing mode. It can be operated in only combined cycle mode. Nameplate ratings, heat input, emissions, etc., are the same for each CT.

Emissions Unit Control Equipment

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

Dry Low NO_x Combustors

2. Control Device or Method Code(s): **025**

Emissions Unit Details

1. Package Unit:
   Manufacturer: **General Electric** Model Number: **7FA**
2. Generator Nameplate Rating: **182** 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:		**1,918**	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	**400**	hours/year

6. Operating Capacity/Schedule Comment (limit to 200 characters):

Maximum heat input for peak firing mode using natural gas at turbine inlet temperature of 35 degrees Fahrenheit (°F), 20% relative humidity, and 14.7 psia. Heat input as High Heating Value (HHV). Generator nameplate Rating - 182 MW (35°F turbine inlet).

C. EMISSIONS UNIT REGULATIONS
(Regulated Emissions Units Only)

List of Applicable Regulations

Applicable regulations do not change as a result of this construction permit application.

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?	2. Emission Point Type Code: **3**	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point): **Unit can exhaust through HRSG stack.**		
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:		
5. Discharge Type Code: **V**	6. Stack Height: **125** feet	7. Exit Diameter: **19** feet
8. Exit Temperature: **220** °F	9. Actual Volumetric Flow Rate: **1,036,915** acfm	10. Water Vapor: **8.6** %
11. Maximum Dry Standard Flow Rate: **738,680** dscfm	12. Nonstack Emission Point Height: feet	
13. Emission Point UTM Coordinates: Zone: **17** East (km): **468.3** North (km): **3190.3**		
14. Emission Point Comment (limit to 200 characters): **Stack conditions for combined cycle operation, peak firing, and turbine inlet of 59°F. Stack conditions vary based on turbine inlet temperature. All CTs equipped with inlet foggers. See Part II.**		

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**		
2. Source Classification Code (SCC): **2-01-002-01**	3. SCC Units: **Million Cubic Feet**	
4. Maximum Hourly Rate: **1.92**	5. Maximum Annual Rate: **718**	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit: **1,024**
10. Segment Comment (limit to 200 characters): **Maximum Hourly Rate = 1,918 (rounded to 1.81)** **Annual based on 59°F turbine inlet (1,838 MMBtu/hr). Million Btu/SCC as HHV.**		

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
PM			WP
SO_2			WP
NO_X	025		EL
CO			EL
VOC			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: **9** lb/hour **1.8** tons/year	4. Synthetically Limited? [**X**]
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year	
6. Emission Factor: **9 lb/hr** Reference: **GE, 2000**	7. Emissions Method Code: **2**
8. Calculation of Emissions (limit to 600 characters): **See Part II.**	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): **Potential emissions for one (1) CT and peak firing mode.**	

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: **10% Opacity**	4. Equivalent Allowable Emissions: **9** lb/hour **1.8** tons/year
5. Method of Compliance (limit to 60 characters): **EPA Method 9**	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): **Peak firing mode with natural gas. Equivalent allowable emissions for one (1) CT.**	

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: **5.1** lb/hour **1.02** tons/year	4. Synthetically Limited? [X]
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year	
6. Emission Factor: **1 grain S/100 cf Gas** Reference: **GE, 2000; Golder, 2003**	7. Emissions Method Code: **2**
8. Calculation of Emissions (limit to 600 characters): **See Part II.**	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): **Potential emissions for one (1) CT and peak firing mode.**	

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:	4. Equivalent Allowable Emissions: **5.1** lb/hour **1.02** tons/year
5. Method of Compliance (limit to 60 characters): **Fuel Sampling; Vendor Sampling Pipeline Quality Natural Gas**	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): **Equivalent allowable emissions for one (1) CT. Allowable based on typical maximum fuel sulfur content. Peak firing mode with natural gas.**	

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: **101.2** lb/hour **20.24** tons/year		4. Synthetically Limited? [X]
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year		
6. Emission Factor: **15 ppmvd @ 15% O_2** Reference: **GE, 2000**		7. Emissions Method Code: **2**
8. Calculation of Emissions (limit to 600 characters): **See Part II**		
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): **Potential emissions for one (1) CT and peak firing mode.**		

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: **15 ppmvd @ 15% O_2**	4. Equivalent Allowable Emissions: **101.2** lb/hour **20.24** tons/year
5. Method of Compliance (limit to 60 characters): **CEM - Part 75**	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): **Allowable emissions are a 3-hour block average. CEM is installed in HRSG stack. Equivalent allowable emissions for one (1) CT. Peak firing mode with natural gas.**	

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: **28.9** lb/hour **5.78** tons/year	4. Synthetically Limited? [X]
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year	
6. Emission Factor: **9 ppmvd** Reference: **GE, 2000**	7. Emissions Method Code: **2**
8. Calculation of Emissions (limit to 600 characters): **See Part II.**	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): **Potential emissions for one (1) CT and peak firing mode.**	

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: **9 ppmvd**	4. Equivalent Allowable Emissions: **28.9** lb/hour **5.78** tons/year
5. Method of Compliance (limit to 60 characters): **EPA Method 10; Annual Test**	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): **Peak firing mode with natural gas. Equivalent allowable emissions for one (1) CT.**	

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: **2.81** lb/hour **0.56** tons/year	4. Synthetically Limited? [**X**]
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year	
6. Emission Factor: **1.4 ppmvw** Reference: **GE, 2000**	7. Emissions Method Code: **2**
8. Calculation of Emissions (limit to 600 characters): **See Part II.**	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): **Potential emissions for on (1) CT and peak firing mode.**	

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: **1.4 ppmvw**	4. Equivalent Allowable Emissions: **2.81** lb/hour **0.56** tons/year
5. Method of Compliance (limit to 60 characters): **EPA Method 18 or 25A; Initial Compliance Test only**	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): **Equivalent allowable emissions for one (1) CT. Peak firing mode with natural gas.**	

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): **Peak Firing Mode with Natural Gas**	

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

Continuous Monitoring System: Continuous Monitor 1 of 1

1. Parameter Code: **EM**	2. Pollutant(s): **NO_x**
3. CMS Requirement:	[X] Rule [ ] Other
4. Monitor Information: Manufacturer: **NO_x = Thermo Environmental Instruments; O_2 = Servomex** Model Number: **NO_x = 43CHL; O_2 = 1400** Serial Number: **NO_x** **O_2** **5A= 42CLS-77996-387 01420C/1831** **5B= 42CLS-77997-387 01420C/1832** **5C= 42CLS-77998-387 01420C/1833** **5D= 42CLS-77999-387 01420C/1834**	
5. Installation Date: **1 JAN 2002 (5A) through 30 APR 2002 (5D) (Original NO_x replaced in 2002)**	6. Performance Specification Test Date: **21 APR 2003 (5A); 22 APR 2003 (5B); 23 APR 2003 (5C); Sch. MAY 2003 (5D)**
7. Continuous Monitor Comment (limit to 200 characters): **CEMs meet 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: **60** min/hour	
4. Method of Compliance: **None**	
5. Visible Emissions Comment (limit to 200 characters): **FDEP Rule 62-210.700(1). Allowed for 2 hours (120 minutes) per 24 hours for start-up, shutdown, and malfunction. (Note: Allowance for cold startup and shutdown specified by permit.)**	

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):	

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

Supplemental Requirements

1. Process Flow Diagram [ ] Attached, Document ID: _____ [X] Not Applicable [ ] Waiver Requested
2. Fuel Analysis or Specification [ ] Attached, Document ID: _____ [ ] Not Applicable [ ] Waiver Requested
3. Detailed Description of Control Equipment [ ] Attached, Document ID: _____ [X] Not Applicable [ ] Waiver Requested
4. Description of Stack Sampling Facilities [ ] Attached, Document ID: _____ [X] 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: **Part II** _____ [ ] Not Applicable
9. Other Information Required by Rule or Statute [ ] Attached, Document ID: _____ [X] Not Applicable
10. Supplemental Requirements Comment:

Additional Supplemental Requirements for Title V Air Operation Permit Applications

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

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

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

14. Compliance Assurance Monitoring Plan
[ ] Attached, Document ID: _____ [X] 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: _____

[X] Not Applicable

PART II

APPLICATION FOR AIR CONSTRUCTION PERMIT
SANFORD UNITS 4A THROUGH 4D AND UNITS 5A THROUGH 5D
PEAK FIRING MODE

APPLICATION FOR AIR CONSTRUCTION PERMIT
SANFORD UNITS 4A THROUGH 4D AND UNITS 5A THROUGH 5D
PEAK FIRING MODE

Introduction

The Florida Power & Light Company (FPL) Sanford Plant is located on approximately 1,700 acres on the St. Johns River about three (3) miles northwest of Sanford, Florida. The site is located within the City of DeBary, Volusia County, Florida. In September 1999, an Air Construction Permit and Prevention of Significant Deterioration (PSD) approval was issued for the installation of eight nominal 170-megawatt (MW) combustion turbines (CTs) with an associated heat recovery steam generators (HRSGs) for repowering two existing steam electric generators [Florida Department of Environmental Protection (FDEP) File No. 1270009-004-AC]. The CTs are designated as Units 4A through 4D associated with the repowering of the existing Unit 4 steam turbine/generator and Units 5A through 5D associated with the repowering of the existing Unit steam turbine/generator. The combustion turbines are General Electric (GE) Frame 7FA (Model PG7241) that are authorized to fire natural gas with distillate oil authorized as backup for Units 5A through 5D. Dry low-nitrogen oxides (NO_x) combustion technology is used to control emissions of NO_x to 9 parts per million by volume dry (ppmvd) corrected to 15-percent oxygen when firing natural gas. The CTs are equipped with inlet evaporative cooling systems.

This application is submitted to request authorization to allow operation in Peak Firing Mode for up to 400 hours per year.

Peak Firing Mode

Peak Firing Mode operation is a computer-controlled increase in firing temperature with greater heat input and output. It is a standard operating feature of the GE Frame 7FA CT when firing natural gas. The increase in power and heat input is about 3.8 percent at ISO conditions. The heat rate of the unit decreases by about 25 British thermal units per kilowatt-hour (Btu/Kw-hr) or about 0.3 percent. This mode of operation has been authorized for more recent projects including Martin Simple Cycle Units 8A and 8B, Fort Myers Simple Cycle Units 3A and 3B, Martin Combined Cycle Unit 8, and Manatee Combined Cycle Unit 3. Operation of up to 400 hours per year operation has been authorized.

Appendix A contains performance and emissions data and calculations for Peak Firing Mode at turbine inlet temperatures of 35 degrees Fahrenheit (°F), 59°F, 75°F, and 95°F. Appendix A also contains the GE estimated performance and emissions for Peak Firing Mode. For comparison, GE estimated performance for base load operation at 59°F is also contained in Appendix A.

