

NOTICE OF FINAL PERMIT

In the Matter of an
Application for Permit Revision:

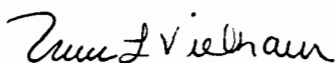
Mr. Wilson B. Hicks, Jr.
Plant Manager
Progress Energy Florida, Inc.
University of Florida Cogeneration Plant
Mowery Road, Building 82, University of Florida
Gainesville, Florida 32611

Permit Project No.: 0010001-005-AV
University of Florida Cogeneration Plant
Alachua County

Enclosed is the FINAL Title V Air Operation Permit Revision, No. 0010001-005-AV. This permit revision incorporates: 1) the terms and limitations for the operation of the new nominal 48 megawatts (MW) General Electric (GE) LM6000-PC-ESPRINT combustion turbine established in Air Construction Permit, No. 0010001-003-AC, which replaced the existing 43 MW GE LM6000-PA combustion turbine at the University of Florida Cogeneration Plant; 2) the changes established in Air Construction Permit, No. 0010001-004-AC, which allowed an increase in heat input to the combustion turbine; 3) the changes established in Air Construction Permit, No. 0010001-006-AC, which reduced the short-term allowable limits for CO and altered some compliance language associated with NO_x established in previously issued Air Construction Permits, Nos. 0010001-003-AC and 0010001-004-AC; and, 4) the correction of the emissions unit IDs based on ARMS data. The new model will utilize spray intercooling to maximize throughput, thus reducing supplemental firing in the duct burner for meeting steam and power requirements. This permit revision is issued pursuant to Chapter 403, Florida Statutes (F.S.). There were no comments received from Region 4, U.S. EPA, regarding the PROPOSED Permit.

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

Executed in Tallahassee, Florida.



Trina L. Vielhauer
Chief
Bureau of Air Regulation

CERTIFICATE OF SERVICE

Permit Project No.: 0010001-005-AV

The undersigned duly designated deputy agency clerk hereby certifies that this NOTICE OF FINAL PERMIT (including the FINAL Determination and the FINAL Permit) was sent by certified mail before the close of business on 1/5/04 to the person(s) listed or as otherwise noted:

Mr. Wilson B. Hicks, Jr., Plant Manager and R.O., Progress Energy Florida, Inc., University of Florida Cogeneration Plant

The undersigned duly designated deputy agency clerk hereby certifies that a copy of this NOTICE OF FINAL PERMIT was sent by e-mail before the close of business on 1/5/04 to the person(s) listed or as otherwise noted:

Mr. Scott Osbourn, P.E., ENSRI
Mr. Chris Kirts, FDEP Northeast District Office
Ms. Norma Castlen, FDEP Northeast District Branch Office
Mr. J. Michael Kennedy, Application Contact, PEFI
USEPA, Region 4

Clerk Stamp

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

Paula J. Sunday 1/5/04
(Clerk) (Date)

FINAL Determination

Progress Energy Florida, Inc.
University of Florida Cogeneration Plant

Title V Air Operation Permit Revision No.: 0010001-005-AV

I. Comments.

No comments were received from the U.S. EPA, Region 4, during their 45 day review period of the PROPOSED Permit.

II. Conclusion.

In conclusion, the permitting authority hereby issues the FINAL permit.

SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY
<ul style="list-style-type: none"> 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. 	A. Received by (Please Print Clearly) _____ B. Date of Delivery JAN - 7 2000
1. Article Addressed to: Wilson B. Hicks, Jr. Plant Manager Progress Energy Florida, Inc. W. of Florida Cogeneration Plant Mowrey Road, Bldg. 82, W. of F. Gainesville, Fla 32611	C. Signature Billy J. Davis <input type="checkbox"/> Agent <input type="checkbox"/> Addressee
2. Article Number: 7001 1140 0002 1577 9984	D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input type="checkbox"/> No
	3. Service Type <input checked="" type="checkbox"/> Certified Mail <input type="checkbox"/> Express Mail <input type="checkbox"/> Registered <input type="checkbox"/> Return Receipt for Merchandise <input type="checkbox"/> Insured Mail <input type="checkbox"/> C.O.D.
	4. Restricted Delivery? (Extra Fee) <input type="checkbox"/> Yes

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

U.S. Postal Service
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OFFICIAL USE

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Restricted Delivery Fee (Endorsement Required)		
Total Postage & Fees	\$	

Sent To
Wilson B. Hicks, Jr., Plant Mgr., W. of Cogen Plant
Street, Apt. No.;
 or PO Box No.
Mowrey Rd, Bldg 82, W of F
City, State, ZIP+4
Gainesville Fla 32611

