FPL

RECEIVED

OCT 20 2003

BUREAU OF AIR REGULATION

October 16, 2003

Mr. Bruce Mitchell
Department of Environmental Protection
2600 Blair Stone Road
Mail Station #5505
Tallahassee, Florida 32399-2400

**RE: FLORIDA POWER & LIGHT – SANFORD PLANT
TITLE V AIR OPERATION PERMIT REVISION – PUBLIC NOTICE**

Dear Mr. Mitchell:

Enclosed please find a copy of the Certification and Public Notice published in the Daytona Beach News-Journal on October 8, 2003

Should you have any additional questions, please contact me at (386) 575-5385 or Mary Archer at (561) 691-7057.

Sincerely,

Randy Hopkins

R. Hopkins
Sr. Plant Leader - Environmental
FPL Sanford Plant

Attachments

cc: Mary Archer – FPL
PSN File

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 newspaper, published at Daytona Beach in Volusia County, Florida; that the attached copy of advertisement, being a
Notice of Intent to Issue Permit

52423

in the matter of Title V Air Operation
in the Court
was published in said newspaper in the issues
October 8, 2003

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

K Mayes

Sworn to and subscribed before me

this 8th day of October

A.D. 2003

Cheryl A. Longino

CHERYL A. LONGINO
Notary Public, State of Florida
My comm. expires Aug. 29, 2007
Comm. No. DD 232199

LEGAL ADVERTISEMENT

PUBLIC NOTICE OF INTENT TO ISSUE TITLE V AIR OPERATION PERMIT REVISION
STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
Title V Air Operation Permit Revision
DRAFT Permit No.: 1270009-010-AV
FPL Sanford Power Plant
Volusia County

The Department of Environmental Protection (permitting authority) gives notice of its intent to issue a Title V Air Operation Permit Revision (copy of the DRAFT Permit attached) for the Title V source detailed in the application specified above, for the reasons stated below. The applicant's name and address are: Ms. Roxane Kennedy, General Plant Manager/Responsible Official, FPL - Sanford Power Plant, 950 South Highway 17-92, DeBary, Florida 32713.

This permit revision is for: 1) the incorporation of the Repowered Unit 4 operation (combined cycle combustion turbines 4A thru 4D, plus associated foggers and unfired heat recovery steam generators) pursuant to air construction (AC) permit, No. 1270009-004-AC/PSD-FL-270; 2) the incorporation of the changes made in AC permit, No. 1270009-008-AC, specifically a) for the facility-wide cap for particulate matter and the associated equation, to correct an equation term due to a transcription error; b) for performance testing, to redefine the operating capacity requirement that would be imposed during a performance test to comport with Rule 62-297.310(2), F.A.C.; and, c) under excess emissions for combine cycle operation, to redefine what cold startup is in terms of the high-pressure drum of the heat recovery steam generator; and, 3) the incorporation of the high temporary peaking mode language for Repowered Units 4 and 5 established in AC permit, No. 1270009-009-AC. The emissions units have been built and the initial performance tests have been conducted and compliance demonstrated on natural gas only. A Compliance Plan has been created to address the firing of fuel oil.

The permitting authority will issue the PROPOSED Permit, and subsequent FINAL Permit, in accordance with the conditions of the DRAFT Permit, unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

The permitting authority will accept written comments concerning the proposed DRAFT Permit issuance action for a period of 30 (thirty) days from the date of publication of this Notice. Written comments should be provided to the Department's Bureau of Air Regulation, 2600 Blair Stone Road, Mail Station #5505, Tallahassee, Florida 32399-2400. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in this DRAFT Permit, the permitting authority shall issue a Revised DRAFT Permit and require, if applicable, another Public Notice.

A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative hearing in accordance with Sections 120.569 and 120.57 of the Florida Statutes (F.S.). The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department of Environmental Protection, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, FL, 32399-3000 (Telephone: 850/488-9730, Fax: 850/487-4938). Petitions filed by any persons other than those entitled to written notice under Section 120.60(3), F.S., must be filed within 14 (fourteen) days of publication of the public notice or within (14) fourteen days of receipt of the notice of intent, whichever occurs first. Under Section 120.60(3), F.S., however, any person who asked the permitting authority for notice of agency action may file a petition within 14 (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 applicable 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 (F.A.C.).

A petition that disputes the material facts on which the permitting authority'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; 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 petitioner's substantial rights will be affected by the agency determination;

(c) A statement of how and when the 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 state.

(e) A concise statement of the ultimate facts alleged, as well as the rules and statutes which entitle petitioner to relief;

(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 permitting authority'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, F.A.C.

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

Mediation is not available for this proceeding.

In addition to the above, pursuant to 42 United States Code (U.S.C.) Section 7661d(b)(2), any person may petition the Administrator of the EPA within 60 (sixty) days of the expiration of the Administrator's 45 (forty-five) day review period as established at 42 U.S.C. Section 7661d(b)(1), to object to issuance of any permit. Any petition shall be based only on objections to the permit that were raised with reasonable specificity during the 30 (thirty) day public comment period provided in this notice, unless the petitioner demonstrates to the EPA that it was impracticable to raise such objections within the comment period or unless the grounds for such objection arose after the comment period. Filing of

Mitchell, Bruce

From: Friday, Barbara
Sent: Friday, September 19, 2003 1:53 PM
To: Mitchell, Bruce
Subject: FW: New Posting #1270009

-----Original Message-----
From: Friday, Barbara
Sent: Friday, September 19, 2003 1:21 PM
To: Walker, Elizabeth (AIR); Gracy Danois; Joel Huey; Kathleen Forney
Subject: New Posting #1270009

There is a new posting on Florida's website.

1270009010AV
FP&L - SANFORD POWER PLANT

Draft Permit Revision

If you have any questions, feel free to contact me.

Thanks,
Barbara

9/19/03

Dear Barbara,

Please post the above referenced permitting project located at:

o:Bar/Title V/Bruce/Permits/1270009.010AV.Revision.FPLSanford.Repower.Unit4

1270009.010AV.AppH
1270009.010AV.AppI
1270009.010AV.AppU
1270009.010AV.SOB
1270009.010AV.Table1
1270009.010AV.Table2
1270009d.010AV.Revision.FPLSanford.Repower.Unit4
1270009i.010AV.FPLSanford
1270009.010AV.AppendixCP-1.Compliance.Plan.FO.Unit5
1270009.010AV.AppendixCP-2.Compliance.Plan.HTPM.Unit5
1270009.010AV.AppendixCP-3.Compliance.Plan.HTPM.Unit4

As always, many thanks!

Bruce

Mitchell, Bruce

From: Friday, Barbara
Sent: Friday, September 19, 2003 1:25 PM
To: 'Mary_Archer@fpl.com'
Cc: Mitchell, Bruce
Subject: FP&L - Sanford Power Plant

Mary,

Attached is the zip file for FP&L - Sanford Power Plant Permit Revision for your information and files.

If I may be of further asisstance, please feel free to contact me.

Barbara J. Friday
Planner II
Title V Section
Bureau of Air Regulation
(850)921-9524
Barbara.Friday@dep.state.fl.us

INTEROFFICE MEMORANDUM

TO: Trina L. Vielhauer

THRU: Scott M. Sheplak

FROM: Bruce Mitchell

DATE: September 8, 2003

SUBJECT: FPL
Sanford Power Plant
DRAFT Title V Air Operation Permit Revision
Permit Project No.: 1270009-010-AV

Attached is the DRAFT Title V Air Operation Permit Revision, Project No. 1270009-010-AV, for the Sanford Power Plant located at 950 Highway 17-92, on the St. John's River, approximately 7 miles northwest of Sanford, Volusia County. The subject of the Permit Revision is to incorporate the terms and conditions of air construction permits, Nos. 1270009-004-AC/PSD-FL-270, 1270009-008-AC, and 1270009-009-AC. Specifically, this permit revision is for: 1) the incorporation of the Repowered Unit 4 operation (combined cycle combustion turbines 4A thru 4D, plus associated foggers and unfired heat recovery steam generators) pursuant to air construction (AC) permit, No. 1270009-004-AC/PSD-FL-270; 2) the incorporation of the changes made in AC permit, No. 1270009-008-AC, specifically a) for the facility-wide cap for particulate matter and the associated equation, to correct an equation term due to a transcription error (this was incorporated in Title V permit revision, No. 1270009-007-AV: see Facility-wide Condition No. 14.); b) for performance testing, to redefine the operating capacity requirement that would be imposed during a performance test to comport with Rule 62-297.310(2), F.A.C. (see Specific Condition (SC) C.28.; also, this was incorporated for Repowered Unit 5 in Title V permit revision, No. 1270009-007-AV: see SC B.30.); and, c) under excess emissions for combine cycle operation, to redefine what cold startup is in terms of the high-pressure drum of the heat recovery steam generator (see SC C.13.; also, this was incorporated for Repowered Unit 5 in Title V permit revision, No. 1270009-007-AV: see SC B.13.); and, 3) the incorporation of the peaking language for Repowered Units 4 and 5 established in AC permit, No. 1270009-009-AC. The emissions units for Repowered Unit 4 have been built and the initial performance tests have been conducted and compliance demonstrated. A Compliance Plan has been created to address the firing of distillate fuel oil for Repowered Unit 5 (see Appendix CP-1); and, a Compliance Plan has been created for Repowered Unit 4 and for Repowered Unit 5 for testing in the High-Temperature Peaking Mode (see Appendix CP-2, for Repowered Unit 5, and Appendix CP-3, for Repowered Unit 4).

September 19, 2003, is the end of the 90-Day Waiver Clock.

Attachments

TLV/sms/bm

Department of Environmental Protection

Jeb Bush
Governor

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

David B. Struhs
Secretary

P.E. Certification Statement

Permittee:
Florida Power & Light Company
Sanford Plant

DRAFT Permit No.: 1270009-010-AV

Project type: Title V Air Operation Permit Revision

I HEREBY CERTIFY *that the 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, and geological features).*

Scott M. Sheplak 09/10/03

Scott M. Sheplak, P.E. Date
Registration Number: 48866

Permitting Authority:
Department of Environmental Protection
Bureau of Air Regulation
111 South Magnolia Drive, Suite 4
Tallahassee, Florida 32301
Telephone: 850/921-9532
Fax: 850/922-6979

STATEMENT OF BASIS

Title V Air Operation Permit Revision
DRAFT Permit Project No.: 1270009-010-AV

FPL
Sanford Power Plant
Volusia County

The initial Title V Air Operation Permit was effective on January 1, 2000. This Title V Air Operation Permit Revision is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-210, 62-213, and 62-214. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents, attached hereto or on file with the permitting authority, in accordance with the terms and conditions of this permit.

This permit revision is for: 1) the incorporation of the Repowered Unit 4 operation (combined cycle combustion turbines 4A thru 4D, plus associated foggers and unfired heat recovery steam generators) pursuant to air construction (AC) permit, No. 1270009-004-AC/PSD-FL-270 **(See "new" Section III. Subsection C.)**; 2) for Repowered Unit 4, the incorporation of the changes made in AC permit, No. 1270009-008-AC, specifically a) for the facility-wide cap for particulate matter and the associated equation, to correct an equation term due to a transcription error **(this was incorporated in Title V permit revision, No. 1270009-007-AV: see Facility-wide Condition No. 14.)**; b) for performance testing, to redefine the operating capacity requirement that would be imposed during a performance test to comport with Rule 62-297.310(2), F.A.C. **(see Specific Condition (SC) C.28.; also, this was incorporated for Repowered Unit 5 in Title V permit revision, No. 1270009-007-AV: see SC B.30.)**; and, c) under excess emissions for combine cycle operation, to redefine what cold startup is in terms of the high-pressure drum of the heat recovery steam generator **(see SC C.13.; also, this was incorporated for Repowered Unit 5 in Title V permit revision, No. 1270009-007-AV: see SC B.13.)**; and, 3) the incorporation of the high temperature peaking mode language for Repowered Units 4 and 5 established in AC permit, No. 1270009-009-AC **(See "new" SCs B.1.b., B.3.b.(2), B.4.b., B.7.b., B.22.b., B.25.b., B.26.b., B.32.a.(2), B.32.f., B.63., C.1.b., C.3.b.(2), C.4.b., C.7.b., C.21.b., C.23.b., C.24.b., C.30.a.(2), C.30.f., and C.58.)**. The emissions units have been built and the initial performance tests have been conducted and compliance demonstrated. A Compliance Plan has been created for Repowered Unit 5 for testing while firing distillate fuel oil (see Appendix CP-1); and, a Compliance Plan has been created for Repowered Unit 4 and for Repowered Unit 5 for testing in the High-Temperature Peaking Mode (see Appendix CP-2, for Repowered Unit 5, and Appendix CP-3, for Repowered Unit 4).

Repowered Unit 4, which is made up of 4 (four: PSNCT4A thru PSNCT4D) combined cycle only combustion turbines, replaces the existing residual oil-fired and gas-fired steam generating boiler Unit 4, while the existing steam-driven electrical turbine-generator will remain. Each combined cycle turbine unit is a nominal 170 MW (@ 59°F - compressor inlet) General Electric Frame MS7241FA Advanced combustion turbine-generator, with associated inlet foggers and an unfired Heat Recovery Steam Generator (HRSG) that will capture sufficient waste heat to produce another 80 MW via the existing steam-driven electrical turbine-generator (therefore, 250 MW in combined cycle operation). Each combustion turbine is permitted to fire only natural gas. Dry Low-NO_X combustors are installed in each turbine for Repowered Unit 4 to control NO_x, when firing natural gas. NO_X CEMS are used to determine compliance with the emission limiting standards. An evaporative equipment cooler was built instead of the proposed mechanical draft-cooling tower. The existing tall boiler (Unit 4) stack has been dismantled and replaced with relatively short stacks per emissions unit for the combined cycle operation. Unit PSNCT4A commenced operation on December 16, 2002; Unit PSNCT4B commenced operation on December 23, 2002; PSNCT4C commenced operation on December 30, 2002; and, PSNCT4D commenced operation on January 6, 2003.

These emissions units are regulated under: Acid Rain, Phase II; NSPS - 40 CFR 60, Subpart GG, Standards of Performance for Stationary Gas Turbines, adopted and incorporated by reference in Rule 62-204.800(7)(b), F.A.C.; Rule 62-212.400(5), F.A.C., Prevention of Significant Deterioration (PSD; 1270009-004-AC/PSD-FL-270); Rule 62-212.400(6), F.A.C., Best Available Control Technology (BACT) Determination, dated September 14, 1999; 1270009-007-AV; 1270009-008-AC; and, 1270009-009-AC.

Repowered Unit 5, which is made up of 4 (four: PSNCT5A thru PSNCT5D) combined cycle only combustion turbines, replaces the existing residual oil-fired and gas-fired steam generating boiler Unit 5, while the existing steam-driven electrical turbine-generator will remain. Each combined cycle turbine unit is a nominal 170 MW (@ 59°F - compressor inlet) General Electric Frame MS7241FA Advanced natural gas-fired and distillate oil-fired combustion turbine-generator, with associated inlet foggers and an unfired Heat Recovery Steam Generator (HRSG) that will capture sufficient waste heat to produce another 80 MW via the existing steam-driven electrical turbine-generator (therefore, 250 MW in combined cycle operation). Each combustion turbine is permitted to fire natural gas (which has already been tested for) and distillate fuel oil (which has not been tested for: see Appendix CP-1, Compliance Plan for Repowered Unit 5). Water injection is installed in each turbine for Repowered Unit 5 to control NO_x, when firing distillate oil. Dry Low-NO_x combustors are installed in each turbine for Repowered Unit 5 to control NO_X, when firing natural gas. An evaporative equipment cooler was built instead of the proposed mechanical draft-cooling tower. The existing tall boiler (Unit 5) stack will be dismantled and replaced with relatively short stacks per emissions unit for the combined cycle operation. Electrical fuel heaters will be used instead of the natural gas heaters to heat the natural gas prior to use during cold startups. Unit PSNCT5A commenced operation on February 21, 2002; Unit PSNCT5B commenced operation on February 25, 2002; PSNCT5C commenced operation on March 4, 2002; and, PSNCT5D commenced operation on March 11, 2002.

These emissions units are regulated under: Acid Rain, Phase II; NSPS - 40 CFR 60, Subpart GG, Standards of Performance for Stationary Gas Turbines, adopted and incorporated by reference in Rule 62-204.800(7)(b), F.A.C.; Rule 62-212.400(5), F.A.C., Prevention of Significant Deterioration (PSD); and, Rule 62-212.400(6), F.A.C., Best Available Control Technology (BACT) Determination, dated September 14, 1999.

Also included in this permit are miscellaneous unregulated/insignificant emissions units and/or activities.

Compliance Assurance Monitoring (CAM) does not apply.

Based on the Title V permit revision application received June 9, 2003, this facility is **not** a major source of hazardous air pollutants (HAPs).

Department of Environmental Protection

Jeb Bush
Governor

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

David B. Struhs
Secretary

September 17, 2003

CERTIFIED MAIL - Return Receipt Requested

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

Re: DRAFT Title V Air Operation Permit Revision No.: 1270009-010-AV
FPL's Sanford Power Plant

Dear Ms. Kennedy:

One copy of the Public Notice and the DRAFT Title V Air Operation Permit Revision for the FPL's Sanford Power Plant located at 950 Highway 17-92, which is on the St. Johns River, approximately 7 miles northwest of Sanford, Volusia County, is enclosed. The permitting authority's "INTENT TO ISSUE A TITLE V AIR OPERATION PERMIT REVISION" and the "PUBLIC NOTICE OF INTENT TO ISSUE A TITLE V AIR OPERATION PERMIT REVISION" are also included.

The "PUBLIC NOTICE OF INTENT TO ISSUE A TITLE V AIR OPERATION PERMIT REVISION" must be published as soon as possible. Proof of publication, i.e., newspaper affidavit, must be provided to the permitting authority's office within 7 (seven) days of publication pursuant to Rule 62-110.106(5), F.A.C. Failure to publish the notice and provide proof of publication within the allotted time may result in the denial of the permit pursuant to Rule 62-110.106(11), F.A.C.

Please submit any written comments you wish to have considered concerning the permitting authority's proposed action to me at the above letterhead address. If you have any other questions, please contact Bruce Mitchell at 850/413-9198.

9/19/03 cc: Bruce Mitchell
Reading File
Trina's File

Sincerely,

Trina L. Vielhauer

Trina L. Vielhauer
Chief
Bureau of Air Regulation

TLV/sms/m

Enclosures

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

7001 1140 0002 1577 9540

OFFICIAL USE

Ms. Roxane Kennedy, General Plant Manager

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

Postmark Here

Sent To
Ms. Roxane Kennedy, General Plant Manager
Street, Apt. No.;
950 South Highway 17-92
City, State, ZIP+ 4
Debary, Florida 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
General Plant Manager
FPL
Sanford Power Plant
950 South Highway 17-92
Debary, Florida 32713

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X Dale G. Dykes ☒ Agent ☐ Addressee

B. Received by (Printed Name) DALE G. DYKES C. Date of Delivery 9-23-03

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

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

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

2. Article Number
(Transfer from service label) 7001 1140 0002 1577 9540

PS Form 3811, August 2001 Domestic Return Receipt 102595-02-M-1540

In the Matter of an
Application for Permit by:

FPL
Sanford Power Plant
950 South Highway 17-92
Debary, Florida 32713
__________________/

DRAFT Permit No.: 1270009-010-AV
Volusia County

INTENT TO ISSUE A TITLE V AIR OPERATION PERMIT REVISION

The Department of Environmental Protection (permitting authority) gives notice of its intent to issue a Title V Air Operation Permit Revision (copy of the DRAFT Permit attached) for the Title V source detailed in the application specified above, for the reasons stated below.

The applicant, FPL, applied on June 9, 2003, to the permitting authority for a Title V Air Operation Permit Revision for the FPL's Sanford Power Plant located at 950 Highway 17-92, which is on the St. Johns River, approximately 7 miles northwest of Sanford, Volusia County.

This permit revision is for: 1) the incorporation of the Repowered Unit 4 operation (combined cycle combustion turbines 4A thru 4D, plus associated foggers and unfired heat recovery steam generators) pursuant to air construction (AC) permit, No. 1270009-004-AC/PSD-FL-270; 2) the incorporation of the changes made in AC permit, No. 1270009-008-AC, specifically a) for the facility-wide cap for particulate matter and the associated equation, to correct an equation term due to a transcription error; b) for performance testing, to redefine the operating capacity requirement that would be imposed during a performance test to comport with Rule 62-297.310(2), F.A.C.; and, c) under excess emissions for combine cycle operation, to redefine what cold startup is in terms of the high-pressure drum of the heat recovery steam generator; and, 3) the incorporation of the high temperature peaking mode language for Repowered Units 4 and 5 established in AC permit, No. 1270009-009-AC. The emissions units have been built and the initial performance tests have been conducted and compliance demonstrated on natural gas only. A Compliance Plan has been created to address the firing of fuel oil.

The permitting authority has permitting jurisdiction under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-210, 62-213, and 62-214. This source is not exempt from Title V permitting procedures. The permitting authority has determined that a Title V permit revision is required to commence or continue operations at the described facility.

The permitting authority intends to issue the Title V permit revision based on the belief that reasonable assurances have been provided to indicate that operation of the source will not adversely impact air quality, and the source will comply with all appropriate provisions of Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-214, 62-256, 62-257, 62-281, 62-296, and 62-297, F.A.C.

Pursuant to Sections 403.815 and 403.0872, F.S., and Rules 62-103.150 and 62-210.350(3), F.A.C., you (the applicant) are required to publish at your own expense the enclosed "PUBLIC NOTICE OF INTENT TO ISSUE A TITLE V AIR OPERATION PERMIT REVISION." The notice shall be published one time only within 30 (thirty) days in the legal advertisement section of a newspaper of general circulation in the area affected. 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 permitting authority at the address or telephone number listed below. The applicant shall provide proof of publication to the Department's Bureau of Air Regulation, 2600 Blair Stone Road, Mail Station #5505, Tallahassee, Florida 32399-2400 (Telephone: 850/488-0114; Fax: 850/922-6979), within 7 (seven) days of publication. Failure to publish the notice and provide proof of publication within the allotted time may result in the denial of the permit pursuant to Rule 62-103.150(6), F.A.C.

The permitting authority will issue the PROPOSED Permit, and subsequent combined FINAL Permit, in accordance with the conditions of the enclosed DRAFT Permit unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

The permitting authority will accept written comments concerning the proposed permit issuance action for a period of 30 (thirty) days from the date of publication of "PUBLIC NOTICE OF INTENT TO ISSUE A TITLE V AIR OPERATION PERMIT REVISION." Written comments should be provided to the permitting authority office. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in the DRAFT Permit, the permitting authority shall issue a Revised DRAFT Permit and require, if applicable, another Public Notice.

The permitting authority will issue the permit with the attached conditions unless a timely petition for an administrative hearing is filed pursuant to Sections 120.569 and 120.57, F.S., or a party requests mediation as an alternative remedy under Section 120.573, F.S., before the deadline for filing a petition. Choosing mediation will not adversely affect the right to a hearing if mediation does not result in a settlement. The procedures for petitioning for a hearing are set forth below, followed by the procedures for requesting mediation.

A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative hearing in accordance with Sections 120.569 and 120.57, F.S. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department of Environmental Protection, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000 (Telephone: 850/488-9730; Fax: 850/487-4938). Petitions filed by the permit applicant or any of the parties listed below must be filed within 14 (fourteen) days of receipt of this notice of intent. Petitions filed by any other person must be filed within 14 (fourteen) days of publication of the public notice or within 14 (fourteen) days of receipt of this notice of intent, whichever occurs first. A petitioner must 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 (or a request for mediation, as discussed below) 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 28-5.207, F.A.C.

A petition must contain the following information:

(a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Permit File Number, and the county in which the project is proposed;

(b) A statement of how and when each petitioner received notice of the permitting authority's action or proposed action;

(c) A statement of how each petitioner's substantial interests are affected by the permitting authority's action or proposed action;

(d) A statement of the material facts disputed by the petitioner, if any;

(e) A statement of the facts that the petitioner contends warrant reversal or modification of the permitting authority's action or proposed action;

(f) A statement identifying the rules or statutes that the petitioner contends require reversal or modification of the permitting authority's action or proposed action; and,

(g) A statement of the relief sought by the petitioner, stating precisely the action that the petitioner wants the permitting authority to take with respect to the action or proposed action addressed in this notice of intent.

A petition that does not dispute the material facts upon which the permitting authority'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, F.A.C.

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

Mediation will not be available in this proceeding.

In addition to the above, a person subject to regulation has a right to apply to the Department of Environmental Protection 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. 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 of Environmental Protection, 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 United States Environmental Protection Agency 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.

Finally, pursuant to 42 United States Code (U.S.C.) Section 7661d(b)(2), any person may petition the Administrator of the EPA within 60 (sixty) days of the expiration of the Administrator's 45 (forty-five) day review period as established at 42 U.S.C. Section 7661d(b)(1), to object to issuance of any permit. Any petition shall be based only on objections to the permit that were raised with reasonable specificity during the 30 (thirty) day public comment period provided in this notice, unless the petitioner demonstrates to the Administrator of the EPA that it was impracticable to raise such objections within the comment period or unless the grounds for such objection arose after the comment period. Filing of a petition with the Administrator of the EPA does not stay the effective date of any permit properly issued pursuant to the provisions of Chapter 62-213, F.A.C. Petitions filed with the Administrator of EPA must meet the requirements of 42 U.S.C. Section 7661d(b)(2) and must be filed with the Administrator of the EPA at 410 M. Street, SW, Washington, D.C. 20460.

Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

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 INTENT TO ISSUE A TITLE V AIR OPERATION PERMIT REVISION (including the PUBLIC NOTICE and the DRAFT Permit) and all copies were sent by certified mail before the close of business on 9/19/03 to the person(s) listed:

Ms. Roxane Kennedy, General Plant Manager and R.O., FPL - Sanford Power Plant

In addition, the undersigned duly designated deputy agency clerk hereby certifies that copies of this INTENT TO ISSUE A TITLE V AIR OPERATION PERMIT REVISION (including the PUBLIC NOTICE and the DRAFT Permit) were sent by U.S. mail on the same date to the person(s) listed or as otherwise noted:

Mr. Kennard F. Kosky, P.E., GAI
Mr. Len Kozlov, CD
Ms. Mary Archer, Application Contact, FPL (INTERNET E-mail Memorandum)
U.S. EPA, Region 4 (INTERNET E-mail Memorandum)

Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED, on this date, pursuant to Section 120.52(7), Florida Statutes, with the designated agency Clerk, receipt of which is hereby acknowledged.

Barbara J. Friday 9/19/03
(Clerk) (Date)

PUBLIC NOTICE OF INTENT TO ISSUE A TITLE V AIR OPERATION PERMIT REVISION

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Title V Air Operation Permit Revision
DRAFT Permit No.: 1270009-010-AV

FPL
Sanford Power Plant
Volusia County

The Department of Environmental Protection (permitting authority) gives notice of its intent to issue a Title V Air Operation Permit Revision (copy of the DRAFT Permit attached) for the Title V source detailed in the application specified above, for the reasons stated below. The applicant's name and address are: Ms. Roxane Kennedy, General Plant Manager/Responsible Official, FPL - Sanford Power Plant, 950 South Highway 17-92, Debary, Florida 32713.

This permit revision is for: 1) the incorporation of the Repowered Unit 4 operation (combined cycle combustion turbines 4A thru 4D, plus associated foggers and unfired heat recovery steam generators) pursuant to air construction (AC) permit, No. 1270009-004-AC/PSD-FL-270; 2) the incorporation of the changes made in AC permit, No. 1270009-008-AC, specifically a) for the facility-wide cap for particulate matter and the associated equation, to correct an equation term due to a transcription error; b) for performance testing, to redefine the operating capacity requirement that would be imposed during a performance test to comport with Rule 62-297.310(2), F.A.C.; and, c) under excess emissions for combine cycle operation, to redefine what cold startup is in terms of the high-pressure drum of the heat recovery steam generator; and, 3) the incorporation of the high temperature peaking mode language for Repowered Units 4 and 5 established in AC permit, No. 1270009-009-AC. The emissions units have been built and the initial performance tests have been conducted and compliance demonstrated on natural gas only. A Compliance Plan has been created to address the firing of fuel oil.

The permitting authority will issue the PROPOSED Permit, and subsequent FINAL Permit, in accordance with the conditions of the DRAFT Permit, unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

The permitting authority will accept written comments concerning the proposed DRAFT Permit issuance action for a period of 30 (thirty) days from the date of publication of this Notice. Written comments should be provided to the Department's Bureau of Air Regulation, 2600 Blair Stone Road, Mail Station #5505, Tallahassee, Florida 32399-2400. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in this DRAFT Permit, the permitting authority shall issue a Revised DRAFT Permit and require, if applicable, another Public Notice.

A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative hearing in accordance with Sections 120.569 and 120.57, Florida Statutes (F.S.). The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department of Environmental Protection, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000 (Telephone: 850/488-9730; Fax: 850/487-4938). Petitions filed by any persons other than those entitled to written notice under Section 120.60(3), F.S., must be filed within 14 (fourteen) days of publication of the public notice or within 14 (fourteen) days of receipt of the notice of intent, whichever occurs first. Under Section 120.60(3), F.S., however, any person who asked the permitting authority for notice of agency action may file a petition within 14 (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 applicable 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, Florida Administrative Code (F.A.C.).

A petition that disputes the material facts on which the permitting authority'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; 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 petitioner's substantial rights will be affected by the agency determination;

(c) A statement of how and when the 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 state;

(e) A concise statement of the ultimate facts alleged, as well as the rules and statutes which entitle petitioner to relief;

(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 permitting authority'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, F.A.C.

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

Mediation is not available for this proceeding.

In addition to the above, pursuant to 42 United States Code (U.S.C.) Section 7661d(b)(2), any person may petition the Administrator of the EPA within 60 (sixty) days of the expiration of the Administrator's 45 (forty-five) day review period as established at 42 U.S.C. Section 7661d(b)(1), to object to issuance of any permit. Any petition shall be based only on objections to the permit that were raised with reasonable specificity during the 30 (thirty) day public comment period provided in this notice, unless the petitioner demonstrates to the Administrator of the EPA that it was impracticable to raise such objections within the comment period or unless the grounds for such objection arose after the comment period. Filing of a petition with the Administrator of the EPA does not stay the effective date of any permit properly issued pursuant to the provisions of Chapter 62-213, F.A.C. Petitions filed with the Administrator of EPA must meet the requirements of 42 U.S.C. Section 7661d(b)(2) and must be filed with the Administrator of the EPA at: U.S. EPA, 401 M Street, S.W., Washington, D.C. 20460.

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:

Permitting Authority:
Department of Environmental Protection
Bureau of Air Regulation
111 South Magnolia Drive, Suite 4
Tallahassee, Florida 32301
Telephone: 850/488-0114
Fax: 850/922-6979

Affected District:
Department of Environmental Protection
Central District
3319 Maguire Boulevard, Suite 232
Orlando, Florida 32803-3767
Telephone: 407/894-7555
Fax: 407/897-2966

The complete project file includes the DRAFT Permit, the application, and any information submitted by the responsible official, exclusive of confidential records under Section 403.111, F.S. Interested persons may contact Scott M. Sheplak, P.E., at the above address, or call 850/921-9532, for additional information.