Table 1 presents the hourly and annual emissions for particulate matter/particulate matter less than 10 microns (PM/PM_{10}), sulfur dioxide (SO_2), NO_x, carbon monoxide (CO), and volatile organic carbons (VOCs) for Peak Firing Mode and baseload operation. Emissions are presented for each CT and the eight CTs associated with Units 4A through 4D and Units 5A through 5D. As previously noted, Peak Firing Mode is a computer-controlled operation that increases firing temperature from baseload operation. As a result, emission increases are an incremental increase from baseload, since baseload operation must occur when peak mode begins. Peak Firing Mode only provides an incremental increase in power to meet electric demands that could not otherwise be provided by baseload operation.

Regulatory Applicability

Peak Firing Mode is a change in the method of operation of combustion turbines. A modification would occur if there is a net emissions increase pursuant to Rule 62-212.400(2)(e)1 Florida Administrative Code (F.A.C.): "A modification to a facility results in a net emissions increase when, for a pollutant regulated under the Act, the sum of all of the contemporaneous creditable increases and decreases in the actual emissions of the facility, including the increase in emissions of the modification itself and any increases and decreases in quantifiable fugitive emissions, is greater than zero." Pursuant to Rule 62-212.400(2)(e)2: "A significant net emissions increase of a pollutant regulated under the Act is a net emissions increase equal to or greater than the applicable significant emission rate listed in Table 212.400-2, Regulated Air Pollutants - Significant Emission Rates."

The EPA guidance regarding PSD applicability clearly indicates that applicability is pollutant specific. In addition, if the emissions for a project are less than the significant emission rates, then PSD review is not applicable [U.S. Environmental Protection Agency (EPA) Draft New Source Review Workshop Manual, October 1990, Table A-5]. If the significant impact levels are exceeded for that pollutant, then contemporaneous emission increases and decreases are evaluated. Based on Rule 62-212.400(2)(e)3 F.A.C., contemporaneous emissions changes are: "An increase or decrease in the actual emissions or in the quantifiable fugitive emissions of a facility is contemporaneous with a particular modification if it occurs within the period beginning five years prior to the date on which

the owner or operator of the facility submits a complete application for a permit to modify the facility and ending on the date on which the owner or operator of the modified facility projects the new or modified emissions unit(s) to begin operation. The date on which any increase in the actual emissions or in the quantifiable fugitive emissions of the facility occurs is the date on which the owner or operator of the facility begins, or projects to begin, operation of the emissions unit(s) resulting in the increase. The date on which any decrease in the actual emissions or in the quantifiable fugitive emissions of the facility occurs is the date on which the owner or operator of the facility completes, or is committed to complete through a federally enforceable permit condition, a physical change in or change in the method of operation of the facility resulting in the decrease."

Table 1 shows that, with the exception of NO_x, the emissions from the project are below the significant emission rates. This conclusion is evident whether a comparison of project emissions and significant emission rates is made using the difference between peak firing and baseload or by using the total emissions for Peak Firing Mode with all eight CTs.

The Sanford Plant has creditable emission decreases over the last several years resulting from shutting down the existing residual oil and natural gas-fired steam-generating units (i.e., steam generators for Units 4 and 5). The steam generators for Units 4 and 5 were retired in 2002 and 2001, respectively. The emission reductions from these retirements are contemporaneous with the proposed Peak Firing Mode. Peak Firing is scheduled to be completed by June 2004, which is well within the 5-year contemporaneous period for the creditable reductions from the Units 4 and 5 steam generators. Table 2 presents a netting analysis for NO_x. As shown, the large net emissions decreases in NO_x offset the small increases from peak firing.

Table 1. Emissions for Peak Firing and Base Load at a Turbine Inlet Temperature of 59°F
FPL Sanford Plant, Units 4A Through 4D and 5A Through 5D

Pollutant		Peak Firing at 59 °F		Base Load at 59 °F		Difference	SER[b]
		per CT	8 CTs	per CT	8 CTs		
PM/PM_{10}	lb/hr	9	72	9	72		
	TPY[a]	1.8	14.4	1.8	14.4	0	15/25
SO_2	lb/hr	5.1	40.8	4.9	39.2		
	TPY[a]	1.02	8.16	0.98	7.84	0.32	40
NO_x	lb/hr	101.2	809.6	58.7	469.6		
	TPY[a]	20.24	161.92	11.74	93.92	68	40
CO	lb/hr	28.9	231.2	28.8	230.4		
	TPY[a]	5.78	46.24	5.76	46.08	0.16	100
VOC	lb/hr	2.81	22.48	2.79	22.32		
	TPY[a]	0.562	4.496	0.558	4.464	0.032	40

[a] TPY = tons/year; reflects a maximum of 400 hours per year operation.

[b] SER = significant emission rate from Table 212.400-2 F.A.C.

Source: GE, 2000; Golder, 2003.

Table 2. Net NO_x Emission Changes for FPL Sanford Plant

Pollutant	Actual Emissions	Repowering Project[a]	Peak Operation	Net Emission Change	SER[b]	PSD Review Applicable?
NO_x	9,984.0	2,738.0	68.0	-7,178.0	40	No Net Emission Increase

[a] FDEP File No. 0710002-004-AC; PSD-FL-270; Sanford Repowering Project.

[b] SER = significant emission rate from Table 212.400-2 F.A.C.

APPENDIX A

Table A-1. Design Information and Stack Parameters for GE Frame 7FA, Dry Low NO_x Combustor, Natural Gas Peak Firing Mode

Parameter	Ambient Inlet Temperature 35 °F	59 °F	75 °F	95 °F
Combustion Turbine Performance				
Net power output (MW)	190.3	179.5	169.5	156.1
Net heat rate (Btu/kWh, LHV)	9,080	9,225	9,370	9,595
(Btu/kWh, HHV)	10,079	10,240	10,401	10,651
Heat Input (MMBtu/hr, LHV)	1,728	1,656	1,588	1,498
(MMBtu/hr, HHV)	1,918	1,838	1,763	1,663
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	3,413,000	3,238,000
- provided	3,713,000	3,558,000	3,413,000	3,238,000
Temperature (°F)	1,109	1,139	1,152	1,172
Moisture (% Vol.)	7.74	8.59	9.25	10.16
Oxygen (% Vol.)	12.39	12.20	12.12	11.99
Molecular Weight	28.48	28.38	28.31	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)	1,728	1,656	1,588	1,498
Heat content (Btu/lb, LHV)	20,835	20,835	20,835	20,835
Fuel usage (lb/hr)- calculated	82,933	79,477	76,228	71,889
HRSG Stack				
CT- Stack height (ft)	125	125	125	125
Diameter (ft)	19	19	19	19
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)	3,713,000	3,558,000	3,413,000	3,238,000
Temperature (°F)	1,109	1,139	1,152	1,172
Molecular weight	28.48	28.38	28.31	28.21
Volume flow (acfm)- calculated	2,488,641	2,438,274	2,363,849	2,279,045
(ft3/s)- calculated	41,477	40,638	39,397	37,984
Stack Flow Conditions - HRSG				
Velocity (ft/sec) = Volume flow (acfm) / [((diameter)^2 /4) x 3.14159] / 60 sec/min				
CT Temperature (°F)	220	220	220	220
CT volume flow (acfm)	1,078,570	1,036,915	997,157	949,602
Diameter (ft)	19	19	19	19
Velocity (ft/sec)- calculated	63.4	61.0	58.6	55.8

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-2. Maximum Emissions for Criteria Pollutants for GE Frame 7FA, Dry Low NOx Combustor, Natural Gas Peak Firing Mode

Parameter	Ambient Inlet Temperature 35 °F	59 °F	75 °F	95 °F
Hours of Operation	400	400	400	400
Particulate (lb/hr) = Emission rate (lb/hr) from manufacturer				
Basis (excludes H_2SO_4), lb/hr	9	9	10	10
Emission rate (lb/hr)- provided	9.0	9.0	10.0	10.0
(TPY)	1.80	1.80	2.00	2.00
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	1,774,675	1,702,119	1,605,235
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	4.9	4.6
(TPY)	1.06	1.01	0.97	0.92
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	8.59	9.25	10.16
Oxygen (%)	12.39	12.2	12.12	11.99
Turbine Flow (acfm)	2,488,641	2,438,274	2,363,849	2,279,045
Turbine Exhaust Temperature (°F)	1,109	1,139	1,152	1,172
Emission rate (lb/hr)	105.1	101.2	96.5	91.1
(TPY)	21.0	20.2	19.3	18.2
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 (%)	7.74	8.59	9.25	10.16
Turbine Flow (acfm)	2,488,641	2,438,274	2,363,849	2,279,045
Turbine Exhaust Temperature (°F)	1,109	1,139	1,152	1,172
Emission rate (lb/hr)	30.3	28.9	27.6	26.0
(TPY)	6.1	5.8	5.5	5.2
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, ppmvw	1.4	1.4	1.4	1.4
Basis, ppmvd	1.52	1.53	1.54	1.56
Moisture (%)	7.74	8.59	9.25	10.16
Turbine Flow (acfm)	2,488,641	2,438,274	2,363,849	2,279,045
Turbine Exhaust Temperature (°F)	1,109	1,139	1,152	1,172
Emission rate (lb/hr)	2.92	2.81	2.70	2.57
(TPY)	0.58	0.56	0.54	0.51
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, 2003.

FPL PEAK FIRING – ESTIMATED PERFORMANCE PG7241(FA)

Load Condition		PEAK
Ambient Temp.	Deg F.	35.
Output	kW	190,300.
Heat Rate (LHV)	Btu/kWh	9,080.
Heat Cons. (LHV) X 10^6	Btu/h	1,727.9
Auxiliary Power	kW	560
Output Net	kW	189,740.
Heat Rate (LHV) Net	Btu/kWh	9,110.
Exhaust Flow X 10^3	lb/h	3713.
Exhaust Temp.	Deg F.	1109.
Exhaust Heat (LHV) X 10^6	Btu/h	1015.9

EMISSIONS

NOx	ppmvd @ 15% O2	15.
NOx AS NO2	lb/h	105.
CO	ppmvd	9.
CO	lb/h	30.
UHC	ppmvw	7.
UHC	lb/h	15.
VOC	ppmvw	1.4
VOC	lb/h	3.
Particulates	lb/h	9.0

EXHAUST ANALYSIS % VOL.

Argon	0.89
Nitrogen	75.00
Oxygen	12.39
Carbon Dioxide	3.98
Water	7.74

SITE CONDITIONS

Elevation	ft.	45.0
Site Pressure	psia	14.68
Inlet Loss	in Water	3.0
Exhaust Loss	in Water	5.5
Relative Humidity	%	20
Fuel Type		Cust Gas
Fuel LHV	Btu/lb	20835 @ 290 °F
Application		7FH2 Hydrogen-Cooled Generator
Combustion System		9/42 DLN Combustor

Emission information based on GE recommended measurement methods. NOx emissions are corrected to 15% O2 without heat rate correction and are not corrected to ISO reference condition per 40CFR 60.335(c)(1). NOx levels shown will be controlled by algorithms within the SPEEDTRONIC control system.