PS Form 3800, January 2001 See Reverse for Instructions

7001 1140 0002 1577 9984

STATEMENT OF BASIS

Title V Air Operation Permit Revision
FINAL Permit Project No.: 0010001-005-AV

Progress Energy Florida, Inc.
University of Florida Cogeneration Plant
Alachua 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 incorporates 1) the terms and limitations for the operation of the new nominal 48 megawatts (MW) General Electric (GE) LM6000-PC-ESPRINT combustion turbine established in Air Construction Permit, No. 0010001-003-AC, which replaced the existing 43 MW GE LM6000-PA combustion turbine at the University of Florida Cogeneration Plant; 2) the changes established in Air Construction Permit, No. 0010001-004-AC, which allowed an increase in heat input to the combustion turbine; 3) the changes established in Air Construction Permit, No. 0010001-006-AC, which reduced the short-term allowable limits for CO and altered some compliance language associated with NO_x established in previously issued Air Construction Permits, Nos. 0010001-003-AC and 0010001-004-AC; and, 4) the correction of the emissions unit IDs based on ARMS data. The new model will utilize spray intercooling to maximize throughput, thus reducing supplemental firing in the duct burner for meeting steam and power requirements.

The existing combustion turbine's description and Specific Conditions were deleted and the subsection, Section III., Subsection A., is now designated as "**Reserved**".

The new GE LM6000-PC-ESPRINT combustion turbine (CT) has a nominal generator rating of 48 megawatts (MW) and a maximum heat input rating of 392 MMBtu/hr (LHV; 100% load; and, ambient conditions of 59°F temperature, 60% relative humidity, and 14.7 psia), while firing natural gas, and 384 MMBtu/hr (LHV; 100% load; and, ambient conditions of 59°F temperature, 60% relative humidity, and 14.7 psia), while firing No. 2 distillate fuel oil. The new CT will utilize spray intercooling to maximize throughput, thus reducing supplemental firing in the duct burner for meeting steam and power requirements. The NO_x emissions are controlled with steam injection. The CT and associated duct burner (DB) exhaust through the same HRSG and common stack. This emissions unit began commercial service in September 2002. See new Section III., Subsection E. for the description and Specific Conditions for the new combustion turbine.

This emissions unit is regulated under Acid Rain, Phase II; 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.; PSD-FL-181 dated August 17, 1992; PSD-FL-181(A); 0010001-003-AC; and, 0010001-004-AC. Commercial operation began on September 24, 2002.

The recent permitting actions also affected the following Specific Conditions (SCs) in other subsections:

1. **SC B.4.**: For clarity purposes, footnotes "5 and 6" were added.

FROM:

B.4. Pollutant and visible emissions from the DB shall not exceed the following allowable limits:

Pollutant	Fuel Type	Basis of Limit	DB Allowable Limits	
			lbs/hr	TPY
NO _x ¹	Natural Gas	0.1 lb/MMBtu	18.7 ³	24.6 ^{1,2}
CO	Natural Gas	BACT: 0.15 lb/MMBtu	28.1	36.9
Parameter	Fuel Type	DB Allowable Limit		
VE	Natural Gas	10% opacity ⁴		

¹ The NO_x limit was accepted by the applicant to escape PSD New Source Review.

² Any net increase in NO_x emissions of 0.3 TPY above the combined allowable limits of the CT and DB (174.6 TPY; and, see Specific Conditions A.5. and D.2.b.) will initiate preconstruction review requirements pursuant to Rule 62-212.400(5), F.A.C., for NO_x for the CT and DB as if construction of these emissions units had not yet begun.

³ 30-day rolling average, compliance timeframe. (See Specific Condition B.5.)

⁴ Since the CT and DB are in series, the opacity standard is applicable when the CT or the CT and DB are in operation, except when the CT is firing No. 2 distillate fuel oil, at which time the CT's opacity standard for fuel oil will be in effect. See Specific Condition A.5.

[PSD-FL-181; Rules 62-212.400(2)(g) & (5), F.A.C.; and, 0010001-003-AC]

TO:

B.4. Pollutant and visible emissions from the DB shall not exceed the following allowable limits:

Pollutant	Fuel Type	Limit	DB Allowable Limits	
			lbs/hr	TPY
NO _x ¹	Natural Gas	0.1 lb/MMBtu ^{5,6}	18.7 ³	24.6 ^{1,2}
CO	Natural Gas	0.15 lb/MMBtu	28.1	36.9
Parameter	Fuel Type	DB Allowable Limit		
VE	Natural Gas	10% opacity ⁴		

¹ The NO_x allowable limit was accepted by the applicant to escape PSD New Source Review.