FPL
Sanford Power Plant
Facility ID No.: 1270009
Volusia County

Title V Air Operation Permit Revision
DRAFT Permit No.: 1270009-010-AV

Permitting Authority:
State of Florida
Department of Environmental Protection
Division of Air Resources Management
Bureau of Air Regulation
Title V Section
Mail Station #5505
2600 Blair Stone Road
Tallahassee, Florida 32399-2400
Telephone: 850/488-0114
Fax: 850/922-6979

Compliance Authority:
State of Florida
Department of Environmental Protection
Central District Office
3319 Maguire Boulevard, Suite 232
Orlando, Florida 32803-3767
Telephone: 407/894-7555
Fax: 407/897-2966

Title V Air Operation Permit Revision
DRAFT Permit No.: 1270009-010-AV

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Department of Environmental Protection

Jeb Bush
Governor

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

David B. Struhs
Secretary

Permittee:
FPL
Sanford Power Plant
950 South Highway 17-92
Debary, Florida 32713

DRAFT Permit No.: 1270009-010-AV
Facility ID No.: 1270009
SIC No.: 4911
Project: Title V Air Operation Permit Revision for the Repowered Unit 4

This permit revision is for: 1) the incorporation of the Repowered Unit 4 operation (combined cycle combustion turbines 4A thru 4D, plus associated foggers and unfired heat recovery steam generators) pursuant to air construction (AC) permit, No. 1270009-004-AC/PSD-FL-270; 2) the incorporation of the changes made in AC permit, No. 1270009-008-AC, specifically a) for the facility-wide cap for particulate matter and the associated equation, to correct an equation term due to a transcription error; b) for performance testing, to redefine the operating capacity requirement that would be imposed during a performance test to comport with Rule 62-297.310(2), F.A.C.; and, c) under excess emissions for combine cycle operation, to redefine what cold startup is in terms of the high-pressure drum of the heat recovery steam generator; and, 3) the incorporation of the peaking language for Repowered Units 4 and 5 established in AC permit, No. 1270009-009-AC. This existing facility is located at 950 Highway 17-92, which is on the St. Johns River, approximately 7 miles northwest of Sanford, Volusia County. The UTM Coordinates are: Zone 17, 468.3 km East and 3190.3 km North; Latitude: 28° 50' 31" North and Longitude: 81° 19' 32" West.

This Title V Air Operation Permit Revision is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-204, 62-210, 62-213, 62-214, 62-296 and 62-297. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents, attached hereto or on file with the permitting authority, in accordance with the terms and conditions of this permit.

Referenced attachments made a part of this permit:
Appendix U-1, List of Unregulated Emissions Units and/or Activities
Appendix I-1, List of Insignificant Emissions Units and/or Activities
Appendix TV-4, Title V Conditions (version dated 02/12/02)
Appendix SS-1, Stack Sampling Facilities (version dated 10/07/96)
Table 297.310-1, Calibration Schedule (version dated 10/07/96)
Phase II Acid Rain Application/Compliance Plan signed 01/30/02 and received 08/21/02
Acid Rain Retired Unit Exemption Applications received May 13, 2003, and signed by the Designated Representative on April 30, 2003, for Fossil Fuel Fired Steam Generators (boilers) Nos. 4 and 5
Alternate Sampling Procedure: ASP Number 97-B-01
Orders for Alternate Opacity Standards: OGC Case Nos: 92-0890 (Unit 3)
Appendix CP-1, Compliance Plan for Repowered Unit 5, Fuel Oil Firing
Appendix CP-2, Compliance Plan for Repowered Unit 5, High-Temperature Peaking Mode
Appendix CP-3, Compliance Plan for Repowered Unit 4, High-Temperature Peaking Mode
High Pressure Drum Temperature and Pressure During Cold Startup Curves for Repowered Unit 4
High Pressure Drum Temperature and Pressure During Cold Startup Curves for Repowered Unit 5

Effective Date: January 1, 2000
Revision Effective Date: (EPA ARMS Day 55)
Renewal Application Due Date: July 5, 2004
Expiration Date: December 31, 2004

Michael G. Cooke, Director
Division of Air Resource Management

Section I. Facility Information.

Subsection A. Facility Description.

This facility contains: Unit 3, which is an existing Babcock & Wilcox wall-fired steam boiler generating unit that is permitted to fire natural gas, No. 6 fuel oil, No. 2 fuel oil, and used oil from FPL operations, and has a generator nameplate rating of 156 megawatts (MW); Repowered Unit 4, which is made up of 4 (four: PSNCT4A thru PSNCT4D) combined cycle only combustion turbines, replaces the existing residual oil-fired and gas-fired steam generating boiler Unit 4, while the existing steam turbine remains; and, Repowered Unit 5, which is made up of 4 (four: PSNCT5A thru PSNCT5D) combined cycle only combustion turbines, replaces the existing residual oil-fired and gas-fired steam generating boiler Unit 5, while the existing steam turbine remains. Each combined cycle unit is a 170 MW (@ 59°F - compressor inlet) General Electric Frame MS7241FA Advanced combustion turbine-generator, with associated inlet foggers and an unfired Heat Recovery Steam Generator (HRSG) that will capture sufficient waste heat to produce another 80 MW via the steam-driven electrical generators. The Repowered Unit 4's combustion turbines are permitted to fire only natural gas, while the Repowered Unit 5's combustion turbines are permitted to fire natural gas (has already been tested for) and distillate fuel oil (has not been tested for: see Appendix CP-1, Compliance Plans for Repowered Unit 5). Electrical fuel heaters will be used to heat the natural gas prior to use during cold startups. Water injection is installed in each turbine for Repowered Unit 5 to control NO_x, when firing distillate oil. Dry Low-NO_x combustors are installed in each turbine for Repowered Units 4 & 5 to control NO_X, when firing natural gas. An evaporative equipment cooler was built instead of the proposed mechanical draft-cooling tower.

Air pollutants are discharged through a 302 foot stack on Unit 3. For Repowered Units 4 & 5, the existing tall boiler stacks (Units 4 & 5) were dismantled and replaced with relatively short stacks per emissions unit for combined cycle operation.

There is an emergency diesel generator and 4 pre-NSPS fuel oil storage tanks ranging in size from 275 gallons to 268,000 barrels. Also, there are two propane tanks on site.

Also included in this permit are miscellaneous unregulated/insignificant emissions units and/or activities.

Compliance Assurance Monitoring (CAM) Requirements do not apply.

Based on the Title V permit application for revision received June 9, 2003, this facility is **not** a major source of hazardous air pollutants (HAPs).

Subsection B. Summary of Emissions Unit ID No(s). and Brief Description(s).

E.U. ID No.	Brief Description
001	Fossil Fuel Steam Generator: Unit 3
Repowered Unit 4	
005	Combined Cycle Combustion Turbine (CCCT) Generator 4A with an unfired Heat Recovery Steam Generator (HRSG)
006	CCCT 4B with an unfired HRSG
007	CCCT 4C with an unfired HRSG
008	CCCT 4D with an unfired HRSG
Repowered Unit 5	
009	Combined Cycle Combustion Turbine (CCCT) Generator 5A with an unfired Heat Recovery Steam Generator (HRSG)
010	CCCT 5B with an unfired HRSG
011	CCCT 5C with an unfired HRSG
012	CCCT 5D with an unfired HRSG

Unregulated Emissions Units and/or Activities	
004	Emergency diesel generators, fuel oil storage tanks, and miscellaneous activities

Requests to the Department should reference the Permit No., Facility ID No., and appropriate Emissions Unit(s) ID No(s). on all correspondence, test report submittals, applications, etc.

Subsection C. Relevant Documents.

The documents listed below are not a part of this permit; however, they are specifically related to this permitting action.

These documents are provided to the permittee for information purposes only:
Appendix A-1, Abbreviations, Acronyms, Citations, and Identification Numbers.
Appendix H-1, Permit History
Table 1-1, Summary of Air Pollutant Standards and Terms
Table 2-1, Summary of Compliance Requirements
Statement of Basis

These documents are on file with the permitting authority:
Initial Title V Permit Application received June 12, 1996.
Air Construction Permit, No. 1270009-008-AC, issued March 18, 2003.
Application for Title V Air Operation Permit Revision received June 9, 2003.
E-mail from Ms. Mary Archer (FPL representative), received July 18, 2003, regarding incorporation of the peaking language for Repowered Units 4 and 5.
Air Construction Permit, No. 1270009-009-AC, issued September 4, 2003.
GE Power Systems: GER-3568G, (10/00): Page 2, Figure 3: "DLN Peak Firing Emissions – Natural Gas Fuel".
Waiver of the 90-Day Time Limit for Issuance of Permit received September 4, 2003.

Section II. Facility-wide Conditions.

The following conditions apply facility-wide:

1. APPENDIX TV-4, TITLE V CONDITIONS is a part of this permit.
{Permitting Note: APPENDIX TV-4, TITLE V CONDITIONS, is distributed to the permittee only. Other persons requesting copies of these conditions shall be provided a copy when requested or otherwise appropriate.}

2. Not Federally Enforceable. General Pollutant Emission Limiting Standards. Objectionable Odor Prohibited. The permittee shall not cause, suffer, allow, or permit the discharge of air pollutants which cause or contribute to an objectionable odor.
[Rule 62-296.320(2), F.A.C.]

3. General Particulate Emission Limiting Standards. General Visible Emissions Standard. Except for emissions units that are subject to a particulate matter or opacity limit set forth or established by rule and reflected by conditions in this permit, no person shall cause, let, permit, suffer or allow to be discharged into the atmosphere the emissions of air pollutants from any activity, the density of which is equal to or greater than that designated as Number 1 on the Ringelmann Chart (20 percent opacity). EPA Method 9 is the method of compliance pursuant to Chapter 62-297, F.A.C.
[Rules 62-296.320(4)(b)1. & 4, F.A.C.]

4. Prevention of Accidental Releases (Section 112(r) of CAA).
a. The permittee shall submit its Risk Management Plan (RMP) to the Chemical Emergency Preparedness and Prevention Office (CEPPO) RMP Reporting Center when, and if, such requirement becomes applicable. Any Risk Management Plans, original submittals, revisions or updates to submittals, should be sent to:

RMP Reporting Center
Post Office Box 3346
Merrifield, VA 22116-3346
Telephone: 703/816-4434

and,
b. The permittee shall submit to the permitting authority Title V certification forms or a compliance schedule in accordance with Rule 62-213.440(2), F.A.C.
[40 CFR 68]

5. Unregulated Emissions Units and/or Activities. Appendix U-1, List of Unregulated Emissions Units and/or Activities, is a part of this permit.
[Rule 62-213.440(1), F.A.C.]

6. Insignificant Emissions Units and/or Activities. Appendix I-1, List of Insignificant Emissions Units and/or Activities, is a part of this permit.
[Rules 62-4.040(1)(b), 62-213.430(6) and 62-213.440(1), F.A.C.]

7. General Pollutant Emission Limiting Standards. Volatile Organic Compounds (VOC) Emissions or Organic Solvents (OS) Emissions. The permittee shall allow no person to store, pump, handle, process, load, unload or use in any process or installation, volatile organic compounds (VOC) or organic solvents (OS) without applying known and existing vapor emission control devices or systems deemed necessary and ordered by the Department. The owner or operator shall:

The following requirements are "not" federally enforceable:

a. Tightly cover or close all VOC or OS containers when they are not in use.

b. Tightly cover all open tanks which contain VOC or OS when they are not in use.

c. Maintain all pipes, valves, fittings, etc., which handle VOC or OS in good operating condition.

d. Immediately confine and clean up VOC or OS spills and make sure wastes are placed in closed containers for reuse, recycling or proper disposal.

[Rule 62-296.320(1)(a), F.A.C.]

8. No person shall cause, let, permit, suffer or allow the emissions of unconfined particulate matter from any activity without taking reasonable precautions to prevent such emissions. Reasonable precautions to prevent emissions of unconfined particulate matter at this facility shall include:

The following requirements are federally enforceable:

a. Paving of roads, parking areas and equipment yards;

b. Landscaping and planting of vegetation;

c. Using dust suppressing techniques such as covering and/or application of water or chemicals to the affected areas, as necessary;

The following requirements are "not" federally enforceable:

d. Use of hoods, and/or fans and filters and/or poly flaps to contain and capture sand in the sandblast facility. The facility shall construct temporary sandblasting enclosures when necessary, in order to perform sandblasting on fixed plant equipment;

e. Limiting access to plant property by unnecessary vehicles;

f. Bagged chemical products are stored in weather tight buildings until they are used;

g. Spills of powdered chemical products shall be cleaned up as soon as practicable; and,

h. Vehicles are restricted to slow speeds on the plant site.

[Rule 62-296.320(4)(c)2., F.A.C.; 1270009-001-AV; and, 1270009-004-AC/PSD-FL-270]

{Permitting Note: The condition implements the requirements of Rules 62-296.320(4)(c)1., 3. & 4., F.A.C. (see Condition 57. of APPENDIX TV-4, TITLE V CONDITIONS.)}

9. When appropriate, any recording, monitoring, or reporting requirements that are time-specific shall be in accordance with the effective date of the permit, which defines day one.

[Rule 62-213.440, F.A.C.]

10. Statement of Compliance. The annual statement of compliance pursuant to Rule 62-213.440(3)(a)2., F.A.C., shall be submitted to the Department and EPA within 60 (sixty) days after the end of the calendar year using DEP Form No. 62-213.900(7), F.A.C.

[Rules 62-213.440(3) and 62-213.900, F.A.C.]

{Permitting Note: This condition implements the requirements of Rules 62-213.440(3)(a)2. & 3., F.A.C. (see Condition 51. of APPENDIX TV-4, TITLE V CONDITIONS.)}

11. The permittee shall submit all compliance related notifications and reports required in this permit to the Department's Central District office:

Department of Environmental Protection
Central District Office
3319 Maguire Boulevard, Suite 232
Orlando, Florida 32803-3767
Telephone: 407/894-7555
Fax: 407/897-2966

12. Any reports, data, notifications, certifications, and requests required to be sent to the United States Environmental Protection Agency, Region 4, should be sent to:

United States Environmental Protection Agency
Region 4
Air, Pesticides & Toxics Management Division
Air & EPCRA Enforcement Branch, Air Enforcement Section
61 Forsyth Street
Atlanta, Georgia 30303-8960
Telephone: 404/562-9155
Fax: 404/562-9163 or 404/562-9164

13. Certification by Responsible Official (RO). In addition to the professional engineering certification required for applications by Rule 62-4.050(3), F.A.C., any application form, report, compliance statement, compliance plan and compliance schedule submitted pursuant to Chapter 62-213, F.A.C., shall contain a certification signed by a responsible official that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. Any responsible official who fails to submit any required information or who has submitted incorrect information shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary information or correct information.
[Rule 62-213.420(4), F.A.C.]

14. Facility-wide Emission Caps. The entire facility including Repowered Units 4 and 5 and existing Unit 3, shall be limited to emission caps of 500 TPY of particulate matter (PM/PM_{10}), 4,500 TPY of nitrogen oxides (NO_X), and 4,000 TPY of sulfur dioxide (SO_2). This limitation shall not become effective until 2003, following the initial startup testing and placing into commercial operation of Repowered Units 4 and 5.
a. For the purpose of complying with the facility-wide emission cap, particulate matter emissions shall be calculated as follows:

Facility-wide Particulate Matter Emissions (PM_{Total}) = Unit 3 PM emissions (PM_3) + Unit 4 PM emissions (PM_4) + Unit 5 PM emissions (PM_5) where:

PM_4 = annual heat input (MMBtu) x 0.006 lb/MMBtu
$PM_5 = PM_{5gas} + PM_{5oil}$
PM_{5gas} = annual gas operation heat input (MMBtu) x 0.006 lb/MMBtu
PM_{5oil} = annual oil operation heat input (MMBtu) x 0.01 lb/MMBtu

$PM_3 = PM_{3oil} + PM_{3gas}$
PM_{3oil} = Annual oil heat input (MMBtu) x normalized annual stack test results (Fp), where
Fp = [(steady state PM test result x 16 hours) + (soot blowing PM test result x 8 hours)]/24 hrs
PM_{3gas} = Annual gas operation heat input x 0.0076 lb/MMBtu

b. For the purpose of complying with the facility-wide emission cap, nitrogen oxide emissions shall be calculated by annually summing the data collected in the continuous emissions monitoring system required by Title IV of the Clean Air Act.
c. For the purpose of complying with the facility-wide emission cap, sulfur dioxide emissions shall be calculated by annually summing the data collected in the continuous emissions monitoring system required by Title IV of the Clean Air Act.
[1270009-008-AC]

Section III. Emissions Unit(s) and Conditions.

Subsection A. This section addresses the following emissions unit.

E.U. ID No.	Brief Description
001	Fossil Fuel Steam Generator, Unit 3

Unit 3 is an existing fossil fuel steam generator, which produces electricity. The emissions unit is permitted to fire natural gas, No. 6 fuel oil [low sulfur fuel oil (LSFO) containing no more than 2.5% sulfur content, by weight, and high sulfur fuel oil (HSFO) containing more than 2.5% sulfur content, by weight, which may only be fired in conjunction with natural gas], No. 2 fuel oil, and on- specification used oil from FPL operations. Propane is utilized primarily for ignition of the main fuel at startup. Heat input capacity for Unit 3 is 1762 MMBtu/hr, when firing natural gas, and 1650 MMBtu/hr, when firing fuel oil.

Air pollutants are discharged through a 302 foot stack. Unit 3 has flue gas recirculation to improve unit performance and efficiency. The boiler operates a Westinghouse tandem compound, reheat type extraction turbine. The boiler has an automated fuel additive system to aid in the removal of boiler tube deposits, in which small quantities of additives are injected periodically, such as magnesium oxide, magnesium hydroxide and related compounds, into each boiler to prevent soot from sticking to the boiler tubes. Fossil fuel fired steam generator Unit 3 began commercial operation in 1959.

{Permitting Note(s): This emissions unit is regulated under Acid Rain, Phase II; and Rule 62-296.405, F.A.C., Fossil Fuel Steam Generators with More than 250 million Btu per Hour Heat Input; fossil fuel fired steam generator Unit 3 began commercial operation in 1959; this emissions unit uses a system to inject small quantities of additives periodically such as magnesium oxide, magnesium hydroxide and related compounds to prevent soot from sticking to the boiler tubes; 1270009-004-AC; and, 1270009-008-AC.}

The following specific conditions apply to the emissions unit listed above:

<u>Essential Potential to Emit (PTE) Parameters</u>

A.1. <u>Permitted Capacity</u>. The maximum operation heat input rates are as follows:

E.U. ID No.	MMBtu/hr Heat Input	Fuel Types
001	1762/1650	Natural Gas/Fuel Oils

[Rules 62-4.160(2), 62-210.200(PTE) and 62-296.405, F.A.C.; 40 CFR 75; and, AO64-217877]

{Permitting Note: The heat input limitations have been placed in each permit to identify the capacity of each unit for the purposes of confirming that emissions testing is conducted within 90 to 100 percent of the unit's rated capacity (or to limit future operation to 110 percent of the test load), to establish appropriate emission limits and to aid in determining future rule applicability. Regular recordkeeping is not required for heat input. Instead the owner or operator is expected to determine heat input whenever emission testing is required, to demonstrate at what percentage of the rated capacity that the unit was tested. Rule 62-297.310(5), F.A.C., included in the permit, requires measurement of the process variables for emission tests. Such heat input determination may be based on measurements of fuel consumption by various methods including but not limited to fuel flow metering or tank drop measurements, using the heat value of the fuel determined by the fuel vendor or the owner or operator, to calculate average hourly heat input during the test.}

A.2. Emissions Unit Operating Rate Limitation After Testing. See Specific Condition **A.26**.
[Rule 62-297.310(2), F.A.C.]

A.3. Methods of Operation. Fuels.
a. Startup: The only fuels allowed to be burned in the startup process are propane, natural gas, or No. 2 fuel oil for the ignition cycle, followed by any combination of natural gas, No. 2 fuel oil, or No. 6 fuel oil. During the startup process, best operating practices are utilized to minimize emissions.
b. Normal: The only fuels allowed to be burned are natural gas, No. 2 fuel oil, No. 6 residual fuel oil, or on-specification used oil from FPL's operations.
[Rules 62-213.410(1) and 62-297.310, F.A.C.; and, AO64-217877]

A.4. Hours of Operation. The emissions unit may operate continuously, i.e., 8,760 hours/year.
[Rule 62-210.200(PTE), F.A.C.]

Emission Limitations and Standards

{Permitting Note: The attached Table 1-1, Summary of Air Pollutant Standards and Terms, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

{Permitting Note: Unless otherwise specified, the averaging time for Specific Conditions **A.5.** through **A.9.** are based on the specified averaging time of the applicable test method.}

A.5. Visible Emissions (VE). Visible emissions shall not exceed 40 percent opacity. Emissions units governed by this visible emissions standard shall conduct compliance tests for particulate matter emissions at least annually, in accordance with Specific Condition **A.27**.
[Rule 62-296.405(1)(a), F.A.C.; and, OGC Case No. 92-0890]

A.6. Visible Emissions - Soot Blowing and Load Change. Visible emissions shall not exceed 60 percent opacity during the 3-hours in any 24 hour period of excess emissions allowed for boiler cleaning (soot blowing) and load change providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized.
(a) A load change occurs when the operational capacity of a unit is in the 10 percent to 100 percent capacity range, other than startup or shutdown, which exceeds 10 percent of the unit's rated capacity and which occurs at a rate of 0.5 percent per minute or more.
(b) Visible emissions above 60 percent opacity shall be allowed for not more than 4, six (6)-minute periods, during the 3-hour period of excess emissions allowed by this condition provided that continuous opacity monitors are used to report excess emissions.
(c) The permittee shall record the date, the start time and the end times of all soot blowing and load change periods which correspond to periods of emissions which are above the steady state opacity limit. This data shall be kept on file for 5 years at the Sanford plant and made available to DEP personnel upon request.
[Rules 62-4.070(3), 210.700(3) and 62-213.440, F.A.C.]

A.7. Particulate Matter. Steady state particulate matter emissions shall not exceed 0.1 pound per million Btu heat input , as measured by applicable compliance methods.
[Rule 62-296.405(1)(b), F.A.C.]

A.8. Particulate Matter - Soot Blowing and Load Change. Particulate matter emissions shall not exceed an average of 0.3 pound per million Btu heat input during the 3-hours in any 24-hour period of excess emissions allowed for boiler cleaning (soot blowing) and load change as measured by applicable compliance methods.
[Rule 62-210.700(3), F.A.C.]

A.9. Sulfur Dioxide. Sulfur dioxide emissions shall not exceed 2.75 pounds per million Btu heat input, as measured by applicable compliance methods.
[Rule 62-296.405(1)(c)1.j, F.A.C.]

Excess Emissions

A.10. Excess emissions resulting from startup, shutdown or malfunction of any emissions unit shall be permitted provided (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration.
[Rule 62-210.700(1), F.A.C.]

A.11. Excess emissions from existing fossil fuel steam generators resulting from startup or shutdown shall be permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized.
[Rule 62-210.700(2), F.A.C.]

A.12. Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown, or malfunction shall be prohibited.
[Rule 62-210.700(4), F.A.C.]

Monitoring of Operations

A.13. CEMS/COMS Required. The owner or operator shall install, certify, and operate a continuous emission monitoring system (CEMS) for SO_2 and NO_X, and a continuous opacity monitoring system (COMS) for opacity in accordance with 40 CFR 75. Data shall be calculated and recorded in units of the applicable standard.

The CEMS and COMS shall be installed, calibrated, operated and maintained in accordance with the quality assurance requirements of 40 CFR 75, Appendix A, adopted and incorporated by reference in Rule 62-204.800, F.A.C.; however, Relative Accuracy Test Audits (RATA) shall be conducted no less frequently than annually. Compliance shall be based on a 3-hour rolling average.
[Rules 62-204.800 and 62-210.700, F.A.C.; and, 40 CFR 75]

A.14. Annual Tests Required. Except as provided in Specific Conditions **A.17.** through **A.19.**, emissions testing for particulate emissions and visible emissions shall be performed annually during the fiscal year (October 1 - September 30).
[Rules 62-4.070(3), 62-213.440(1), 62-296.405(1)(a) and 62-297.310(7), F.A.C.]

A.15. Sulfur Dioxide. The owner or operator shall demonstrate compliance with the sulfur dioxide limit of Specific Condition **A.9.** by the following:
a. Through the use of a continuous emission monitoring system (CEMS) installed, calibrated, operated and maintained in accordance with the quality assurance requirements of 40 CFR 75, Appendix A, adopted and incorporated by reference in Rule 62-204.800, F.A.C.; however, Relative Accuracy Test Audits (RATA) shall be conducted no less frequently than annually. Compliance shall be based on a 3-hour rolling average.
b. In the event the CEMS becomes temporarily inoperable or interrupted, the fuel oil sulfur concentration and the maximum fuel oil to natural gas firing ratio that shall be used is limited to that which was last used to demonstrate compliance prior to the loss of the CEMS, or the emissions units shall fuel switch and be fired with a fuel containing a maximum sulfur content of 2.5%, by weight, or less. See Specific Condition **A.24**.
[Rules 62-213.440(1), 62-204.800 and 62-296.405(1)(c)3., F.A.C.]

A.16. Determination of Process Variables.
(a) Required Equipment. The owner or operator of an emissions unit for which compliance tests are required shall install, operate, and maintain equipment or instruments necessary to determine process variables, such as process weight input or heat input, when such data are needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards.
(b) Accuracy of Equipment. Equipment or instruments used to directly or indirectly determine process variables, including devices such as belt scales, weight hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value.
[Rule 62-297.310(5), F.A.C.]

A.17. Frequency of Compliance Tests. The following provisions apply only to those emissions units that are subject to an emissions limiting standard for which compliance testing is required.
(a) General Compliance Testing.
1. For excess emission limitations for particulate matter specified in Rule 62-210.700, F.A.C., a compliance test shall be conducted annually while the emissions unit is operating under soot blowing conditions in each federal fiscal year during which soot blowing is part of normal emissions unit operation, except that such test shall not be required in any federal fiscal year in which a fossil fuel steam generator does not burn liquid fuel for more than 400 hours other than during startup.
2. The owner or operator of an emissions unit that is subject to any emission limiting standard shall conduct a compliance test that demonstrates compliance with the applicable emission limiting standard prior to obtaining a renewed operation permit. Emissions units that are required to conduct an annual compliance test may submit the most recent annual compliance test to satisfy the requirements of this provision. In renewing an air operation permit pursuant to Rule 62-210.300(2)(a)3.b., c., or d., F.A.C., the Department shall not require submission of emission compliance test results for any emissions unit that, during the year prior to renewal:
a. Did not operate; or,
b. In the case of a fuel burning emissions unit, burned liquid fuel for a total of no more than 400 hours.
3. During each federal fiscal year (October 1 - September 30), unless otherwise specified by rule, order, or permit, the owner or operator of each emissions unit shall have a formal compliance test conducted for:
a. Visible emissions, if there is an applicable standard;

b. Each of the following pollutants, if there is an applicable standard, and if the emissions unit emits or has the potential to emit: 5 tons per year or more of lead or lead compounds measured as elemental lead; or 100 tons per year or more of any other regulated air pollutant; and
c. Each NESHAP pollutant, if there is an applicable emission standard.

4. An annual compliance test for particulate matter emissions shall not be required for any fuel burning emissions unit that, in a federal fiscal year, does not burn liquid fuel for a total of more than 400 hours.

5. The owner or operator shall notify the Department, at least 15 days prior to the date on which each formal compliance test is to begin, of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator.

(b) Special Compliance Tests. When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it may require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the Department.

(c) Waiver of Compliance Test Requirements. If the owner or operator of an emissions unit that is subject to a compliance test requirement demonstrates to the Department, pursuant to the procedure established in Rule 62-297.620, F.A.C., that the compliance of the emissions unit with an applicable weight emission limiting standard can be adequately determined by means other than the designated test procedure, such as specifying a surrogate standard of no visible emissions for particulate matter sources equipped with a bag house or specifying a fuel analysis for sulfur dioxide emissions, the Department shall waive the compliance test requirements for such emissions units and order that the alternate means of determining compliance be used, provided, however, the provisions of Rule 62-297.310(7)(b), F.A.C., for special compliance tests requested by DEP shall apply.

[Rule 62-297.310(7), F.A.C.; and, SIP approved for item (b) above]

A.18. When Visible Emissions Tests Not Required. By this permit, annual emissions compliance testing for visible emissions is not required for these emissions units while burning:

a. only gaseous fuel(s); or,
b. gaseous fuel(s) in combination with any amount of liquid fuel(s) for less than 400 hours per year; or,
c. only liquid fuel(s) for less than 400 hours per year.

[Rule 62-297.310(7)(a)4., F.A.C.]

A.19. When PM Tests Not Required. Annual and permit renewal compliance testing for particulate matter emissions is not required for these emissions units while burning:

a. only gaseous fuel(s); or,
b. gaseous fuel(s) in combination with any amount of liquid fuel(s) for less than 400 hours per year; or,
c. only liquid fuel(s) for less than 400 hours per year.

[Rules 62-297.310(7)(a)3. & 5., F.A.C.; and, ASP Number 97-B-01]

Test Methods and Procedures

{Permitting Note: The attached Table 2-1, Summary of Compliance Requirements, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

A.20. Visible Emissions (VE). The test method for visible emissions shall be DEP Method 9, incorporated in Chapter 62-297, F.A.C. (see Specific Condition **A.21.**). A transmissometer shall be used, certified and calibrated according to Rule 62-297.520, F.A.C. VE testing shall be conducted in accordance with the requirements of Specific Condition **A.27**.
[Rule 62-296.405(1)(e)1., F.A.C.; and, AO64-217877]

A.21. DEP Method 9. The provisions of EPA Method 9 (40 CFR 60, Appendix A) are adopted by reference with the following exceptions:
1. EPA Method 9, Section 2.4, Recording Observations. Opacity observations shall be made and recorded by a Florida DEP certified observer at sequential fifteen second intervals during the required period of observation.
2. EPA Method 9, Section 2.5, Data Reduction. For a set of observations to be acceptable, the observer shall have made and recorded, or verified the recording of, at least 90 percent of the possible individual observations during the required observation period. For single-valued opacity standards (e.g., 20 percent opacity), the test result shall be the highest valid six-minute average for the set of observations taken. For multiple-valued opacity standards (e.g., 20 percent opacity, except that an opacity of 40 percent is permissible for not more than two minutes per hour) opacity shall be computed as follows:
   a. For the basic part of the standard (i.e., 20 percent opacity) the opacity shall be determined as specified above for a single-valued opacity standard.
   b. For the short-term average part of the standard, opacity shall be the highest valid short-term average (i.e., two-minute, three-minute average) for the set of observations taken.

In order to be valid, any required average (i.e., a six-minute or two-minute average) shall be based on all of the valid observations in the sequential subset of observations selected, and the selected subset shall contain at least 90 percent of the observations possible for the required averaging time. Each required average shall be calculated by summing the opacity value of each of the valid observations in the appropriate subset, dividing this sum by the number of valid observations in the subset, and rounding the result to the nearest whole number. The number of missing observations in the subset shall be indicated in parenthesis after the subset average value.
[Rule 62-297.401, F.A.C.]

A.22. Particulate Matter. The test methods for particulate emissions shall be EPA Methods 17 or Method 5, incorporated by reference in Chapter 62-297, F.A.C. The minimum sample volume shall be 30 dry standard cubic feet. EPA Method 5 may be used with filter temperature no more than 320 degrees Fahrenheit. For EPA Method 17, stack temperature shall be less than 375 degrees Fahrenheit. EPA Method 3 or 3A with Orsat analysis shall be used when the oxygen based F-factor, computed according to EPA Method 19, is used in lieu of heat input. Acetone wash shall be used with EPA Method 5 or 17. Particulate testing shall be conducted in accordance with the requirements of Specific Conditions **A.26** and **A.27**.
[Rules 62-213.440, 62-296.405(1)(e)2. and 62-297.401, F.A.C.]

A.23. Sulfur Dioxide. The test methods for sulfur dioxide emissions shall be EPA Methods 6, 6A, 6B, or 6C, incorporated by reference in Chapter 62-297, F.A.C. If the emissions unit obtains an alternate procedure under the provisions of Rule 62-297.620, F.A.C., the procedure shall become a condition of the emissions unit's permit. The Department will retain the authority to require EPA Method 6 or 6C if it has reason to believe that exceedences of the sulfur dioxide emissions limiting standard are occurring. The permittee may use the EPA test methods, referenced above, to demonstrate compliance; however, as an alternate sampling procedure authorized by permit, **the permittee elected to demonstrate compliance using CEMS for sulfur dioxide.** See Specific Condition **A.15**.
[Rules 62-213.440 and 62-296.405(1)(c)3. & (1)(e)3., F.A.C.; and, 1270009-001-AV]

A.24. For each emissions unit, the following fuel sampling and analysis protocol may be used as an alternate sampling procedure authorized by permit to demonstrate compliance with the sulfur dioxide standard:

a. Determine and record the fuel sulfur content, percent by weight, for liquid fuels delivered to the facility using either ASTM D2622-92, ASTM D4294-90, or both ASTM D4057-88 and ASTM D129-91 (or latest editions) to analyze a representative sample of the fuel from each fuel delivery.

b. The owner or operator shall identify and dedicate each storage tank containing fuels with sulfur content of no more than 2.5% by weight.