FPL PEAK FIRING – ESTIMATED PERFORMANCE PG7241(FA)

Load Condition		PEAK
Ambient Temp.	Deg F.	59.
Output	kW	179,500.
Heat Rate (LHV)	Btu/kWh	9,225.
Heat Cons. (LHV) X 106	Btu/h	1,655.9
Auxiliary Power	kW	560
Output Net	kW	178,940.
Heat Rate (LHV) Net	Btu/kWh	9,250.
Exhaust Flow X 103	lb/h	3541.
Exhaust Temp.	Deg F.	1139.
Exhaust Heat (LHV) X 106	Btu/h	983.3

EMISSIONS

NOx	ppmvd @ 15% O2	15.
NOx AS NO2	lb/h	101.
CO	ppmvd	9.
CO	lb/h	29.
UHC	ppmvw	7.
UHC	lb/h	14.
VOC	ppmvw	1.4
VOC	lb/h	2.8
Particulates	lb/h	9.0

EXHAUST ANALYSIS % VOL.

Argon	0.89
Nitrogen	74.34
Oxygen	12.20
Carbon Dioxide	3.98
Water	8.59

SITE CONDITIONS

Elevation	ft.	45.0
Site Pressure	psia	14.68
Inlet Loss	in Water	3.0
Exhaust Loss	in Water	5.5
Relative Humidity	%	60
Fuel Type		Cust Gas
Fuel LHV	Btu/lb	20835 @ 290 °F
Application		7FH2 Hydrogen-Cooled Generator
Combustion System		9/42 DLN Combustor

Emission information based on GE recommended measurement methods. NOx emissions are corrected to 15% O2 without heat rate correction and are not corrected to ISO reference condition per 40CFR 60.335(c)(1). NOx levels shown will be controlled by algorithms within the SPEEDTRONIC control system.

FPL PEAK FIRING – ESTIMATED PERFORMANCE PG7241(FA)

Load Condition		PEAK
Ambient Temp.	Deg F.	75.
Output	kW	169,500.
Heat Rate (LHV)	Btu/kWh	9,370.
Heat Cons. (LHV) X 106	Btu/h	1,588.2
Auxiliary Power	kW	560
Output Net	kW	168,940.
Heat Rate (LHV) Net	Btu/kWh	9,400.
Exhaust Flow X 103	lb/h	3413.
Exhaust Temp.	Deg F.	1152.
Exhaust Heat (LHV) X 106	Btu/h	952.2

EMISSIONS

NOx	ppmvd @ 15% O2	15.
NOx AS NO2	lb/h	97.
CO	ppmvd	9.
CO	lb/h	28.
UHC	ppmvw	7.
UHC	lb/h	14.
VOC	ppmvw	1.4
VOC	lb/h	2.8
Particulates	lb/h	9.0

EXHAUST ANALYSIS % VOL.

Argon	0.89
Nitrogen	73.80
Oxygen	12.12
Carbon Dioxide	3.95
Water	9.25

SITE CONDITIONS

Elevation	ft.	45.0
Site Pressure	psia	14.68
Inlet Loss	in Water	3.0
Exhaust Loss	in Water	5.5
Relative Humidity	%	60
Fuel Type		Cust Gas
Fuel LHV	Btu/lb	20835 @ 290 °F
Application		7FH2 Hydrogen-Cooled Generator
Combustion System		9/42 DLN Combustor

Emission information based on GE recommended measurement methods. NOx emissions are corrected to 15% O2 without heat rate correction and are not corrected to ISO reference condition per 40CFR 60.335(c)(1). NOx levels shown will be controlled by algorithms within the SPEEDTRONIC control system.

FPL PEAK FIRING - ESTIMATED PERFORMANCE PG7241(FA)

Load Condition		PEAK
Ambient Temp.	Deg F.	95.
Output	kW	156,100.
Heat Rate (LHV)	Btu/kWh	9,595.
Heat Cons. (LHV) X 10^6	Btu/h	1,497.8
Auxiliary Power	kW	560
Output Net	kW	155,540.
Heat Rate (LHV) Net	Btu/kWh	9,630.
Exhaust Flow X 10^3	lb/h	3238.
Exhaust Temp.	Deg F.	1172.
Exhaust Heat (LHV) X 10^6	Btu/h	910.7

EMISSIONS

NOx	ppmvd @ 15% O2	15.
NOx AS NO2	lb/h	91.
CO	ppmvd	9.
CO	lb/h	26.
UHC	ppmvw	7.
UHC	lb/h	13.
VOC	ppmvw	1.4
VOC	lb/h	2.6
Particulates	lb/h	9.0

EXHAUST ANALYSIS % VOL.

Argon	0.88
Nitrogen	73.06
Oxygen	11.99
Carbon Dioxide	3.91
Water	10.16

SITE CONDITIONS

Elevation	ft.	45.0
Site Pressure	psia	14.68
Inlet Loss	in Water	3.0
Exhaust Loss	in Water	5.5
Relative Humidity	%	50
Fuel Type		Cust Gas
Fuel LHV	Btu/lb	20835 @ 290 °F
Application		7FH2 Hydrogen-Cooled Generator
Combustion System		9/42 DLN Combustor

Emission information based on GE recommended measurement methods. NOx emissions are corrected to 15% O2 without heat rate correction and are not corrected to ISO reference condition per 40CFR 60.335(c)(1). NOx levels shown will be controlled by algorithms within the SPEEDTRONIC control system.

FPL PEAK FIRING – ESTIMATED PERFORMANCE WITH FOGGER ON PG7241(FA)

Load Condition		PEAK	PEAK	PEAK
Ambient Temp.	Deg F.	59.	75.	95.
Ambient Relative Humid.	%	60.	60.	50.
Fogger Status		On	On	On
Fogger Effectiveness	%	95	95	95
Fuel Type		Cust Gas	Cust Gas	Cust Gas
Fuel LHV	Btu/lb	20,835	20,835	20,835
Fuel Temperature	Deg F	290	290	290
Output	kW	183,000.	175,200.	166,100.
Heat Rate (LHV)	Btu/kWh	9,185.	9,300.	9,450.
Heat Cons. (LHV) X 10^6	Btu/h	1,680.9	1,629.4	1,569.6
Auxiliary Power	kW	560	560	560
Output Net	kW	182,440.	174,640.	165,540.
Heat Rate (LHV) Net	Btu/kWh	9,210.	9,330.	9,480.
Exhaust Flow X 10^3	lb/h	3588.	3478.	3356.
Exhaust Temp.	Deg F.	1130.	1145.	1158.
Exhaust Heat (LHV) X 10^6	Btu/h	995.4	972.4	945.9

EMISSIONS

NOx	ppmvd @ 15% O2	15.	15.	15.
NOx AS NO2	lb/h	103.	99.	96.
CO	ppmvd	9.	9.	9.
CO	lb/h	29.	28.	27.
UHC	ppmvw	7.	7.	7.
UHC	lb/h	14.	14.	13.
VOC	ppmvw	1.4	1.4	1.4
VOC	lb/h	2.8	2.8	2.6
Particulates	lb/h	9.0	9.0	9.0

EXHAUST ANALYSIS % VOL.

Argon	0.89	0.87	0.87
Nitrogen	74.14	73.54	72.64
Oxygen	12.15	12.01	11.81
Carbon Dioxide	3.98	3.97	3.95
Water	8.84	9.61	10.73

SITE CONDITIONS

Elevation	ft.	45.0
Site Pressure	psia	14.68
Inlet Loss	in Water	3.0
Exhaust Loss	in Water	5.5
Application		7FH2 Hydrogen-Cooled Generator
Combustion System		9/42 DLN Combustor

Emission information based on GE recommended measurement methods. NOx emissions are corrected to 15% O2 without heat rate correction and are not corrected to ISO reference condition per 40CFR 60.335(c)(1). NOx levels shown will be controlled by algorithms within the SPEEDTRONIC control system.

FPL GAS FUEL LOAD AT 59°F AND 60% REL.HUMIDITY – ESTIMATED PERFORMANCE PG7241(FA)

Load Condition		BASE
Ambient Temp.	Deg F.	59.
Fuel Type		Cust Gas
Fuel LHV	Btu/lb	20,835
Fuel Temperature	Deg F	290
Output	kW	173,000.
Heat Rate (LHV)	Btu/kWh	9,250.
Heat Cons. (LHV) X 106	Btu/h	1,600.3
Auxiliary Power	kW	560
Output Net	kW	172,440.
Heat Rate (LHV) Net	Btu/kWh	9,280.
Exhaust Flow X 103	lb/h	3539.
Exhaust Temp.	Deg F.	1116.
Exhaust Heat (LHV) X 106	Btu/h	951.8

EMISSIONS

NOx	ppmvd @ 15% O2	9.
NOx AS NO2	lb/h	59.
CO	ppmvd	9.
CO	lb/h	29.
UHC	ppmvw	7.
UHC	lb/h	14.
VOC	ppmvw	1.4
VOC	lb/h	2.8
Particulates	lb/h	9.0

EXHAUST ANALYSIS % VOL.

Argon	0.88
Nitrogen	74.42
Oxygen	12.44
Carbon Dioxide	3.87
Water	8.39

SITE CONDITIONS

Elevation	ft.	45.0
Site Pressure	psia	14.68
Inlet Loss	in Water	3.0
Exhaust Loss	in Water	5.5
Relative Humidity	%	60
Application		7FH2 Hydrogen-Cooled Generator
Combustion System		9/42 DLN Combustor

Emission information based on GE recommended measurement methods. NOx emissions are corrected to 15% O2 without heat rate correction and are not corrected to ISO reference condition per 40CFR 60.335(c)(1). NOx levels shown will be controlled by algorithms within the SPEEDTRONIC control system.

Golder Associates Inc.

6241 NW 23rd Street, Suite 500
Gainesville, FL 32653-1500
Telephone (352) 336-5600
Fax (352) 336-6603

Golder Associates

May 14, 2003

0337558

Bureau of Air Regulation
Florida Department of Environmental Protection
2600 Blair Stone Road
Tallahassee, Fl 32399-2400

Attention: Mr. A.A. Linero, P.E., New Source Review Section

RE: FLORIDA POWER & LIGHT COMPANY (FPL); PEAK MODE OPERATION
FORT MYERS PLAND AND SANFORD PLANT
DEP FACILITY ID NOS. 0710002 AND1270009
MINOR SOURCE CONSTRUCTION PERMIT APPLICATIONS

Dear Al:

As recently discussed, please find enclosed 4 copies each of Air Construction Permit Applications for Peak Mode Operation of the General Electric Frame 7FA turbines located at the Fort Myers and Sanford Plants. As presented in the applications, the requests limit this mode of operation to no more than 400 hours per year, as the Department has authorized recently for other FPL combined cycle units using the same GE turbines (e.g. Manatee Unit 3 and Martin Unit 8). The increase in emissions will not trigger Prevention of Significant Deterioration (PSD) review as a result of the project emissions and contemporaneous emission decreases.