² Any net increase in NO_x emissions of 0.3 TPY above the combined allowable limits of the CT and DB (174.6 TPY; and, see Specific Conditions E.6. and D.2.b.) will initiate preconstruction review requirements pursuant to Rule 62-212.400(5), F.A.C., for NO_x for the CT and DB as if construction of these emissions units had not yet begun.

³ 30-day rolling average, compliance timeframe. (See Specific Condition B.5.)

⁴ Since the CT and DB are in series, the opacity standard is applicable when the CT or the CT and DB are in operation, except when the CT is firing No. 2 distillate fuel oil, at which time the CT's opacity standard for fuel oil will be in effect. See Specific Condition E.6.

⁵ Allowable limit - performance testing using EPA Method 7E or EPA Method 20.

⁶ Compliance is demonstrated by using a NO_x CEMS. See Specific Condition E.44.

[PSD-FL-181; Rules 62-212.400(2)(g) & (5), F.A.C.; 0010001-003-AC; and, 0010001-006-AC]

2. **SC.B.18.** : This is a new SC.

B.18. Nitrogen Oxides. The performance test shall be determined in accordance with EPA Method 7E or EPA Method 20. Ongoing and annual compliance thereafter shall be determined by the existing NO_x CEM system using hourly heat input rates applied to actual operating hours according to the procedures outlined in this permit. The NO_x emissions limits include oxides of nitrogen consisting of both Nitric Oxide (NO) and Nitrogen Dioxide (NO₂). By convention, total NO_x on a mass basis is expressed as equivalent NO₂. NO_x concentration (ppm) is measured as NO by EPA stack sampling methods 7E and 20 and as NO₂ by the CEM analyzer. The NO_x concentration is converted to mass emissions by applying the molecular weight of NO₂ to the total flow rate.
 [40 CFR 60, Subpart GG; 0010001-001-AV; and, 0010001-003-AC]

3. **SC.D.1.**: There was a change in the method of operation.

FROM:

D.1. Fuel consumption rates and hours of operation for the combustion turbine (CT) and duct burner (DB) shall not exceed those listed below:

EU/Facility ID No.	Natural Gas			No. 2 Fuel Oil		
	M ft ³ /hr*	MMft ³ /yr	hrs/yr*	M gals/hr*	M gals/yr	hrs/yr*
CT/001	420.3	2997.2**	8146.8**	2.9	635.1	219.0 **
DB/002	197.7	519.5	2628.0	NA	NA	NA

* Based on maximum firing rates. Units may run at lower rates for more hours within annual fuel limits.

** An additional 1.9 hrs/yr operation on natural gas will be allowed for each 1.0 hr/yr that fuel oil is not burned (up to 219 x 1.9 hrs/yr), in which case, the emission limits in Specific Conditions A.5. and B.4. shall be adjusted accordingly.

[PSD-FL-181/PSD-FL-181(A)]

TO:

D.1. Hours of Operation, Fuel Usage Limitations and Compliance Demonstration. The CT and DB are allowed to operate continuously (i.e., 8760 hrs/yr) while firing NG. The CT is limited to firing No. 2 FO, at its maximum firing rate, for only 219 hrs/yr (the DB is not permitted to fire FO); and, the maximum NG usage by the DB is 519.5 million ft³/yr. Because compliance for NO_x emissions is by a CEMS (see Specific Condition E.44.), the CT and DB may operate individually or in combination provided 1) that NO_x emissions from the CT alone do not exceed 141 TPY for any calendar year; 2) that NO_x emissions from the CT/DB's combined operation do not exceed 174.6 TPY for any calendar year; and, 3) that the facility-wide NO_x emissions do not exceed 194.3 TPY for any calendar year.

EUs 002 and 003 (Boilers Nos. 4 and 5) are allowed to operate, as needed for backup, for only as long as the facility-wide NO_x cap of 194.3 TPY is not exceeded for any calendar year (see Facility-wide Condition No. 10). Emission factors pursuant to Specific Condition C.14. shall be applied to the fuel consumed by Boilers Nos. 4 and 5 to determine compliance with the facility cap. The permittee shall install and operate a continuous monitoring system to monitor and record fuel consumption as required by 40 CFR 60.334.

[Rules 62-212.400(2)(g) & (5), F.A.C.; 40 CFR 60, Subpart GG; PSD-FL-181/PSD-FL-181(A); 0010001-003-AC; 0010001-004-AC; and, 0010001-006-AC]

4. **SC D.2.b.**: There is a change in the SC references in the text. SC A.5. was changed to SC E.6.