See Specific Condition **A.15.b**.
[Rules 62-4.070(3), 62-213.440(1), 62-296.405(1)(e)3., 62-296.405(1)(f)1.b. and 62-297.440, F.A.C.]

A.25. Required Number of Test Runs. For mass emission limitations, a compliance test shall consist of three complete and separate determinations of the total air pollutant emission rate through the test section of the stack or duct and three complete and separate determinations of any applicable process variables corresponding to the three distinct time periods during which the stack emission rate was measured provided, however, that three complete and separate determinations shall not be required if the process variables are not subject to variation during a compliance test, or if three determinations are not necessary in order to calculate the unit's emission rate. The three required test runs shall be completed within one consecutive five day period. In the event that a sample is lost or one of the three runs must be discontinued because of circumstances beyond the control of the owner or operator, and a valid third run cannot be obtained within the five day period allowed for the test, the Secretary or his or her designee may accept the results of the two complete runs as proof of compliance, provided that the arithmetic mean of the results of the two complete runs is at least 20 percent below the allowable emission limiting standards.
[Rule 62-297.310(1), F.A.C.]

A.26. Operating Rate During Testing. Testing of emissions shall be conducted with each emissions unit operation at permitted capacity, which is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. If it is impracticable to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test load until a new test is conducted. Once the emissions unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity.
[Rules 62-297.310(2) & (2)(b), F.A.C.]

A.27. Operating Conditions During Testing - Particulate Matter and Visible Emissions. Compliance testing during soot blowing and steady-state operation for particulate matter and visible emissions shall be conducted at least once annually, if liquid fuel is fired for more than 400 hours. A visible emissions test shall be conducted during one run of each particulate matter test. Testing shall be conducted as follows:

a. When Burning Fuel Oil Up To 2.5% Sulfur Content, By Weight. When only fuel oil containing less than or equal to 2.5% sulfur content, by weight, is fired (or co-fired with natural gas) in an emissions unit, particulate matter and visible emissions tests during soot blowing and steady-state operation shall be performed on such emissions unit while firing solely fuel oil containing at least 90% of the average sulfur content of the fuel oils fired in the previous 12 month period, except that such test shall not be required to be performed during any year that testing is performed in accordance with Specific Condition **A.27.b.**

b. When Burning Fuel Oil Greater Than 2.5% Sulfur Content, By Weight. If fuel oil containing greater than 2.5% sulfur content, by weight, is co-fired with natural gas in an emissions unit, particulate matter and visible emissions tests during soot blowing and steady-state operation shall be performed as soon as practicable, but in no event more than 60 days after firing such fuel oil, while co-firing such oil with the appropriate proportion of natural gas required to maintain SO_2 emissions between 90 to 100% of the SO_2 emission limit (corresponding to 2.475 and 2.75 lb/MMBtu, respectively). Following successful completion of such particulate matter and visible emissions testing, further particulate matter and visible emissions testing shall not be required during the remaining federal fiscal year unless fuel oil is fired that contains greater than 0.20% sulfur content, by weight, above the percentage sulfur concentration fired during the most recent co-firing test. If fuel oil is co-fired containing greater than 0.20% sulfur content, by weight, above the percentage sulfur concentration fired during the most recent co-firing test, additional particulate matter and visible emissions tests shall be performed as described above as soon as practicable, but in no event more than 60 days after firing such higher sulfur fuel oil. If any additional particulate matter and visible emissions tests are imposed after completion of any required annual compliance tests, then the frequency testing base date shall be reset to 12-months after the date of completion of the last tests.

[Rules 62-4.070(3), 62-213.440, 62-296.405(1)(c)3. and 62-297.310(7)(a)9., F.A.C.]

A.28. Fuel Records. The owner or operator shall create and maintain for each emissions unit hourly records of the amount of each liquid fuel fired, the ratio of fuel oil to natural gas if co-fired, and the heating value and fuel oil sulfur content. These records must be of sufficient detail to identify the testing requirements of Specific Condition **A.27.(a)** or **(b)** and, when applicable, demonstrate compliance with the requirements of Specific Condition **A.15(b)**. Fuel oil heating value and sulfur content shall be determined using as received or as fired fuel analysis. An as-fired fuel oil sample for sulfur content from the blend tank shall be required if the sulfur content of any delivery of fuel oil exceeds 2.5%, by weight; and, that analysis shall be used to evaluate the testing requirements in Specific Condition **A.27**. No as-fired sampling for sulfur content shall be required if any delivery of fuel oil is 2.5% or less, by weight, pursuant to the vendor's bill of lading. Analysis of a representative sample shall be performed using one of ASTM D2622-94, ASTM D4294-90(95), ASTM D1552-95, ASTM D1266-91, or both ASTM D4057-88 and ASTM D129-95 or the latest edition(s).

[Rules 62-4.070(3) and 62-213.440, F.A.C.]

A.29. Not Federally Enforceable. In the event FPL exceeds the tested additive injection rate by 10 percent or more, FPL shall notify the Department's Central District, Air Section, in writing within 10 days of the date that the higher rate was initiated. The notification shall include the date the higher injection rate began, the magnitude of the higher rate, and, if applicable, the approximate date by which the higher rate would cease.
[AO64-217877]

A.30. Calculation of Emission Rate. The indicated emission rate or concentration shall be the arithmetic average of the emission rate or concentration determined by each of the separate test runs unless otherwise specified in a particular test method or applicable rule.
[Rule 62-297.310(3), F.A.C.]

A.31. Applicable Test Procedures.
(a) Required Sampling Time.
1. Unless otherwise specified in the applicable rule, the required sampling time for each test run shall be no less than one hour and no greater than four hours, and the sampling time at each sampling point shall be of equal intervals of at least two minutes.
2. Opacity Compliance Tests. When using DEP Method 9 for compliance testing the required minimum period of observation for a compliance test shall be sixty (60) minutes for each of the emissions units. The opacity test observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur. Exceptions to these requirements are as follows:
c. The minimum observation period for opacity tests conducted by employees or agents of the Department to verify the day-to-day continuing compliance of a unit or activity with an applicable opacity standard shall be twelve minutes.
(b) Required Flow Rate Range. For EPA Method 5 or Method 17 particulate sampling which uses Greenburg Smith type impingers, the sampling nozzle and sampling time shall be selected such that the average sampling rate will be between 0.5 and 1.0 actual cubic feet per minute, and the required minimum sampling volume will be obtained.
(c) Calibration of Sampling Equipment. Calibration of the sampling train equipment shall be conducted in accordance with the schedule shown in Table 297.310-1 (attached to this permit).
(d) Allowed Modification to EPA Method 5. When EPA Method 5 is required, the following modification is allowed: the heated filter may be separated from the impingers by a flexible tube.
[Rule 62-297.310(4), F.A.C.]

A.32. Required Stack Sampling Facilities. When a mass emissions stack test is required, the permittee shall comply with the requirements contained in Appendix SS-1, Stack Sampling Facilities, attached to this permit.
[Rule 62-297.310(6), F.A.C.]

Recordkeeping and Reporting Requirements

A.33. Excess Emissions - Malfunctions. If the permittee is temporarily unable to comply with any of the conditions of the permit due to breakdown of equipment or destruction by hazard of fire, wind or by other cause, the permittee shall immediately notify the Department. Notification shall include pertinent information as to the cause of the problem, and what steps are being taken to correct the problem and to prevent its recurrence, and where applicable, the owner's intent toward reconstruction of destroyed facilities. Such notification does not release the permittee from any liability for failure to comply with Department rules. In the case of excess emissions resulting from malfunctions, each owner or operator shall notify the Department's

Central District, Air Section. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Department.
[Rules 62-4.130 and 62-210.700(6), F.A.C.]

A.34. Excess Emissions - Reports. Submit to the Department's Central District, Air Section, a written report of emissions in excess of emission limiting standards as set forth in Rule 62-296.405(1), F.A.C., for each calendar quarter. The nature and cause of the excess emissions shall be explained. This report does not relieve the owner or operator of the legal liability for violations. All recorded data shall be maintained on file by the Source for a period of five years.
[Rules 62-213.440(1) and 62-296.405(1)(g), F.A.C.]

A.35. Test Reports.
(a) The owner or operator of an emissions unit for which a compliance test is required shall file a report with the Department's Central District, Air Section, on the results of each such test.
(b) The required test report shall be filed with the Department's Central District, Air Section, as soon as practical but no later than 45 days after the last sampling run of each test is completed.
(c) The test report shall provide sufficient detail on the emissions unit tested and the test procedures used to allow the Department's Central District, Air Section, to determine if the test was properly conducted and the test results properly computed. As a minimum, the test report, other than for an EPA or DEP Method 9 test, shall provide the following information:

1. The type, location, and designation of the emissions unit tested.
2. The facility at which the emissions unit is located.
3. The owner or operator of the emissions unit.
4. The normal type and amount of fuels used and materials processed, and the types and amounts of fuels used and material processed during each test run.
5. The means, raw data and computations used to determine the amount of fuels used and materials processed, if necessary to determine compliance with an applicable emission limiting standard.
6. The type of air pollution control devices installed on the emissions unit, their general condition, their normal operating parameters (pressure drops, total operating current and GPM scrubber water), and their operating parameters during each test run.
7. A sketch of the duct within 8 stack diameters upstream and 2 stack diameters downstream of the sampling ports, including the distance to any upstream and downstream bends or other flow disturbances.
8. The date, starting time and duration of each sampling run.
9. The test procedures used, including any alternative procedures authorized pursuant to Rule 62-297.620, F.A.C. Where optional procedures are authorized in this chapter, indicate which option was used.
10. The number of points sampled and configuration and location of the sampling plane.
11. For each sampling point for each run, the dry gas meter reading, velocity head, pressure drop across the stack, temperatures, average meter temperatures and sample time per point.
12. The type, manufacturer and configuration of the sampling equipment used.
13. Data related to the required calibration of the test equipment.
14. Data on the identification, processing and weights of all filters used.
15. Data on the types and amounts of any chemical solutions used.
16. Data on the amount of pollutant collected from each sampling probe, the filters, and the impingers, are reported separately for the compliance test.
17. The names of individuals who furnished the process variable data, conducted the test, analyzed the samples and prepared the report.
18. All measured and calculated data required to be determined by each applicable test procedure for each run.

19. The detailed calculations for one run that relate the collected data to the calculated emission rate.
20. The applicable emission standard, and the resulting maximum allowable emission rate for the emissions unit, plus the test result in the same form and unit of measure.
21. A certification that, to the knowledge of the owner or his authorized agent, all data submitted are true and correct. When a compliance test is conducted for the Department or its agent, the person who conducts the test shall provide the certification with respect to the test procedures used. The owner or his authorized agent shall certify that all data required and provided to the person conducting the test are true and correct to his knowledge.
22. The identification and measured concentrations of any audit samples.

[Rules 62-4.070(3), 62-213.440(1) and 62-297.310(8), F.A.C.]

A.36. Sulfur Dioxide Emission Report. During any quarter that fuels with more than 2.5% sulfur are received at the Sanford plant or fired in the emissions units, the owner or operator shall, by the thirtieth day following each calendar quarter, submit to the Department's Central District, Air Section, a report of each period in which the 3-hour rolling average of sulfur dioxide emissions exceed 2.75 lb/MMBtu. The report shall identify the steps taken to minimize the magnitude and duration of sulfur dioxide emissions during these episodes and any preventative measures implemented to avoid recurrence of these episodes.

In the event that no 3-hour rolling average of sulfur dioxide emissions exceeds the limit of 2.75 lbs/MMBtu, no report is required to be submitted to the Department's Central District Office, Air Section.

[Rules 62-4.070(3), 62-213.440(1) and 62-213.440(1)b., F.A.C.]

A.37. Continuous opacity monitoring (COM) data shall be used to track excess emissions during normal operation of the facility for periodic monitoring purposes. See Specific Conditions **A.5.** and **A.13.**

[Rules 62-204.800 and 62-210.700, F.A.C.; and, 40 CFR 75]

A.38. The Continuous Emissions Monitoring Electronic Data Report will be submitted quarterly for all applicable parameters pursuant to 40 CFR 75.50, Subpart F.

[Rules 62-4.160(2), 62-210.200(PTE) and 62-296.405, F.A.C.; and, 40 CFR 75]

Miscellaneous Conditions

A.39. Used Oil. Burning of on-specification used oil is authorized at this facility in accordance with all other conditions of this permit and the following additional conditions:

a. On-specification Used Oil Allowed as Fuel: This permit allows the burning of used oil fuel consisting only of used lubricating oils resulting from Sanford Plant's maintenance activities, and mineral oil from the FPL's system-wide maintenance operations on transformers. FPL shall control the collection of these waste oils by the use of placards at used oil collection sites, and by informing plant personnel of the restrictions above, to insure that other liquids (waste solvents, paints, and hazardous wastes) are not mixed with the used oils fired in the boilers. This used oil shall meet EPA "on-specification" criteria, and have a PCB concentration of less than 50 ppm. Used oil that does not meet the specifications for on-specification used oil shall not be burned at this facility.

On-specification used oil shall meet the following specifications:

Arsenic shall not exceed 5.0 ppm;
Cadmium shall not exceed 2.0 ppm;
Chromium shall not exceed 10.0 ppm;
Lead shall not exceed 100.0 ppm;

Total halogens shall not exceed 1000 ppm;
Flash point shall not be less than 100 degrees F.
[40 CFR 279, Subpart B.]

b. Quantity Limited: The annual quantity of used lubricating oil that may be burned in the boilers shall not exceed the quantity of new lubricating oils consumed at the Sanford plant in any consecutive 12-month period. The annual quantity of used mineral oil burned in the boilers shall not exceed the quantity generated from FPL system wide maintenance activities.
c. Used Oil Containing PCBs Not Allowed: Used oil containing a PCB concentration of 50 or more ppm shall not be burned at this facility. Used oil shall not be blended to meet this requirement.
d. PCB Concentration of 2 to less than 50 ppm: On-specification used oil with a PCB concentration of 2 to less than 50 ppm shall be burned only at normal source operating temperatures.
e. Testing Required: The owner or operator shall sample and analyze each batch of used oil to be burned for the following parameters:
(1) Arsenic, cadmium, chromium, lead, total halogens, flash point, PCBs.
(2) Testing (sampling, extraction and analysis) shall be performed using approved methods specified in EPA Publication SW-846 (Test Methods for Evaluating Solid Waste, Physical/Chemical Methods), latest edition.
(3) Split samples of the used oil shall be labeled with the batch analysis date, when the batch was fired and in which boiler the batch was fired. Split samples shall be retained for three months after analysis and made available to Department upon request for further testing if necessary.
f. Recordkeeping Required: The owner or operator shall obtain and keep the following records related to the use of used oil in a form suitable for inspection at the facility by the Department:
(1) The gallons of on-specification used oil burned each month. (This record shall be completed no later than the fifteenth day of each succeeding month that used oil is fired.)
(2) The analysis results, date, batch quantity, date of firing and identification of which boiler fired each batch shall be recorded.
[40 CFR 279.61 and 761.20(e)]
g. Reporting Required: The owner or operator shall submit, with the Annual Operation Report form, a separate listing of the analytical results and the total amount of on-specification used oil burned during the previous calendar year.
[Rules 62-4.070(3) and 62-213.440(1), F.A.C.; 40 CFR 279; and, 40 CFR 761, unless otherwise noted]

Section III. Emissions Unit(s) and Conditions.

Subsection B. This section addresses the following emissions units.

E.U. ID No.	Brief Description
	Repowered Unit 5: 4 (four) combined cycle only combustion turbines
009	Combined Cycle Combustion Turbine (CCCT) Generator PSNCT5A with an unfired Heat Recovery Steam Generator (HRSG)
010	CCCT PSNCT5B with an unfired HRSG
011	CCCT PSNCT5C with an unfired HRSG
012	CCCT PSNCT5D with an unfired HRSG

Repowered Unit 5, which is made up of 4 (four: PSNCT5A thru PSNCT5D) combined cycle only combustion turbines, replaces the existing residual oil-fired and gas-fired steam generating boiler Unit 5, while the existing steam-driven electrical turbine-generator will remain. Each combined cycle turbine unit is a nominal 170 MW (@ 59°F - compressor inlet) General Electric Frame MS7241FA Advanced natural gas-fired and distillate oil-fired combustion turbine-generator, with associated inlet foggers and an unfired Heat Recovery Steam Generator (HRSG) that will capture sufficient waste heat to produce another 80 MW via the existing steam-driven electrical turbine-generator (therefore, 250 MW in combined cycle operation). Each combustion turbine is permitted to fire natural gas (which has already been tested for) and distillate fuel oil (which has not been tested for: see Appendix CP-1, Compliance Plan for Repowered Unit 5). Water injection is installed in each turbine for Repowered Unit 5 to control NO_x, when firing distillate oil. Dry Low-NO_X combustors are installed in each turbine for Repowered Unit 5 to control NO_x, when firing natural gas. An evaporative equipment cooler was built instead of the proposed mechanical draft-cooling tower. 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. Unit PSNCT5A commenced operation on February 21, 2002; Unit PSNCT5B commenced operation on February 25, 2002; PSNCT5C commenced operation on March 4, 2002; and, PSNCT5D commenced operation on March 11, 2002.

For Repowered Unit 5, the existing tall boiler (Unit 5) stack has been dismantled and replaced with relatively short stacks per emissions unit for the combined cycle operation.

Electrical fuel heaters will be used to heat the natural gas prior to use during cold startups.

{Permitting Note(s): These emissions units are regulated under: Acid Rain, Phase II; NSPS - 40 CFR 60, Subpart GG, Standards of Performance for Stationary Gas Turbines, adopted and incorporated by reference in Rule 62-204.800(7)(b), F.A.C.; Rule 62-212.400(5), F.A.C., Prevention of Significant Deterioration (PSD; 1270009-004-AC/PSD-FL-270); Rule 62-212.400(6), F.A.C., Best Available Control Technology (BACT) Determination, dated September 14, 1999; 1270009-007-AV; 1270009-008-AC; and, 1270009-009-AC.}

The following specific conditions apply to the emissions units listed above:

Essential Potential to Emit (PTE) Parameters

B.1. Turbine Capacity.
a. Normal (Base Load). The design heat input rates for natural gas firing, based on the high heating value (HHV) of the fuel to each combustion turbine (CT) 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 fuel oil firing is 1,930 MMBtu/hr (HHV, 60% relative humidity, 100% load, 59°F compressor inlet and 14.7 psia). This design heat input rate will vary depending upon the CT's inlet conditions and characteristics. Manufacturer's curves corrected for site conditions or equations for correction to other compressor inlet conditions shall be provided to the Department within 45 days of completing the initial compliance testing.
b. High-Temperature Peaking Mode. The maximum heat input rate to each gas turbine is 1838 MMBtu per hour in this mode of operation (based on a compressor inlet air temperature of 59° F and the higher heating value (HHV) of natural gas).

{Permitting Note: The heat input limitations have been placed in each permit to identify the capacity of each unit for the purposes of confirming that emissions testing is conducted within 90 to 100 percent of the unit's rated capacity (or to limit future operation to 110 percent of the test load), to establish appropriate emission limits and to aid in determining future rule applicability. Regular recordkeeping is not required for heat input. Instead the owner or operator is expected to determine heat input whenever emission testing is required, to demonstrate at what percentage of the rated capacity that the unit was tested. Rule 62-297.310(5), F.A.C., included in the permit, requires measurement of the process variables for emission tests. Such heat input determination may be based on measurements of fuel consumption by various methods including but not limited to fuel flow metering or tank drop measurements, using the heat value of the fuel determined by the fuel vendor or the owner or operator, to calculate average hourly heat input during the test.}

[Rule 62-210.200(PTE), F.A.C.; and, 1270009-004-AC/PSD-FL-270]

B.2. Emissions Unit Operating Rate Limitation After Testing. See Specific Condition **B.30.**
[Rule 62-297.310(2), F.A.C.]

B.3. Methods of Operation.
a. Fuels.
(1) Primary: Pipeline natural gas shall be the primary fuel fired in these emissions units. See Specific Condition **B.45.** and the "Permitting Note", below.
(2) Secondary: When natural gas is **not** available, up to 28,600,000 gallons per year of distillate fuel oil, having a maximum sulfur content of 0.05%, by weight, is authorized for Repowered Unit 5 operations (ARMS emissions units 009 - 012: PSNCT5A - PSNCT5D, respectively). See Specific Conditions **B.46** and **B.62**.

{Permitting Note: For the purposes of this subsection of this permit, "pipeline natural gas" means natural gas with a sulfur content of less than 20 gr/100 scf that is provided by the natural gas pipeline transmission company. In addition, commercial operation on distillate fuel oil shall not be allowed until the Compliance Plan has been satisfied. (See **Appendix CP-1** and Specific Conditions **B.24.a. & c., B.45.b. & c.** and **B.62.**)}

b. Loads.
   (1) Base Load (Normal). Means the load level at which a gas turbine is normally operated. (See Specific Condition **B.1.a.**)
   (2) High-Temperature Peaking Load. Means a computer-controlled increase in firing temperature with greater heat input and output. 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. (See Specific Condition **B.1.b.**)

{Permitting Note: For the High-Temperature Peaking Mode, the increase in power and heat input is about 3.8 percent at ISO conditions. Commercial operation in this mode shall not be allowed until the Compliance Plan has been satisfied. (See **Appendix CP-2** and Specific Condition **B.63.**)}

[Rule 62-210.200(PTE), F.A.C.; 40 CFR 60.333; and, 1270009-004-AC/PSD-FL-270]

B.4. Hours of Operation.
a. Normal (Base Load). The emissions units may operate continuously, i.e., 8,760 hours/year.
b. High-Temperature Peaking Mode. During any consecutive 12 months, each combined cycle gas turbine shall operate in this peaking mode for no more than 400 hours of operation.
[Rule 62-210.200(PTE), F.A.C.; 1270009-004-AC/PSD-FL-270; and, 1270009-009-AC]

Control Technology

B.5. DLN systems shall be maintained to minimize NO_X emissions and CO emissions, consistent with normal operation and maintenance practices.
[Rules 62-4.070(3) and 62-210.650, F.A.C.; and, 1270009-004-AC/PSD-FL-270]

B.6. Circumvention. No owner or operator shall build, erect, install, or use any article, machine, equipment or process, the use of which conceals an emission which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard which is based on the concentration of a pollutant in the gases discharged into the atmosphere.
[40 CFR 60.12]

Emission Limitations and Standards

{Permitting Note: The attached Table 1-1, Summary of Air Pollutant Standards and Terms, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

{Permitting Note: Unless otherwise specified, the averaging times for Specific Conditions **B.7.** through **B.11.** are based on the specified averaging time of the applicable test method.}

B.7. Emission Limitations.

a. Full Load (Normal/Base Load). The following are the emission limits, assuming full load operation. Values for NO_X are corrected to 15% O_2 on a dry basis. These limits or their equivalents in terms of pounds per hour, as well as the applicable averaging times, are contained in Specific Conditions **B.8.** thru **B.10.**, respectively.

Emissions Unit	NO_X	CO	VOC	PM/PM_{10}/VE (% Opacity)	Technology and Comments
CTs (each)	9 ppm (30 day) - gas 42 ppm - oil 75/110 ppm (NSPS)	12 ppmvd - gas 20 ppmvd - oil	1.4 ppmvd 7 ppmvw	10 - gas 20 - oil	Dry Low NO_X Combustors; Natural Gas or 0.05% S, by wt., Fuel Oil; Good Combustion; Water Injection on Fuel Oil

NOTE: The 40 CFR 60, Subpart GG requirement to correct test data to ISO conditions applies. However, such correction is not required to demonstrate compliance with non-NSPS permit standard(s).

[40 CFR 60.332; and, 1270009-004-AC/PSD-FL-270]

b. High-Temperature Peaking Mode. The combined cycle gas turbines are subject to the following emission limits during high-temperature peaking mode operation while firing natural gas. Emissions limits are corrected to 15% O_2 (lbs/hr at ISO Conditions).

Emissions Unit	NO_X	CO	VOC	PM/PM_{10}/VE (% Opacity)	Technology and Comments
CTs (each)	15 ppmvd (24-hr block avg.) 102 lbs/hr	9 ppmvd 29 lbs/hr	1.4 ppmvd 3 lbs/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, PTE, and 62-4.070(3), F.A.C.; and, 1270009-009-AC].

B.8. Nitrogen Oxides (NOx).

a. Natural Gas Firing: The NOx concentrations in the exhaust gas of each CT shall not exceed 9 ppmvd at 15% O_2, on a 30-day rolling average basis, when firing natural gas, as measured by the CEMS (maintained in accordance with 40 CFR 75). Based on CEMS data at the end of each operating day, a new 30-day average rate is calculated from the arithmetic average of all valid hourly emission rates during the previous 30 operating days. Valid hourly emission rates shall not include periods of startup, shutdown or malfunction. In addition, NOx emissions calculated as NO_2 shall exceed neither 9 ppmvd at 15% O_2 nor 65 lbs/hr (at ISO conditions) to be demonstrated by initial performance tests.

b. Distillate Oil Firing: The NO_X concentrations in the exhaust gas of each CT shall not exceed 42 ppmvd at 15% O_2, on a 24-hour block average basis, when firing distillate fuel oil, as measured by the CEMS (maintained in accordance with 40 CFR 75). Based on CEMS data at the end of each operating day, a new 24-hour average rate is calculated from the arithmetic average of all valid hourly emission rates during the previous day. Valid hourly emission rates shall not include periods of startup, shutdown or malfunction. In addition, NO_x emissions calculated as NO_2 shall exceed neither 42 ppm at 15% O_2 nor 355 lbs/hr (at ISO conditions) to be demonstrated by initial distillate oil-firing performance tests.

c. When NO_x monitoring data is not available, substitution for missing data shall be handled as required by Title IV (40 CFR 75) to calculate the 30-day rolling average or 24-hour block average emission rates.
[Rules 62-204.800(7)(b) (Subpart GG) and 62-210.200(PTE), F.A.C.; 40 CFR 75; and, 1270009-004-AC/PSD-FL-270]

B.9. Carbon Monoxide (CO). The concentration of CO (@15% O_2) in the exhaust gas shall not exceed 12 ppmvd when firing natural gas and 20 ppmvd when firing distillate oil as measured by EPA Method 10 at full-load conditions. CO emissions (at ISO conditions) shall not exceed 43 lbs/hr/CT, when firing natural gas, and 71.6 lbs/hr/CT, when firing distillate oil, and to be demonstrated by stack tests.
[1270009-004-AC/PSD-FL-270]

B.10. Volatile Organic Compounds (VOC). The concentration of VOC in the exhaust gas shall not exceed 1.4 ppmvd, when firing natural gas, and 7 ppmvw, when firing distillate oil, as determined by EPA Method 18 or 25A. VOC emissions (at ISO conditions) shall not exceed 2.9 lbs/hr/CT, when firing natural gas, and 16.1 lbs/hr/CT, when firing distillate oil, and to be demonstrated by initial stack tests.
[1270009-004-AC/PSD-FL-270]

B.11. Visible Emissions (VE). VE emissions from the combustion turbines shall not exceed 10 percent opacity, during gas firing, and 20 percent opacity, during oil firing.
[1270009-004-AC/PSD-FL-270]

B.12. Sulfur Dioxide (SO_2). As per Specific Conditions **B.3.** and **B.24.a. & b.**
[1270009-004-AC/PSD-FL-270]

Excess Emissions

{Permitting Note: The Excess Emissions Rule at Rule 62-210.700, F.A.C., cannot vary any requirement of a NSPS or NESHAP provision.}

B.13. Excess emissions resulting from startup, shutdown, or malfunction of the *combustion turbines (CTs) and associated heat recovery steam generators (HRSGs)* shall be permitted provided that best operational practices are adhered to and the duration of excess emissions shall be minimized. Excess emissions occurrences shall in no case exceed two (2) hours in any 24-hour period except during both "cold startup" to or "shutdowns" from combined cycle operation [CT and associated HRSG]. During cold startup to combined cycle operation, up to four (4) hours of excess emissions are allowed. During shutdowns from combined cycle operation, up to three (3) hours of excess emissions are allowed. Cold startup is defined as a startup to combined cycle operation when the heat recovery steam generator high-pressure drum is below 450 psig for at least one (1) hour.

Excess emissions from the CTs resulting from startup of the *steam turbine system* shall be permitted provided that best operational practices are adhered to and the duration of excess emissions shall be minimized. Excess emissions occurrences shall in no case exceed 12 hours per CT per cold startup of the steam turbine system [CT(s) and associated HRSG(s), Steam Turbine and Generator]. Cold startup of the steam turbine system shall be completed within twelve (12) hours.
[Rules 62-210.700(1) and 62-4.130, F.A.C.; G.E. Combined Cycle Startup Curves Data; 1270009-004-AC/PSD-FL-270; and, 1270009-008-AC]

B.14. Excess emissions entirely or in part by poor maintenance, poor operation, or any other equipment or process failure that may reasonably be prevented during startup, shutdown or malfunction, shall be prohibited.
[Rule 62-210.700(4), F.A.C.; and, 1270009-004-AC/PSD-FL-270]

B.15. A malfunction means any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner. Failures that are caused in part by poor maintenance or careless operation are not malfunctions.
[40 CFR 60.2, Definitions - Malfunction]

B.16. A malfunction means any unavoidable mechanical and/or electrical failure of air pollution control equipment or process equipment or of a process resulting in operation in an abnormal or unusual manner.
[Rule 62-210.200, Definitions - Malfunction, F.A.C.]

Monitoring of Operations

B.17. At all times, including periods of startup, shutdown and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.
[40 CFR 60.11(d)]

B.18. Operating Procedures. Operating procedures shall include good operating practices and proper training of all operators and supervisors. The good operating practices shall meet the guidelines and procedures as established by the equipment manufacturers. All operators (including supervisors) of air pollution control devices shall be properly trained in plant specific equipment.
[Rule 62-4.070(3), F.A.C.; and, 1270009-004-AC/PSD-FL-270]

B.19. Determination of Process Variables.
(a) Required Equipment. The owner or operator of an emissions unit for which compliance tests are required shall install, operate, and maintain equipment or instruments necessary to determine process variables, such as process weight input or heat input, when such data are needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards.
(b) Accuracy of Equipment. Equipment or instruments used to directly or indirectly determine process variables, including devices such as belt scales, weight hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value.
[Rule 62-297.310(5), F.A.C.]