Please call Mary Archer [(561) 691-7057], Kevin Washington [(561) 691-2877] or me if you have any questions. An expeditious review would be appreciated.

Sincerely,

GOLDER ASSOCIATES INC.

Kennard F. Kosky, P.E.
Principal

KFK/jej

Enclosures

cc: Ms. Mary Archer, FPL Environmental Services w/enclosures
Mr. Kevin Washington, FPL Environmental Services w/enclosures
Mr. Bernie Tibble, FPL Fort Myers Plant w/enclosures
Mr. Randy Hopkins, FPL Sanford Plant

P:\Projects\2003\0337558 FPL Peak Mode\4\4.1\T051403.doc

A. Zaher, ED

RECEIVED
MAY 15 2003
BUREAU OF AIR REGULATION

PEAK FIRING MODE PERMIT APPLICATION
FLORIDA POWER & LIGHT COMPANY
SANFORD POWER PLANT - UNITS 4 AND 5
DEBARY, FLORIDA

1270009-009-AC/PSD-FL-270(A)

May 15, 2003

Prepared For:
Florida Power & Light Company
700 Universe Boulevard
Juno Beach, Florida 33408

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

May 2003

0337558

DISTRIBUTION:
4 Copies – FDEP
2 Copy – Florida Power & Light Company
2 Copy – Florida Power & Light Sanford Power Plant
1 Copy – Golder Associates Inc.

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: **Sanford Plant**	
3. Facility Identification Number: **1270009** [ ] Unknown	
4. Facility Location: Street Address or Other Locator: **950 South Highway 17-92** City: **DeBary** County: **Volusia** Zip Code: **32713**	
5. Relocatable Facility? [ ] Yes [**X**] No	6. Existing Permitted Facility? [**X**] Yes [ ] No

Application Contact

1. Name and Title of Application Contact: **Mary Archer, Principal Environmental Specialist**
2. Application Contact Mailing Address: Organization/Firm: **FPL Environmental Services Dept. [JES/JB]** Street Address: **700 Universe Blvd.** City: **Juno Beach** State: **FL** Zip Code: **33408**
3. Application Contact Telephone Numbers: 561 758-3760 Telephone: (**561**) **691-7057** Fax: (**561**) **691-7070 or 691-7049**

Application Processing Information (DEP Use)

1. Date of Receipt of Application:	5-15-03
2. Permit Number:	1270009 -009-AC
3. PSD Number (if applicable):	
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:
   Roxane Kennedy, Plant General Manager
2. Owner/Authorized Representative or Responsible Official Mailing Address:
   Organization/Firm: **FPL Sanford Plant**
   Street Address: **950 South Highway 17-92**
   City: **DeBary** State: **FL** Zip Code: **32713**
3. Owner/Authorized Representative or Responsible Official Telephone Numbers:
   Telephone: (**386**) **575-5211** Fax: (**386**) **575-5233**
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 [**X**], 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.*

   Signature _____ Date 5/9/03

* Attach letter of authorization if not currently on file.

Professional Engineer Certification

1. Professional Engineer Name: **Kennard F. Kosky**
   Registration Number: **14966**
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**

***Certification of Authorization # 00001670**

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

5/14/03
Date

(seal)

Attach any exception to certification statement.

Scope of Application

Emissions Unit ID	Description of Emissions Unit	Permit Type	Processing Fee
004	Combined Cycle Combustion Turbine Generator 4A CT with Heat Recovery Steam Generator	AC1B	NA
005	Combined Cycle Combustion Turbine Generator 4B CT with Heat Recovery Steam Generator	AC1B	NA
006	Combined Cycle Combustion Turbine Generator 4C CT with Heat Recovery Steam Generator	AC1B	NA
007	Combined Cycle Combustion Turbine Generator 4D CT with Heat Recovery Steam Generator	AC1B	NA
009	Combined Cycle Combustion Turbine Generator 5A CT with Heat Recovery Steam Generator	AC1B	NA
010	Combined Cycle Combustion Turbine Generator 5B CT with Heat Recovery Steam Generator	AC1B	NA
011	Combined Cycle Combustion Turbine Generator 5C CT with Heat Recovery Steam Generator	AC1B	NA
012	Combined Cycle Combustion Turbine Generator 5D CT with Heat Recovery Steam Generator	AC1B	NA

Application Processing Fee

Check one: [ ] Attached - Amount: $: _____ [X] Not Applicable

Construction/Modification Information

1. Description of Proposed Project or Alterations:

   This application is requesting a construction permit to operate combustion turbines associated with Units 4A through 4D and Units 5A through 5D in Peak Firing Mode for up to 400 hours per year. See Part II.

2. Projected or Actual Date of Commencement of Construction: **JUNE 1, 2003**

3. Projected Date of Completion of Construction: **JULY 1, 2004**

Application Comment

See Part II.

II. FACILITY INFORMATION

A. GENERAL FACILITY INFORMATION

Facility Location and Type

1. Facility UTM Coordinates: Zone: **17** East (km): **468.3** North (km): **3190.3**			
2. Facility Latitude/Longitude: Latitude (DD/MM/SS): **28 / 50 / 31** Longitude (DD/MM/SS): **81 / 19 / 32**			
3. Governmental Facility Code: **O**	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 existing Sanford facility consists of 1 Fossil-Fired Steam Generators (FFSG) and two combined cycle units. FFSG Unit 3 is fired with No. 6 residual fuel oil, No. 2 fuel oil, and natural gas. The FFSG associated with Units 4 & 5 have been replaced with eight advanced CTs burning natural gas and 8 HRSGs to produce two 4-on-1 combined cycle units. Combined Cycle Units 4 and 5 have commenced operation.**			

Facility Contact

1. Name and Title of Facility Contact: **Mr. Randy Hopkins, Environmental Specialist**
2. Facility Contact Mailing Address: Organization/Firm: **FPL Sanford Plant** Street Address: **950 South Highway 17-92** City: **DeBary** State: **FL** Zip Code: **32713**
3. Facility Contact Telephone Numbers: Telephone: (**386**) **575-5385** Fax: (**386**) **575-5233**

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. [ ] 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): **The CTs are subject to NSPS Subpart GG.**	

List of Applicable Regulations

Facility applicable regulations are listed in the existing Title V permit. No additional facility applicable requirements will result from approval of this construction application.

B. FACILITY POLLUTANTS

List of Pollutants Emitted

1. Pollutant Emitted	2. Pollutant Classif.	3. Requested Emissions Cap		4. Basis for Emissions Cap	5. Pollutant Comment
		lb/hour	tons/year		

C. FACILITY SUPPLEMENTAL INFORMATION

Supplemental Requirements

1. Area Map Showing Facility Location: [ ] Attached, Document ID: _____ [X] Not Applicable [ ] Waiver Requested
2. Facility Plot Plan: [ ] Attached, Document ID: _____ [X] Not Applicable [ ] Waiver Requested
3. Process Flow Diagram(s): [ ] Attached, Document ID: _____ [X] 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: **Part II** [ ] 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:_____ [X] 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
   [X] Not Applicable_____

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

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

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

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

15. Compliance Certification (Hard-copy Required):
    [ ] Attached, Document ID: _____ [X] 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)

[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):
Combustion Turbines 4A through 4D.

4. Emissions Unit Identification Number:
ID: **004-007**
[ ] No ID
[ ] ID Unknown

5. Emissions Unit Status Code:	6. Initial Startup Date:	7. Emissions Unit Major Group SIC Code:	8. Acid Rain Unit?
A	**MAR 2003**	**49**	[X]

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

The emission units are four General Electric (GE) Frame 7FA Advanced CTs. Unit 4 will use natural gas in peak firing mode. It can be operated in only combined cycle mode. Nameplate ratings, heat input, emissions, etc., are the same for each CT.

Emissions Unit Control Equipment

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

Dry Low NO_x Combustors

2. Control Device or Method Code(s): **025**

Emissions Unit Details

1. Package Unit:
   Manufacturer: **General Electric** Model Number: **7FA**
2. Generator Nameplate Rating: **182** 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:		**1,918**	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	**400**	hours/year

6. Operating Capacity/Schedule Comment (limit to 200 characters):

Maximum heat input for peak firing mode using natural gas at turbine inlet temperature of 35 degrees Fahrenheit (°F), 20% relative humidity, and 14.7 psia. Heat input as High Heating Value (HHV). Generator nameplate Rating - 182 MW (35°F turbine inlet).

C. EMISSIONS UNIT REGULATIONS
(Regulated Emissions Units Only)

List of Applicable Regulations

Applicable regulations do not change as a result of this construction permit application.

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?	2. Emission Point Type Code: **3**

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

Unit can exhaust through HRSG stack.

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

5. Discharge Type Code: **V**	6. Stack Height: **125** feet	7. Exit Diameter: **19** feet
8. Exit Temperature: **220** °F	9. Actual Volumetric Flow Rate: **1,036,915** acfm	10. Water Vapor: **8.6** %
11. Maximum Dry Standard Flow Rate: **738,680** dscfm	12. Nonstack Emission Point Height: feet	

13. Emission Point UTM Coordinates:

Zone: **17** East (km): **468.3** North (km): **3190.3**

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

Stack conditions for combined cycle operation, peak firing, and turbine inlet of 59°F. Stack conditions vary based on turbine inlet temperature. All CTs equipped with inlet foggers. See Part II.

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**		
2. Source Classification Code (SCC): **2-01-002-01**	3. SCC Units: **Million Cubic Feet**	
4. Maximum Hourly Rate: **1.92**	5. Maximum Annual Rate: **718**	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit: **1,024**
10. Segment Comment (limit to 200 characters): **Maximum Hourly Rate = 1,918 (rounded to 1.81)** **Annual based on 59°F turbine inlet (1,838 MMBtu/hr). Million Btu/SCC as HHV.**		

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
PM			WP
SO_2			WP
NO_X	025		EL
CO			EL
VOC			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: **9** lb/hour **1.8** tons/year	4. Synthetically Limited? [X]
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year	
6. Emission Factor: **9 lb/hr** Reference: **GE, 2000**	7. Emissions Method Code: **2**
8. Calculation of Emissions (limit to 600 characters): **See Part II.**	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): **Potential emissions for one (1) CT and peak firing mode.**	

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: **10% Opacity**	4. Equivalent Allowable Emissions: **9** lb/hour **1.8** tons/year
5. Method of Compliance (limit to 60 characters): **EPA Method 9**	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): **Peak firing mode with natural gas. Equivalent allowable emissions for one (1) CT.**	

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: **5.1** lb/hour **1.02** tons/year	4. Synthetically Limited? [**X**]
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year	
6. Emission Factor: **1 grain S/100 cf Gas** Reference: **GE, 2000; Golder, 2003**	7. Emissions Method Code: **2**
8. Calculation of Emissions (limit to 600 characters): **See Part II.**	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): **Potential emissions for one (1) CT and peak firing mode.**	