Statement of Basis (cont.)

Progress Energy Florida, Inc.: University of Florida Cogeneration Plant

Title V Air Operation Permit Revision

FINAL Permit No.: 0010001-005-AV

Page 4 of 4

5. **SC D.4.**: This is a new SC.

D.4. Ongoing and annual compliance for EU 007, and EUs 007 and 005 firing simultaneously, shall be determined by the existing NO_x CEM system on a 30-day rolling average basis and reported as required by this permit, except for the following addition/revision: to verify compliance with the 141 TPY cap for EU 007 and facility-wide compliance with the 194.3 TPY cap for NO_x emissions, including EU 007 (CT), EU 005 (DB), and EUs 002 and 003 (Boilers Nos. 4 and 5, respectively), and to provide reasonable assurance that NO_x emissions will not be PSD-significant, CEM system records for EUs 007 and 005, along with cumulative fuel consumption records for EUs 002 and 003, shall be kept and maintained by the permittee. Total NO_x emissions for both calendar year caps shall be reported in the facility's annual operating report.

[PSD-FL-181; Rules 62-212.400(2)(g) & (5), F.A.C.; 0010001-003-AC; 0010001-004-AC; and, 0010001-006-AC]

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

Based on the initial Title V permit application received June 12, 1996, and revision application received December 13, 2002, this facility is not a major source of hazardous air pollutants (HAPs).

Progress Energy Florida, Inc.
University of Florida Cogeneration Plant
Facility I.D. No.: 0010001
Alachua County

Title V Air Operation Permit Revision
FINAL Permit No.: 0010001-005-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
Phone: (850)488-0114
Fax: (850)922-6979

Compliance Authority:

State of Florida
Department of Environmental Protection
Northeast District Branch Office
5700 Southwest 34th Street, Suite 1204
Gainesville, FL 32608
Telephone: 352/955-2095
Fax: 352/377-5671

Title V Air Operation Permit Revision

FINAL Permit No.: 0010001-005-AV

Table of Contents

<u>Section</u>	<u>Page Number(s)</u>
Placard Page	1
<u>I. Facility Information</u>	2
A. Facility Description.	
B. Summary of Emissions unit(s) with ID No(s).	
C. Relevant Documents	
<u>II. Facility-wide Conditions</u>	3 - 6
<u>III. Emissions Unit(s) and Conditions</u>	
A. Reserved.	7
B. Duct Burner (DB) with Heat Recovery Steam Generator (HRSG)	8 - 12
C. Steam Boilers No. 4 & No. 5	13 - 18
D. Common Conditions	19 - 20
E. Combustion Turbine (CT)	21 - 36
<u>IV. Acid Rain Part</u>	
A. Acid Rain, Phase II	37 - 38



Department of Environmental Protection

Jeb Bush
Governor

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

David B. Struhs
Secretary

Permittee:

Progress Energy Florida, Inc./U of F Cogeneration Plant
Mowry Road, Building 82
University of Florida
Gainesville, Florida 32611-2295

FINAL Permit No.: 0010001-005-AV

Facility ID No.: 0010001

SIC No.: 49, 4911

Project: Title V Air Operation Permit Revision

This permit revision incorporates: 1) the terms and limitations for the operation of the new nominal 48 megawatts (MW) General Electric (GE) LM6000-PC-ESPRINT combustion turbine established in air construction permit, No. 0010001-003-AC, which replaced the existing 43 MW GE LM6000-PA combustion turbine at the University of Florida Cogeneration Plant; 2) the changes established in air construction permit, No. 0010001-004-AC, which allowed an increase in heat input to the combustion turbine; 3) the changes established in air construction permit, No. 0010001-006-AC, which reduced the short-term allowable limits for CO and altered some compliance language associated with NO_x established in previously issued air construction permits, Nos. 0010001-003-AC and 0010001-004-AC; and, 4) the correction of the emissions unit IDs based on ARMS data. The new model will utilize spray intercooling to maximize throughput, thus reducing supplemental firing in the duct burner for meeting steam and power requirements. This facility is located on Mowry Road at Building 82, University of Florida, Gainesville, Alachua County. UTM Coordinates: Zone 17, 369.4 km East and 3279.3 km North; Latitude: 29° 38' 23" North and Longitude: 82° 20' 55" 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, 62-212, 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.