B.20. The owner or operator of any stationary gas turbine subject to the provisions of 40 CFR 60, Subpart GG, and using water injection to control NO_X emissions shall operate a continuous monitoring system to monitor and record the fuel consumption and the ratio of water to fuel

being fired in the turbine. This system shall be accurate to within ±5.0 percent and shall be approved by the Administrator. **A nitrogen oxide continuous emissions monitoring system (CEMS) shall be used to determine compliance with this requirement for <u>each</u> CT.** See Specific Condition **B.47.**
[40 CFR 60.334(a)]

B.21. The owner or operator of any stationary gas turbine subject to the provisions of 40 CFR 60, Subpart GG, shall monitor sulfur content and nitrogen content of the fuel being fired in the turbine. The frequency of determinations of these values shall be as follows:
(1) If the turbine is supplied its fuel from a bulk storage tank, the values shall be determined on each occasion that fuel is transferred to the storage tank from any other source. See Specific Condition **B.46**.
(2) If the turbine is supplied its fuel without intermediate bulk storage the values shall be determined and recorded daily. Owners, operators or fuel vendors may develop custom schedules for determination of the values based on the design and operation of the affected facility and the characteristics of the fuel supply. These custom schedules shall be substantiated with data and must be approved by the Administrator before they can be used to comply with 40 CFR 60.334(b).
[40 CFR 60.334(b)(1) & (2)]

<u>Compliance Determination</u>

B.22. <u>Continuous compliance with the NO_X emission limits while firing Natural Gas</u>.
a. <u>Full Load (Normal/Base Load)</u>. Continuous compliance with the NO_X emission limits when firing natural gas shall be demonstrated with the CEMS based on a 30-day rolling average. Based on CEMS data, a separate compliance determination is conducted at the end of each operating day and a new 30-day average emission rate is calculated from the arithmetic average of all valid hourly emission rates during the previous 30 operating days. Valid hourly emission rates shall not include periods of startup, shutdown, or malfunction.
b. <u>High-Temperature Peaking Mode</u>. An <u>initial</u> performance test for NO_X shall be performed on <u>only one</u> CT to demonstrate compliance with the emission limitations in Specific Condition **B.7.b.** (see **Appendix CP-2** and Specific Condition **B.63.**) and is considered representative of the other three CTs in Repowered Unit 5. After that, continuous compliance with the NO_X emission limits when firing natural gas shall be demonstrated with the CEMS based on a 24-hr block average. 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 NO_X standards during normal gas firing.
[Rules 62-4.070 and 62-210.700, F.A.C.; 40 CFR 75; 1270009-004-AC/PSD-FL-270; and, 1270009-009-AC]

B.23. <u>Continuous compliance with the NO_X emission limits while firing Fuel Oil</u>. Compliance with the NO_x emission limits when firing oil shall be demonstrated with the CEMS based on a 24-hour block average. Based on CEMS data, a separate compliance determination is conducted at the end of each operating day and is calculated from the arithmetic average of all valid hourly emission rates during the previous day. Valid hourly emission rates shall not include periods of

startup, shutdown, or malfunction. A valid hourly emission rate shall be calculated for each hour in which at least two NO_X concentrations are obtained at least 15 minutes apart.
[Rules 62-4.070 and 62-210.700, F.A.C.; 40 CFR 75; and, 1270009-004-AC/PSD-FL-270]

B.24. Compliance with the SO_2 and PM/PM_{10} emission limits:
a. Natural Gas. The use of pipeline natural gas is the method for determining compliance for SO_2 and PM/PM_{10}, when firing natural gas. See Specific Conditions **B.3.** and **B.45.**
b. Fuel Oil. The use of very low sulfur fuel oil (0.05% content, by weight, or less) is the method of compliance for SO_2 and PM/PM_{10}, when firing distillate oil. See Specific Condition **B.46.**
c. Natural Gas. For the purposes of demonstrating compliance with 40 CFR 60.333(b), when firing natural gas, data from the pipeline natural gas supplier may be submitted or the natural gas sulfur content referenced in 40 CFR 75, Appendix D, may be utilized. Gas analysis, if conducted, may be performed by the owner or operator, a service contractor retained by the owner or operator, the fuel vendor, or any other qualified agency pursuant to 40 CFR 60.335(e) (1998 version). However, the applicant is responsible for ensuring that the procedures in 40 CFR 60.335 or 40 CFR 75 are used for determination of fuel sulfur content, if gas analysis is done. See Specific Conditions **B.3.** and **B.45.**
d. Fuel Oil. For the purposes of demonstrating compliance with 40 CFR 60.333(b), when firing distillate oil, compliance shall follow the requirements of 40 CFR 60.334(b)(1) using methods specified in ASTM 2880-96 (or latest version). See Specific Condition **B.46.**
[1270009-004-AC/PSD-FL-270; and, 40 CFR 75]

B.25. Compliance with CO emission limit.
a. Full Load (Normal/Base Load). An initial test for CO shall be conducted concurrently with the initial NO_x test while operating at permitted capacity. These initial NO_X and CO test results shall be the average of three runs. Annual compliance testing for CO may be conducted at less than capacity when compliance testing is conducted concurrent with the annual NO_x RATA testing, which is performed pursuant to 40 CFR 75.
b. High-Temperature Peaking Mode. No initial performance test for CO is required.

{Permitting Note: Testing under normal conditions for VOC and CO provides reasonable assurance of compliance under high-temperature peaking mode operation.}

[1270009-004-AC/PSD-FL-270; 40 CFR 75; and, 1270009-009-AC]

B.26. Compliance with the VOC emission limit.
a. Full Load (Normal/Base Load). An initial test is required to demonstrate compliance with the VOC emission limit. Thereafter, the CO emission limit will be employed as a surrogate for VOC and no annual testing is required. **The initial compliance test requirement for the affected pollutant(s) has been satisfied and no further tests are required.**
b. High-Temperature Peaking Mode. No initial performance test for VOC is required.

{Permitting Note: Testing under normal conditions for VOC and CO provides reasonable assurance of compliance under high-temperature peaking mode operation.}

[1270009-004-AC/PSD-FL-270; and, 1270009-009-AC]

Test Methods and Procedures

{Permitting note: Table 2-1, Summary of Compliance Requirements, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

B.27. To compute the nitrogen oxides emissions, the owner or operator shall use analytical methods and procedures that are accurate to within 5 percent and are approved by the Department to determine the nitrogen content of the fuel being fired. See Specific Condition **B.46.**
[40 CFR 60.335(a)]

B.28. The owner or operator shall determine compliance with the liquid fuel sulfur content standard of 0.05 percent, by weight, and the sulfur content of the gaseous fuels as follows: ASTM D 2880-96, or the latest edition, shall be used to determine the sulfur content of liquid fuels and ASTM D 1072-90(94)E-1, D 3031-81(86), D 4084-94, or D 3246-92, or the latest edition, shall be used for the sulfur content of gaseous fuels (incorporated by reference - see 40 CFR 60.17). The applicable ranges of some ASTM methods mentioned above are not adequate to measure the levels of sulfur in some fuel gases. Dilution of samples before analysis (with verification of the dilution ratio) may be used, subject to the approval of the Administrator. See Specific Conditions **B.45.** and **B.46.**
[40 CFR 60.335(d); and, 1270009-004-AC/PSD-FL-270]

B.29. Required Number of Test Runs. For mass emission limitations, a compliance test shall consist of three complete and separate determinations of the total air pollutant emission rate through the test section of the stack or duct and three complete and separate determinations of any applicable process variables corresponding to the three distinct time periods during which the stack emission rate was measured provided, however, that three complete and separate determinations shall not be required if the process variables are not subject to variation during a compliance test, or if three determinations are not necessary in order to calculate the unit's emission rate. The three required test runs shall be completed within one consecutive five day period. In the event that a sample is lost or one of the three runs must be discontinued because of circumstances beyond the control of the owner or operator, and a valid third run cannot be obtained within the five day period allowed for the test, the Secretary or his or her designee may accept the results of the two complete runs as proof of compliance, provided that the arithmetic mean of the results of the two complete runs is at least 20 percent below the allowable emission limiting standards.
[Rule 62-297.310(1), F.A.C.]

B.30. Operating Rate During Testing. Testing of emissions shall be conducted with the CT operating at permitted capacity. Permitted capacity is defined as 90-100 percent of the maximum heat input rate allowed by the permit, corrected for the average compressor inlet temperature during the test (with 100 percent represented by a curve depicting heat input vs. compressor inlet temperature). If it is impracticable to test at permitted capacity, the source may be tested at less than permitted capacity. In this case, subsequent operation is limited by adjusting the entire heat input vs. compressor inlet temperature curve downward by an increment equal to the difference between the maximum permitted heat input (corrected for compressor inlet temperature) and 110 percent of the value reached during the test until a new test is conducted. Once the unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purposes of additional compliance testing to regain the permitted capacity. Test procedures shall meet all applicable requirements (i.e., testing time frequency, minimum compliance duration, etc.) of Chapters 62-204 and 62-297, F.A.C.
[Rule 62-297.310(2), F.A.C.; and, 1270009-008-AC]

B.31. Performance tests shall be conducted under such conditions as the Administrator shall specify to the plant operator based on representative performance of the affected facility. The owner or operator shall make available to the Administrator such records as may be necessary to determine the conditions of the performance tests. Operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test nor shall emissions in excess of the level of the applicable emission limit during periods of startup, shutdown, and malfunction be considered a violation of the applicable emission limit unless otherwise specified in the applicable standard.
[40 CFR 60.8(c)]

B.32. Unless otherwise stated, the initial (I) performance tests shall be performed pursuant to 40 CFR 60, Subparts A and GG. Annual (A) compliance tests shall be performed during every federal fiscal year (October 1 - September 30) pursuant to Rule 62-297.310(7), F.A.C., on each CT as indicated. The following reference methods shall be used in accordance with 40 CFR 60, Appendix A. No other test methods may be used for compliance testing unless prior Department approval is received in writing.

a. EPA Reference Method 9, "Visual Determination of the Opacity of Emissions from Stationary Sources."
   (1) Full Load (Normal/Base Load). Initial and Annual.
   (2) High-Temperature Peaking Mode. Performance tests shall be conducted for visible emissions while operating in the high-temperature peaking mode on only one CT, which will be considered to be representative of the other three CTs in the Repowered Unit 5.

b. EPA Reference Method 10, "Determination of Carbon Monoxide Emissions from Stationary Sources."

c. EPA Reference Method 20, "Determination of Oxides of Nitrogen Oxide, Sulfur Dioxide and Diluent Emissions from Stationary Gas Turbines." (Initial test only for compliance with 40 CFR 60, Subpart GG). See the "Permitting Note", below.

d. EPA Reference Method 18, and/or 25A, "Determination of Volatile Organic Concentrations." Initial test only. **The initial compliance test requirement for the affected pollutant(s) has been satisfied and no further tests are required.**

e. EPA Reference Method 19. "Determination of Sulfur Dioxide Removal Efficiency and Particulate Matter, Sulfur Dioxide, and Nitrogen Oxides Emission Rates". Method 19 shall be used only for the calculation of lbs/MMBtu and 40 CFR 75 shall be used to calculate MMBtu/hr and lbs/hr emissions rates from stack tests. Initial test only. **The initial compliance test requirement for the affected pollutant(s) has been satisfied and no further tests are required.**

f. EPA Reference Method 7, "Determination of Nitrogen Oxides Emissions from Stationary Sources." An initial performance test shall be conducted for NO_X while operating in the High-Temperature Peaking Mode on only one CT, which will be considered to be representative of the other three CTs in the Repowered Unit 5 (see **Appendix CP-2** and Specific Condition **B.63.**). Subsequent compliance demonstration shall be by a certified CEMS (see Specific Conditions **B.22.b.** and **B.32.c.**).

{Permitting Note: For Specific Condition **B.32.c.**, above, the annual calibration Relative Accuracy Test Audit (RATA) associated with the NO_X CEMS may be used in lieu of the required annual compliance test using EPA Reference Method 20, as long as all of the requirements of Rule 62-297.310, F.A.C., are met (i.e., prior test notification, proper test result submittal, etc.).}

[40 CFR 60.11(b); 1270009-004-AC/PSD-FL-270; and, 1270009-009-AC]

B.33. The opacity standards shall apply at all times except during startup, shutdown, malfunction, and as otherwise provided in the applicable standard.
[40 CFR 60.11(c)]

B.34. Calculation of Emission Rate. The indicated emission rate or concentration shall be the arithmetic average of the emission rate or concentration determined by each of the three separate test runs unless otherwise specified in a particular test method or applicable rule.
[Rule 62-297.310(3), F.A.C.]

B.35. Applicable Test Procedures.
(a) Required Sampling Time.
1. Unless otherwise specified in the applicable rule, the required sampling time for each test run shall be no less than one hour and no greater than four hours, and the sampling time at each sampling point shall be of equal intervals of at least two minutes.
2. Opacity Compliance Tests. When either EPA Method 9 or DEP Method 9 is specified as the applicable opacity test method, the required minimum period of observation for a compliance test shall be sixty (60) minutes for emissions units which emit or have the potential to emit 100 tons per year or more of particulate matter, and thirty (30) minutes for emissions units which have potential emissions less than 100 tons per year of particulate matter and are not subject to a multiple-valued opacity standard. The opacity test observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur. Exceptions to these requirements are as follows:
c. The minimum observation period for opacity tests conducted by employees or agents of the Department to verify the day-to-day continuing compliance of a unit or activity with an applicable opacity standard shall be twelve minutes.
(b) Minimum Sample Volume. Unless otherwise specified in the applicable rule, the minimum sample volume per run shall be 25 dry standard cubic feet.
(c) Required Flow Rate Range. For EPA Method 5 particulate sampling, acid mist/sulfur dioxide, and fluoride sampling which uses Greenburg Smith type impingers, the sampling nozzle and sampling time shall be selected such that the average sampling rate will be between 0.5 and 1.0 actual cubic feet per minute, and the required minimum sampling volume will be obtained.
(d) Calibration of Sampling Equipment. Calibration of the sampling train equipment shall be conducted in accordance with the schedule shown in Table 297.310-1, attached to this permit.
(e) Allowed Modification to EPA Method 5. When EPA Method 5 is required, the following modification is allowed: the heated filter may be separated from the impingers by a flexible tube.
[Rule 62-297.310(4), F.A.C.]

B.36. The permittee shall comply with the requirements contained in APPENDIX SS-1, Stack Sampling Facilities, attached to this permit.
[Rule 62-297.310(6), F.A.C.; and, 40 CFR 60.8(e)]

B.37. Frequency of Compliance Tests. The following provisions apply only to those emissions units that are subject to an emissions limiting standard for which compliance testing is required.

(a) General Compliance Testing.

3. The owner or operator of an emissions unit that is subject to any emission limiting standard shall conduct a compliance test that demonstrates compliance with the applicable emission limiting standard prior to obtaining a renewed operation permit. Emissions units that are required to conduct an annual compliance test may submit the most recent annual compliance test to satisfy the requirements of this provision. In renewing an air operation permit pursuant to Rule 62-210.300(2)(a)3.b., c., or d., F.A.C., the Department shall not require submission of emission compliance test results for any emissions unit that, during the year prior to renewal:
   a. Did not operate; or,
   b. In the case of a fuel burning emissions unit, burned liquid and/or solid fuel for a total of no more than 400 hours.
4. During each federal fiscal year (October 1 - September 30), unless otherwise specified by rule, order, or permit, the owner or operator of each emissions unit shall have a formal compliance test conducted for:
   a. Visible emissions, if there is an applicable standard;
   b. Each of the following pollutants, if there is an applicable standard, and if the emissions unit emits or has the potential to emit: 5 tons per year or more of lead or lead compounds measured as elemental lead; 30 tons per year or more of acrylonitrile; or 100 tons per year or more of any other regulated air pollutant; and,
   c. Each NESHAP pollutant, if there is an applicable emission standard.
5. An annual compliance test for particulate matter emissions shall not be required for any fuel burning emissions unit that, in a federal fiscal year, does not burn liquid and/or solid fuel, other than during startup, for a total of more than 400 hours.
8. Any combustion turbine that does not operate for more than 400 hours per year shall conduct a visible emissions test once per each five-year period, coinciding with the term of its air operation permit.
9. The owner or operator shall notify the Department's Central District, Air Section, at least 15 days prior to the date on which each formal compliance test is to begin, of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator.

(b) Special Compliance Tests. When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it may require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the Department.

(c) Waiver of Compliance Test Requirements. If the owner or operator of an emissions unit that is subject to a compliance test requirement demonstrates to the Department, pursuant to the procedure established in Rule 62-297.620, F.A.C., that the compliance of the emissions unit with an applicable weight emission limiting standard can be adequately determined by means other than the designated test procedure, such as specifying a surrogate standard of no visible emissions for particulate matter sources equipped with a bag house or specifying a fuel analysis

for sulfur dioxide emissions, the Department shall waive the compliance test requirements for such emissions units and order that the alternate means of determining compliance be used, provided, however, the provisions of paragraph 62-297.310(7)(b), F.A.C., shall apply.
[Rule 62-297.310(7), F.A.C.; and, SIP approved]

Continuous Monitoring Requirements

B.38. CEMS. The permittee shall install, calibrate, maintain, and operate a CEMS in the stack to measure and record the nitrogen oxides emissions from each CT in accordance with the requirements of 40 CFR 75.
[1270009-004-AC/PSD-FL-270]

B.39. For each CT, a CEMS shall be installed, operated, and maintained in accordance with 40 CFR 60, Appendix F, and shall meet the performance specifications of 40 CFR 60, Appendix B, to monitor nitrogen oxides and a diluent gas (carbon dioxide or oxygen). The applicable continuous emissions monitoring procedures of 40 CFR Part 75 may also be used to satisfy the requirements, above.
[40 CFR 60.13(a)]

B.40. A performance evaluation of the CEMS shall be conducted during any required performance test or within 30 days thereafter in accordance with the applicable performance specifications of 40 CFR 60, Appendix B, and at other times as required by the Administrator.
[40 CFR 60.13(c)]

B.41. The zero (or low-level value between 0 and 20 percent of span value) and span (50 to 100 percent of span value) calibration drifts shall be checked at least once daily in accordance with a written procedure. The zero and span shall, at a minimum, be adjusted whenever the 24-hour zero drift or 24-hour span drift exceeds two times the limits of the applicable performance specifications of 40 CFR 60, Appendix B. The system must allow the amount of excess zero and span drift measured at the 24-hour interval checks to be recorded and quantified.
[40 CFR 60.13(d)(1)]

B.42. Except for system breakdowns, repairs, calibration checks, and zero and span adjustments required under 40 CFR 60.13(d), all continuous monitoring systems (CMS) shall be in continuous operation and shall meet minimum frequency of operation requirements as follows:
(2) All continuous monitoring systems referenced by 40 CFR 60.13(c) for measuring emissions, except opacity, shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period.
[40 CFR 60.13(e)(2)]

B.43. All CMS or monitoring devices shall be installed such that representative measurements of emissions or process parameters from the affected facility are obtained. Additional procedures for location of CMS contained in the applicable Performance Specifications of Appendix B, 40 CFR 60, shall be used.
[40 CFR 60.13(f)]

B.44. For CMS other than opacity, 1-hour averages shall be computed from four or more data points equally spaced over each 1-hour period. Data recorded during periods of continuous monitoring system breakdown, repairs, calibration checks, and zero and span adjustments shall not be included in the data averages computed under this paragraph. An arithmetic or integrated average of all data may be used. The data may be recorded in reduced or non-reduced form (e.g.

ppm pollutant and percent O_2 or ng/J of pollutant). All excess emissions shall be converted into units of the standard using the applicable conversion procedures specified in the subparts. After conversion into units of the standard, the data may be rounded to the same number of significant digits as used in the applicable subparts to specify the emission limit. (e.g. rounded to the nearest 1 percent opacity). **A continuous opacity monitoring system (COMS) is not required.**
[40 CFR 60.13(h)]

B.45. Natural Gas Monitoring Schedule. The following custom monitoring schedule for natural gas is approved in lieu of the daily sampling requirements of 40 CFR 60.334(b)(2):
a. The permittee shall apply for an Acid Rain permit within the deadlines specified in 40 CFR 72.30.
b. The permittee shall submit a monitoring plan, certified by signature of the Designated Representative, that commits to using a primary fuel of pipeline supplied natural gas (sulfur content less than 20 gr/100 scf pursuant to 40 CFR 75.11(d)(2)).
c. Each unit shall be monitored for SO_2 emissions using methods consistent with the requirements of 40 CFR 75 and certified by the USEPA.

This custom fuel monitoring schedule will only be valid when pipeline natural gas is used as a primary fuel. If the primary fuel for these units is changed to a higher sulfur fuel, SO_2 emissions must be accounted for as required pursuant to 40 CFR 75.11(d). See Specific Condition **B.3.**
[40 CFR 75; and, 1270009-004-AC/PSD-FL-270]

B.46. Fuel Oil Monitoring Schedule. The following monitoring schedule for No. 2 or superior grade fuel oil shall be followed: For all bulk shipments of No. 2 or superior grade fuel oil received at the Sanford Power Plant, an analysis, which reports the sulfur content and nitrogen content of the fuel, shall be provided by the fuel vendor. The analysis shall also specify the methods by which the analyses were conducted and shall comply with the requirements of 40 CFR 60.335(d). See Specific Condition **B.28.**
[1270009-004-AC/PSD-FL-270]

B.47. CEMS in lieu of Water to Fuel Ratio. The NOx CEMS shall be used in lieu of the water/fuel monitoring system for reporting excess emissions in accordance with 40 CFR 60.334(c)(1), Subpart GG (1998 version). The calibration of the water/fuel monitoring device required in 40 CFR 60.335(c) (2) (1998 version) will be replaced by the 40 CFR 75 certification tests of the NOx CEMS. Upon request from Department, the CEMS emission rates for NOx on this Unit shall be corrected to ISO conditions to demonstrate compliance with the NOx standard established in 40 CFR 60.332. See Specific Condition **B.20.**
[1270009-004-AC/PSD-FL-270]

Recordkeeping and Reporting Requirements

B.48. Excess Emissions Report. If excess emissions occur for more than two hours due to malfunction, the owner or operator shall notify the Department's Central District office in accordance with Rule 62-4.130, F.A.C., within one (1) working day of: the nature, extent, and duration of the excess emissions; the cause of the excess emissions; and, the actions taken to correct the problem. In addition, the Department may request a written summary report of the incident. Pursuant to the Standards of Performance for New Stationary Sources, all excess emissions shall also be reported in accordance with 40 CFR 60.7, Subpart A. Following this format, 40 CFR 60.7, periods of startup, shutdown, malfunction, and fuel switching shall be monitored, recorded, and reported as excess emissions when emission levels exceed the permitted standards listed in Specific Conditions **B.7.** and **B.8.**
[Rules 62-4.130, 62-204.800 and 62-210.700(6), F.A.C.; 40 CFR 60.7 (1998 version); and, 1270009-004-AC/PSD-FL-270]

B.49. The owner or operator subject to the provisions of 40 CFR 60 shall furnish the Administrator written notification as follows:
(4) A notification of any physical or operational change to an existing facility which may increase the emission rate of any air pollutant to which a standard applies, unless that change is specifically exempted under an applicable subpart or in 40 CFR 60.14(e). This notice shall be postmarked 60 days or as soon as practicable before the change is commenced and shall include information describing the precise nature of the change, present and proposed emission control systems, productive capacity of the facility before and after the change, and the expected completion date of the change. The Administrator may request additional relevant information subsequent to this notice.
[40 CFR 60.7(a)(4)]

B.50. The owner or operator subject to the provisions of 40 CFR 60 shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or, any periods during which a continuous monitoring system or monitoring device is inoperative. The requirements include initiating a recordkeeping system to record the occurrence and duration of any start up, shutdown, load change, fuel switch, high fuel bound nitrogen, and malfunction of a CT, malfunction of the air pollution control equipment, and the periods when the CEMS is inoperable.
[40 CFR 60.7(b)]

B.51. For the purpose of reports required under 40 CFR 60.7(c), periods of excess emissions that shall be reported are defined as follows:
(1) Nitrogen oxides. Any one-hour period during which the average water-to-fuel ratio, as measured by the continuous monitoring system, falls below the water-to-fuel ratio determined to demonstrate compliance with the permitted nitrogen oxide standard by the initial performance test required in 40 CFR 60.8 or any period during which the fuel-bound nitrogen of the fuel is greater than the maximum nitrogen content allowed by the fuel-bound nitrogen allowance used during the initial performance test. Each report shall include the average water-to-fuel ratio, average fuel consumption, ambient conditions, gas turbine load, and nitrogen content of the fuel during the period of excess emissions, and the graphs or figures developed under 40 CFR 60.335(a). See Specific Conditions **B.27.**, **B.48.** and **B.52.**
[Rule 62-296.800, F.A.C.; and, 40 CFR 60.334(c)(1)]

B.52. NO$_X$ CEMS for Reporting Excess Emissions. The NO$_X$ CEMS may be used in lieu of the requirement for reporting excess emissions in 40 CFR 60.334(c)(1), Subpart GG (1998 version). Thirty day rolling average periods when NOx emissions (ppmvd at 15% oxygen) are above the standards, listed in Specific Conditions **B.7.** and **B.8.**, shall be provided to the DEP Central District Office within one working day (verbally) followed up by a written explanation not later than three (3) working days (alternately by facsimile). Excess Emissions and Monitoring System Performance Reports shall be submitted as specified in 40 CFR 60.7(c). CEMS downtime shall be calculated and reported according to the requirements of 40 CFR 60.7(c)(3) and 40 CFR 60.7(d)(2). Upon request from Department, the CEMS emission rates for NO$_X$ on each CT shall be corrected to ISO conditions to demonstrate compliance with the NO$_X$ standard established in 40 CFR 60.332.
[Rule 62-204.800 F.A.C.; 1270009-004-AC/PSD-FL-270; 40 CFR 75; and, 40 CFR 60.7]

B.53. CMS Reports. The monitoring devices shall comply with the certification and quality assurance, and any other applicable requirements of Rule 62-297.520, F.A.C., 40 CFR 60.13, including certification of each device in accordance with 40 CFR 60, Appendix B, Performance Specifications, and 40 CFR 60.7(a)(5), or 40 CFR Part 75. Quality assurance procedures must conform to all applicable sections of 40 CFR 60, Appendix F, or 40 CFR 75. The monitoring plan, consisting of data on CEMS equipment specifications, manufacturer, type, calibration and maintenance needs, and its proposed location shall be provided to the Department's Emissions Monitoring Section Administrator and EPA for review no later than 45 days prior to the first scheduled certification test pursuant to 40 CFR 75.62.
[1270009-004-AC/PSD-FL-270]

B.54. The owner or operator required to install a CMS or monitoring device shall submit an excess emissions and monitoring systems performance report (excess emissions are defined in applicable subparts) and/or a summary report form [see 40 CFR 60.7(d)] to the Administrator semiannually, except when: more frequent reporting is specifically required by an applicable subpart; or, the CMS data are to be used directly for compliance determination, in which case quarterly reports shall be submitted; or, the Administrator, on a case-by-case basis, determines that more frequent reporting is necessary to accurately assess the compliance status of the source. All reports shall be postmarked by the 30th day following the end of each calendar half (or quarter, as appropriate). Written reports of excess emissions shall include the following information:
(1) The magnitude of excess emissions computed in accordance with 40 CFR 60.13(h), any conversion factor(s) used, and the date and time of commencement and completion of each time period of excess emissions. The process operating time during the reporting period.
(2) Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the affected facility. The nature and cause of any malfunction (if known), the corrective action taken or preventative measures adopted.
(3) The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments.
(4) When no excess emissions have occurred or the continuous monitoring system(s) have not been inoperative, repaired, or adjusted, such information shall be stated in the report.
[40 CFR 60.7(c)(1), (2), (3) & (4)]

B.55. The summary report form shall contain the information and be in the format shown in Figure 1 (attached) unless otherwise specified by the Administrator. One summary report form shall be submitted for each pollutant monitored at each affected facility.
(1) If the total duration of excess emissions for the reporting period is less than 1 percent of the total operating time for the reporting period and CMS downtime for the reporting period is less than 5 percent of the total operating time for the reporting period, only the summary report form shall be submitted and the excess emission report described in 40 CFR 60.7(c) need not be submitted unless requested by the Administrator.
(2) If the total duration of excess emissions for the reporting period is 1 percent or greater of the total operating time for the reporting period or the total CMS downtime for the reporting period is 5 percent or greater of the total operating time for the reporting period, the summary report form and the excess emission report described in 40 CFR 60.7(c) shall both be submitted.
[40 CFR 60.7(d)(1) & (2)]

B.56. (1) Notwithstanding the frequency of reporting requirements specified in 40 CFR 60.7(c), an owner or operator who is required by an applicable subpart to submit excess emissions and monitoring systems performance reports (and summary reports) on a quarterly (or more frequent) basis may reduce the frequency of reporting for that standard to semiannual if the following conditions are met:

(i) For 1 full year (e.g., 4 quarterly or 12 monthly reporting periods) the affected facility's excess emissions and monitoring systems reports submitted to comply with a standard under this part continually demonstrate that the facility is in compliance with the applicable standard;
(ii) The owner or operator continues to comply with all recordkeeping and monitoring requirements specified in 40 CFR 60, Subpart A, and the applicable standard; and
(iii) The Administrator does not object to a reduced frequency of reporting for the affected facility, as provided in 40 CFR 60.7(e)(2).

(2) The frequency of reporting of excess emissions and monitoring systems performance (and summary) reports may be reduced only after the owner or operator notifies the Administrator in writing of his or her intention to make such a change and the Administrator does not object to the intended change. In deciding whether to approve a reduced frequency of reporting, the Administrator may review information concerning the source's entire previous performance history during the required recordkeeping period prior to the intended change, including performance test results, monitoring data, and evaluations of an owner or operator's conformance with operation and maintenance requirements. Such information may be used by the Administrator to make a judgment about the source's potential for noncompliance in the future. If the Administrator disapproves the owner or operator's request to reduce the frequency of reporting, the Administrator will notify the owner or operator in writing within 45 days after receiving notice of the owner or operator's intention. The notification from the Administrator to the owner or operator will specify the grounds on which the disapproval is based. In the absence of a notice of disapproval within 45 days, approval is automatically granted.
(3) As soon as monitoring data indicate that the affected facility is not in compliance with any emission limitation or operating parameter specified in the applicable standard, the frequency of reporting shall revert to the frequency specified in the applicable standard, and the owner or operator shall submit an excess emissions and monitoring systems performance report (and summary report, if required) at the next appropriate reporting period following the noncomplying event. After demonstrating compliance with the applicable standard for another full year, the owner or operator may again request approval from the Administrator to reduce the frequency of reporting for that standard as provided for in 40 CFR 60.7(e)(1) and (e)(2).
[40 CFR 60.7(e)(1), (2) & (3)]

B.57. Quarterly Reports. Quarterly excess emission reports, in accordance with 40 CFR 60.7(a)(7) and (c) (1998 version), shall be submitted to the Department's Central District office. [1270009-004-AC/PSD-FL-270]

B.58. All recorded data shall be maintained on file by the Source for a period of five years. [Rule 62-213.440, F.A.C.]

B.59. Test Reports.
(a) The owner or operator of an emissions unit for which a compliance test is required shall file a report with the Department on the results of each such test.
(b) The required test report shall be filed with the Department as soon as practical but no later than 45 days after the last sampling run of each test is completed.
(c) The test report shall provide sufficient detail on the emissions unit tested and the test procedures used to allow the Department to determine if the test was properly conducted and the test results properly computed. As a minimum, the test report, other than for an EPA or DEP Method 9 test, shall provide the following information:

1. The type, location, and designation of the emissions unit tested.
2. The facility at which the emissions unit is located.
3. The owner or operator of the emissions unit.
4. The normal type and amount of fuels used and materials processed, and the types and amounts of fuels used and material processed during each test run.
5. The means, raw data and computations used to determine the amount of fuels used and materials processed, if necessary to determine compliance with an applicable emission limiting standard.
6. The type of air pollution control devices installed on the emissions unit, their general condition, their normal operating parameters (pressure drops, total operating current and GPM scrubber water), and their operating parameters during each test run.
7. A sketch of the duct within 8 stack diameters upstream and 2 stack diameters downstream of the sampling ports, including the distance to any upstream and downstream bends or other flow disturbances.
8. The date, starting time and duration of each sampling run.
9. The test procedures used, including any alternative procedures authorized pursuant to Rule 62 - 297.620, F.A.C. Where optional procedures are authorized in this chapter, indicate which option was used.
10. The number of points sampled and configuration and location of the sampling plane.
11. For each sampling point for each run, the dry gas meter reading, velocity head, pressure drop across the stack, temperatures, average meter temperatures and sample time per point.
12. The type, manufacturer and configuration of the sampling equipment used.
13. Data related to the required calibration of the test equipment.
14. Data on the identification, processing and weights of all filters used.
15. Data on the types and amounts of any chemical solutions used.
16. Data on the amount of pollutant collected from each sampling probe, the filters, and the impingers, are reported separately for the compliance test.
17. The names of individuals who furnished the process variable data, conducted the test, analyzed the samples and prepared the report.
18. All measured and calculated data required to be determined by each applicable test procedure for each run.
19. The detailed calculations for one run that relate the collected data to the calculated emission rate.

20. The applicable emission standard, and the resulting maximum allowable emission rate for the emissions unit, plus the test result in the same form and unit of measure.

21. A certification that, to the knowledge of the owner or his authorized agent, all data submitted are true and correct. When a compliance test is conducted for the Department or its agent, the person who conducts the test shall provide the certification with respect to the test procedures used. The owner or his authorized agent shall certify that all data required and provided to the person conducting the test are true and correct to his knowledge.

[Rules 62-213.440 and 62-297.310(8), F.A.C.]