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:	4. Equivalent Allowable Emissions: **5.1** lb/hour **1.02** tons/year
5. Method of Compliance (limit to 60 characters): **Fuel Sampling; Vendor Sampling Pipeline Quality Natural Gas**	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): **Equivalent allowable emissions for one (1) CT. Allowable based on typical maximum fuel sulfur content. Peak firing mode with natural gas.**	

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: **101.2** lb/hour **20.24** tons/year	4. Synthetically Limited? [X]
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year	
6. Emission Factor: **15 ppmvd @ 15% O_2** Reference: **GE, 2000**	7. Emissions Method Code: **2**
8. Calculation of Emissions (limit to 600 characters): **See Part II**	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): **Potential emissions for one (1) CT and peak firing mode.**	

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: **15 ppmvd @ 15% O_2**	4. Equivalent Allowable Emissions: **101.2** lb/hour **20.24** tons/year
5. Method of Compliance (limit to 60 characters): **CEM - Part 75**	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): **Allowable emissions are a 3-hour block average. CEM is installed in HRSG stack. Equivalent allowable emissions for one (1) CT. Peak firing mode with natural gas.**	

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: **28.9** lb/hour **5.78** tons/year	4. Synthetically Limited? [**X**]
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year	
6. Emission Factor: **9 ppmvd** Reference: **GE, 2000**	7. Emissions Method Code: **2**
8. Calculation of Emissions (limit to 600 characters): **See Part II.**	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): **Potential emissions for one (1) CT and peak firing mode.**	

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: **9 ppmvd**	4. Equivalent Allowable Emissions: **28.9** lb/hour **5.78** tons/year
5. Method of Compliance (limit to 60 characters): **EPA Method 10; Annual Test**	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): **Peak firing mode with natural gas. Equivalent allowable emissions for one (1) CT.**	

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: **2.81** lb/hour **0.56** tons/year	4. Synthetically Limited? [X]
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year	
6. Emission Factor: **1.4 ppmvw** Reference: **GE, 2000**	7. Emissions Method Code: **2**
8. Calculation of Emissions (limit to 600 characters): **See Part II.**	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): **Potential emissions for on (1) CT and peak firing mode.**	

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: **1.4 ppmvw**	4. Equivalent Allowable Emissions: **2.81** lb/hour **0.56** tons/year
5. Method of Compliance (limit to 60 characters): **EPA Method 18 or 25A; Initial Compliance Test only**	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): **Equivalent allowable emissions for one (1) CT. Peak firing mode with natural gas.**	

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): **Peak Firing Mode with Natural Gas**	

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

Continuous Monitoring System: Continuous Monitor 1 of 1

1. Parameter Code: **EM**	2. Pollutant(s): **NO_x**
3. CMS Requirement:	[X] Rule [ ] Other
4. Monitor Information: Manufacturer: **To be provided with initial Title V application.** Model Number: Serial Number:	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment (limit to 200 characters): **CEMs meet 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: **60** min/hour	
4. Method of Compliance: **None**	
5. Visible Emissions Comment (limit to 200 characters): **FDEP Rule 62-210.700(1). Allowed for 2 hours (120 minutes) per 24 hours for start-up, shutdown, and malfunction. (Note: Allowance for cold startup and shutdown specified by Title V permit.)**	

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):	

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

Supplemental Requirements

1. Process Flow Diagram
   [ ] Attached, Document ID: _____ [X] Not Applicable [ ] Waiver Requested

2. Fuel Analysis or Specification
   [ ] Attached, Document ID: _____ [ ] Not Applicable [ ] Waiver Requested

3. Detailed Description of Control Equipment
   [ ] Attached, Document ID: _____ [X] Not Applicable [ ] Waiver Requested

4. Description of Stack Sampling Facilities
   [ ] Attached, Document ID: _____ [X] 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: **Part II** [ ] Not Applicable

9. Other Information Required by Rule or Statute
   [ ] Attached, Document ID: _____ [X] Not Applicable

10. Supplemental Requirements Comment:

Additional Supplemental Requirements for Title V Air Operation Permit Applications

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

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

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

14. Compliance Assurance Monitoring Plan
[ ] Attached, Document ID:_____ [X] 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:_____

[X] 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)

[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):
Combustion Turbines 5A through 5D.

4. Emissions Unit Identification Number:
ID: **009-012**
[ ] No ID
[ ] ID Unknown

5. Emissions Unit Status Code:	6. Initial Startup Date:	7. Emissions Unit Major Group SIC Code:	8. Acid Rain Unit?
A	**FEB 2002**	**49**	[X]

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

The emission units are four General Electric (GE) Frame 7FA Advanced CTs. Unit 5 will use natural gas in peak firing mode. It can be operated in only combined cycle mode. Nameplate ratings, heat input, emissions, etc., are the same for each CT.

Emissions Unit Control Equipment

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

   Dry Low NO_x Combustors

2. Control Device or Method Code(s): **025**

Emissions Unit Details

1. Package Unit:
   Manufacturer: **General Electric** Model Number: **7FA**
2. Generator Nameplate Rating: **182** 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:		**1,918**	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	**400**	hours/year

6. Operating Capacity/Schedule Comment (limit to 200 characters):

Maximum heat input for peak firing mode using natural gas at turbine inlet temperature of 35 degrees Fahrenheit (°F), 20% relative humidity, and 14.7 psia. Heat input as High Heating Value (HHV). Generator nameplate Rating - 182 MW (35°F turbine inlet).

C. EMISSIONS UNIT REGULATIONS
(Regulated Emissions Units Only)

List of Applicable Regulations

Applicable regulations do not change as a result of this construction permit application.

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?	2. Emission Point Type Code: **3**	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point): **Unit can exhaust through HRSG stack.**		
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:		
5. Discharge Type Code: **V**	6. Stack Height: **125** feet	7. Exit Diameter: **19** feet
8. Exit Temperature: **220** °F	9. Actual Volumetric Flow Rate: **1,036,915** acfm	10. Water Vapor: **8.6** %
11. Maximum Dry Standard Flow Rate: **738,680** dscfm	12. Nonstack Emission Point Height: feet	
13. Emission Point UTM Coordinates: Zone: **17** East (km): **468.3** North (km): **3190.3**		
14. Emission Point Comment (limit to 200 characters): **Stack conditions for combined cycle operation, peak firing, and turbine inlet of 59°F. Stack conditions vary based on turbine inlet temperature. All CTs equipped with inlet foggers. See Part II.**		

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**		
2. Source Classification Code (SCC): **2-01-002-01**	3. SCC Units: **Million Cubic Feet**	
4. Maximum Hourly Rate: **1.92**	5. Maximum Annual Rate: **718**	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit: **1,024**
10. Segment Comment (limit to 200 characters): **Maximum Hourly Rate = 1,918 (rounded to 1.81)** **Annual based on 59°F turbine inlet (1,838 MMBtu/hr). Million Btu/SCC as HHV.**		

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
PM			WP
SO_2			WP
NO_X	025		EL
CO			EL
VOC			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: **9** lb/hour **1.8** tons/year	4. Synthetically Limited? [**X**]
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year	
6. Emission Factor: **9 lb/hr** Reference: **GE, 2000**	7. Emissions Method Code: **2**

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

See Part II.

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

Potential emissions for one (1) CT and peak firing mode.

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: **10% Opacity**	4. Equivalent Allowable Emissions: **9** lb/hour **1.8** tons/year

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

EPA Method 9

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

Peak firing mode with natural gas. Equivalent allowable emissions for one (1) CT.

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: **5.1** lb/hour **1.02** tons/year	4. Synthetically Limited? [X]
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year	
6. Emission Factor: **1 grain S/100 cf Gas** Reference: **GE, 2000; Golder, 2003**	7. Emissions Method Code: **2**
8. Calculation of Emissions (limit to 600 characters): **See Part II.**	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): **Potential emissions for one (1) CT and peak firing mode.**	

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:	4. Equivalent Allowable Emissions: **5.1** lb/hour **1.02** tons/year
5. Method of Compliance (limit to 60 characters): **Fuel Sampling; Vendor Sampling Pipeline Quality Natural Gas**	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): **Equivalent allowable emissions for one (1) CT. Allowable based on typical maximum fuel sulfur content. Peak firing mode with natural gas.**	

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: **101.2** lb/hour **20.24** tons/year	4. Synthetically Limited? [**X**]
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year	
6. Emission Factor: **15 ppmvd @ 15% O_2** Reference: **GE, 2000**	7. Emissions Method Code: **2**
8. Calculation of Emissions (limit to 600 characters): **See Part II**	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): **Potential emissions for one (1) CT and peak firing mode.**	

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: **15 ppmvd @ 15% O_2**	4. Equivalent Allowable Emissions: **101.2** lb/hour **20.24** tons/year
5. Method of Compliance (limit to 60 characters): **CEM - Part 75**	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): **Allowable emissions are a 3-hour block average. CEM is installed in HRSG stack. Equivalent allowable emissions for one (1) CT. Peak firing mode with natural gas.**	

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: **28.9** lb/hour **5.78** tons/year	4. Synthetically Limited? [X]
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year	
6. Emission Factor: **9 ppmvd** Reference: **GE, 2000**	7. Emissions Method Code: **2**
8. Calculation of Emissions (limit to 600 characters): **See Part II.**	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): **Potential emissions for one (1) CT and peak firing mode.**	

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: **9 ppmvd**	4. Equivalent Allowable Emissions: **28.9** lb/hour **5.78** tons/year
5. Method of Compliance (limit to 60 characters): **EPA Method 10; Annual Test**	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): **Peak firing mode with natural gas. Equivalent allowable emissions for one (1) CT.**	

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: **2.81** lb/hour **0.56** tons/year	4. Synthetically Limited? [X]
5. Range of Estimated Fugitive Emissions: [ ] 1 [ ] 2 [ ] 3 _____ to _____ tons/year	
6. Emission Factor: **1.4 ppmvw** Reference: **GE, 2000**	7. Emissions Method Code: **2**
8. Calculation of Emissions (limit to 600 characters): **See Part II.**	
9. Pollutant Potential/Fugitive Emissions Comment (limit to 200 characters): **Potential emissions for on (1) CT and peak firing mode.**	

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: **1.4 ppmvw**	4. Equivalent Allowable Emissions: **2.81** lb/hour **0.56** tons/year
5. Method of Compliance (limit to 60 characters): **EPA Method 18 or 25A; Initial Compliance Test only**	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): **Equivalent allowable emissions for one (1) CT. Peak firing mode with natural gas.**	

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): **Peak Firing Mode with Natural Gas**	