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)
Figure 1 - Summary Report - Gaseous and Opacity Excess Emission
and Monitoring System Performance Report (version dated 7/96)
EMISSION AND MONITORING SYSTEM PERFORMANCE REPORT (40 CFR 60; July, 1996)
Phase II Acid Rain Part Application received 02/10/03
Retired Unit Exemption received 02/10/03
GE Curves Corrected for Site Conditions

Effective Date: January 1, 2000

Revision Effective Date: December 19, 2003

Renewal Application Due Date: July 5, 2004

Expiration Date: December 31, 2004

Michael G. Cooke, Director
Division of Air Resource Management

"More Protection, Less Process"

Printed on recycled paper.

Section I. Facility Information.

Subsection A. Facility Description.

This facility consists of one new nominal 48 MW General Electric (GE) LM6000-PC-ESPRINT Combustion Turbine (CT; replaced the existing 43 MW GE LM6000-PA CT), one Duct Burner (DB) with a Heat Recovery Steam Generator (HRSG), and two Steam Boilers (No. 4 and No. 5). The new CT will utilize spray intercooling to maximize throughput, thus reducing supplemental firing in the duct burner for meeting steam and power requirements. Emissions from the CT and DB are vented through a common stack. The steam boilers, each having a separate exhaust stack, are used only as back-up sources. Also, included in this permit are miscellaneous insignificant emissions units and/or activities.

Based on the initial Title V permit application received June 14, 1996, and revision application received December 13, 2002, this facility is not a major source of Hazardous Air Pollutants (HAPs).

Subsection B. Summary of Emissions Unit(s) with ID No(s).

E.U. ID No.	Description
- 005	Duct Burner System with a HRSG
- 002	No. 4 Steam Boiler
- 003	No. 5 Steam Boiler
- 007	New GE LM6000-PC-ESPRINT Combustion Turbine

Please reference the Permit No., Facility ID No., and appropriate emissions unit(s) with their ID No(s). on all correspondence, test report submittals, applications, and 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/ID Number Changes

These documents are on file with the permitting authority:

Initial Title V Permit issued November 11, 1999, and effective January 1, 2000

Title V Permit Revision Application received December 13, 2002

Incompleteness letter sent January 30, 2003

Response letter from Mr. J. Michael Kennedy received February 10, 2003

Phase II Acid Rain Part Application, DEP Form No. 62-210.900(1)(a), F.A.C., received February 10, 2003

Retired Unit Exemption, DEP Form No. 62-210.900(1)(a)3., F.A.C., received February 10, 2003

Mr. William B. Hicks' letter with enclosure received March 12, 2003

Supplementary information received June 13, 2003

Letter with enclosures received from from Mr. Wilson B. Hicks on September 22, 2003

Section II. Facility-wide Conditions.

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 with only one 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, shall be used to determine compliance with this condition.

[Rules 62-296.320(4)(b)1. & 4., F.A.C.]

4. Prevention of Accidental Releases (Section 112(r) of the CAA). If required by 40 CFR 68, the permittee shall submit to the implementing agency:

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. The facility has none at this time.

[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 62-213.440(1), 62-213.430(6), and 62-4.040(1)(b), F.A.C.]

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

{Permitting Note.: **There are no requirements deemed necessary and ordered by the Department at this time.**}

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

8. Pursuant to Rules 62-296.320(4)(c)1., 3. & 4., F.A.C., reasonable precautions to prevent emissions of unconfined particulate matter at this facility include the following requirements (see Condition 57. of APPENDIX TV-4, TITLE V CONDITIONS):

The following requirements are not federally enforceable:

- a. Maintenance of paved areas as needed;
- b. Regular mowing of grass and care of vegetation;
- c. Limiting access to plant property by unnecessary vehicles; and,
- d. Additional or alternative activities may be utilized to minimize unconfined particulate emissions.

The following requirements are federally enforceable:

- e. Covering and/or application of water or chemicals to the affected areas, as necessary

[Rule 62-296.320(4)(c)2., F.A.C.; 0010001-001-AV; and, 0010001-003-AC]

9. The permittee shall submit all compliance related notifications and reports required of this permit to the Department's Northeast District Office and Branch Office:

Department of Environmental Protection
Northeast District Office
7825 Baymeadows Way, Suite 200-B
Jacksonville, FL 32256-7590
Telephone: 904/448-4300
Fax: 904/448-4363

and

Department of Environmental Protection
Northeast District Branch Office
5700 Southwest 34th Street, Suite 1204
Gainesville, FL 32608
Telephone: 352/955-2095
Fax: 352/377-5671

Emission Limitations

10. The total NO_x emissions from the entire facility (i.e., CT, DB, Boiler #4 and Boiler #5) shall not exceed 194.3 TPY. See Facility-wide Condition No. 11.