Miscellaneous

B.60. For the purpose of submitting compliance certifications or establishing whether or not a person has violated or is in violation of any standard in 40 CFR 60, nothing in 40 CFR 60 shall preclude the use, including the exclusive use, of any credible evidence or information, relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or compliance test or procedure had been performed.
[40 CFR 60.11(g)]

B.61. Modifications: The permittee shall give written notification to the Department when there is any modification to this facility. This notice shall be submitted sufficiently in advance of any critical date involved to allow sufficient time for review, discussion, and revision of plans, if necessary. Such notice shall include, but not be limited to, information describing the precise nature of the change; modifications to any emission control system; production capacity of the facility before and after the change; and the anticipated completion date of the change.
[Chapters 62-210 and 62-212, F.A.C.; and, 1270009-004-AC/PSD-FL-270]

B.62. Compliance Plan. Based on the application, the CTs for Repowered Unit 5 have not yet been tested on fuel oil. Therefore, Appendix CP-1, Compliance Plan for Repowered Unit 5, has been established and is a part of this permit.
[Rule 62-213.440(2), F.A.C.]

B.63. Compliance Plan. Based on the application, the CTs for Repowered Unit 5 have not yet been tested in the high-temperature peaking mode. Therefore, Appendix CP-2, Compliance Plan for Repowered Unit 5, has been established and is a part of this permit.
[Rule 62-213.440(2), F.A.C.]

Section III. Emissions Unit(s) and Conditions.

Subsection C. This section addresses the following emissions units.

E.U. ID No.	Brief Description
	Repowered Unit 4: 4 (four) combined cycle only combustion turbines
005	Combined Cycle Combustion Turbine (CCCT) Generator PSNCT4A with an unfired Heat Recovery Steam Generator (HRSG)
006	CCCT PSNCT4B with an unfired HRSG
007	CCCT PSNCT4C with an unfired HRSG
008	CCCT PSNCT4D with an unfired HRSG

Repowered Unit 4, which is made up of 4 (four: PSNCT4A thru PSNCT4D) combined cycle only combustion turbines, replaces the existing residual oil-fired and gas-fired steam generating boiler Unit 4, while the existing steam-driven electrical turbine-generator will remain. Each combined cycle turbine unit is a nominal 170 MW (@ 59°F - compressor inlet) General Electric Frame MS7241FA Advanced combustion turbine-generator, with associated inlet foggers and an unfired Heat Recovery Steam Generator (HRSG) that will capture sufficient waste heat to produce another 80 MW via the existing steam-driven electrical turbine-generator (therefore, 250 MW in combined cycle operation). Each combustion turbine is permitted to fire <u>only</u> natural gas. Dry Low-NO_X combustors are installed in each turbine for Repowered Unit 4 to control NO_x, when firing natural gas. An evaporative equipment cooler was built instead of the proposed mechanical draft-cooling tower. 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. Unit PSNCT4A commenced operation on December 16, 2002; Unit PSNCT4B commenced operation on December 23, 2002; PSNCT4C commenced operation on December 30, 2002; and, PSNCT4D commenced operation on January 6, 2003.

For Repowered Unit 4, the existing tall boiler (Unit 4) stack has been dismantled and replaced with relatively short stacks per emissions unit for the combined cycle operation.

Electrical fuel heaters will be used to heat the natural gas prior to use during cold startups.

{Permitting Note(s): These emissions units are regulated under: Acid Rain, Phase II; NSPS - 40 CFR 60, Subpart GG, Standards of Performance for Stationary Gas Turbines, adopted and incorporated by reference in Rule 62-204.800(7)(b), F.A.C.; Rule 62-212.400(5), F.A.C., Prevention of Significant Deterioration (PSD; 1270009-004-AC/PSD-FL-270); Rule 62-212.400(6), F.A.C., Best Available Control Technology (BACT) Determination, dated September 14, 1999; 1270009-007-AV; 1270009-008-AC; and, 1270009-009-AC.}

The following specific conditions apply to the emissions units listed above:

Essential Potential to Emit (PTE) Parameters

C.1. Turbine Capacity.
a. Normal (Base Load). The design heat input rates for natural gas firing, based on the high heating value (HHV) of the fuel to each combustion turbine (CT) 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). This design heat input rate will vary depending upon the CT's inlet conditions and characteristics. Manufacturer's curves corrected for site conditions or equations for correction to other compressor inlet conditions shall be provided to the Department within 45 days of completing the initial compliance testing.
b. High-Temperature Peaking Mode. The maximum heat input rate to each gas turbine is 1838 MMBtu per hour in this mode of operation (based on a compressor inlet air temperature of 59° F and the higher heating value (HHV) of natural gas).

{Permitting Note: The heat input limitations have been placed in each permit to identify the capacity of each unit for the purposes of confirming that emissions testing is conducted within 90 to 100 percent of the unit's rated capacity (or to limit future operation to 110 percent of the test load), to establish appropriate emission limits and to aid in determining future rule applicability. Regular recordkeeping is not required for heat input. Instead the owner or operator is expected to determine heat input whenever emission testing is required, to demonstrate at what percentage of the rated capacity that the unit was tested. Rule 62-297.310(5), F.A.C., included in the permit, requires measurement of the process variables for emission tests. Such heat input determination may be based on measurements of fuel consumption by various methods including but not limited to fuel flow metering or tank drop measurements, using the heat value of the fuel determined by the fuel vendor or the owner or operator, to calculate average hourly heat input during the test.}

[Rule 62-210.200(PTE), F.A.C.; 1270009-004-AC/PSD-FL-270; and, 1270009-009-AC]

C.2. Emissions Unit Operating Rate Limitation After Testing. See Specific Condition **C.28.**
[Rule 62-297.310(2), F.A.C.]

C.3. Methods of Operation. Fuels.
a. Natural Gas: Pipeline natural gas shall be the primary fuel fired in these emissions units. See Specific Condition **C.43.** and the "Permitting Note", below.

{Permitting Note: For the purposes of this subsection of this permit, "pipeline natural gas" means natural gas with a sulfur content of less than 20 gr/100 scf that is provided by the natural gas pipeline transmission company. (See Specific Conditions **C.22.a. & b. and C.43.b. & c.**)}

b. Loads.

(1) Base Load (Normal). Means the load level at which a gas turbine is normally operated. (See Specific Condition **C.1.a.**)

(2) High-Temperature Peaking Load. Means a computer-controlled increase in firing temperature with greater heat input and output. 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. (See Specific Condition **C.1.b.**)

{Permitting Note: For the High-Temperature Peaking Mode, the increase in power and heat input is about 3.8 percent at ISO conditions. Commercial operation in this mode shall not be allowed until the Compliance Plan has been satisfied. (See **Appendix CP-3** and Specific Condition **B.58.**)}

[Rule 62-210.200(PTE), F.A.C.; 40 CFR 60.333; and, 1270009-004-AC/PSD-FL-270]

C.4. Hours of Operation.
a. Normal (Base Load). The emissions units may operate continuously, i.e., 8,760 hours/year.
b. High-Temperature Peaking Mode. During any consecutive 12 months, each combined cycle gas turbine shall operate in this peaking mode for no more than 400 hours of operation.
[Rule 62-210.200(PTE), F.A.C.; 1270009-004-AC/PSD-FL-270; and, 1270009-009-AC]

Control Technology

C.5. DLN systems shall be maintained to minimize NO_X emissions and CO emissions, consistent with normal operation and maintenance practices.
[Rules 62-4.070(3) and 62-210.650, F.A.C.; and, 1270009-004-AC/PSD-FL-270]

C.6. Circumvention. No owner or operator shall build, erect, install, or use any article, machine, equipment or process, the use of which conceals an emission which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard which is based on the concentration of a pollutant in the gases discharged into the atmosphere.
[40 CFR 60.12]

Emission Limitations and Standards

{Permitting Note: The attached Table 1-1, Summary of Air Pollutant Standards and Terms, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

{Permitting Note: Unless otherwise specified, the averaging times for Specific Conditions **C.7.** through **C.11.** are based on the specified averaging time of the applicable test method.}

C.7. Emission Limitations.
a. Full Load (Normal/Base Load). The following are the emission limits, assuming full load operation. Values for NO_X are corrected to 15% O_2 on a dry basis. These limits or their equivalents in terms of pounds per hour, as well as the applicable averaging times, are contained in Specific Conditions **C.8.** thru **C.10.**, respectively.

Emissions Unit	NO_X	CO	VOC	$PM/PM_{10}/VE$ (% Opacity)	Technology and Comments
CTs (each)	9 ppm (30 day) - gas 75 ppm (NSPS)	12 ppmvd - gas	1.4 ppmvd	10 - gas	Dry Low NO_X Combustors; Natural Gas

NOTE: The 40 CFR 60, Subpart GG requirement to correct test data to ISO conditions applies. However, such correction is not required to demonstrate compliance with non-NSPS permit standard(s).
[40 CFR 60.332; and, 1270009-004-AC/PSD-FL-270]

b. High-Temperature Peaking Mode. The combined cycle gas turbines are subject to the following emission limits during high-temperature peaking mode operation while firing natural gas. Emissions limits are corrected to 15% O_2 (lbs/hr at ISO Conditions).

Emissions Unit	NO_X	CO	VOC	$PM/PM_{10}/VE$ (% Opacity)	Technology and Comments
CTs (each)	15 ppmvd (24-hr block avg.) 102 lbs/hr	9 ppmvd 29 lbs/hr	1.4 ppmvd 3 lbs/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, PTE, and 62-4.070(3), F.A.C.; and, 1270009-009-AC].

C.8. Nitrogen Oxides (NOx).
a. Natural Gas Firing: The NOx concentrations in the exhaust gas of each CT shall not exceed 9 ppmvd at 15% O_2, on a 30-day rolling average basis, when firing natural gas, as measured by the CEMS (maintained in accordance with 40 CFR 75). Based on CEMS data at the end of each operating day, a new 30-day average rate is calculated from the arithmetic average of all valid hourly emission rates during the previous 30 operating days. Valid hourly emission rates shall not include periods of startup, shutdown or malfunction. In addition, NOx emissions calculated as NO_2 shall exceed neither 9 ppmvd at 15% O_2 nor 65 lbs/hr (at ISO conditions) to be demonstrated by **initial** performance tests.

b. When NO_x monitoring data is not available, substitution for missing data shall be handled as required by Title IV (40 CFR 75) to calculate the 30-day rolling average or 24-hour block average emission rates.
[Rules 62-204.800(7)(b) (Subpart GG) and 62-210.200(PTE), F.A.C.; 40 CFR 75; and, 1270009-004-AC/PSD-FL-270]

C.9. Carbon Monoxide (CO). The concentration of CO (@15% O_2) in the exhaust gas shall not exceed 12 ppmvd when firing natural gas as measured by EPA Method 10 at full-load conditions. CO emissions (at ISO conditions) shall not exceed 43 lbs/hr/CT, when firing natural gas, and to be demonstrated by stack tests.
[1270009-004-AC/PSD-FL-270]

C.10. Volatile Organic Compounds (VOC). The concentration of VOC in the exhaust gas shall not exceed 1.4 ppmvd, when firing natural gas, as determined by EPA Method 18 or 25A. VOC emissions (at ISO conditions) shall not exceed 2.9 lbs/hr/CT, when firing natural gas, and to be demonstrated by **initial** stack tests.
[1270009-004-AC/PSD-FL-270]

C.11. Visible Emissions (VE). VE emissions from the combustion turbines shall not exceed 10 percent opacity, during gas firing.
[1270009-004-AC/PSD-FL-270]

C.12. Sulfur Dioxide (SO_2). As per Specific Conditions **C.3. and C.22.a. & b.**
[1270009-004-AC/PSD-FL-270]

Excess Emissions

{Permitting Note: The Excess Emissions Rule at Rule 62-210.700, F.A.C., cannot vary any requirement of a NSPS or NESHAP provision.}

C.13. Excess emissions resulting from startup, shutdown, or malfunction of the *combustion turbines (CTs) and associated heat recovery steam generators (HRSGs)* shall be permitted provided that best operational practices are adhered to and the duration of excess emissions shall be minimized. Excess emissions occurrences shall in no case exceed two (2) hours in any 24-hour period except during both "cold startup" to or "shutdowns" from combined cycle operation [CT and associated HRSG]. During cold startup to combined cycle operation, up to four (4) hours of excess emissions are allowed. During shutdowns from combined cycle operation, up to three (3) hours of excess emissions are allowed. Cold startup is defined as a startup to combined cycle operation when the heat recovery steam generator high-pressure drum is below 450 psig for at least one (1) hour.

Excess emissions from the CTs resulting from startup of the *steam turbine system* shall be permitted provided that best operational practices are adhered to and the duration of excess emissions shall be minimized. Excess emissions occurrences shall in no case exceed 12 hours per CT per cold startup of the steam turbine system [CT(s) and associated HRSG(s), Steam Turbine and Generator]. Cold startup of the steam turbine system shall be completed within twelve (12) hours.
[Rules 62-210.700(1) and 62-4.130, F.A.C.; G.E. Combined Cycle Startup Curves Data; 1270009-004-AC/PSD-FL-270; and, 1270009-008-AC]

C.14. Excess emissions entirely or in part by poor maintenance, poor operation, or any other equipment or process failure that may reasonably be prevented during startup, shutdown or malfunction, shall be prohibited.
[Rule 62-210.700(4), F.A.C.; and, 1270009-004-AC/PSD-FL-270]

C.15. A malfunction means any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner. Failures that are caused in part by poor maintenance or careless operation are not malfunctions.
[40 CFR 60.2, Definitions - Malfunction]

C.16. A malfunction means any unavoidable mechanical and/or electrical failure of air pollution control equipment or process equipment or of a process resulting in operation in an abnormal or unusual manner.
[Rule 62-210.200, Definitions - Malfunction, F.A.C.]

Monitoring of Operations

C.17. At all times, including periods of startup, shutdown and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.
[40 CFR 60.11(d)]

C.18. Operating Procedures. Operating procedures shall include good operating practices and proper training of all operators and supervisors. The good operating practices shall meet the guidelines and procedures as established by the equipment manufacturers. All operators (including supervisors) of air pollution control devices shall be properly trained in plant specific equipment.
[Rule 62-4.070(3), F.A.C.; and, 1270009-004-AC/PSD-FL-270]

C.19. Determination of Process Variables.
(a) Required Equipment. The owner or operator of an emissions unit for which compliance tests are required shall install, operate, and maintain equipment or instruments necessary to determine process variables, such as process weight input or heat input, when such data are needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards.
(b) Accuracy of Equipment. Equipment or instruments used to directly or indirectly determine process variables, including devices such as belt scales, weight hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value.
[Rule 62-297.310(5), F.A.C.]

C.20. The owner or operator of any stationary gas turbine subject to the provisions of 40 CFR 60, Subpart GG, shall monitor sulfur content and nitrogen content of the fuel being fired in the turbine. The frequency of determinations of these values shall be as follows:
(1) If the turbine is supplied its fuel without intermediate bulk storage the values shall be determined and recorded daily. Owners, operators or fuel vendors may develop custom schedules for determination of the values based on the design and operation of the affected facility and the characteristics of the fuel supply. These custom schedules shall be substantiated with data and must be approved by the Administrator before they can be used to comply with 40 CFR 60.334(b).
[40 CFR 60.334(b)(2)]

Compliance Determination

C.21. Continuous compliance with the NO_X emission limits while firing Natural Gas.
a. Full Load (Normal/Base Load). Continuous compliance with the NO_X emission limits when firing natural gas shall be demonstrated with the CEMS based on a 30-day rolling average. Based on CEMS data, a separate compliance determination is conducted at the end of each operating day and a new 30-day average emission rate is calculated from the arithmetic average of all valid hourly emission rates during the previous 30 operating days. Valid hourly emission rates shall not include periods of startup, shutdown, or malfunction.
b. High-Temperature Peaking Mode. An initial performance test for NO_X shall be performed on only one CT to demonstrate compliance with the emission limitations in Specific Condition **C.7.b.** (see **Appendix CP-3** and Specific Condition **C.58.**) and is considered representative of the other three CTs in Repowered Unit 5. After that, continuous compliance with the NO_X emission limits when firing natural gas shall be demonstrated with the CEMS based on a 24-hr block average. 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 NO_X standards during normal gas firing.
[Rules 62-4.070 and 62-210.700, F.A.C.; 40 CFR 75; 1270009-004-AC/PSD-FL-270; and, 1270009-009-AC]

C.22. Compliance with the SO_2 and PM/PM_{10} emission limits:
a. Natural Gas. The use of pipeline natural gas is the method for determining compliance for SO_2 and PM/PM_{10}, when firing natural gas. See Specific Conditions **C.3.** and **C.43.**
b. Natural Gas. For the purposes of demonstrating compliance with 40 CFR 60.333(b), when firing natural gas, data from the pipeline natural gas supplier may be submitted or the natural gas sulfur content referenced in 40 CFR 75, Appendix D, may be utilized. Gas analysis, if conducted, may be performed by the owner or operator, a service contractor retained by the owner or operator, the fuel vendor, or any other qualified agency pursuant to 40 CFR 60.335(e) (1998 version). However, the applicant is responsible for ensuring that the procedures in 40 CFR 60.335 or 40 CFR 75 are used for determination of fuel sulfur content, if gas analysis is done. See Specific Conditions **C.3.** and **C.43.**
[1270009-004-AC/PSD-FL-270; and, 40 CFR 75]

C.23. Compliance with CO emission limit.
a. Full Load (Normal/Base Load). An initial test for CO shall be conducted concurrently with the initial NO_x test while operating at permitted capacity. These initial NO_X and CO test results shall be the average of three runs. Annual compliance testing for CO may be conducted at less than capacity when compliance testing is conducted concurrent with the annual NO_x RATA testing, which is performed pursuant to 40 CFR 75.
b. High-Temperature Peaking Mode. No initial performance test for CO is required.

{Permitting Note: Testing under normal conditions for VOC and CO provides reasonable assurance of compliance under peaking mode operation.}

[1270009-004-AC/PSD-FL-270; 40 CFR 75; and, 1270009-009-AC]

C.24. Compliance with the VOC emission limit.
a. Full Load (Normal/Base Load). An **initial** test is required to demonstrate compliance with the VOC emission limit. Thereafter, the CO emission limit will be employed as a surrogate for VOC and **no** annual testing is required. **The initial compliance test requirement for the affected pollutant(s) has been satisfied and no further tests are required.**
b. High-Temperature Peaking Mode. No initial performance test for VOC is required.

{Permitting Note: Testing under normal conditions for VOC and CO provides reasonable assurance of compliance under peaking mode operation.}

[1270009-004-AC/PSD-FL-270; and, 1270009-009-AC]

Test Methods and Procedures

{Permitting note: Table 2-1, Summary of Compliance Requirements, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

C.25. To compute the nitrogen oxides emissions, the owner or operator shall use analytical methods and procedures that are accurate to within 5 percent and are approved by the Department to determine the nitrogen content of the fuel being fired.
[40 CFR 60.335(a)]

C.26. The owner or operator shall determine compliance with the sulfur content of the gaseous fuels as follows: ASTM D 1072-90(94)E-1, D 3031-81(86), D 4084-94, or D 3246-92, or the latest edition, shall be used for the sulfur content of gaseous fuels (incorporated by reference - see 40 CFR 60.17). The applicable ranges of some ASTM methods mentioned above are not adequate to measure the levels of sulfur in some fuel gases. Dilution of samples before analysis (with verification of the dilution ratio) may be used, subject to the approval of the Administrator. See Specific Conditions **C.45**.
[40 CFR 60.335(d); and, 1270009-004-AC/PSD-FL-270]

C.27. Required Number of Test Runs. For mass emission limitations, a compliance test shall consist of three complete and separate determinations of the total air pollutant emission rate through the test section of the stack or duct and three complete and separate determinations of any applicable process variables corresponding to the three distinct time periods during which the stack emission rate was measured provided, however, that three complete and separate determinations shall not be required if the process variables are not subject to variation during a

compliance test, or if three determinations are not necessary in order to calculate the unit's emission rate. The three required test runs shall be completed within one consecutive five day period. In the event that a sample is lost or one of the three runs must be discontinued because of circumstances beyond the control of the owner or operator, and a valid third run cannot be obtained within the five day period allowed for the test, the Secretary or his or her designee may accept the results of the two complete runs as proof of compliance, provided that the arithmetic mean of the results of the two complete runs is at least 20 percent below the allowable emission limiting standards.
[Rule 62-297.310(1), F.A.C.]

C.28. Operating Rate During Testing. Testing of emissions shall be conducted with the CT operating at permitted capacity. Permitted capacity is defined as 90-100 percent of the maximum heat input rate allowed by the permit, corrected for the average compressor inlet temperature during the test (with 100 percent represented by a curve depicting heat input vs. compressor inlet temperature). If it is impracticable to test at permitted capacity, the source may be tested at less than permitted capacity. In this case, subsequent operation is limited by adjusting the entire heat input vs. compressor inlet temperature curve downward by an increment equal to the difference between the maximum permitted heat input (corrected for compressor inlet temperature) and 110 percent of the value reached during the test until a new test is conducted. Once the unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purposes of additional compliance testing to regain the permitted capacity. Test procedures shall meet all applicable requirements (i.e., testing time frequency, minimum compliance duration, etc.) of Chapters 62-204 and 62-297, F.A.C.
[Rule 62-297.310(2), F.A.C.; and, 1270009-008-AC]

C.29. Performance tests shall be conducted under such conditions as the Administrator shall specify to the plant operator based on representative performance of the affected facility. The owner or operator shall make available to the Administrator such records as may be necessary to determine the conditions of the performance tests. Operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test nor shall emissions in excess of the level of the applicable emission limit during periods of startup, shutdown, and malfunction be considered a violation of the applicable emission limit unless otherwise specified in the applicable standard.
[40 CFR 60.8(c)]

C.30. Initial (I) performance tests shall be performed pursuant to 40 CFR 60, Subparts A and GG. Annual (A) compliance tests shall be performed during every federal fiscal year (October 1 - September 30) pursuant to Rule 62-297.310(7), F.A.C., on each CT as indicated. The following reference methods shall be used in accordance with 40 CFR 60, Appendix A. No other test methods may be used for compliance testing unless prior Department approval is received in writing.

a. EPA Reference Method 9, "Visual Determination of the Opacity of Emissions from Stationary Sources."
   (1) Full Load (Normal/Base Load). Initial and Annual.
   (2) High-Temperature Peaking Mode. Performance tests shall be conducted for visible emissions while operating in the high-temperature peaking mode on only one CT, which will be considered to be representative of the other three CTs in the Repowered Unit 4.

b. EPA Reference Method 10, "Determination of Carbon Monoxide Emissions from Stationary Sources."

c. EPA Reference Method 20, "Determination of Oxides of Nitrogen Oxide, Sulfur Dioxide and Diluent Emissions from Stationary Gas Turbines." (**Initial** test only for compliance with 40 CFR 60, Subpart GG). See the "Permitting Note", below.
d. EPA Reference Method 18, and/or 25A, "Determination of Volatile Organic Concentrations." Initial test only. **The initial compliance test requirement for the affected pollutant(s) has been satisfied and no further tests are required.**
e. EPA Reference Method 19. "Determination of Sulfur Dioxide Removal Efficiency and Particulate Matter, Sulfur Dioxide, and Nitrogen Oxides Emission Rates". Method 19 shall be used only for the calculation of lbs/MMBtu and 40 CFR 75 shall be used to calculate MMBtu/hr and lbs/hr emissions rates from stack tests. **Initial** test only. **The initial compliance test requirement for the affected pollutant(s) has been satisfied and no further tests are required.**
f. EPA Reference Method 7, "Determination of Nitrogen Oxides Emissions from Stationary Sources." An initial performance test shall be conducted for NO_X while operating in the High-Temperature Peaking Mode on only one CT, which will be considered to be representative of the other three CTs in the Repowered Unit 4 (see **Appendix CP-3** and Specific Condition **C.58.**). Subsequent compliance demonstration shall be by a certified CEMS (see Specific Conditions **C.21.b.** and **C.30.c.**).

{Permitting Note: For Specific Condition **C.30.c.**, above, the annual calibration Relative Accuracy Test Audit (RATA) associated with the NO_X CEMS may be used in lieu of the required annual compliance test using EPA Reference Method 20, as long as all of the requirements of Rule 62-297.310, F.A.C., are met (i.e., prior test notification, proper test result submittal, etc.).}

[40 CFR 60.11(b); 1270009-004-AC/PSD-FL-270; and, 1270009-009-AC]

C.31. The opacity standards shall apply at all times except during startup, shutdown, malfunction, and as otherwise provided in the applicable standard.
[40 CFR 60.11(c)]

C.32. Calculation of Emission Rate. The indicated emission rate or concentration shall be the arithmetic average of the emission rate or concentration determined by each of the three separate test runs unless otherwise specified in a particular test method or applicable rule.
[Rule 62-297.310(3), F.A.C.]

C.33. Applicable Test Procedures.
(a) Required Sampling Time.
1. Unless otherwise specified in the applicable rule, the required sampling time for each test run shall be no less than one hour and no greater than four hours, and the sampling time at each sampling point shall be of equal intervals of at least two minutes.
2. Opacity Compliance Tests. When either EPA Method 9 or DEP Method 9 is specified as the applicable opacity test method, the required minimum period of observation for a compliance test shall be sixty (60) minutes for emissions units which emit or have the potential to emit 100 tons per year or more of particulate matter, and thirty (30) minutes for emissions units which have potential emissions less than 100 tons per year of particulate matter and are not subject to a multiple-valued opacity standard. The opacity test observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur. Exceptions to these requirements are as follows:

c. The minimum observation period for opacity tests conducted by employees or agents of the Department to verify the day-to-day continuing compliance of a unit or activity with an applicable opacity standard shall be twelve minutes.

(b) Minimum Sample Volume. Unless otherwise specified in the applicable rule, the minimum sample volume per run shall be 25 dry standard cubic feet.

(c) Required Flow Rate Range. For EPA Method 5 particulate sampling, acid mist/sulfur dioxide, and fluoride sampling which uses Greenburg Smith type impingers, the sampling nozzle and sampling time shall be selected such that the average sampling rate will be between 0.5 and 1.0 actual cubic feet per minute, and the required minimum sampling volume will be obtained.

(d) Calibration of Sampling Equipment. Calibration of the sampling train equipment shall be conducted in accordance with the schedule shown in Table 297.310-1, attached to this permit.

(e) Allowed Modification to EPA Method 5. When EPA Method 5 is required, the following modification is allowed: the heated filter may be separated from the impingers by a flexible tube.

[Rule 62-297.310(4), F.A.C.]

C.34. The permittee shall comply with the requirements contained in APPENDIX SS-1, Stack Sampling Facilities, attached to this permit.

[Rule 62-297.310(6), F.A.C.; and, 40 CFR 60.8(e)]

C.35. Frequency of Compliance Tests. The following provisions apply only to those emissions units that are subject to an emissions limiting standard for which compliance testing is required.

(a) General Compliance Testing.

3. The owner or operator of an emissions unit that is subject to any emission limiting standard shall conduct a compliance test that demonstrates compliance with the applicable emission limiting standard prior to obtaining a renewed operation permit. Emissions units that are required to conduct an annual compliance test may submit the most recent annual compliance test to satisfy the requirements of this provision. In renewing an air operation permit pursuant to Rule 62-210.300(2)(a)3.b., c., or d., F.A.C., the Department shall not require submission of emission compliance test results for any emissions unit that, during the year prior to renewal:

   a. Did not operate.

4. During each federal fiscal year (October 1 - September 30), unless otherwise specified by rule, order, or permit, the owner or operator of each emissions unit shall have a formal compliance test conducted for:

   a. Visible emissions, if there is an applicable standard;

   b. Each of the following pollutants, if there is an applicable standard, and if the emissions unit emits or has the potential to emit: 5 tons per year or more of lead or lead compounds measured as elemental lead; 30 tons per year or more of acrylonitrile; or 100 tons per year or more of any other regulated air pollutant; and,

   c. Each NESHAP pollutant, if there is an applicable emission standard.

8. Any combustion turbine that does not operate for more than 400 hours per year shall conduct a visible emissions test once per each five-year period, coinciding with the term of its air operation permit.

9. The owner or operator shall notify the Department's Central District, Air Section, at least 15 days prior to the date on which each formal compliance test is to begin, of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator.

(b) Special Compliance Tests. When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it may require the owner or operator of the

emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the Department.
(c) Waiver of Compliance Test Requirements. If the owner or operator of an emissions unit that is subject to a compliance test requirement demonstrates to the Department, pursuant to the procedure established in Rule 62-297.620, F.A.C., that the compliance of the emissions unit with an applicable weight emission limiting standard can be adequately determined by means other than the designated test procedure, such as specifying a surrogate standard of no visible emissions for particulate matter sources equipped with a bag house or specifying a fuel analysis for sulfur dioxide emissions, the Department shall waive the compliance test requirements for such emissions units and order that the alternate means of determining compliance be used, provided, however, the provisions of paragraph 62-297.310(7)(b), F.A.C., shall apply.
[Rule 62-297.310(7), F.A.C.; and, SIP approved]

Continuous Monitoring Requirements

C.36. CEMS. The permittee shall install, calibrate, maintain, and operate a CEMS in the stack to measure and record the nitrogen oxides emissions from each CT in accordance with the requirements of 40 CFR 75.
[1270009-004-AC/PSD-FL-270]

C.37. For each CT, a CEMS shall be installed, operated, and maintained in accordance with 40 CFR 60, Appendix F, and shall meet the performance specifications of 40 CFR 60, Appendix B, to monitor nitrogen oxides and a diluent gas (carbon dioxide or oxygen). The applicable continuous emissions monitoring procedures of 40 CFR Part 75 may also be used to satisfy the requirements, above.
[40 CFR 60.13(a)]

C.38. A performance evaluation of the CEMS shall be conducted during any required performance test or within 30 days thereafter in accordance with the applicable performance specifications of 40 CFR 60, Appendix B, and at other times as required by the Administrator.
[40 CFR 60.13(c)]

C.39. The zero (or low-level value between 0 and 20 percent of span value) and span (50 to 100 percent of span value) calibration drifts shall be checked at least once daily in accordance with a written procedure. The zero and span shall, at a minimum, be adjusted whenever the 24-hour zero drift or 24-hour span drift exceeds two times the limits of the applicable performance specifications of 40 CFR 60, Appendix B. The system must allow the amount of excess zero and span drift measured at the 24-hour interval checks to be recorded and quantified.
[40 CFR 60.13(d)(1)]

C.40. Except for system breakdowns, repairs, calibration checks, and zero and span adjustments required under 40 CFR 60.13(d), all continuous monitoring systems (CMS) shall be in continuous operation and shall meet minimum frequency of operation requirements as follows:
(2) All continuous monitoring systems referenced by 40 CFR 60.13(c) for measuring emissions, except opacity, shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period.
[40 CFR 60.13(e)(2)]

C.41. All CMS or monitoring devices shall be installed such that representative measurements of emissions or process parameters from the affected facility are obtained. Additional procedures for location of CMS contained in the applicable Performance Specifications of Appendix B, 40 CFR 60, shall be used.
[40 CFR 60.13(f)]

C.42. For CMS other than opacity, 1-hour averages shall be computed from four or more data points equally spaced over each 1-hour period. Data recorded during periods of continuous monitoring system breakdown, repairs, calibration checks, and zero and span adjustments shall not be included in the data averages computed under this paragraph. An arithmetic or integrated average of all data may be used. The data may be recorded in reduced or non-reduced form (e.g. ppm pollutant and percent O_2 or ng/J of pollutant). All excess emissions shall be converted into units of the standard using the applicable conversion procedures specified in the subparts. After conversion into units of the standard, the data may be rounded to the same number of significant digits as used in the applicable subparts to specify the emission limit. (e.g. rounded to the nearest 1 percent opacity). **A continuous opacity monitoring system (COMS) is not required.**
[40 CFR 60.13(h)]

C.43. Natural Gas Monitoring Schedule. The following custom monitoring schedule for natural gas is approved in lieu of the daily sampling requirements of 40 CFR 60.334(b)(2):
a. The permittee shall apply for an Acid Rain permit within the deadlines specified in 40 CFR 72.30.
b. The permittee shall submit a monitoring plan, certified by signature of the Designated Representative, that commits to using a primary fuel of pipeline supplied natural gas (sulfur content less than 20 gr/100 scf pursuant to 40 CFR 75.11(d)(2)).
c. Each unit shall be monitored for SO_2 emissions using methods consistent with the requirements of 40 CFR 75 and certified by the USEPA.