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

Continuous Monitoring System: Continuous Monitor 1 of 1

1. Parameter Code: **EM**	2. Pollutant(s): **NO_x**
3. CMS Requirement:	[X] Rule [ ] Other
4. Monitor Information: Manufacturer: **NO_x = Thermo Environmental Instruments; O_2 = Servomex** Model Number: **NO_x = 43CHL; O_2 = 1400** Serial Number: **NO_x** **O_2** **5A= 42CLS-77996-387 01420C/1831** **5B= 42CLS-77997-387 01420C/1832** **5C= 42CLS-77998-387 01420C/1833** **5D= 42CLS-77999-387 01420C/1834**	
5. Installation Date: **1 JAN 2002 (5A) through 30 APR 2002 (5D) (Original NO_x replaced in 2002)**	6. Performance Specification Test Date: **21 APR 2003 (5A); 22 APR 2003 (5B); 23 APR 2003 (5C); Sch. MAY 2003 (5D)**
7. Continuous Monitor Comment (limit to 200 characters): **CEMs meet 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: **60** min/hour	
4. Method of Compliance: **None**	
5. Visible Emissions Comment (limit to 200 characters): **FDEP Rule 62-210.700(1). Allowed for 2 hours (120 minutes) per 24 hours for start-up, shutdown, and malfunction. (Note: Allowance for cold startup and shutdown specified by permit.)**	

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):	

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

Supplemental Requirements

1. Process Flow Diagram [ ] Attached, Document ID: _____ [X] Not Applicable [ ] Waiver Requested
2. Fuel Analysis or Specification [ ] Attached, Document ID: _____ [ ] Not Applicable [ ] Waiver Requested
3. Detailed Description of Control Equipment [ ] Attached, Document ID: _____ [X] Not Applicable [ ] Waiver Requested
4. Description of Stack Sampling Facilities [ ] Attached, Document ID: _____ [X] 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: **Part II** _____ [ ] Not Applicable
9. Other Information Required by Rule or Statute [ ] Attached, Document ID: _____ [X] Not Applicable
10. Supplemental Requirements Comment:

Additional Supplemental Requirements for Title V Air Operation Permit Applications

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

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

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

14. Compliance Assurance Monitoring Plan
[ ] Attached, Document ID:_____ [X] 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:_____

[X] Not Applicable

PART II

APPLICATION FOR AIR CONSTRUCTION PERMIT
SANFORD UNITS 4A THROUGH 4D AND UNITS 5A THROUGH 5D
PEAK FIRING MODE

APPLICATION FOR AIR CONSTRUCTION PERMIT
SANFORD UNITS 4A THROUGH 4D AND UNITS 5A THROUGH 5D
PEAK FIRING MODE

Introduction

The Florida Power & Light Company (FPL) Sanford Plant is located on approximately 1,700 acres on the St. Johns River about three (3) miles northwest of Sanford, Florida. The site is located within the City of DeBary, Volusia County, Florida. In September 1999, an Air Construction Permit and Prevention of Significant Deterioration (PSD) approval was issued for the installation of eight nominal 170-megawatt (MW) combustion turbines (CTs) with an associated heat recovery steam generators (HRSGs) for repowering two existing steam electric generators [Florida Department of Environmental Protection (FDEP) File No. 1270009-004-AC]. The CTs are designated as Units 4A through 4D associated with the repowering of the existing Unit 4 steam turbine/generator and Units 5A through 5D associated with the repowering of the existing Unit steam turbine/generator. The combustion turbines are General Electric (GE) Frame 7FA (Model PG7241) that are authorized to fire natural gas with distillate oil authorized as backup for Units 5A through 5D. Dry low-nitrogen oxides (NO_x) combustion technology is used to control emissions of NO_x to 9 parts per million by volume dry (ppmvd) corrected to 15-percent oxygen when firing natural gas. The CTs are equipped with inlet evaporative cooling systems.

This application is submitted to request authorization to allow operation in Peak Firing Mode for up to 400 hours per year.

Peak Firing Mode

Peak Firing Mode operation is a computer-controlled increase in firing temperature with greater heat input and output. It is a standard operating feature of the GE Frame 7FA CT when firing natural gas. The increase in power and heat input is about 3.8 percent at ISO conditions. The heat rate of the unit decreases by about 25 British thermal units per kilowatt-hour (Btu/Kw-hr) or about 0.3 percent. This mode of operation has been authorized for more recent projects including Martin Simple Cycle Units 8A and 8B, Fort Myers Simple Cycle Units 3A and 3B, Martin Combined Cycle Unit 8, and Manatee Combined Cycle Unit 3. Operation of up to 400 hours per year operation has been authorized.

Appendix A contains performance and emissions data and calculations for Peak Firing Mode at turbine inlet temperatures of 35 degrees Fahrenheit (°F), 59°F, 75°F, and 95°F. Appendix A also contains the GE estimated performance and emissions for Peak Firing Mode. For comparison, GE estimated performance for base load operation at 59°F is also contained in Appendix A.

Table 1 presents the hourly and annual emissions for particulate matter/particulate matter less than 10 microns (PM/PM_{10}), sulfur dioxide (SO_2), NO_x, carbon monoxide (CO), and volatile organic carbons (VOCs) for Peak Firing Mode and baseload operation. Emissions are presented for each CT and the eight CTs associated with Units 4A through 4D and Units 5A through 5D. As previously noted, Peak Firing Mode is a computer-controlled operation that increases firing temperature from baseload operation. As a result, emission increases are an incremental increase from baseload, since baseload operation must occur when peak mode begins. Peak Firing Mode only provides an incremental increase in power to meet electric demands that could not otherwise be provided by baseload operation.

Regulatory Applicability

Peak Firing Mode is a change in the method of operation of combustion turbines. A modification would occur if there is a net emissions increase pursuant to Rule 62-212.400(2)(e)1 Florida Administrative Code (F.A.C.): "A modification to a facility results in a net emissions increase when, for a pollutant regulated under the Act, the sum of all of the contemporaneous creditable increases and decreases in the actual emissions of the facility, including the increase in emissions of the modification itself and any increases and decreases in quantifiable fugitive emissions, is greater than zero." Pursuant to Rule 62-212.400(2)(e)2: "A significant net emissions increase of a pollutant regulated under the Act is a net emissions increase equal to or greater than the applicable significant emission rate listed in Table 212.400-2, Regulated Air Pollutants - Significant Emission Rates."

The EPA guidance regarding PSD applicability clearly indicates that applicability is pollutant specific. In addition, if the emissions for a project are less than the significant emission rates, then PSD review is not applicable [U.S. Environmental Protection Agency (EPA) Draft New Source Review Workshop Manual, October 1990, Table A-5]. If the significant impact levels are exceeded for that pollutant, then contemporaneous emission increases and decreases are evaluated. Based on Rule 62-212.400(2)(e)3 F.A.C., contemporaneous emissions changes are: "An increase or decrease in the actual emissions or in the quantifiable fugitive emissions of a facility is contemporaneous with a particular modification if it occurs within the period beginning five years prior to the date on which

the owner or operator of the facility submits a complete application for a permit to modify the facility and ending on the date on which the owner or operator of the modified facility projects the new or modified emissions unit(s) to begin operation. The date on which any increase in the actual emissions or in the quantifiable fugitive emissions of the facility occurs is the date on which the owner or operator of the facility begins, or projects to begin, operation of the emissions unit(s) resulting in the increase. The date on which any decrease in the actual emissions or in the quantifiable fugitive emissions of the facility occurs is the date on which the owner or operator of the facility completes, or is committed to complete through a federally enforceable permit condition, a physical change in or change in the method of operation of the facility resulting in the decrease."

Table 1 shows that, with the exception of NO_x, the emissions from the project are below the significant emission rates. This conclusion is evident whether a comparison of project emissions and significant emission rates is made using the difference between peak firing and baseload or by using the total emissions for Peak Firing Mode with all eight CTs.

The Sanford Plant has creditable emission decreases over the last several years resulting from shutting down the existing residual oil and natural gas-fired steam-generating units (i.e., steam generators for Units 4 and 5). The steam generators for Units 4 and 5 were retired in 2002 and 2001, respectively. The emission reductions from these retirements are contemporaneous with the proposed Peak Firing Mode. Peak Firing is scheduled to be completed by June 2004, which is well within the 5-year contemporaneous period for the creditable reductions from the Units 4 and 5 steam generators. Table 2 presents a netting analysis for NO_x. As shown, the large net emissions decreases in NO_x offset the small increases from peak firing.

Table 1. Emissions for Peak Firing and Base Load at a Turbine Inlet Temperature of 59°F
FPL Sanford Plant, Units 4A Through 4D and 5A Through 5D

Pollutant		Peak Firing at 59 °F		Base Load at 59 °F		Difference	SER[b]
		per CT	8 CTs	per CT	8 CTs		
PM/PM_{10}	lb/hr	9	72	9	72		
	TPY[a]	1.8	14.4	1.8	14.4	0	15/25
SO_2	lb/hr	5.1	40.8	4.9	39.2		
	TPY[a]	1.02	8.16	0.98	7.84	0.32	40
NO_x	lb/hr	101.2	809.6	58.7	469.6		
	TPY[a]	20.24	161.92	11.74	93.92	68	40
CO	lb/hr	28.9	231.2	28.8	230.4		
	TPY[a]	5.78	46.24	5.76	46.08	0.16	100
VOC	lb/hr	2.81	22.48	2.79	22.32		
	TPY[a]	0.562	4.496	0.558	4.464	0.032	40

[a] TPY = tons/year; reflects a maximum of 400 hours per year operation.

[b] SER = significant emission rate from Table 212.400-2 F.A.C.

Source: GE, 2000; Golder, 2003.

Table 2. Net NO_x Emission Changes for FPL Sanford Plant

Pollutant	Actual Emissions	Repowering Project[a]	Peak Operation	Net Emission Change	SER[b]	PSD Review Applicable?
NO_x	9,984.0	2,738.0	68.0	-7,178.0	40	No Net Emission Increase

[a] FDEP File No. 0710002-004-AC; PSD-FL-270; Sanford Repowering Project.

[b] SER = significant emission rate from Table 212.400-2 F.A.C.