[Rule 62-212.400(2)(g), F.A.C.; and, AC 01-204652/PSD-FL-181/PSD-FL-181(A)]

Potential to Emit

11. Pursuant to PSD-FL-181, the permittee requested and received a 39.7 TPY net increase in NO_x emissions. Therefore, any net increase in NO_x emissions of 0.3 TPY above the allowable limitation established in Facility-wide Condition No. 10 will initiate preconstruction review requirements pursuant to Rule 62-212.400(5), F.A.C., for NO_x for the CT and DB as if construction of these emissions units had not yet begun. See Facility-wide Condition No. 10.

[Rules 62-212.400(2)(g) and 62-212.400(5), F.A.C.]

12. Based on the comment letter received August 13, 1997, Boilers Nos. 1, 2, and 3 have been retired.
[Comment letter dated August 8, 1997; and, PSD-FL-181]

Monitoring of Operations

13. The permittee shall maintain the required fuel use records and include the total NO_x emission calculation in each annual operating report; and, the records shall be retained for a **five** year period.

[Rule 62-213.440, F.A.C.; Rule 62-212.400(2)(g), F.A.C.; and, AC 01-204652/PSD-FL-181/PSD-FL-181(A)]

Miscellaneous

14. 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.]

15. 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 32303
Telephone: 404/562-9155
Fax: 404/562-9163

16. 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).}

17. 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 RO 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.]

18. 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, 0010001-003-AC]

Progress Energy Florida, Inc.
University of Florida Cogeneration Plant
Page 7

FINAL Permit No.: 0010001-005-AV
Facility ID No.: 0010001

Section III. Emissions Unit(s) & Conditions.

Subsection A. Reserved.

Subsection B. This section addresses the following emissions unit.

E.U. ID No.	Brief Description
-005	Duct Burner System associated with a HRSG

The Duct Burner (DB) can only fire natural gas and can only be operated while the CT is being operated. Low-NO_x burners have been installed to control NO_x emissions. The DB has a maximum heat input rate of 188 MMBtu/hr (LHV; 100% load; and, ambient conditions of 59°F temperature, 60% relative humidity, and 14.7 psia). The DB and CT exhaust through an associated HRSG and common stack. This emissions unit began commercial service in 1994.

{Permitting Note: This emissions unit is regulated under 40 CFR 60, Subpart Db, Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units, adopted and incorporated by reference in Rule 62-204.800(7), F.A.C.; PSD-FL-181 dated August 17, 1992; PSD-FL-181(A); 0010001-003-AC; 0010001-004-AC; and, 0010001-006-AC.}

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

Essential Potential to Emit (PTE) Parameters

B.1. Permitted Capacity. The maximum heat input from the DB shall not exceed 188 MMBtu/hour (LHV; 100% load; and, ambient conditions of 59°F temperature, 60% relative humidity, and 14.7 psia). No fuel oil is permitted to be fired.

{Permitting Note: The heat input limitation has been placed in the permit to identify the capacity of the emissions unit for purposes of confirming that emissions testing is conducted within 90-100 percent of the emissions unit's rated capacity (or to limit future operation to 110 percent of the test load), to establish appropriate 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 emissions unit was tested.}

[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.; AC 01-204652/PSD-FL-181/PSD-FL-181(A); and, 0010001-003-AC]

B.2. Methods of Operation - Fuel. Only natural gas shall be fired in this emissions unit. The maximum fuel consumption for natural gas is specified in Specific Condition **D.1**.
[AC 01-204652/PSD-FL-181/PSD-FL-181(A)]

B.3. Hours of Operation. The maximum hours of operation are specified in Specific Condition **D.1**.
[AC 01-204652/PSD-FL-181/PSD-FL-181(A)]

Emission Limitations and Standards

B.4. Pollutant and visible emissions from the DB shall not exceed the following allowable limits:

		DB Allowable Limits		
Pollutant	Fuel Type	Limit	lbs/hr	TPY
NO _x ¹	Natural Gas	0.1 lb/MMBtu ^{5, 6}	18.7 ³	24.6 ^{1, 2}
CO	Natural Gas	0.15 lb/MMBtu	28.1	36.9
Parameter	Fuel Type	DB Allowable Limit		
VE	Natural Gas	10% opacity ⁴		

- ¹ The NO_x allowable limit was accepted by the applicant to escape PSD New Source Review.
- ² Any net increase in NO_x emissions of 0.3 TPY above the combined allowable limits of the CT and DB (174.6 TPY; and, see Specific Conditions E.6. and D.2.b.) will initiate preconstruction review requirements pursuant to Rule 62-212.400(5), F.A.C., for NO_x for the CT and DB as if construction of these emissions units had not yet begun.
- ³ 30-day rolling average, compliance timeframe. (See Specific Condition B.5.)
- ⁴ Since the CT and DB are in series, the opacity standard is applicable when the CT or the CT and DB are in operation, except when the CT is firing No. 2 distillate fuel oil, at which time the CT's opacity standard for fuel oil will be in effect. See Specific Condition E.6.
- ⁵ Allowable limit - performance testing using EPA Method 7E or EPA Method 20.
- ⁶ Compliance is demonstrated using a NO_x CEMS. See Specific Condition E.44.