This custom fuel monitoring schedule will only be valid when pipeline natural gas is used as a primary fuel. If the primary fuel for these units is changed to a higher sulfur fuel, SO_2 emissions must be accounted for as required pursuant to 40 CFR 75.11(d). See Specific Condition **C.3**.
[40 CFR 75; and, 1270009-004-AC/PSD-FL-270]

Recordkeeping and Reporting Requirements

C.44. Excess Emissions Report. If excess emissions occur for more than two hours due to malfunction, the owner or operator shall notify the Department's Central District office in accordance with Rule 62-4.130, F.A.C., within one (1) working day of: the nature, extent, and duration of the excess emissions; the cause of the excess emissions; and, the actions taken to correct the problem. In addition, the Department may request a written summary report of the incident. Pursuant to the Standards of Performance for New Stationary Sources, all excess emissions shall also be reported in accordance with 40 CFR 60.7, Subpart A. Following this format, 40 CFR 60.7, periods of startup, shutdown, malfunction, and shall be monitored, recorded, and reported as excess emissions when emission levels exceed the permitted standards listed in Specific Conditions **C.7.** and **C.8**.
[Rules 62-4.130, 62-204.800 and 62-210.700(6), F.A.C.; 40 CFR 60.7 (1998 version); and, 1270009-004-AC/PSD-FL-270]

C.45. The owner or operator subject to the provisions of 40 CFR 60 shall furnish the Administrator written notification as follows:
(4) A notification of any physical or operational change to an existing facility which may increase the emission rate of any air pollutant to which a standard applies, unless that change is specifically exempted under an applicable subpart or in 40 CFR 60.14(e). This notice shall be postmarked 60 days or as soon as practicable before the change is commenced and shall include information describing the precise nature of the change, present and proposed emission control systems, productive capacity of the facility before and after the change, and the expected completion date of the change. The Administrator may request additional relevant information subsequent to this notice. See Specific Conditions **C.26.**
[40 CFR 60.7(a)(4)]

C.46. The owner or operator subject to the provisions of 40 CFR 60 shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or, any periods during which a continuous monitoring system or monitoring device is inoperative. The requirements include initiating a recordkeeping system to record the occurrence and duration of any start up, shutdown, load change, fuel switch, high fuel bound nitrogen, and malfunction of a CT, malfunction of the air pollution control equipment, and the periods when the CEMS is inoperable.
[40 CFR 60.7(b)]

C.47. For the purpose of reports required under 40 CFR 60.7(c), periods of excess emissions that shall be reported are defined as follows:
(1) Nitrogen oxides. Any period during which the fuel-bound nitrogen of the fuel is greater than the maximum nitrogen content allowed by the fuel-bound nitrogen allowance used during the initial performance test. Each report shall include the average fuel consumption, ambient conditions, gas turbine load, and nitrogen content of the fuel during the period of excess emissions, and the graphs or figures developed under 40 CFR 60.335(a). See Specific Conditions **C.25., C.44.** and **C.48.**
[Rule 62-296.800, F.A.C.; and, 40 CFR 60.334(c)(1)]

C.48. NO_X CEMS for Reporting Excess Emissions. The NO_X CEMS may be used in lieu of the requirement for reporting excess emissions in 40 CFR 60.334(c)(1), Subpart GG (1998 version). Thirty day rolling average periods when NOx emissions (ppmvd at 15% oxygen) are above the standards, listed in Specific Conditions **C.7.** and **C.8.**, shall be provided to the DEP Central District Office within one working day (verbally) followed up by a written explanation not later than three (3) working days (alternately by facsimile). Excess Emissions and Monitoring System Performance Reports shall be submitted as specified in 40 CFR 60.7(c). CEMS downtime shall be calculated and reported according to the requirements of 40 CFR 60.7(c)(3) and 40 CFR 60.7(d)(2). Upon request from Department, the CEMS emission rates for NO_X on each CT shall be corrected to ISO conditions to demonstrate compliance with the NO_X standard established in 40 CFR 60.332.
[Rule 62-204.800 F.A.C.; 1270009-004-AC/PSD-FL-270; 40 CFR 75; and, 40 CFR 60.7]

C.49. CMS Reports. The monitoring devices shall comply with the certification and quality assurance, and any other applicable requirements of Rule 62-297.520, F.A.C., 40 CFR 60.13, including certification of each device in accordance with 40 CFR 60, Appendix B, Performance Specifications, and 40 CFR 60.7(a)(5), or 40 CFR Part 75. Quality assurance procedures must conform to all applicable sections of 40 CFR 60, Appendix F, or 40 CFR 75. The monitoring plan, consisting of data on CEMS equipment specifications, manufacturer, type, calibration and maintenance needs, and its proposed location shall be provided to the Department's Emissions Monitoring Section Administrator and EPA for review no later than 45 days prior to the first scheduled certification test pursuant to 40 CFR 75.62.
[1270009-004-AC/PSD-FL-270]

C.50. The owner or operator required to install a CMS or monitoring device shall submit an excess emissions and monitoring systems performance report (excess emissions are defined in applicable subparts) and/or a summary report form [see 40 CFR 60.7(d)] to the Administrator semiannually, except when: more frequent reporting is specifically required by an applicable subpart; or, the CMS data are to be used directly for compliance determination, in which case quarterly reports shall be submitted; or, the Administrator, on a case-by-case basis, determines that more frequent reporting is necessary to accurately assess the compliance status of the source. All reports shall be postmarked by the 30th day following the end of each calendar half (or quarter, as appropriate). Written reports of excess emissions shall include the following information:
(1) The magnitude of excess emissions computed in accordance with 40 CFR 60.13(h), any conversion factor(s) used, and the date and time of commencement and completion of each time period of excess emissions. The process operating time during the reporting period.
(2) Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the affected facility. The nature and cause of any malfunction (if known), the corrective action taken or preventative measures adopted.
(3) The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments.
(4) When no excess emissions have occurred or the continuous monitoring system(s) have not been inoperative, repaired, or adjusted, such information shall be stated in the report.
[40 CFR 60.7(c)(1), (2), (3) & (4)]

C.51. The summary report form shall contain the information and be in the format shown in Figure 1 (attached) unless otherwise specified by the Administrator. One summary report form shall be submitted for each pollutant monitored at each affected facility.
(1) If the total duration of excess emissions for the reporting period is less than 1 percent of the total operating time for the reporting period and CMS downtime for the reporting period is less than 5 percent of the total operating time for the reporting period, only the summary report form shall be submitted and the excess emission report described in 40 CFR 60.7(c) need not be submitted unless requested by the Administrator.
(2) If the total duration of excess emissions for the reporting period is 1 percent or greater of the total operating time for the reporting period or the total CMS downtime for the reporting period is 5 percent or greater of the total operating time for the reporting period, the summary report form and the excess emission report described in 40 CFR 60.7(c) shall both be submitted.
[40 CFR 60.7(d)(1) & (2)]

C.52. (1) Notwithstanding the frequency of reporting requirements specified in 40 CFR 60.7(c), an owner or operator who is required by an applicable subpart to submit excess emissions and monitoring systems performance reports (and summary reports) on a quarterly (or more frequent) basis may reduce the frequency of reporting for that standard to semiannual if the following conditions are met:

(i) For 1 full year (e.g., 4 quarterly or 12 monthly reporting periods) the affected facility's excess emissions and monitoring systems reports submitted to comply with a standard under this part continually demonstrate that the facility is in compliance with the applicable standard;

(ii) The owner or operator continues to comply with all recordkeeping and monitoring requirements specified in 40 CFR 60, Subpart A, and the applicable standard; and

(iii) The Administrator does not object to a reduced frequency of reporting for the affected facility, as provided in 40 CFR 60.7(e)(2).

(2) The frequency of reporting of excess emissions and monitoring systems performance (and summary) reports may be reduced only after the owner or operator notifies the Administrator in writing of his or her intention to make such a change and the Administrator does not object to the intended change. In deciding whether to approve a reduced frequency of reporting, the Administrator may review information concerning the source's entire previous performance history during the required recordkeeping period prior to the intended change, including performance test results, monitoring data, and evaluations of an owner or operator's conformance with operation and maintenance requirements. Such information may be used by the Administrator to make a judgment about the source's potential for noncompliance in the future. If the Administrator disapproves the owner or operator's request to reduce the frequency of reporting, the Administrator will notify the owner or operator in writing within 45 days after receiving notice of the owner or operator's intention. The notification from the Administrator to the owner or operator will specify the grounds on which the disapproval is based. In the absence of a notice of disapproval within 45 days, approval is automatically granted.

(3) As soon as monitoring data indicate that the affected facility is not in compliance with any emission limitation or operating parameter specified in the applicable standard, the frequency of reporting shall revert to the frequency specified in the applicable standard, and the owner or operator shall submit an excess emissions and monitoring systems performance report (and summary report, if required) at the next appropriate reporting period following the noncomplying event. After demonstrating compliance with the applicable standard for another full year, the owner or operator may again request approval from the Administrator to reduce the frequency of reporting for that standard as provided for in 40 CFR 60.7(e)(1) and (e)(2).
[40 CFR 60.7(e)(1), (2) & (3)]

C.53. Quarterly Reports. Quarterly excess emission reports, in accordance with 40 CFR 60.7(a)(7) and (c) (1998 version), shall be submitted to the Department's Central District office.
[1270009-004-AC/PSD-FL-270]

C.54. All recorded data shall be maintained on file by the Source for a period of five years.
[Rule 62-213.440, F.A.C.]

C.55. Test Reports.

(a) The owner or operator of an emissions unit for which a compliance test is required shall file a report with the Department on the results of each such test.

(b) The required test report shall be filed with the Department as soon as practical but no later than 45 days after the last sampling run of each test is completed.

(c) The test report shall provide sufficient detail on the emissions unit tested and the test procedures used to allow the Department to determine if the test was properly conducted and the test results properly computed. As a minimum, the test report, other than for an EPA or DEP Method 9 test, shall provide the following information:

1. The type, location, and designation of the emissions unit tested.
2. The facility at which the emissions unit is located.
3. The owner or operator of the emissions unit.
4. The normal type and amount of fuels used and materials processed, and the types and amounts of fuels used and material processed during each test run.
5. The means, raw data and computations used to determine the amount of fuels used and materials processed, if necessary to determine compliance with an applicable emission limiting standard.
6. The type of air pollution control devices installed on the emissions unit, their general condition, their normal operating parameters (pressure drops, total operating current and GPM scrubber water), and their operating parameters during each test run.
7. A sketch of the duct within 8 stack diameters upstream and 2 stack diameters downstream of the sampling ports, including the distance to any upstream and downstream bends or other flow disturbances.
8. The date, starting time and duration of each sampling run.
9. The test procedures used, including any alternative procedures authorized pursuant to Rule 62 - 297.620, F.A.C. Where optional procedures are authorized in this chapter, indicate which option was used.
10. The number of points sampled and configuration and location of the sampling plane.
11. For each sampling point for each run, the dry gas meter reading, velocity head, pressure drop across the stack, temperatures, average meter temperatures and sample time per point.
12. The type, manufacturer and configuration of the sampling equipment used.
13. Data related to the required calibration of the test equipment.
14. Data on the identification, processing and weights of all filters used.
15. Data on the types and amounts of any chemical solutions used.
16. Data on the amount of pollutant collected from each sampling probe, the filters, and the impingers, are reported separately for the compliance test.
17. The names of individuals who furnished the process variable data, conducted the test, analyzed the samples and prepared the report.
18. All measured and calculated data required to be determined by each applicable test procedure for each run.
19. The detailed calculations for one run that relate the collected data to the calculated emission rate.
20. The applicable emission standard, and the resulting maximum allowable emission rate for the emissions unit, plus the test result in the same form and unit of measure.
21. A certification that, to the knowledge of the owner or his authorized agent, all data submitted are true and correct. When a compliance test is conducted for the Department or its agent, the person who conducts the test shall provide the certification with respect to the test procedures used. The owner or his authorized agent shall certify that all data required and provided to the person conducting the test are true and correct to his knowledge.

[Rules 62-213.440 and 62-297.310(8), F.A.C.]

Miscellaneous

C.56. For the purpose of submitting compliance certifications or establishing whether or not a person has violated or is in violation of any standard in 40 CFR 60, nothing in 40 CFR 60 shall preclude the use, including the exclusive use, of any credible evidence or information, relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or compliance test or procedure had been performed.
[40 CFR 60.11(g)]

C.57. Modifications: The permittee shall give written notification to the Department when there is any modification to this facility. This notice shall be submitted sufficiently in advance of any critical date involved to allow sufficient time for review, discussion, and revision of plans, if necessary. Such notice shall include, but not be limited to, information describing the precise nature of the change; modifications to any emission control system; production capacity of the facility before and after the change; and the anticipated completion date of the change.
[Chapters 62-210 and 62-212, F.A.C.; and, 1270009-004-AC/PSD-FL-270]

C.58. Compliance Plan. Based on the application, the CTs for Repowered Unit 4 have not yet been tested in the high-temperature peaking mode. Therefore, Appendix CP-3, Compliance Plan for Repowered Unit 4, has been established and is a part of this permit.
[Rule 62-213.440(2), F.A.C.]

Section IV. This section is the Acid Rain Part.

Operated by: FPL
ORIS code: 0620 (Sanford Power Plant)

Subsection A. This subsection addresses requirements of the Acid Rain Program, Phase II.

The emissions units listed below are regulated under the Acid Rain Program, Phase II.

E.U. ID No.	Brief Description
001	Fossil Fuel Steam Generator, Unit 3 (Acid Rain Boiler ID: PSN3)
Repowered Unit 4	
005	Combined Cycle Combustion Turbine (CCCT) Generator PSNCT4A with an unfired Heat Recovery Steam Generator (HRSG)
006	CCCT PSNCT4B with an unfired HRSG
007	CCCT PSNCT4C with an unfired HRSG
008	CCCT PSNCT4D with an unfired HRSG
Repowered Unit 5	
009	Combined Cycle Combustion Turbine (CCCT) Generator PSNCT5A with an unfired Heat Recovery Steam Generator (HRSG)
010	CCCT PSNCT5B with an unfired HRSG
011	CCCT PSNCT5C with an unfired HRSG
012	CCCT PSNCT5D with an unfired HRSG

A.1. The Phase II permit application(s) submitted for this facility, as approved by the Department, is a part of this permit. The owners and operators of these Phase II acid rain unit(s) must comply with the standard requirements and special provisions set forth in the application(s) listed below:

a. DEP Form No. 62-210.900(1)(a), signed April 30, 2002, and received August 21, 2002.
[Chapter 62-213 and Rule 62-214.320, F.A.C.]

A.2. Sulfur dioxide (SO_2) allowance allocations for each Acid Rain unit are as follows:

E.U. ID No.	EPA ID	Year	2000	2001	2002	2003	2004
001	PSN3	**SO2 allowances, under Table 2 of 40 CFR Part 73**	1073*	1073*	1073*	1073*	1073*
005	PSNCT4A	**SO2 allowances, under Table 2 of 40 CFR Part 73**			0	0	0
006	PSNCT4B	**SO2 allowances, under Table 2 of 40 CFR Part 73**			0	0	0
007	PSNCT4C	**SO2 allowances, under Table 2 of 40 CFR Part 73**			0	0	0
008	PSNCT4D	**SO2 allowances, under Table 2 of 40 CFR Part 73**			0	0	0

009	PSNCT5A	**SO2 allowances, under Table 2 of 40 CFR Part 73**			0	0	0
010	PSNCT5B	**SO2 allowances, under Table 2 of 40 CFR Part 73**			0	0	0
011	PSNCT5C	**SO2 allowances, under Table 2 of 40 CFR Part 73**			0	0	0
012	PSNCT5D	**SO2 allowances, under Table 2 of 40 CFR Part 73**			0	0	0

* The number of allowances held by an Acid Rain source in a unit account may differ from the number allocated by the USEPA under Table 2 of 40 CFR 73.

A.3. Emission Allowances. Emissions from sources subject to the Federal Acid Rain Program (Title IV) shall not exceed any allowances that the source lawfully holds under the Federal Acid Rain Program. Allowances shall not be used to demonstrate compliance with a non-Title IV applicable requirement of the Act.
1. No permit revision shall be required for increases in emissions that are authorized by allowances acquired pursuant to the Federal Acid Rain Program, provided that such increases do not require a permit revision pursuant to Rule 62-213.400(3), F.A.C.
2. No limit shall be placed on the number of allowances held by the source under the Federal Acid Rain Program.
3. Allowances shall be accounted for under the Federal Acid Rain Program.
[Rules 62-213.440(1)(c)1., 2. & 3., F.A.C.]

A.4. Fast-Track Revisions of Acid Rain Parts. Those Acid Rain sources making a change described at Rule 62- 214.370(4), F.A.C., may request such change as provided in Rule 62-213.413, Fast-Track Revisions of Acid Rain Parts.
[Rule 62-213.413, F.A.C.]

A.5. Comments, notes, and justifications: None.

Subsection B. This Subsection addresses Acid Rain, Phase II, Retired Unit Exemption.

The emissions unit listed below is regulated under Phase II of the federal Acid Rain Program.

E.U. ID No.	Description
-004	Fossil Fuel Fired Steam Generator No. 4 (boiler) - PERMANENTLY RETIRED

B.1. The Retired Unit Exemption form submitted for this facility constitutes the Acid Rain Part application pursuant to 40 CFR 72.8 and is a part of this permit. The owners and operators of this acid rain unit shall comply with the standard requirements and special provisions set forth in DEP Form No. 62-210.900(1)(a)3., effective April 16, 2001, signed by the Designated Representative on April 30, 2002, and received by the Department on May 13, 2002. This unit is subject to the following: 40 CFR 72.1 which requires the unit to have an Acid Rain Part as part of its Title V permit; 40 CFR 72.2 which provides associated definitions; 40 CFR 72.3 which provides measurements, abbreviations, and acronyms; 40 CFR 72.4 which provides the federal authority of the Administrator; 40 CFR 72.5 which provides the authority of the states; 40 CFR 72.6 which makes the boiler a Phase II unit; 40 CFR 72.10 which gives the public access to information about this unit; and, 40 CFR 72.13 which incorporates certain ASTM methods into 40 CFR Part 72.
[Chapter 62-213, F.A.C. and Rule 62-214.340, F.A.C.]

B.2. Sulfur dioxide (SO_2) allowance allocations for the Acid Rain unit are as follows:

E.U. ID No.	EPA ID	Year	2000	2001	2002	2003	2004
-004	PSN4	SO_2 allowances, under Table 2 of 40 CFR 73	8614*	8614*	8614*	8614*	8614*

*The number of allowances held by an Acid Rain source in a unit account may differ from the number allocated by the U.S. EPA under Table 2 of 40 CFR 73.

B.3. Emission Allowances. Emissions from sources subject to the Federal Acid Rain Program (Title IV) shall not exceed any allowances that the source lawfully holds under the Federal Acid Rain Program. Allowances shall not be used to demonstrate compliance with a non-Title IV applicable requirement of the Act.

a. No permit revision shall be required for increases in emissions that are authorized by allowances acquired pursuant to the Federal Acid Rain Program, provided that such increases do not require a permit revision pursuant to Rule 62-213.440(3), F.A.C.

b. No limit shall be placed on the number of allowances held by the source under the Federal Acid Rain program.

c. Allowances shall be accounted for under the Federal Acid Rain Program.

[Rule 62-213.440(1)(c)1., 2., & 3., F.A.C.]

B.4. The designated representative of this acid rain unit applied for an exemption from the requirements of the Federal Acid Rain Program by submitting a completed and signed "Retired Unit Exemption" form (DEP Form No. 62-210.900(1)(a)3., F.A.C., attached) to the Department. The date of permanent retirement is July 20, 2002.
[Rule 62-214.340(2), F.A.C.; and, 40 CFR 72.8.]

B.5. Statement of Compliance. The annual statement of compliance pursuant to Rule 62-213.440(3), F.A.C., shall be submitted within 60 (sixty) days after the end of the calendar year.
{See Condition No. **51.**, Appendix TV-4, Title V Conditions.}
[Rule 62-214.420(11), F.A.C.]

B.6. Where an applicable requirement of the Act is more stringent than applicable regulations promulgated under Title IV of the Act, both provisions shall be incorporated into the permit and shall be enforceable by the Administrator.
[40 CFR 70.6(a)(1)(ii); and, Rule 62-210.200, F.A.C., Definitions – Applicable Requirements.]

B.7. Comments, notes, and justifications: None.

Subsection C. This Subsection addresses Acid Rain, Phase II, Retired Unit Exemption.

The emissions unit listed below is regulated under Phase II of the federal Acid Rain Program.

E.U. ID No.	Description
-005	Fossil Fuel Fired Steam Generator No. 5 (boiler) - PERMANENTLY RETIRED

C.1. The Retired Unit Exemption form submitted for this facility constitutes the Acid Rain Part application pursuant to 40 CFR 72.8 and is a part of this permit. The owners and operators of this acid rain unit shall comply with the standard requirements and special provisions set forth in DEP Form No. 62-210.900(1)(a)3., effective April 16, 2001, signed by the Designated Representative on April 30, 2002, and received by the Department on May 13, 2002. This unit is subject to the following: 40 CFR 72.1 which requires the unit to have an Acid Rain Part as part of its Title V permit; 40 CFR 72.2 which provides associated definitions; 40 CFR 72.3 which provides measurements, abbreviations, and acronyms; 40 CFR 72.4 which provides the federal authority of the Administrator; 40 CFR 72.5 which provides the authority of the states; 40 CFR 72.6 which makes the boiler a Phase II unit; 40 CFR 72.10 which gives the public access to information about this unit; and, 40 CFR 72.13 which incorporates certain ASTM methods into 40 CFR Part 72.
[Chapter 62-213, F.A.C. and Rule 62-214.340, F.A.C.]

C.2. Sulfur dioxide (SO_2) allowance allocations for the Acid Rain unit are as follows:

E.U. ID No.	EPA ID	Year	2000	2001	2002	2003	2004
-005	**PSN5**	SO_2 allowances, under Table 2 of 40 CFR 73	3221*	3221*	3221*	3221*	3221*

*The number of allowances held by an Acid Rain source in a unit account may differ from the number allocated by the U.S. EPA under Table 2 of 40 CFR 73.

C.3. Emission Allowances. Emissions from sources subject to the Federal Acid Rain Program (Title IV) shall not exceed any allowances that the source lawfully holds under the Federal Acid Rain Program. Allowances shall not be used to demonstrate compliance with a non-Title IV applicable requirement of the Act.

a. No permit revision shall be required for increases in emissions that are authorized by allowances acquired pursuant to the Federal Acid Rain Program, provided that such increases do not require a permit revision pursuant to Rule 62-213.440(3), F.A.C.

b. No limit shall be placed on the number of allowances held by the source under the Federal Acid Rain program.

c. Allowances shall be accounted for under the Federal Acid Rain Program.

[Rule 62-213.440(1)(c)1., 2., & 3., F.A.C.]

C.4. The designated representative of this acid rain unit applied for an exemption from the requirements of the Federal Acid Rain Program by submitting a completed and signed "Retired Unit Exemption" form (DEP Form No. 62-210.900(1)(a)3., F.A.C., attached) to the Department. The date of permanent retirement is October 2, 2001.
[Rule 62-214.340(2), F.A.C.; and, 40 CFR 72.8.]

C.5. Statement of Compliance. The annual statement of compliance pursuant to Rule 62-213.440(3), F.A.C., shall be submitted within 60 (sixty) days after the end of the calendar year.
{See Condition No. **51.**, Appendix TV-4, Title V Conditions.}
[Rule 62-214.420(11), F.A.C.]

C.6. Where an applicable requirement of the Act is more stringent than applicable regulations promulgated under Title IV of the Act, both provisions shall be incorporated into the permit and shall be enforceable by the Administrator.
[40 CFR 70.6(a)(1)(ii); and, Rule 62-210.200, F.A.C., Definitions – Applicable Requirements.]

C.7. Comments, notes, and justifications: None.

Appendix U-1, List of Unregulated Emissions Units and/or Activities

Unregulated Emissions Units and/or Activities. An emissions unit which emits no "emissions-limited pollutant" and which is subject to no unit-specific work practice standard, though it may be subject to regulations applied on a facility-wide basis (e.g., unconfined emissions, odor, general opacity) or to regulations that require only that it be able to prove exemption from unit-specific emissions or work practice standards.

The below listed emissions units and/or activities are neither 'regulated emissions units' nor 'insignificant emissions units'.

Brief Description of Emissions Units and/or Activity

1. Small diesel emergency generator operated less than 400 hours per year:
    a. Stationary Detroit Diesel Model No. 7124-7200N: 500 KW emergency generator
2. Tank A: 268,000 barrels No. 6 fuel oil; pre-NSPS
3. Tank 3AD: 6,000 barrels No. 6 fuel oil; pre-NSPS; day tank for Unit 3
4. Tank 3BD: 6,000 barrels No. 6 fuel oil; pre-NSPS; day tank for Unit 3
5. Tank LO: 1,000 barrels No. 2 fuel oil; pre-NSPS; for unit 3 and repowered units 4 and 5
6. Day tank for No. 2 fuel oil: 275 gallons
7. Sandblasting operations
8. Parts washing
9. General painting
10. Evaporative equipment cooler for Repowered Unit 5

Appendix I-1, List of Insignificant Emissions Units and/or Activities

FPL **DRAFT Permit No.: 1270009-010-AV**
Sanford Power Plant **Facility ID No.: 1270009**

The facilities, emissions units, or pollutant-emitting activities listed in Rule 62-210.300(3)(a), F.A.C., Categorical Exemptions, are exempt from the permitting requirements of Chapters 62-210 and 62-4, F.A.C.; provided, however, that exempt emissions units shall be subject to any applicable emission limiting standards and the emissions from exempt emissions units or activities shall be considered in determining the potential emissions of the facility containing such emissions units. Emissions units and pollutant-emitting activities exempt from permitting under Rule 62-210.300(3)(a), F.A.C., shall not be exempt from the permitting requirements of Chapter 62-213, F.A.C., if they are contained within a Title V source; however, such emissions units and activities shall be considered insignificant for Title V purposes provided they also meet the criteria of Rule 62-213.430(6)(b), F.A.C. No emissions unit shall be entitled to an exemption from permitting under Rule 62.210.300(3)(a), F.A.C., if its emissions, in combination with the emissions of other units and activities at the facility, would cause the facility to emit or have the potential to emit any pollutant in such amount as to make the facility a Title V source.

The below listed emissions units and/or activities are considered insignificant pursuant to Rule 62-213.430(6), F.A.C.

Brief Description of Emissions Units and/or Activities

1. Vacuum pumps used in laboratory operations
2. Propane relief valves
3. Hydrazine mixing tank and relief valves
4. Fire and safety equipment
5. Lube oil tank vents and extraction vents
6. Oil/water separators and related equipment
7. Miscellaneous mobile vehicle operation (cars, light trucks, heavy-duty trucks, backhoes, tractors, forklifts, cranes, etc.)
8. Brazing, soldering, and welding equipment
9. Degreasing units using heavier than air vapors except those which use solvents that are listed as HAPs
10. Space heating equipment other than boilers
11. Equipment used for steam cleaning
12. Laboratory equipment used exclusively for chemical and physical analysis, including CEMS
13. Evaporation of on-site generated boiler non-hazardous used cleaning chemicals (includes, but not limited to citrosolv and ammonia) by injection into an operating boiler furnace provided that the boiler tube scale and other sediment has been substantially removed from the spent cleaning solution. This activity occurs once every three to five years or longer.
14. Cylinder gas storage and vent (Nitrogen, Hydrogen, CO_2, Cryogenic H_2)
15. Tanker unloading dock area fugitive emissions for light fuel oil
16. CT5A thru CT5D: primarily steam and water vents/drains
17. CT5A's thru CT5D's associated HRSGs: primarily steam and water vents/drains
18. CT5A thru CT5D - common piping area: primarily steam and water vents/drains
19. CT5A thru CT5D - common feedwater: primarily steam and water vents/drains

Table 1-1, Summary of Air Pollutant Emission Standards

This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.

E.U. ID No.	Brief Description
001	Fossil Fuel Steam Generator Unit 3: maximum heat input on fuel oil: 1650 MMBtu/hr

			Allowable Emissions [2]	Equivalent Emissions [1]			
Pollutant	**Fuel(s)** [2]	**hrs/yr**	**Standard(s)**	**lbs/hr**	**TPY**	**Regulatory Citations**	**Permit Condition**
VE Steady State	No. 6 FO	8760	40% opacity			Rule 62-296.405(1)(a), F.A.C.	**A.5**
VE Soot Blowing or Load Change	No. 6 FO	8760	60% opacity (>60% opacity for not more than 4, six-minute periods)			Rule 62-210.700(3), F.A.C.	**A.6**
PM Steady State	No. 6 FO	8760	0.1 lb/MMBtu	165	723	Rule 62-296.405(1)(b), F.A.C.	**A.7**
PM Soot Blowing or Load Change	No. 6 FO	8760	0.3 lb/MMBtu	206	903	Rule 62-210.700(3), F.A.C.	**A.8**
SO_2	No. 6 FO	8760	2.75 lbs/MMBtu	4,537	19,874	Rules 62-213.440 and 62-296.405(1)(c)1.g., F.A.C.	**A.9**

Notes:

[1] The "Equivalent Emissions" listed are for each unit firing No. 6 fuel oil, PM equivalent emissions are based on an emission factor which reflects both steady state and soot blowing/load change emission rates. Equivalent Emissions are listed for informational purposes only.

[2] PM and VE tests shall be conducted concurrently with the unit operating at permitted capacity, with the magnesium hydroxide injection rate and schedule consistent with normal operation of this system, and firing the worst case fuel, i.e., No. 6 fuel oil (alone) with sulfur content within 10% of the maximum sulfur fuel fired in the past 12 months or with blends of No. 6 fuel oil and other fuels which results in the highest emissions. If cofiring natural gas and high sulfur fuel oil (above 2.5% sulfur, by wt.), a compliance test must be conducted under the worst case conditions, i.e., while cofiring a representative high sulfur fuel oil and natural gas in a ratio which results in SO_2 emissions which are 90% of the emission limit.

Table 1-1 (cont.)
FPL's Sanford Power Plant
DRAFT Permit No.: 1270009-010-AV
Page 2 of 3

E.U. ID Nos.	Brief Description
Repowered Unit 4: 4 (four) combined cycle only combustion turbines	
005	Combined Cycle Combustion Turbine (CCCT) Generator PSNCT4A with an unfired Heat Recovery Steam Generator (HRSG)
006	CCCT PSNCT4B with an unfired HRSG
007	CCCT PSNCT4C with an unfired HRSG
008	CCCT PSNCT4D with an unfired HRSG

			Allowable Emissions	Equivalent Emissions[1]			
Pollutant	Fuel(s)	hrs/yr	Standard(s)	lbs/hr/CT	tons/yr/CT	Regulatory Citations	Permit Condition(s)
NO_X	PNG[2]	8760 400[4]	9 ppm - PNG 75 ppm (NSPS) 15 ppmvd, 24-hr block avg. – HTPM[4]	68 - PNG 102 - HTPM	297.8 - PNG 20.4 – HTPM	1270009-004-AC 1270009-009-AC	**C.7. & C.8.**
CO	PNG[2]	8760 400[4]	12 ppmvd - PNG 9 ppmvd - HTPM[4]	44.9 - PNG 29 - HTPM	196.6 - PNG 5.8 - HTPM	1270009-004-AC 1270009-009-AC	**C.7. & C.9.**
VOC	PNG[2]	8760 400[4]	1.4 ppmvd - PNG 1.4 ppmvd - HTPM[4]	3 - PNG 3 - HTPM	13.1 - PNG 0.6 - HTPM	1270009-004-AC 1270009-009-AC	**C.7. & C.10.**
SO_2	PNG[2]	8760	< 20 gr/100 scf - PNG	5.1 - PNG	22.5 - PNG	1270009-004-AC	**C.3.a. & C.12.**
PM/PM_{10}[3]	PNG[2]	8760 400[4]	10% Opacity - PNG 10% Opacity - HTPM[4]	10 - PNG	43.8 - PNG	1270009-004-AC 1270009-009-AC	**C.7.**
VE	PNG[2]	8760 400[4]	10% Opacity - PNG 10% Opacity - HTPM[4]			1270009-004-AC 1270009-009-AC	**C.7. & C.11.**

Notes:

[1] Equivalent Emissions are listed for informational purposes only.
[2] PNG: pipeline natural gas: only permitted fuel; and, for the purposes of Section III. Subsection C. of this permit, "pipeline natural gas" means natural gas with a sulfur content of less than 20 gr/scf that is provided by the natural gas pipeline transmission company.
[3] No emissions limitations were established; however, a VE standard was established as the surrogate for PM/PM_{10} and was based on the firing of PNG or DFO.
[4] HTPM: High-Temperature Peaking Mode: only allowed 400 hrs/yr on PNG.