APPENDIX A

Table A-1. Design Information and Stack Parameters for GE Frame 7FA, Dry Low NO_x Combustor, Natural Gas Peak Firing Mode

Parameter	Ambient Inlet Temperature 35 °F	59 °F	75 °F	95 °F
Combustion Turbine Performance				
Net power output (MW)	190.3	179.5	169.5	156.1
Net heat rate (Btu/kWh, LHV)	9,080	9,225	9,370	9,595
(Btu/kWh, HHV)	10,079	10,240	10,401	10,651
Heat Input (MMBtu/hr, LHV)	1,728	1,656	1,588	1,498
(MMBtu/hr, HHV)	1,918	1,838	1,763	1,663
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	3,413,000	3,238,000
- provided	3,713,000	3,558,000	3,413,000	3,238,000
Temperature (°F)	1,109	1,139	1,152	1,172
Moisture (% Vol.)	7.74	8.59	9.25	10.16
Oxygen (% Vol.)	12.39	12.20	12.12	11.99
Molecular Weight	28.48	28.38	28.31	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)	1,728	1,656	1,588	1,498
Heat content (Btu/lb, LHV)	20,835	20,835	20,835	20,835
Fuel usage (lb/hr)- calculated	82,933	79,477	76,228	71,889
HRSG Stack				
CT- Stack height (ft)	125	125	125	125
Diameter (ft)	19	19	19	19
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)	3,713,000	3,558,000	3,413,000	3,238,000
Temperature (°F)	1,109	1,139	1,152	1,172
Molecular weight	28.48	28.38	28.31	28.21
Volume flow (acfm)- calculated	2,488,641	2,438,274	2,363,849	2,279,045
(ft3/s)- calculated	41,477	40,638	39,397	37,984
Stack Flow Conditions - HRSG				
Velocity (ft/sec) = Volume flow (acfm) / [((diameter)^2 /4) x 3.14159] / 60 sec/min				
CT Temperature (°F)	220	220	220	220
CT volume flow (acfm)	1,078,570	1,036,915	997,157	949,602
Diameter (ft)	19	19	19	19
Velocity (ft/sec)- calculated	63.4	61.0	58.6	55.8

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-2. Maximum Emissions for Criteria Pollutants for GE Frame 7FA, Dry Low NOx Combustor, Natural Gas Peak Firing Mode

Parameter	Ambient Inlet Temperature 35 °F	59 °F	75 °F	95 °F
Hours of Operation	400	400	400	400
Particulate (lb/hr) = Emission rate (lb/hr) from manufacturer				
Basis (excludes H_2SO_4), lb/hr	9	9	10	10
Emission rate (lb/hr)- provided	9.0	9.0	10.0	10.0
(TPY)	1.80	1.80	2.00	2.00
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	1,774,675	1,702,119	1,605,235
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	4.9	4.6
(TPY)	1.06	1.01	0.97	0.92
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	8.59	9.25	10.16
Oxygen (%)	12.39	12.2	12.12	11.99
Turbine Flow (acfm)	2,488,641	2,438,274	2,363,849	2,279,045
Turbine Exhaust Temperature (°F)	1,109	1,139	1,152	1,172
Emission rate (lb/hr)	105.1	101.2	96.5	91.1
(TPY)	21.0	20.2	19.3	18.2
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 (%)	7.74	8.59	9.25	10.16
Turbine Flow (acfm)	2,488,641	2,438,274	2,363,849	2,279,045
Turbine Exhaust Temperature (°F)	1,109	1,139	1,152	1,172
Emission rate (lb/hr)	30.3	28.9	27.6	26.0
(TPY)	6.1	5.8	5.5	5.2
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, ppmvw	1.4	1.4	1.4	1.4
Basis, ppmvd	1.52	1.53	1.54	1.56
Moisture (%)	7.74	8.59	9.25	10.16
Turbine Flow (acfm)	2,488,641	2,438,274	2,363,849	2,279,045
Turbine Exhaust Temperature (°F)	1,109	1,139	1,152	1,172
Emission rate (lb/hr)	2.92	2.81	2.70	2.57
(TPY)	0.58	0.56	0.54	0.51
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, 2003.

FPL PEAK FIRING - ESTIMATED PERFORMANCE PG7241(FA)

Load Condition		PEAK
Ambient Temp.	Deg F.	35.
Output	kW	190,300.
Heat Rate (LHV)	Btu/kWh	9,080.
Heat Cons. (LHV) X 10^6	Btu/h	1,727.9
Auxiliary Power	kW	560
Output Net	kW	189,740.
Heat Rate (LHV) Net	Btu/kWh	9,110.
Exhaust Flow X 10^3	lb/h	3713.
Exhaust Temp.	Deg F.	1109.
Exhaust Heat (LHV) X 10^6	Btu/h	1015.9

EMISSIONS

NOx	ppmvd @ 15% O2	15.
NOx AS NO2	lb/h	105.
CO	ppmvd	9.
CO	lb/h	30.
UHC	ppmvw	7.
UHC	lb/h	15.
VOC	ppmvw	1.4
VOC	lb/h	3.
Particulates	lb/h	9.0

EXHAUST ANALYSIS % VOL.

Argon	0.89
Nitrogen	75.00
Oxygen	12.39
Carbon Dioxide	3.98
Water	7.74

SITE CONDITIONS

Elevation	ft.	45.0
Site Pressure	psia	14.68
Inlet Loss	in Water	3.0
Exhaust Loss	in Water	5.5
Relative Humidity	%	20
Fuel Type		Cust Gas
Fuel LHV	Btu/lb	20835 @ 290 °F
Application		7FH2 Hydrogen-Cooled Generator
Combustion System		9/42 DLN Combustor

Emission information based on GE recommended measurement methods. NOx emissions are corrected to 15% O2 without heat rate correction and are not corrected to ISO reference condition per 40CFR 60.335(c)(1). NOx levels shown will be controlled by algorithms within the SPEEDTRONIC control system.

FPL PEAK FIRING – ESTIMATED PERFORMANCE PG7241(FA)

Load Condition		PEAK
Ambient Temp.	Deg F.	59.
Output	kW	179,500.
Heat Rate (LHV)	Btu/kWh	9,225.
Heat Cons. (LHV) X 106	Btu/h	1,655.9
Auxiliary Power	kW	560
Output Net	kW	178,940.
Heat Rate (LHV) Net	Btu/kWh	9,250.
Exhaust Flow X 103	lb/h	3541.
Exhaust Temp.	Deg F.	1139.
Exhaust Heat (LHV) X 106	Btu/h	983.3

EMISSIONS

NOx	ppmvd @ 15% O2	15.
NOx AS NO2	lb/h	101.
CO	ppmvd	9.
CO	lb/h	29.
UHC	ppmvw	7.
UHC	lb/h	14.
VOC	ppmvw	1.4
VOC	lb/h	2.8
Particulates	lb/h	9.0

EXHAUST ANALYSIS % VOL.

Argon	0.89
Nitrogen	74.34
Oxygen	12.20
Carbon Dioxide	3.98
Water	8.59

SITE CONDITIONS

Elevation	ft.	45.0
Site Pressure	psia	14.68
Inlet Loss	in Water	3.0
Exhaust Loss	in Water	5.5
Relative Humidity	%	60
Fuel Type		Cust Gas
Fuel LHV	Btu/lb	20835 @ 290 °F
Application		7FH2 Hydrogen-Cooled Generator
Combustion System		9/42 DLN Combustor

Emission information based on GE recommended measurement methods. NOx emissions are corrected to 15% O2 without heat rate correction and are not corrected to ISO reference condition per 40CFR 60.335(c)(1). NOx levels shown will be controlled by algorithms within the SPEEDTRONIC control system.

FPL PEAK FIRING – ESTIMATED PERFORMANCE PG7241(FA)

Load Condition		PEAK
Ambient Temp.	Deg F.	75.
Output	kW	169,500.
Heat Rate (LHV)	Btu/kWh	9,370.
Heat Cons. (LHV) X 106	Btu/h	1,588.2
Auxiliary Power	kW	560
Output Net	kW	168,940.
Heat Rate (LHV) Net	Btu/kWh	9,400.
Exhaust Flow X 103	lb/h	3413.
Exhaust Temp.	Deg F.	1152.
Exhaust Heat (LHV) X 106	Btu/h	952.2

EMISSIONS

NOx	ppmvd @ 15% O2	15.
NOx AS NO2	lb/h	97.
CO	ppmvd	9.
CO	lb/h	28.
UHC	ppmvw	7.
UHC	lb/h	14.
VOC	ppmvw	1.4
VOC	lb/h	2.8
Particulates	lb/h	9.0

EXHAUST ANALYSIS % VOL.

Argon	0.89
Nitrogen	73.80
Oxygen	12.12
Carbon Dioxide	3.95
Water	9.25

SITE CONDITIONS

Elevation	ft.	45.0
Site Pressure	psia	14.68
Inlet Loss	in Water	3.0
Exhaust Loss	in Water	5.5
Relative Humidity	%	60
Fuel Type		Cust Gas
Fuel LHV	Btu/lb	20835 @ 290 °F
Application		7FH2 Hydrogen-Cooled Generator
Combustion System		9/42 DLN Combustor

Emission information based on GE recommended measurement methods. NOx emissions are corrected to 15% O2 without heat rate correction and are not corrected to ISO reference condition per 40CFR 60.335(c)(1). NOx levels shown will be controlled by algorithms within the SPEEDTRONIC control system.

FPL PEAK FIRING – ESTIMATED PERFORMANCE PG7241(FA)

Load Condition		PEAK
Ambient Temp.	Deg F.	95.
Output	kW	156,100.
Heat Rate (LHV)	Btu/kWh	9,595.
Heat Cons. (LHV) X 10^6	Btu/h	1,497.8
Auxiliary Power	kW	560
Output Net	kW	155,540.
Heat Rate (LHV) Net	Btu/kWh	9,630.
Exhaust Flow X 10^3	lb/h	3238.
Exhaust Temp.	Deg F.	1172.
Exhaust Heat (LHV) X 10^6	Btu/h	910.7

EMISSIONS

NOx	ppmvd @ 15% O2	15.
NOx AS NO2	lb/h	91.
CO	ppmvd	9.
CO	lb/h	26.
UHC	ppmvw	7.
UHC	lb/h	13.
VOC	ppmvw	1.4
VOC	lb/h	2.6
Particulates	lb/h	9.0

EXHAUST ANALYSIS % VOL.

Argon	0.88
Nitrogen	73.06
Oxygen	11.99
Carbon Dioxide	3.91
Water	10.16

SITE CONDITIONS

Elevation	ft.	45.0
Site Pressure	psia	14.68
Inlet Loss	in Water	3.0
Exhaust Loss	in Water	5.5
Relative Humidity	%	50
Fuel Type		Cust Gas
Fuel LHV	Btu/lb	20835 @ 290 °F
Application		7FH2 Hydrogen-Cooled Generator
Combustion System		9/42 DLN Combustor

Emission information based on GE recommended measurement methods. NOx emissions are corrected to 15% O2 without heat rate correction and are not corrected to ISO reference condition per 40CFR 60.335(c)(1). NOx levels shown will be controlled by algorithms within the SPEEDTRONIC control system.

FPL PEAK FIRING – ESTIMATED PERFORMANCE WITH FOGGER ON PG7241(FA)

Load Condition		PEAK	PEAK	PEAK
Ambient Temp.	Deg F.	59.	75.	95.
Ambient Relative Humid.	%	60.	60.	50.
Fogger Status		On	On	On
Fogger Effectiveness	%	95	95	95
Fuel Type		Cust Gas	Cust Gas	Cust Gas
Fuel LHV	Btu/lb	20,835	20,835	20,835
Fuel Temperature	Deg F	290	290	290
Output	kW	183,000.	175,200.	166,100.
Heat Rate (LHV)	Btu/kWh	9,185.	9,300.	9,450.
Heat Cons. (LHV) X 10^6	Btu/h	1,680.9	1,629.4	1,569.6
Auxiliary Power	kW	560	560	560
Output Net	kW	182,440.	174,640.	165,540.
Heat Rate (LHV) Net	Btu/kWh	9,210.	9,330.	9,480.
Exhaust Flow X 10^3	lb/h	3588.	3478.	3356.
Exhaust Temp.	Deg F.	1130.	1145.	1158.
Exhaust Heat (LHV) X 10^6	Btu/h	995.4	972.4	945.9

EMISSIONS

NOx	ppmvd @ 15% O2	15.	15.	15.
NOx AS NO2	lb/h	103.	99.	96.
CO	ppmvd	9.	9.	9.
CO	lb/h	29.	28.	27.
UHC	ppmvw	7.	7.	7.
UHC	lb/h	14.	14.	13.
VOC	ppmvw	1.4	1.4	1.4
VOC	lb/h	2.8	2.8	2.6
Particulates	lb/h	9.0	9.0	9.0

EXHAUST ANALYSIS % VOL.