[PSD-FL-181; Rules 62-212.400(2)(g) & (5), F.A.C.; 0010001-003-AC; and, 0010001-006-AC]

B.5. Since the initial performance tests have been conducted, the permittee has elected to demonstrate compliance with the allowable NO_x emissions limits using a continuous emissions monitor system (CEMS). Since the CT and DB are in series, the allowable emissions for both emissions units shall be combined for ongoing compliance demonstration purposes. For the purpose on demonstrating ongoing compliance with the applicable combined emissions limits for both the CT and DB, using the stack CEMS, compliance is considered to occur when the NO_x emissions are less than or equal to (1) 39.6 lbs/hr or 66.3 lbs/hr when only the CT is operating and firing natural gas or No. 2 distillate fuel oil, respectively; (2) 58.3 lbs/hr when both the CT and DB are operating and firing natural gas; or, (3) 85.0 lbs/hr when both the CT and DB are operating and the CT is firing No. 2 distillate fuel oil and the DB is firing natural gas. The daily rolling average compliance value shall be calculated based on the proportion of hours operated in a day (midnight to midnight) that the CT or both the CT and DB are operating. Any portion of an hour that the DB operates shall be recognized as an hour-period on the daily operation. For example, in a given daily timeframe, with 20 hours of CT operation only while firing natural gas and 4 hours of CT/DB operation while firing natural gas:

$$\begin{aligned} &\text{Calculated Daily NO}_x \text{ Emissions Value} = \\ &[(39.6 \text{ lbs/hr} \times 20 \text{ hrs}) + (58.3 \text{ lbs/hr} \times 4 \text{ hrs})] / 24 \text{ hrs} = \\ &42.72 \text{ lbs/hr daily NO}_x \text{ emissions value} \end{aligned}$$

For the 30-day rolling average, this daily calculated emissions value will then be added to the previous 29-day period of daily calculated emission values and divided by 30 (days) to establish the 30-day average emissions value for comparing to the CEMS data over the same 30-day period.

$$\begin{aligned} &\text{Calculated 30-Day Average NO}_x \text{ Emissions Value} = \\ &[42.72 \text{ lbs/day} + \text{"previous 29-daily emission values (lbs/day) summation"}] / 30\text{-days} = \\ &\# \text{ lbs/30-day average NO}_x \text{ emissions value} \end{aligned}$$

Compliance with the permitted NO_x emission limitation is considered satisfied as long as the NO_x emissions value from the stack CEMS is less than or equal to the calculated NO_x emissions value, averaged over the same 30-day period.

[40 CFR 60.44b(a)(4) & (i); Rule 62-212.400(2)(g), F.A.C.; and, AC 01-204652/PSD-FL-181/PSD-FL-181(A)]

B.6. Particulate Matter. Particulate matter emissions shall be controlled by the firing of natural gas.
[Rule 62-296.406(2), F.A.C., BACT; and, AC 01-204652/PSD-FL-181/PSD-FL-181(A)]

B.7. Sulfur Dioxide. Sulfur dioxide emissions shall be controlled by the firing of natural gas.
[Rule 62-296.406(3), F.A.C., BACT; and, AC 01-204652/PSD-FL-181/PSD-FL-181(A)]

Excess Emissions

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

B.8. The NO_x emission limits established by this permit apply at all times, including periods of startup, shutdown and malfunctions.
[40 CFR 60.44b(h) and 40 CFR 60.46b(a)]

Test Methods and Procedures

B.9. The test method for visible emissions (VE) shall be EPA Method 9, incorporated and adopted by reference in Rule 62-204.800, F.A.C., and referenced in Chapter 62-297, F.A.C.
[Rules 62-204.800, 62-296.320(4)(b)4.a. and 62-297.401, F.A.C.]

B.10. The permittee shall comply with the stack sampling requirements contained in Appendix SS-1, Stack Sampling Facilities (attached).
[Rule 62-297.310(6), F.A.C.]