Table 1-1 (cont.)
FPL's Sanford Power Plant
DRAFT Permit No.: 1270009-010-AV

E.U. ID Nos.	Brief Description
Repowered Unit 5: 4 (four) combined cycle only combustion turbines	
009	CCCT PSNCT5A with an unfired HRSG
010	CCCT PSNCT5B with an unfired HRSG
011	CCCT PSNCT5C with an unfired HRSG
012	CCCT PSNCT5D with an unfired HRSG

Pollutant	Fuel(s)	hrs/yr	Allowable Emissions Standard(s)	Equivalent Emissions[1] lbs/hr/CT	Equivalent Emissions[1] tons/yr/CT	Regulatory Citations	Permit Condition(s)
NO_X	PNG [2] DFO [3] PNG [2, 5]	8760 400 [5]	9 ppm - PNG 42 ppm - DFO 75/110 ppm (NSPS) 15 ppmvd, 24-hr block avg. – HTPM [5]	68 - PNG 365.2 - DFO 102 - HTPM	297.8 - PNG 91.3 - DFO 20.4 - HTPM	1270009-004-AC 1270009-009-AC	**B.7. & B.8.**
CO	PNG [2] DFO [3] PNG [2, 5]	8760 400 [5]	12 ppmvd - PNG 20 ppmvd – DFO 9 ppmvd - HTPM [5]	44.9 - PNG 75.1 - DFO 29 - HTPM	196.6 - PNG 18.8 - DFO 5.8 - HTPM	1270009-004-AC 1270009-009-AC	**B.7. & B.9.**
VOC	PNG [2] DFO [3] PNG [2, 5]	8760 400 [5]	1.4 ppmvd - PNG 7 ppmvw – DFO 1.4 ppmvd - HTPM [5]	3 - PNG 16.9 - DFO 3 - HTPM	13.1 - PNG 4.2 - DFO 0.6 - HTPM	1270009-004-AC 1270009-009-AC	**B.7. & B.10.**
SO_2	PNG [2] DFO [3]	8760	< 20 gr/100 scf - PNG max. 0.05% Sulfur content, by wt. - DFO	5.1 - PNG 101.5 - DFO	22.5 - PNG 24.5 - DFO	1270009-004-AC	**B.3.a. & B.12.**
PM/PM_{10} [4]	PNG [2] DFO [3] PNG [2, 5]	8760 400 [5]	10% Opacity - PNG 20% Opacity – DFO 10% Opacity - HTPM [5]	10 - PNG 10 - DFO NA	43.8 - PNG 43.8 - DFO NA	1270009-004-AC 1270009-009-AC	**B.7.**
VE	PNG [2] DFO [3] PNG [2, 5]	8760 400 [5]	10% Opacity - PNG 20% Opacity – DFO 10% Opacity - HTPM [5]			1270009-004-AC 1270009-009-AC	**B.7. & B.11.**

Notes:

[1] Equivalent Emissions are listed for informational purposes only.
[2] PNG: pipeline natural gas: primary fuel; and, for the purposes of Section III. Subsection B. of this permit, "pipeline natural gas" means natural gas with a sulfur content of less than 20 gr/scf that is provided by the natural gas pipeline transmission company.
[3] DFO: distillate fuel oil: when PNG is not available, allowed to fire max. 28,600,000 gals/yr with max. sulfur content of 0.05%, by wt.
[4] No emissions limitations were established; however, a VE standard was established as the surrogate for PM/PM_{10} and was based on the firing of PNG or DFO.
[5] HTPM: High-Temperature Peaking Mode: only allowed 400 hrs/yr on PNG.

Table 2-1, Summary of Compliance Requirements

This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.

E.U. ID No.		Brief Description					
001		Fossil Fuel Steam Generator Unit 3					
Pollutant or Parameter	**Fuel(s)**	**Compliance Method**	**Testing Frequency**	**Frequency Base Date [1]**	**Minimum Compliance Test Duration**	**CMS [2]**	**Permit Condition(s)**
SO_2	Oil	CEMS along with EPA Method 19 or fuel sampling & analysis and a max. fuel sulfur limit of 2.5%, by wt., or EPA Method 6C, if required by the Department	Fuel sampling of the delivered fuel upon each shipment; and, SC A.27 may require additional fuel sampling for PM/VE testing purposes.	Not Applicable	Three hour averages when using CEMS or one hour runs for EPA Method 6C stack tests	Yes	**A.9, A.13, A.15, A.23 & A.24**
NO_x						Yes	**A.13**
PM	Oil	EPA Method 5 or Method 17	Annual		1 hour	No	**A.22, A.26 & A.27**
VE	Oil	DEP Method 9	Annual		1 hour (annual test, concurrent with PM) 12 minutes (M9 at other times)	Yes	**A.20, A.18, A.21 & A.27**
On-spec. Used Oil		Recordkeeping and Analysis	Batch testing of representative sample				**A.39**

Notes:
[1] Frequency base date established for planning purposes only (see Rule 62-297.310, F.A.C.).
[2] CMS = continuous monitoring system.

E.U. ID Nos.	**Brief Description**						
Repowered Unit 4: 4 (four) combined cycle only combustion turbines							
005	Combined Cycle Combustion Turbine (CCCT) Generator PSNCT4A with an unfired Heat Recovery Steam Generator (HRSG)						
006	CCCT PSNCT4B with an unfired HRSG						
007	CCCT PSNCT4C with an unfired HRSG						
008	CCCT PSNCT4D with an unfired HRSG						
Pollutant or Parameter	**Fuel(s)**	**Compliance Method**	**Testing Frequency**	**Frequency Base Date** [1]	**Minimum Compliance Test Duration**	**CMS** [2]	**Permit Condition(s)**
NO_X	PNG [3]	CEMS EPA Method 20 – NSPS EPA Method 19 40 CFR 75, Appendix D EPA Method 7 [5] & CEMS - HTPM	Initial (NSPS) & Annual May use the RATA in lieu of a separate performance test, but requires prior notification Initial [6] & CEMS - HTPM	TBD CP [6] - HTPM	30-day rolling avg - PNG three 1-hr runs for EPA Method 19 or 20 stack tests three 1-hr runs for EPA Method 7 stack tests	Yes	**C.20., C.21., C.25, C.27., C.28., C.30., C.32. thru C.42.**
CO	PNG [3]	EPA Method 10 Not Applicable - HTPM	Initial only Not Applicable - HTPM	TBD	three 1-hr runs for EPA Method 10 stack tests	No	**C.23., C.27., C.28., C.30., C.32. thru C.35**
VOC	PNG [3]	EPA Method 18 and/or Method 25A Not Applicable - HTPM	Initial only Not Applicable - HTPM	TBD	three 1-hr runs for EPA Method 18 or 25A stack tests	No	**C.24., C.27., C.28., C.30., C.32. thru C.35.**
SO_2	PNG [3]	Firing PNG EPA Method 19 40 CFR 75, Appendix D	Initial & Annual	TBD	three 1-hr runs for EPA Method 19 stack tests	No	**C.3., C.20., C.22., C.26., C.27., C.28., C.30., C.32. thru C.35., C.43.**
PM/PM_{10} [4]	PNG [3]	EPA Method 9 EPA Method 9 - HTPM	Initial & Annual Initial & Annual - HTPM	TBD CP [6] - HTPM	three 1-hr runs for EPA Method 9 stack tests	No	**C.22., C.28., C.30 thru C.35**
VE	PNG [3]	EPA Method 9 EPA Method 9 - HTPM	Initial & Annual Initial & Annual - HTPM	TBD CP [6] - HTPM	three 1-hr runs for EPA Method 9 stack tests	No	**C.27., C.28., C.30. thru C.35.**

Notes:
[1] Frequency base date established for planning purposes only (see Rule 62-297.310, F.A.C.).; and, TBD: to be determined
[2] CMS = continuous monitoring system.
[3] PNG: pipeline natural gas: primary fuel; and, for the purposes of Section III. Subsection C. of this permit, "pipeline natural gas" means natural gas with a sulfur content of less than 20 gr/scf that is provided by the natural gas pipeline transmission company.
[4] No emissions limitations were established; however, a VE standard was established as the surrogate for PM/PM_{10} and was based on the firing of PNG.
[5] HTPM: High-Temperature Peaking Mode: only allowed 400 hrs/yr.
[6] CP: Compliance Plan: see Appendix CP-3 (has not yet tested in the HTPM).

E.U. ID Nos.	Brief Description
Repowered Unit 5: 4 (four) combined cycle only combustion turbines	
009	*Combined Cycle Combustion Turbine (CCCT) Generator PSNCT5A with an unfired Heat Recovery Steam Generator (HRSG)*
010	CCCT PSNCT5B with an unfired HRSG
011	CCCT PSNCT5C with an unfired HRSG
012	CCCT PSNCT5D with an unfired HRSG

Pollutant or Parameter	Fuel(s)	Compliance Method	Testing Frequency	Frequency Base Date [1]	Minimum Compliance Test Duration	CMS [2]	Permit Condition(s)
NO_X	PNG [3] DFO [4] PNG [3,6]	CEMS EPA Method 20 – NSPS EPA Method 19 40 CFR 75, Appendix D EPA Method 7 & CEMS - HTPM	Initial (NSPS) & Annual May use the RATA in lieu of a separate performance test, but requires prior notification Initial and CEMS - HTPM	TBD CP [7] – DFO CP [8] - HTPM	30-day rolling avg - PNG 24-hr block avg - DFO three 1-hr runs for EPA Method 19 or 20 stack tests three 1-hr runs for EPA Method 7 stack tests	Yes	**B.21., B.22., B.23., B.27., B.29., B.30., B.32., B.34. thru B.44., B.46., B.47.**
CO	PNG [3] DFO [4] PNG [3,6]	EPA Method 10 Not Applicable - HTPM	Initial only Not Applicable - HTPM	TBD CP [7] - DFO CP [8] - HTPM	three 1-hr runs for EPA Method 10 stack tests	No	**B.25., B.29., B.30., B.32., B.34. thru B.37.**
VOC	PNG [3] DFO [4] PNG [3,6]	EPA Method 18 and/or Method 25A Not Applicable - HTPM	Initial only Not Applicable - HTPM	TBD CP [7] - DFO CP [8] - HTPM	three 1-hr runs for EPA Method 18 or 25A stack tests	No	**B.26., B.29., B.30., B.32., B.34. thru B.37.**
SO_2	PNG [3] DFO [4]	Firing PNG Firing DFO and fuel sampling & analysis using ASTM 2880-96 (or latest version) EPA Method 19 40 CFR 75, Appendix D	Initial & Annual	TBD	three 1-hr runs for EPA Method 19 stack tests	No	**B.21., B.24., B.28., B.29., B.30., B.32., B.34. thru B.37., B.45., B.46.**
PM/PM_{10} [5]	PNG [3] DFO [4] PNG [3,6]	EPA Method 9 EPA Method 9 EPA Method 9 - HTPM	Initial & Annual Initial & Annual Initial & Annual - HTPM	TBD CP [7] - DPO CP [8] - HTPM	three 1-hr runs for EPA Method 9 stack tests	No	**B.24., B.29., B.30., B.32. thru B.37.**
VE	PNG [3] DFO [4] PNG [3,6]	EPA Method 9 EPA Method 9 EPA Method 9 - HTPM	Initial & Annual Initial & Annual Initial & Annual - HTPM	TBD CP [7] - DPO CP [8] - HTPM	three 1-hr runs for EPA Method 9 stack tests	No	**B.24., B.29., B.30., B.32. thru B.37.**

Notes:

[1] Frequency base date established for planning purposes only (see Rule 62-297.310, F.A.C.).; and, TBD: to be determined

[2] CMS = continuous monitoring system.

[3] PNG: pipeline natural gas: primary fuel; and, for the purposes of Section III. Subsection B. of this permit, "pipeline natural gas" means natural gas with a sulfur content of less than 20 gr/scf that is provided by the natural gas pipeline transmission company.

[4] DFO: distillate fuel oil: when PNG is not available, allowed to fire max. 28,600,000 gals/yr with max. sulfur content of 0.05%, by wt.

[5] No emissions limitations were established; however, a VE standard was established as the surrogate for PM/PM_{10} and was based on the firing of PNG or DFO.

[6] HTPM: High-Temperature Peaking Mode: only allowed 400 hrs/yr.

[7,8] CP: Compliance Plans: see Appendix CP-1 (has not yet tested on DFO) and Appendix CP-2 (has not yet tested in the HTPM).

Appendix H-1, Permit History

FPL **DRAFT Permit No.: 1270009-010-AV**
Sanford Power Plant **Facility ID No.: 1270009**

Permit History (for tracking purposes):

EU ID No(s).	Description	Permit No.	Effective Date	Expiration Date	Project Type [1]
001	Fossil Fuel Steam Generator: Unit 3	1270009-001-AV	01/01/2000	12/31/2004	Initial
		1270009-008-AC	03/18/2003	12/31/2004	Construction (mod.)
Repowered Unit 4					
005	Combined Cycle Combustion Turbine (CCCT) Generator 4A with an unfired Heat Recovery Steam Generator (HRSG)	1270009-007-AV	06/04/2003	12/31/2004	Revision
		1270009-008-AC	03/18/2003	12/31/2004	Construction (mod.)
		1270009-009-AC	09/04/2003	12/31/2004	Construction (mod.)
		1270009-010-AV	Pending[2]	12/31/2004	Revision
006	CCCT 4B with an unfired HRSG	1270009-007-AV	06/04/2003	12/31/2004	Revision
		1270009-009-AC	09/04/2003	12/31/2004	Construction (mod.)
		1270009-010-AV	Pending[2]	12/31/2004	Revision
		1270009-008-AC	03/18/2003	12/31/2004	Construction (mod.)
007	CCCT 4C with an unfired HRSG	1270009-007-AV	06/04/2003	12/31/2004	Revision
		1270009-009-AC	09/04/2003	12/31/2004	Construction (mod.)
		1270009-010-AV	Pending[2]	12/31/2004	Revision
		1270009-008-AC	03/18/2003	12/31/2004	Construction (mod.)
008	CCCT 4D with an unfired HRSG	1270009-007-AV	06/04/2003	12/31/2004	Revision
		1270009-008-AC	03/18/2003	12/31/2004	Construction (mod.)
		1270009-009-AC	09/04/2003	12/31/2004	Construction (mod.)
		1270009-010-AV	Pending[2]	12/31/2004	Revision

Repowered Unit 5					
009	Combined Cycle Combustion Turbine (CCCT) Generator 5A with an unfired Heat Recovery Steam Generator (HRSG)	1270009-007-AV	06/04/2003	12/31/2004	Revision
		1270009-008-AC	03/18/2003	12/31/2004	Construction (mod.)
		1270009-009-AC	09/04/2003	12/31/2004	Construction (mod.)
		1270009-010-AV	Pending[2]	12/31/2004	Revision
010	CCCT 5B with an unfired HRSG	1270009-007-AV	06/04/2003	12/31/2004	Revision
		1270009-008-AC	03/18/2003	12/31/2004	Construction (mod.)
		1270009-009-AC	09/04/2003	12/31/2004	Construction (mod.)
		1270009-010-AV	Pending[2]	12/31/2004	Revision
011	CCCT 5C with an unfired HRSG	1270009-007-AV	06/04/2003	12/31/2004	Revision
		1270009-008-AC	03/18/2003	12/31/2004	Construction (mod.)
		1270009-009-AC	09/04/2003	12/31/2004	Construction (mod.)
		1270009-010-AV	Pending[2]	12/31/2004	Revision
012	CCCT 5D with an unfired HRSG	1270009-007-AV	06/04/2003	12/31/2004	Revision
		1270009-008-AC	03/18/2003	12/31/2004	Construction (mod.)
		1270009-009-AC	09/04/2003	12/31/2004	Construction (mod.)
		1270009-010-AV	Pending[2]	12/31/2004	Revision

Notes:
[1] Project Type (select one): Title V: Initial, Revision, Renewal, or Admin. Correction; Construction (new or mod.); or, Extension (AC only).
[2] Change to an actual date, which is day 55 from the date of posting the PROPOSED Permit for EPA review (see confirmation e-mail from Tallahassee) or the date that EPA confirms resolvement of any objections.

RECEIVED
AUG 30 2002
BUREAU OF AIR REGULATION

Phase II Acid Rain Part Application

For more information, see instructions and refer to 40 CFR 72.30 and 72.31 and Chapter 62-214, F.A.C.

This submission is: ☐ New ☒ Revised

STEP 1
Identify the source by plant name, State, and ORIS code from NADB

Plant Name Sanford Plant State FL ORIS Code 000620

STEP 2 Enter the unit ID# for each affected unit and indicate whether a unit is being repowered and the repowering plan being renewed by entering "yes" or "no" at column c. For new units, enter the requested information in columns d and e.

a	b (Compliance Plan)	c (Compliance Plan)	d	e
Unit ID#	Unit will hold allowances in accordance with 40 CFR 72.9(c)(1)	Repowering Plan	New Units Commence Operation Date	New Units Monitor Certification Deadline
PSN3	Yes	N/A	N/A	N/A
PSNCT4A	Yes	N/A	12/16/2002	3/16/2003
PSNCT4B	Yes	N/A	12/23/2002	3/23/2002
PSNCT4C	Yes	N/A	12/30/2002	3/30/2003
PSNCT4D	Yes	N/A	1/06/2003	4/6/2003
PSNCT5A	Yes	N/A	2/21/2002	5/6/2002
PSNCT5B	Yes	N/A	2/25/2002	5/7/2002
PSNCT5C	Yes	N/A	3/4/2002	5/8/2002
PSNCT5D	Yes	N/A	3/11/2002	5/13/2002

STEP 3
Check the box if the response in column c of Step 2 is "Yes" for any unit

☐ For each unit that is being repowered, the Repowering Extension Plan form is included.

Plant Name (from Step 1)

Recordkeeping and Reporting Requirements (cont)

(iv) Copies of all documents used to complete an Acid Rain part application and any other submission under the Acid Rain Program or to demonstrate compliance with the requirements of the Acid Rain Program.

(2) The designated representative of an Acid Rain source and each Acid Rain unit at the source shall submit the reports and compliance certifications required under the Acid Rain Program, including those under 40 CFR part 72 subpart I and 40 CFR part 75.

Liability.

(1) Any person who knowingly violates any requirement or prohibition of the Acid Rain Program, a complete Acid Rain part application, an Acid Rain part, or an exemption under 40 CFR 72.7, 72.8 or 72.14, including any requirement for the payment of any penalty owed to the United States, shall be subject to enforcement pursuant to section 113(c) of the Act.
(2) Any person who knowingly makes a false, material statement in any record, submission, or report under the Acid Rain Program shall be subject to criminal enforcement pursuant to section 113(c) of the Act and 18 U S.C. 1001.
(3) No permit revision shall excuse any violation of the requirements of the Acid Rain Program that occurs prior to the date that the revision takes effect.
(4) Each Acid Rain source and each Acid Rain unit shall meet the requirements of the Acid Rain Program.
(5) Any provision of the Acid Rain Program that applies to an Acid Rain source (including a provision applicable to the designated representative of an Acid Rain source) shall also apply to the owners and operators of such source and of the Acid Rain units at the source.
(6) Any provision of the Acid Rain Program that applies to an Acid Rain unit (including a provision applicable to the designated representative of an Acid Rain unit) shall also apply to the owners and operators of such unit. Except as provided under 40 CFR 72.44 (Phase II repowering extension plans) and 40 CFR 76.11 (NO_X averaging plans), and except with regard to the requirements applicable to units with a common stack under 40 CFR part 75 (including 40 CFR 75.16, 75.17, and 75.18), the owners and operators and the designated representative of one Acid Rain unit shall not be liable for any violation by any other Acid Rain unit of which they are not owners or operators or the designated representative and that is located at a source of which they are not owners or operators or the designated representative.
(7) Each violation of a provision of 40 CFR parts 72, 73, 75, 76, 77, and 78 by an Acid Rain source or Acid Rain unit, or by an owner or operator or designated representative of such source or unit, shall be a separate violation of the Act.

Effect on Other Authorities. No provision of the Acid Rain Program, an Acid Rain part application, an Acid Rain part, or an exemption under 40 CFR 72.7, 72.8, or 72.14 shall be construed as:

(1) Except as expressly provided in title IV of the Act, exempting or excluding the owners and operators and, to the extent applicable, the designated representative of an Acid Rain source or Acid Rain unit from compliance with any other provision of the Act, including the provisions of title I of the Act relating to applicable National Ambient Air Quality Standards or State Implementation Plans;
(2) Limiting the number of allowances a unit can hold; *provided*, that the number of allowances held by the unit shall not affect the source's obligation to comply with any other provisions of the Act;
(3) Requiring a change of any kind in any State law regulating electric utility rates and charges, affecting any State law regarding such State regulation, or limiting such State regulation, including any prudence review requirements under such State law;
(4) Modifying the Federal Power Act or affecting the authority of the Federal Energy Regulatory Commission under the Federal Power Act; or,
(5) Interfering with or impairing any program for competitive bidding for power supply in a State in which such program is established.

Certification

I am authorized to make this submission on behalf of the owners and operators of the Acid Rain source or Acid Rain units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.

Name David W. Knutson	
Signature David W. Knutson	Date 8-26-02

Acid Rain Program
Instructions for
Phase II Acid Rain Part Application
(40 CFR 72.30 - 72.31 and Rule 62-214.320, F.A.C.)

The Acid Rain Program regulations require the designated representative to submit an Acid Rain part application for Phase II for each source with an Acid Rain unit. A complete Phase II part application is binding on the owners and operators of the Acid Rain source and is enforceable in the absence of an Acid Rain part until the permitting authority either issues an Acid Rain part to the source or disapproves the application.

Please type or print. The alternate designated representative may sign in lieu of the designated representative. If assistance is needed, contact the title V permitting authority.

STEP 1 Use the plant name and ORIS Code listed on the Certificate of Representation for the plant. An ORIS code is a 4 digit number assigned by the Energy Information Agency (EIA) at the U.S. Department of Energy to power plants owned by utilities. If the plant is not owned by a utility but has a 5 digit facility code (also assigned by EIA), use the facility code. If no code has been assigned or if there is uncertainty regarding what the code number is, contact EIA at (202) 426-1234 (for ORIS codes), or (202) 426-1269 (for facility codes).

STEP 2 For column "a," identify each Acid Rain unit at the Acid Rain source by providing the appropriate unit identification numbers, consistent with the unit identification numbers entered on the Certificate of Representation, with unit identification numbers listed in NADB (for units that commenced operation prior to 1993), and with unit identification numbers used in reporting to DOE and/or EIA. For new units without identification numbers, owners and operators may assign such numbers consistent with EIA and DOE requirements. NADB is the National Allowance Data Base for the Acid Rain Program, and can be downloaded from the Acid Rain Program Website at "www.epa.gov/acidrain/" or obtained on diskette by calling the Acid Rain Hotline. This data file is in dBase format for use on an IBM-compatible PC and requires 2 megabytes of hard drive memory.

For column "c," enter "yes" only if a repowering technology petition has been approved for the unit by U.S. EPA, an initial repowering extension plan was approved by the title V permitting authority and activated by the designated representative, and a repowering extension plan renewing the original repowering extension plan has been included with the current acid rain part application for that unit.

For columns "d" and "e," enter the commence operation date(s) and monitor certification deadline(s) for new units in accordance with 40 CFR 75.4. If the commence operation date or monitor certification date changes after the Phase II part is issued, the designated representative must submit a request for an administrative correction under Rule 62-214.370(6), F.A.C.

Submission Deadlines

For new units, an initial Phase II part application must be submitted to the title V permitting authority at least 24 months before the date the unit commences operation. Phase II acid rain renewal applications must be submitted at least 6 months in advance of the expiration of the acid rain portion of a title V permit, or such longer time as provided for under the title V permitting authority's operating permits regulation.

Submission Instructions

Submit this form and 1 copy to the appropriate title V air permitting authority. If you have questions regarding this form, contact your local, State, or EPA Regional acid rain contact, or call EPA's Acid Rain Hotline at (202) 564-9620.

conducted while soot blowing operations were being conducted.

5. The results of Petitioner's particulate emission compliance tests indicate that Sanford Unit Number 3 was in compliance with the applicable emission limiting standard for particulate matter from 1983 through 1991. [Exhibit 1]

CONCLUSIONS OF LAW

1. The Department has jurisdiction to consider Petitioner's request pursuant to Section 403.061, Florida Statutes (F.S.), and Rule 17-296.405(1)(a), F.A.C.

2. Pursuant to Rule 17-296.405(1)(a), F.A.C., the Department may reduce the required frequency of particulate matter compliance testing from quarterly to annual based upon a showing that the affected source has regularly complied with the emission limiting standard for particulate matter.

3. Pursuant to Rule 17-4.080, F.A.C., the petitioner may apply for changes to permit conditions and the Department may grant the request by requiring Petitioner to conform to new or additional requirements.

5. Pursuant to Rule 17-297.340(2), F.A.C., the Department may require the owner or operator of an air pollution source to conduct compliance testing whenever the Department has good reason to believe an applicable emission limiting standard is being violated.

6. Pursuant to Rules 17-4.070(3), 17-4.070(5), and 17-4.080(1), F.A.C., the Department may require Petitioner to return to the more frequent testing schedule in Rule 17-296.405(1)(a), F.A.C., if the emission limiting standard for particulate matter is not regularly complied with.

ORDER

Having considered Petitioner's written request and supporting documentation, it is hereby ordered that:

1. Petitioner's request for a reduction in the frequency of particulate matter compliance testing is granted;

2. During each federal fiscal year (October 1 - September 30), Petitioner shall conduct one steady-state particulate emission compliance test of Sanford Plant Unit Number 3 and one particulate emission compliance test of Sanford Plant Unit Number 3 while it is being operated under soot blowing conditions;

3. Visible emissions from Sanford Plant Unit No. 3 shall not exceed forty (40) percent opacity, except as allowed by Rule 17-210.700(3), F.A.C.;

5. The annual particulate compliance test frequency specified in this order shall supersede the quarterly particulate compliance testing frequency specified for Sanford Unit Number 3 in operation permit AO 64-131230;

6. Pursuant to Rule 17-297.340(2), F.A.C., the Department reserves the right to require particulate matter compliance testing whenever the Department has good reason to believe the emission limiting standard for particulate is being violated; and,

7. Pursuant to Rules 17-4.070(3), 17-4.070(5), and 17-4.080(1), F.A.C., the Department reserves the right to require Petitioner to return to the more frequent testing schedule in Rule 17-296.405(1)(a), F.A.C., if the emission limiting standard for particulate matter is not regularly complied with.

PETITION FOR ADMINISTRATIVE REVIEW

1. A person whose substantial interests are affected by the Department's decision may petition for an administrative proceeding (hearing) in accordance with Section 120.57, F.S. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, within 21 days of receipt of this Order. The petitioner shall mail a copy of the petition to the applicant at the time of filing. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, F.S.

2. The petition shall contain the following information:

(a) The name, address, and telephone number of each petitioner, the applicant's name and address, and the Department File Number;

(b) A statement of how and when each petitioner received notice of the Department's action or proposed action;

(c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action;

(d) A statement of the material facts disputed by each petitioner, if any;

(e) A statement of facts which each petitioner contends warrant reversal or modification of the Department's action or proposed action;

(f) A statement of which rules or statutes each petitioner contends require reversal or modification of the Department's action or proposed action; and,

(g) A statement of the relief sought by each petitioner, stating precisely the action petitioner wants the Department to take with respect to the Department's action or proposed action.

3. If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in this Order. Persons whose substantial interests will be affected by any decision of the Department with regard to the application have the right to petition to become a party to the proceeding. The petition must conform with the requirements specified above and be filed (received) within 21 days of receipt of this notice in the Office of General Counsel at 2600 Blair Stone Road, Tallahassee, Florida 32399-2400. Failure to petition within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, F.S., and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, F.A.C.

4. This Order constitutes final agency action unless a petition is filed in accordance with the above paragraphs or unless a request for extension of time in which to file a petition is filed within the time specified for filing a petition and conforms to Rule 17-103.070, F.A.C. Upon timely filing of a petition or a request for an extension of time this Order will not be effective until further Order of the Department.

RIGHT TO APPEAL

Any party to this Order has the right to seek judicial review of the Order 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 Office of General Counsel, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400; 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 days from the date the Notice of Agency Action is filed with the Clerk of the Department.

DONE AND ORDERED this 21st day of December, 1992 in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

for

CAROL M. BROWNER
Secretary
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

(904) 488-4805

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a true copy of the foregoing [illegible] has been mailed, postage prepaid, to Peter C. Cunningham, Esq., [illegible] Boyd Green and Sams, P. O. Box 6526, Tallahassee, Florida 32314, this 5th day of [illegible], ~~1992~~ 1993.

E. G. ESTEVEZ
Assistant General Counsel

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

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

Telephone (904) 488-9730

Appendix CP-1, Compliance Plan for Repowered Unit 5

Compliance Plan for Firing Distillate Oil Firing

Sanford Power Plant's combustion turbines, PSNCT5A thru PSNCT5D, are equipped with dual fuel combustors for firing natural gas and distillate fuel oil. Initial compliance has been demonstrated for natural gas firing, but not on distillate fuel oil firing. When firing fuel oil, the combustion turbine(s) will be operated according to the manufacturer's specifications for NO_X control. Water injection is used to control NO_X with the amount of water based on the manufacturer's requirements to achieve 42 ppmvd, corrected to 15 percent oxygen. The amount of water is automatically regulated by the manufacturer's control system. The following Compliance Plan, for initial compliance for distillate fuel oil firing, follows the requirements of air construction permits, 1270009-004-AC/PSD-FL-270 and 1270009-008-AC/PSD-FL-270(A).

- The Department's Central District, Air Section, will be notified of the actual date of initial operation using distillate fuel oil within 15 days of such date.
- Emission limiting standards for NO_X, CO, VOC, SO_2 and PM/Visibility, as identified in Specific Condition III.18., shall be demonstrated on each emissions unit within 60 days of achieving maximum production rate, when firing distillate fuel oil, but no later than 180 days of initial operation on distillate fuel oil.
- Initial performance tests for NO_X, CO, VOC, SO_2 and PM/Visibility, shall be conducted using the test methods identified in Specific Condition III.28.
- Compliance with SO_2 emission requirements will be demonstrated through fuel oil analyses (i.e., 0.05% sulfur content, by weight, or less), as identified in Specific Condition III.30.
- The Department's Central District, Air Section, shall be notified in writing at least 30 days prior to the initial performance tests.
- Performance test results shall be submitted to the Department's Central District, Air Section, no later than 45 days after the last test run.
- Continuous compliance for NO_X emissions, when firing distillate fuel oil, shall be demonstrated using continuous emission monitoring systems and based on a 24-hour block average, as described in Specific Condition III.29.

Appendix CP-2, Compliance Plan for Repowered Unit 5

Compliance Plan for High-Temperature Peaking Mode

Sanford Power Plant's combustion turbines, PSNCT5A thru PSNCT5D, are permitted to operate in the high-temperature peaking mode. Initial compliance has not been demonstrated when firing natural gas. The following Compliance Plan, for initial compliance for the high-temperature peaking mode, follows the requirements of air construction permit, 1270009-009-AC/PSD-FL-270(D).

- The Department's Central District, Air Section, will be notified of the actual performance test date at least 15 days before such date.
- 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.
- Testing for the emission limiting standards for NO_X and Visibility, as identified in Specific Condition III.50., shall be demonstrated on only one unit, and is considered representative of the other three CTs in Repowered Unit 5.
- The initial performance tests for NO_X and Visibility shall be conducted using the test methods identified in Specific Condition III.51.
- Performance test results shall be submitted to the Department's Central District, Air Section, no later than 45 days after the last test run.