Argon	0.89	0.87	0.87
Nitrogen	74.14	73.54	72.64
Oxygen	12.15	12.01	11.81
Carbon Dioxide	3.98	3.97	3.95
Water	8.84	9.61	10.73

SITE CONDITIONS

Elevation	ft.	45.0
Site Pressure	psia	14.68
Inlet Loss	in Water	3.0
Exhaust Loss	in Water	5.5
Application		7FH2 Hydrogen-Cooled Generator
Combustion System		9/42 DLN Combustor

Emission information based on GE recommended measurement methods. NOx emissions are corrected to 15% O2 without heat rate correction and are not corrected to ISO reference condition per 40CFR 60.335(c)(1). NOx levels shown will be controlled by algorithms within the SPEEDTRONIC control system.

FPL GAS FUEL LOAD AT 59°F AND 60% REL.HUMIDITY – ESTIMATED PERFORMANCE PG7241(FA)

Load Condition		BASE
Ambient Temp.	Deg F.	59.
Fuel Type		Cust Gas
Fuel LHV	Btu/lb	20,835
Fuel Temperature	Deg F	290
Output	kW	173,000.
Heat Rate (LHV)	Btu/kWh	9,250.
Heat Cons. (LHV) X 106	Btu/h	1,600.3
Auxiliary Power	kW	560
Output Net	kW	172,440.
Heat Rate (LHV) Net	Btu/kWh	9,280.
Exhaust Flow X 103	lb/h	3539.
Exhaust Temp.	Deg F.	1116.
Exhaust Heat (LHV) X 106	Btu/h	951.8

EMISSIONS

NOx	ppmvd @ 15% O2	9.
NOx AS NO2	lb/h	59.
CO	ppmvd	9.
CO	lb/h	29.
UHC	ppmvw	7.
UHC	lb/h	14.
VOC	ppmvw	1.4
VOC	lb/h	2.8
Particulates	lb/h	9.0

EXHAUST ANALYSIS % VOL.

Argon	0.88
Nitrogen	74.42
Oxygen	12.44
Carbon Dioxide	3.87
Water	8.39

SITE CONDITIONS

Elevation	ft.	45.0
Site Pressure	psia	14.68
Inlet Loss	in Water	3.0
Exhaust Loss	in Water	5.5
Relative Humidity	%	60
Application		7FH2 Hydrogen-Cooled Generator
Combustion System		9/42 DLN Combustor

Emission information based on GE recommended measurement methods. NOx emissions are corrected to 15% O2 without heat rate correction and are not corrected to ISO reference condition per 40CFR 60.335(c)(1). NOx levels shown will be controlled by algorithms within the SPEEDTRONIC control system.

The News-Journal

Published Daily and Sunday
Daytona Beach, Volusia County, Florida

State of Florida, BUREAU OF AIR REGULATION
County of Volusia:

Before the undersigned authority personally appeared

Kathleen Mayes

Who, on oath says that she is

Classified Sales Manager

of The News-Journal, a daily and Sunday newspape published at Daytona Beach in Volusia County, Florid that the attached copy of advertisement, being a

Public Notice

in the matter of of Intent to Issue Air Constructio Permit Modification

in the Court

was published in said newspaper in the issues

July 31, 2003

Affiant further says that The News-Journal is newspaper published at Daytona Beach, in said Volusi County, Florida, and that the said newspaper ha heretofore been continuously published in said Volusia County, Florida, each day and Sunday and has bee entered as second-class mail matter at the post office i Daytona Beach, in said Volusia County, Florida, for a period of one year next preceding the first publication o the attached copy of advertisement; and affiant furthe says that she has neither paid nor promised an person, firm or corporation any discount, rebate commission or refund for the purpose of securing thi advertisement for publication in the said newspaper.

Sworn to and subscribed before me

this 31st day of July

A.D. 2003

ANITA MARIE SAUNDERS
Notary Public, State of Florida
My Comm. Exp. Aug. 30, 2003
Comm. No. CC 867646

LEGAL ADVERTISEMENT

PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT MODIFICATION
DEP File No. 1270009-009-AC
and PSD-FL-270C
Florida Power & Light
Sanford Plant
Peak Mode of Operation for the
2200 Megawatt Combined Cycle
Combustion Turbines
Volusia County

The Department of Environmental Protection (Department) gives notice of its intent to issue an air construction permit modification to Florida Power & Light Company (FPL). The original permit issued on September 4, 1999 allowed the installation of eight combined cycle units that replaced two (2) residual oil and gas fired steam generators at the Sanford Plant near DeBary, Volusia County. A Best Available Control Technology (BACT) determination was required for the original project (VOC emissions only) and is not required for this project pursuant to Rule 62-212.400, F.A.C. The applicant's name and address are Florida Power & Light, Sanford Plant, 950 South Highway 17-92, DeBary, Florida 32713.

The permit modification is to allow peak operation mode up to 400 hours per year for each of the eight combined cycle combustion turbines. Peaking is expected to increase short term NOx emissions from 9 to 15 ppmvd for each turbine and 68 TPY for all eight turbines due to higher temperatures during this mode. However, due to the substantial emissions decrease of this pollutant during the permitting of the repowering project, this project will not result in a PSD significant net increase of NOx emissions or any other criteria pollutants. Therefore, an air quality impact analysis was not required.

The Department will issue the FINAL permit modification with the attached conditions unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

The Department will accept written comments concerning the proposed permit modification issuance action for a period of fourteen (14) days from the date of publication of "Public Notice of Intent to Issue Air Construction Permit Modification." Written comments should be provided to the Department's Bureau of Air Regulation at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, FL 32399-2400. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in the proposed agency action, the Department shall revise the proposed permit modification and require, if applicable, another Public Notice.

This Sanford Project is not subject to review under Section 403.506 F.S. (Power Plant Siting Act), because it provides for no expansion in steam generating capacity.

The Department will issue the permit modification with the attached conditions unless a timely petition for an administrative hearing is filed pursuant to Sections 120.569 and 120.57 F.S., before the deadline for filing a petition. The procedures for petitioning for a hearing are set forth below. Mediation is not available in this proceeding.

A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative proceeding (hearing) under Sections 120.569 and 120.57 of the Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000. Petitions filed by the permit applicant or any of the parties listed below must be filed within fourteen days of receipt of this notice of intent. Petitions filed by any persons other than those entitled to written notice under Section 120.60(3) of the Florida Statutes must be filed within fourteen days of publication of the public notice or within fourteen days of receipt of this notice of intent, whichever occurs first. Under Section 120.60(3), F.S., however, any person who asked the Department for notice of agency action may file a petition within fourteen days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above, at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57, F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205 of the Florida Administrative Code.

A petition that disputes the material facts on which the Department's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address and telephone number of the petitioner; the name, address and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination; (c) A statement of how and when petitioner received notice of the agency action or proposed action; (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate; (e) A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the agency's proposed action; (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action; and (g) A statement of the relief sought by the petitioner, stating precisely the action petitioner wishes the agency to take with respect to the agency's proposed action.

A petition that does not dispute the material facts upon which the Department's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Department's final action may be different from the position taken by it in this notice. Persons whose substantial interests will be affected by any such final decision of the Department on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

A complete project file is available for public inspection during normal business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at:
Florida Department of
Environmental Protection
Bureau of Air Regulation
111 S. Magnolia Drive, Suite 4
Tallahassee, Florida 32301
Telephone: 850/488-1344
Fax: 850/922-6979
Florida Department of
Environmental Protection
Central District Office
3319 Maguire Boulevard, Suite 232
Orlando, Florida 32803-3767
Telephone: 407/894-7555
Fax: 407/897-5963

The complete project file includes the application, technical evaluation, Draft Permit Modification, and the information submitted by the responsible official, exclusive of confidential records under Section 403.111, F.S. Interested persons may contact the Administrator, New Resource Review Section at 111 South Magnolia Drive, Suite 4, Tallahassee, Florida 32301, or call 850/488-0114, for additional information. The Department's technical evaluation and Draft Modification can be viewed at www.dep.state.fl.us/air/permitting.htm by clicking on Construction Permits.
Legal L51744. July 31, 2003 1t.

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Ms. Roxane Kennedy
Plant General Manager
FPL - Sanford Plant
950 South Highway 17-92
DeBary, FL 32713

COMPLETE THIS SECTION ON DELIVERY

A. Received by (Please Print Clearly): DALE G. DYKES
B. Date of Delivery: 9-9-03
C. Signature: X Dale G Dykes ☐ Agent ☐ Addressee
D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

DEBARY, FL SEP 10 2003 USPS - 32713

3. Service Type
☑ Certified Mail ☐ Express Mail
☐ Registered ☐ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? (Extra Fee) ☐ Yes

2. 7001 0320 0001 3692 5344

PS Form 3811, July 1999 Domestic Return Receipt 102595-99-M-1789

U.S. Postal Service
CERTIFIED MAIL RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)

7001 0320 0001 3692 5344

OFFICIAL USE

Postage	$
Certified Fee	
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	$

Postmark Here

Sent To: Roxane Kennedy
Street, Apt. No.; or PO Box No.: 950 S. Hwy. 17-92
City, State, ZIP+4: DeBary, FL 32713

PS Form 3800, January 2001 See Reverse for Instructions

SENDER: *COMPLETE THIS SECTION*

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Ms. Roxane Kennedy, Plant General Manager
FPL Sanford Plant
950 South Highway 17-92
DeBary, FL 32713

COMPLETE THIS SECTION ON DELIVERY

A. Received by *(Please Print Clearly)*: DALE G. DYKES
B. Date of Delivery: 7-18-03
C. Signature: X Dale G Dykes — ☑ Agent ☐ Addressee
D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

DeBary FL JUL 18 2003 USPS 32713

3. Service Type
☑ Certified Mail ☐ Express Mail
☐ Registered ☐ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? *(Extra Fee)* ☐ Yes

2. Ar 7001 0320 0001 3692 5580

PS Form 3811, July 1999 Domestic Return Receipt 102595-99-M-1789

U.S. Postal Service
CERTIFIED MAIL RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)

7001 0320 0001 3692 5580

OFFICIAL USE

Postage	$
Certified Fee	
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	$

Postmark Here

Sent To: Roxane Kennedy
Street, Apt. No.; or PO Box No.: 950 South Hwy. 17-92
City, State, ZIP+4: DeBary, FL 32713

PS Form 3800, January 2001 See Reverse for Instructions