Appendix CP-3, Compliance Plan for Repowered Unit 4

Compliance Plan for High-Temperature Peaking Mode

Sanford Power Plant's combustion turbines, PSNCT4A thru PSNCT4D, are permitted to operate in the high-temperature peaking mode. Initial compliance has not been demonstrated when firing natural gas. The following Compliance Plan, for initial compliance for the high-temperature peaking mode, follows the requirements of air construction permit, 1270009-009-AC/PSD-FL-270(D).

- The Department's Central District, Air Section, will be notified of the actual performance test date at least 15 days before such date.
- 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.
- Testing for the emission limiting standards for NO_X and Visibility, as identified in Specific Condition III.50., shall be demonstrated on only one unit, and is considered representative of the other three CTs in Repowered Unit 4.
- The initial performance tests for NO_X and Visibility shall be conducted using the test methods identified in Specific Condition III.51.
- Performance test results shall be submitted to the Department's Central District, Air Section, no later than 45 days after the last test run.

	Gas			Distillate		
Turbine Model	NOx (ppmvd)	CO (ppmvd)	Diluent	NOx (ppmvd)	CO (ppmd)	Diluent
MS3002(J)-RC	33	25	Dry	N/A	N/A	N/A
MS3002(J)-SC	42	50	Dry	N/A	N/A	N/A
MS5001P	25	50	Dry	65	20	Water
MS5001R	42	50	Dry	65	20	Water
MS5002C	42	50	Dry	65	20	Water
MS6001B	9	25	Dry	42	30	Water
MS7001B/E Conv.	25	25	Dry	42	30	Water
MS7001EA	9	25	Dry	42	30	Water
MS9001E	15	25	Dry	42	20	Water
	25	25	Dry	90	20	Dry
MS6001FA	25	15	Dry	42/65	20	Water/Steam
MS7001FA	25	15	Dry	42/65	20	Water/Steam
	9	9	Dry	42/65	30	Water/Steam
MS7001FB	25	15	Dry	42	20	Water
MS7001H	9	9	Dry	42/65	30	Water/Steam
MS9001EC	25	15	Dry	42/65	20	Water/Steam
MS9001FA	25	15	Dry	42/65	20	Water
MS9001FB	25	15	Dry	42	20	Water
MS9001H	25	15	Dry	42	20	Water

Figure 1. Dry Low NO_x product plan

machines, with the 7FA product as the flagship. As shown in *Figures 2 and 3*, most of these products are capable of power augmentation and of peak firing with increased NO_x emissions. With gas fuel, power augmentation with steam is in the premixed mode for both DLN-1 and DLN-2 systems.

Turbine Model	NO_x @15% O_2 (ppmvd)	Operating Mode	Diluent	Maximum Diluent/Fuel	NO_x at Max D/F (ppmvd)	CO Max D/F (ppmvd)
MS6001(B)	9	Premix	Steam	2.5/1	9	25
	25	Premix	Steam	2.5/1	25	15
MS7001(EA)	9	Premix	Steam	2.5/1	9	25
	25	Premix	Steam	2.5/1	25	15
MS7001(FA)	9	Premix	Steam	2.1/1	12	15

Figure 2. DLN power augmentation summary

	NO_x-Base (ppmvd)	NO_x-Peak (ppmvd)	CO-Base (ppmvd)	CO-Peak (ppmvd)
MS6001(B)	9	18	25	6
	25	50	15	4
MS7001(EA)	9	18	25	6
	25	50	15	4
MS7001(FA)	25	35	15	6
MS9001(E)	25	40	15	6

Figure 3. DLN peak firing emissions - natural gas fuel

The GE DLN systems integrate a staged premixed combustor, the gas turbine's SPEEDTRONIC™ controls and the fuel and associated systems. There are two principal measures of performance. The first is meeting the emission levels required at baseload on both gas and oil fuel and controlling the variation of these levels across the load range of the gas turbine.

The second measure is system operability, with emphasis placed on the smoothness and reliability of combustor mode changes, ability to load and unload the machine without restriction, capability to switch from one fuel to another and back again, and system response to rapid transients (e.g., generator breaker open events or rapid swings in load). GE's design goal is to make the DLN system operate so the gas turbine operator does not know whether a DLN or conventional combustion system has been installed (i.e., its operation is "transparent to the user"). A significant portion of the DLN design and development effort has focused on system operability. As operational experience

Florida Power & Light Company, P. O. Box 14000, Juno Beach, FL 33408-0420
700 Universe Boulevard

FPL

April 19, 2002

RECEIVED

AUG 25 2003

BUREAU OF AIR REGULATION

Mr. Lynn Haynes
Air and Radiation Technology Branch
Air, Pesticides and Toxics Management
USEPA Region IV
61 Forsyth Street, SW
Atlanta, GA 30303-8909

Re: **Florida Power & Light Company (FPL)**
Sanford Combined Cycle Plant
Notification of Performance / Emission Testing

Dear Mr. Haynes:

Pursuant to the requirements of 40 CFR Part 60 & 75, summarized below are the actual/expected dates of **Commercial Operation, Performance/Emission and Continuous Emission Monitor (CEM) Certification Testing** for the Sanford Combined Cycle Plant Re-powering Project. Also included, per the requirements of this Facility's Air Construction Permit, Section III, Item No. 9, Emission Unit(s) Specific Conditions, are Manufacturer's curves based on varying compressor inlet temperatures conditions.

Units	*Commercial Operation (Note 1)*	*Performance/ Emission Test*	*Opacity Observations*	*CEM Certification*
SNCT5A	February 21, 2002	April 26 – 28,2002	April 26 – 28, 2002	May 6, 2002
SNCT5B	February 25, 2002	April 21 – 23, 2002	April 21 – 23, 2002	May 7, 2002
SNCT5C	March 4, 2002	May 2 – 4, 2002	May 2 – 4, 2002	May 8, 2002
SNCT5D	March 11, 2002	May 8 – 10, 2002	May 8 – 10, 2002	May 13, 2002
40 CFR Part 60 & 75 Req.	75.61(a),(2),(i)	60.8 (d)	60.7(a)(6)& 60.11(b)	75.61(a)(1)(i) & 60.7(a)(5)

<u>Note # 1</u> – Commercial Operation is defined in 40 CFR 75 72.2, Subpart A as, "beginning to generate electricity for sale including the sale of test generation".

Pursuant to the requirements of 40 CFR 75.62(a), a complete **(CEM) Monitoring Plan, version 2.1**, for this re-powering project at the Sanford facility was transmitted to the Florida Department of Environmental Protection (FDEP) on December 7, 2001. An electronic copy was also forwarded to EPA at the following email address: **mp-reg4@epa.gov** per EPA instructions.

Please note that the dates provided above are subject to change. As the start-up activities occur, FPL will update EPA and FDEP if and when a different certification test date is required. Please also note that this notice is one of many notifications for the Sanford facility. Eight (8) combustion turbines (CT's) will be installed and commissioned in combined-cycle mode during February 2002 through December 2002.

If you should have any questions regarding this notification, please do not hesitate to contact me at (561) 691-2438 or Michael Szybinski at (561) 691-2898.

Very truly yours,

David W. Knutson

David W. Knutson
Designated Representative
Florida Power & Light Company

cc:

Joseph Kahn, P.E., Administrator - FDEP Division of Air Resource Management
Leonard T. Kozlov, Manager - FDEP Central Florida District
John B. Turner - FDEP Central District Office
Garry Kuberski – FDEP Central District Office
Roxane Kennedy – Plant General Manager
Ken Simmons – JES/FPL
Randy Hopkins – Plant Environmental Specialist
Mike Cooney – Project Construction
Augie de la Vega – PGD Emission Crew Supervisor
Bill Poppell – Construction Site Manager
Brian Hill – Black & Veatch
File

General Electric Model PG7241(FA) Gas Turbine

Estimated Performance - Configuration: DLN Combustor

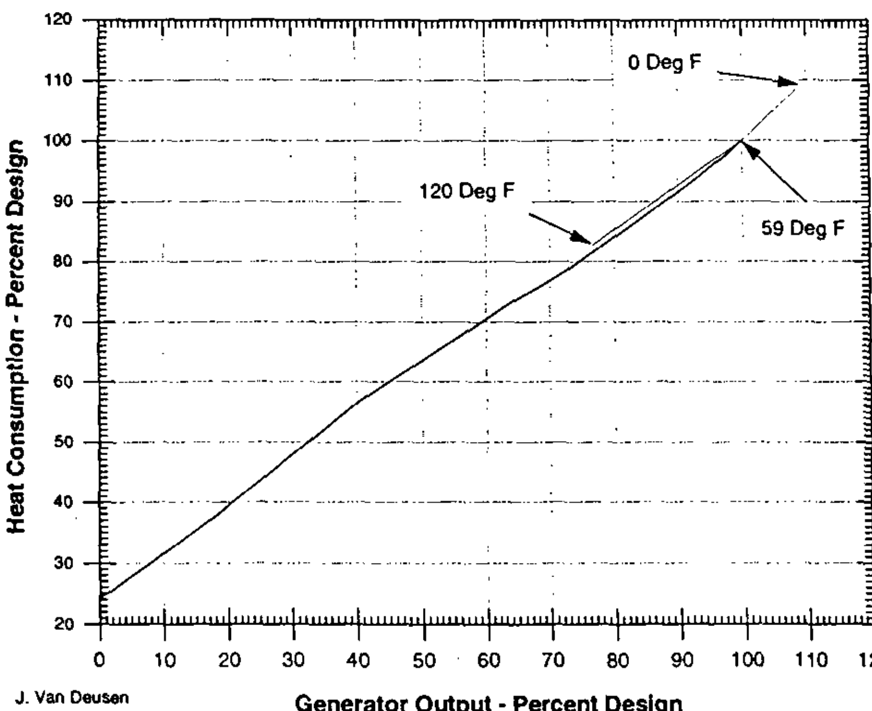
Compressor Inlet Conditions 59 F (15 C), 60% Relative Humidity
Atmospheric Pressure 14.7 psia (1.013 bar)

Fuel.			Natural Gas	
Design Output	kW		171700	
Design Heat Rate (LHV)	Btu/kWh	(kJ/kWh)	9360	(9870)
Design Heat Cons (LHV)	Btu/h	(kJ/h)x10^6	1607.1	(1695.2)
Design Exhaust Flow	lb/h	(kg/h)x10^3	3542.0	(1607)
Exhaust Temperature	deg. F	(deg. C)	1116	(602.2)
Load			Base	

Notes:

1. Altitude correction on curve 416HA662 Rev A.
2. Ambient temperature correction on curve 522HA852 Rev A.
3. Effect of modulating IGV's on exhaust temperature and flow on curve 522HA853 Rev A.
4. Humidity effects on curve 498HA697 Rev. B - all performance calculated with a constant specific humidtiy of .0064 or less as not to exceed 100% relative humidity.
5. Plant Performance is measured at the generator terminals and includes allowances for the effects of inlet bleed heating, exitation power, shaft driven auxiliaries, and 3.04 in H2O (6.33 mbar) inlet and 5.5 in H2O (13.70 mbar) exhaust pressure drops and a DLN Combustor.
6. Additional inlet and exhaust pressure loss effects:

	% Effect on Output	% Effect on Heat Rate	Effect on Exhaust Temp.
4 in Water (10.0 mbar) inlet	-1.54	0.56	3.0F (1.7C)
4 in Water (10.0 mbar) exhaust	-0.56	0.56	3.0F (1.7C)



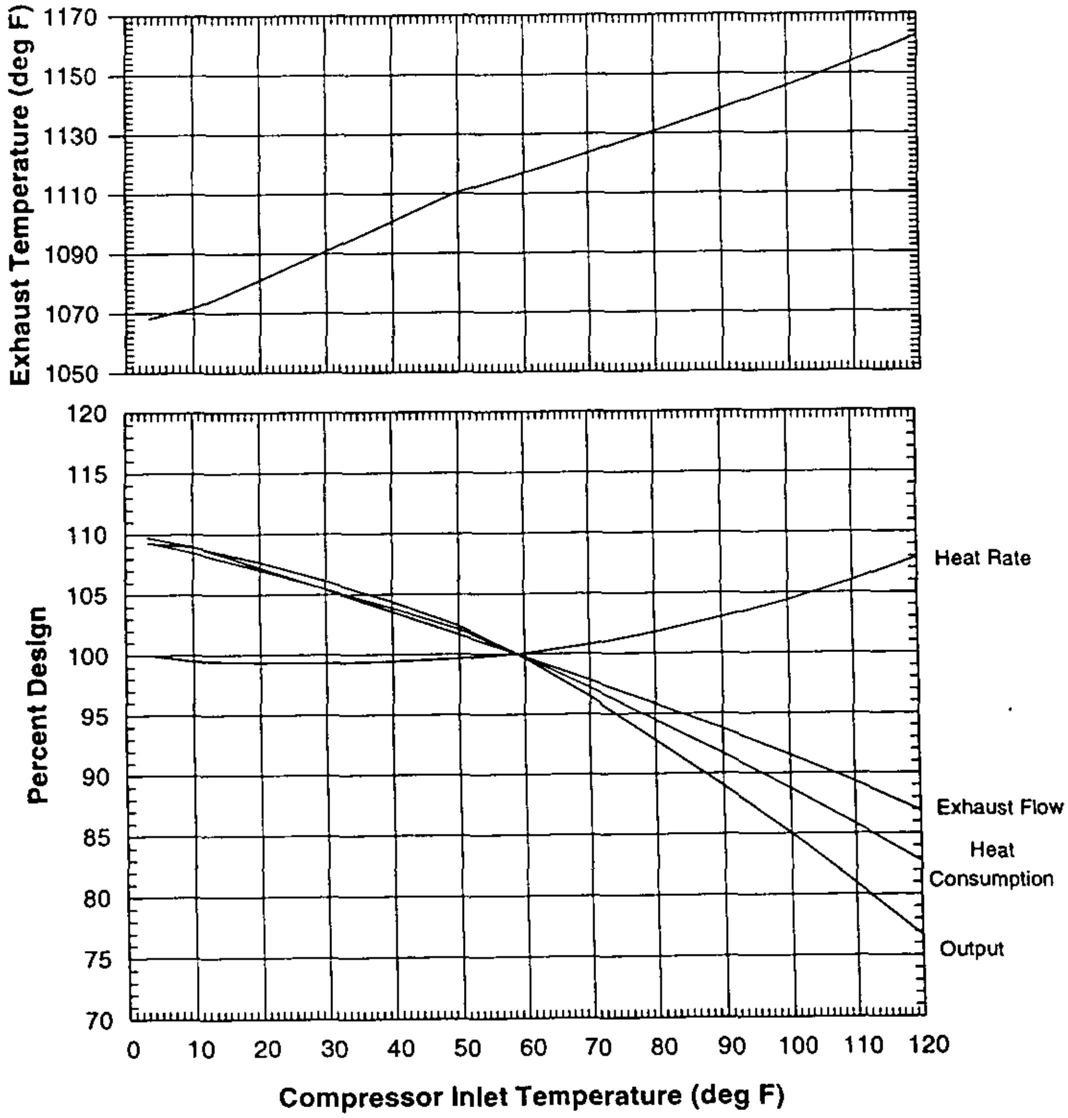
J. Van Deusen
4/17/98

522HA851
Rev - A

GENERAL ELECTRIC MODEL PG7241(FA) GAS TURBINE

**Effect of Compressor Inlet Temperature on
Output, Heat Rate, Heat Consumption, Exhaust Flow
And Exhaust Temperature at Baseload**

Fuel: Natural Gas
Design Values on Curve 522HA851 Rev A
DLN Combustor



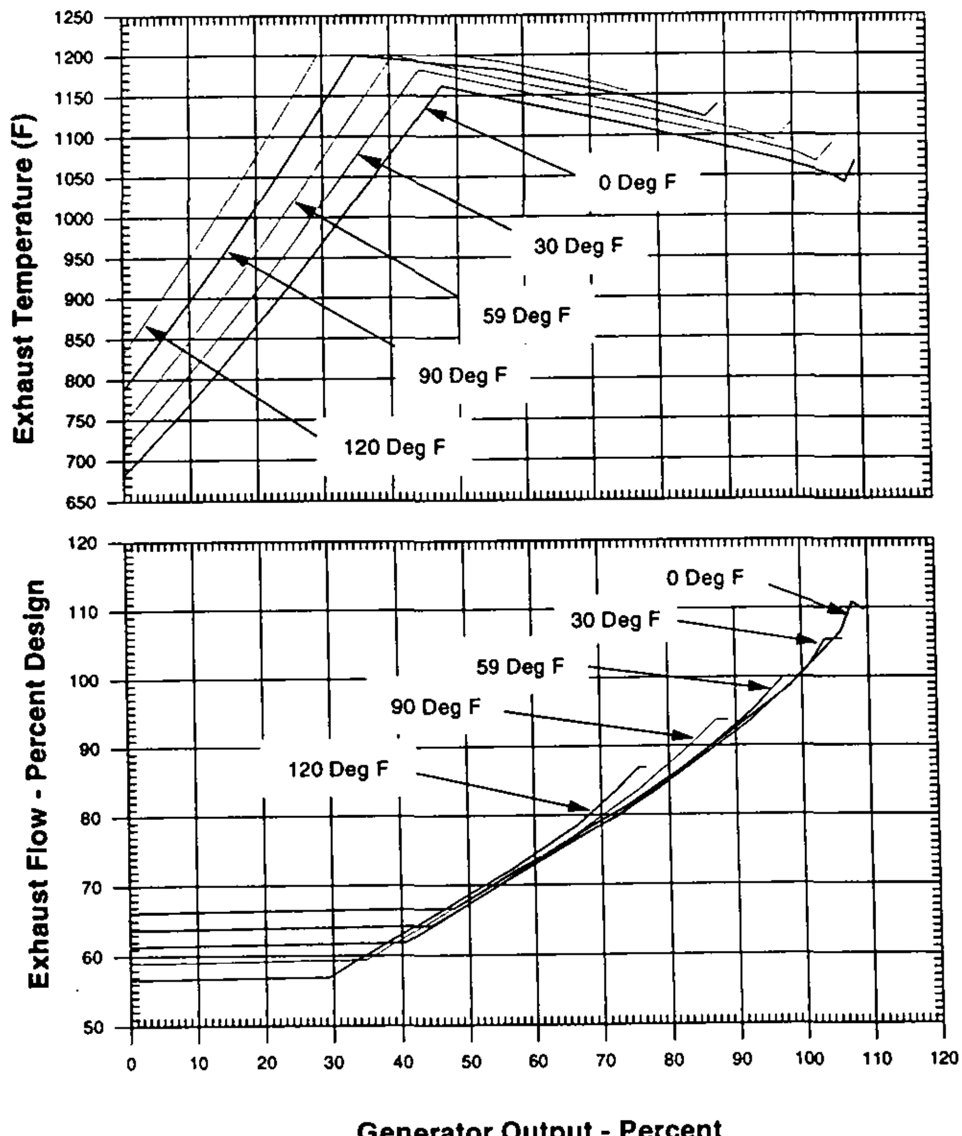
J. Van Deusen
4/17/98

522HA852
Rev - A

GENERAL ELECTRIC MODEL PG7241(FA) GAS TURBINE

Effect of Inlet Guide Vane on Exhaust Flow and Temperature
As a Function of Output and Compressor Inlet Temperature

Fuel: Natural Gas
Design Values on Curve 522HA851 Rev A
DLN Combustor



J. Van Deusen
4/17/98

522HA853
Rev - A

Florida Power & Light Company, P.O. Box 14000, Juno Beach, FL 33408-0420

FPL

RECEIVED
AUG 25 2003
BUREAU OF AIR REGULATION

March 19, 2003

Mr. Lynn Haynes
Air and Radiation Technology Branch
Air, Pesticides and Toxics Management
USEPA Region IV
61 Forsyth Street, SW
Atlanta, GA 30303-8909

Re: **Florida Power & Light Company (FPL)**
Sanford Unit 4 Combined Cycle Plant
Submission of Manufacturer's Curves

Dear Mr. Haynes:

Pursuant to the requirements of Sanford's Combined Cycle Re-powering Project Unit 4 Air Construction Permit, Section III, Item No. 9, Emission Unit(s) Specific Conditions, attached for your use are the General Electric's Model PG7241(FA) Gas Turbine Manufacturer's Curves based on varying compressor inlet temperatures conditions.

If you should have any questions regarding the attachments, please do not hesitate to contact me at (561) 691-2930 or Michael Szybinski at (561) 691-2898.

Very truly yours,

Nancy Kierspe

Nancy Kierspe
Designated Representative
Florida Power & Light Company

cc:

Errin Pichard - FDEP Division of Air Resource Management
Leonard T. Kozlov, Manager - FDEP Central Florida District
John B. Turner - FDEP Central District Office
Garry Kuberski – FDEP Central District Office
Roxane Kennedy – Plant General Manager
Ken Simmons – JES/FPL
Randy Hopkins – Plant Environmental Specialist
Augie de la Vega – PGD Emission Crew Supervisor
Tom Young – Construction Site Manager
Brian Hill – Black & Veatch
File

General Electric Model PG7241(FA) Gas Turbine

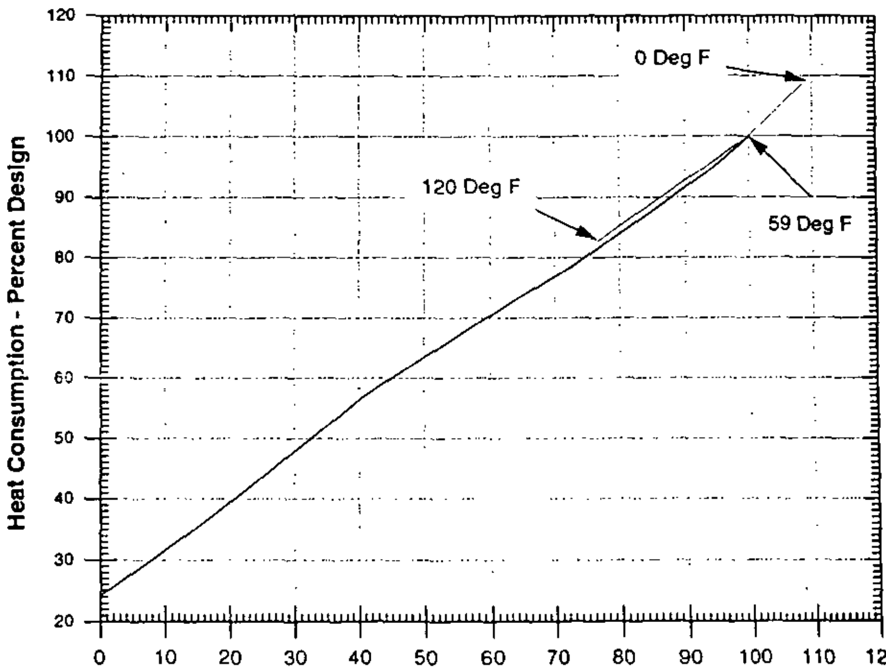
Estimated Performance - Configuration: DLN Combustor

Compressor Inlet Conditions 59 F (15 C), 60% Relative Humidity
Atmospheric Pressure 14.7 psia (1.013 bar)

Fuel.			Natural Gas
Design Output	kW		171700
Design Heat Rate (LHV)	Btu/kWh	(kJ/kWh)	9360 (9870)
Design Heat Cons (LHV)	Btu/h	(kJ/h)x10^6	1607.1 (1695 2)
Design Exhaust Flow	lb/h	(kg/h)x10^3	3542.0 (1607)
Exhaust Temperature	deg. F	(deg. C)	1116 (602.2)
Load			Base

Notes:
1. Altitude correction on curve 416HA662 Rev A.
2. Ambient temperature correction on curve 522HA852 Rev A.
3. Effect of modulating IGV's on exhaust temperature and flow on curve 522HA853 Rev A.
4. Humidity effects on curve 498HA697 Rev. B - all performance calculated with a constant specific humidiy of .0064 or less as not to exceed 100% relative humidity.
5. Plant Performance is measured at the generator terminals and includes allowances for the effects of inlet bleed heating, exitation power, shaft driven auxiliaries, and 3.04 in H2O (6.33 mbar) inlet and 5.5 in H2O (13 70 mbar) exhaust pressure drops and a DLN Combustor.
6. Additional inlet and exhaust pressure loss effects:

	% Effect on Output	% Effect on Heat Rate	Effect on Exhaust Temp.
4 in Water (10.0 mbar) inlet	-1.54	0.56	3.0F (1.7C)
4 in Water (10.0 mbar) exhaust	-0.56	0.56	3 0F (1.7C)



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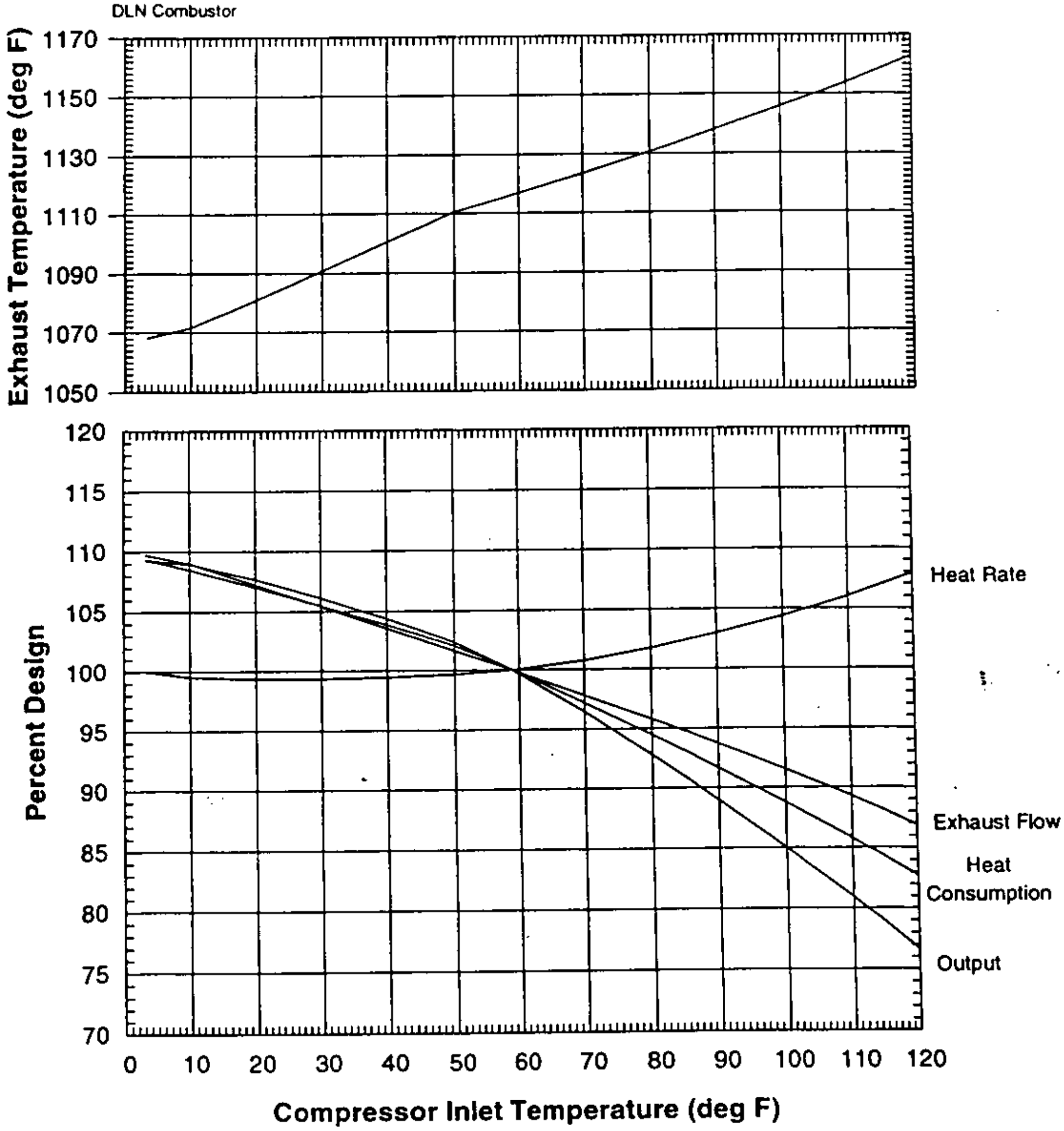
522HA851
Rev - A

GENERAL ELECTRIC MODEL PG7241(FA) GAS TURBINE

Effect of Compressor Inlet Temperature on Output, Heat Rate, Heat Consumption, Exhaust Flow And Exhaust Temperature at Baseload

Fuel: Natural Gas
Design Values on Curve 522HA851 Rev A
DLN Combustor



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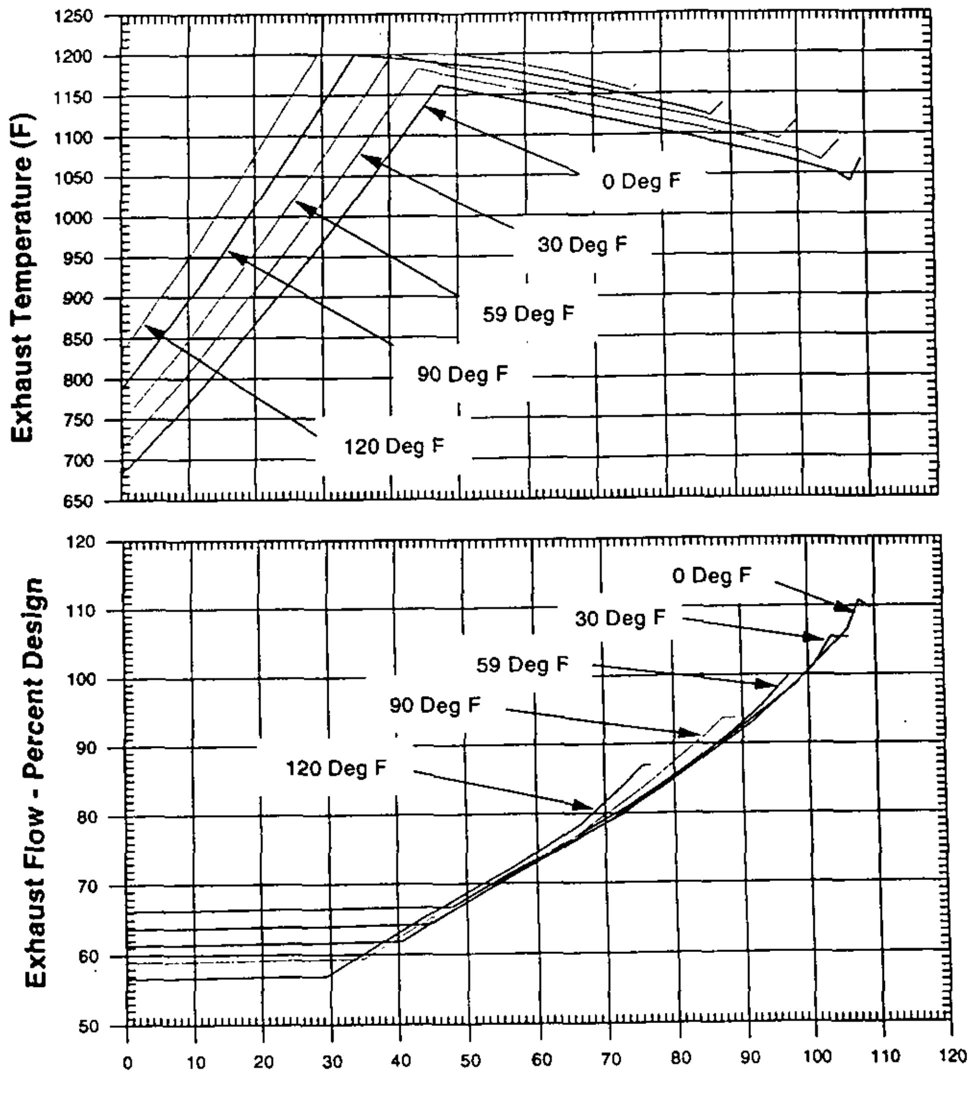
Rev - A

GENERAL ELECTRIC MODEL PG7241(FA) GAS TURBINE

Effect of Inlet Guide Vane on Exhaust Flow and Temperature
As a Function of Output and Compressor Inlet Temperature

Fuel: Natural Gas
Design Values on Curve 522HA851 Rev A
DLN Combustor



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522HA853
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