B.11. Monitoring of the DB shall be as described in Specific Conditions **E.7.**, **E.27.**, **B.5.** and **B.12.**
[40 CFR 60.46b(f); and, Applicant requested]

Recordkeeping and Reporting Requirements

B.12. NO_x combined emissions from the CT and DB shall be demonstrated on a 30-day rolling average using a CEMS. See Specific Conditions **E.6.**, **E.7.**, **B.4.**, **B.5.**, **B.11.** and **B.14.**
[40 CFR 60.44b(i)]

B.13. The owner or operator of an affected facility shall record and maintain records of the amounts of natural gas fired during each day and calculate the annual capacity factor for natural gas for each calendar quarter. The annual capacity factor is determined on a 12-month rolling average basis with a new annual capacity factor calculated at the end of each calendar month.

[40 CFR 60.49b(d)]

B.14. For facilities subject to nitrogen oxides standards under 40 CFR 60.44b, the owner or operator shall maintain records of the following information for each steam generating unit operating day:

(1) Calendar date.

(2) The average hourly nitrogen oxides emission rates (nanograms per joule or pounds per million Btu heat input) measured or predicted.

(3) The 30-day average nitrogen oxides emission rates nanograms per joule or lb./million Btu heat input) calculated at the end of each steam generating unit operating day from the measured or predicted hourly nitrogen oxide emission rates for the preceding 30 steam generating unit operating days.

(4) Identification of the steam generating unit operating days when the calculated 30-day average nitrogen oxides emission rates are in excess of the nitrogen oxides emissions standards under 40 CFR 60.44b, with the reasons for such excess emissions as well as a description of corrective actions taken.

(5) Identification of the steam generating unit operating days for which pollutant data have not been obtained, including reasons for not obtaining sufficient data and a description of the corrective actions taken.

(6) Identification of the times when emission data have been excluded from the calculation of average emission rates and the reasons for excluding data.

(7) Identification of "F" factor used for calculations, method of determination, and type of fuel combusted.

[40 CFR 60.49b(g)(1) thru (7)]

B.15. All records required under this section shall be maintained by the owner or operator of the affected facility for a period of **five** years following the date of such record.

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

Miscellaneous

B.16. Annual NO_x Compliance Demonstration for the CT and DB. For purposes of demonstrating compliance with the annual limits, the NO_x emission rate (lbs/MMBtu) from the CT and DB shall be calculated using the NO_x analyzer data and equation F-5 from 40 CFR 75, Appendix F. Hourly heat input rates (MMBtu/hr) shall be used to convert lbs/MMBtu of NO_x to lbs/hr of NO_x and actual operating hours shall be used to obtain tons per year.

[AC 01-204652/PSD-FL-181(A)]

B.17. Carbon Monoxide. EPA Method 10 shall be used to demonstrate compliance in accordance with Chapter 62-297, F.A.C., and 40 CFR 60, Appendix A.

[PSD-FL-181]

B.18. Nitrogen Oxides. The performance test shall be determined in accordance with EPA Method 7E or EPA Method 20. Ongoing and annual compliance thereafter shall be determined by the existing NO_x CEM system using hourly heat input rates applied to actual operating hours according to the procedures outlined in this permit. The NO_x emissions limits include oxides of nitrogen consisting of both Nitric Oxide (NO) and Nitrogen Dioxide (NO₂). By convention, total NO_x on a mass basis is expressed as equivalent NO₂. NO_x concentration (ppm) is measured as NO by EPA stack sampling methods 7E and 20 and as NO₂ by the CEM analyzer. The NO_x concentration is converted to mass emissions by applying the molecular weight of NO₂ to the total flow rate. [40 CFR 60, Subpart GG; 0010001-001-AV; and, 0010001-003-AC]

Subsection C. This section addresses the following emissions units.

E.U. ID No.	Brief Description
-002	No. 4 Steam Boiler
-003	No. 5 Steam Boiler

The maximum heat input rate for the No. 4 steam boiler is 69.6 MMBtu/hr. The maximum heat input is based on permitted firing limits of 68,000 cf of natural gas per hour and 444 gallons per hour of No. 2 fuel oil. The maximum heat input rate for the No. 5 steam boiler is 168 MMBtu/hr. The maximum heat input is based on permit firing limits of 164,000 cf of natural gas per hour and 1,067 gallons per hour of No. 2 fuel oil. The emission units began commercial service in 1976.

{Permitting Note(s): The emissions units are regulated under Rule 62-296.406, F.A.C., Fossil Fuel Steam Generators with Less than 250 MMBtu per Hour Heat Input.}

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

Essential Potential to Emit (PTE) Parameters

C.1. Permitted Capacity. The maximum operation heat input rate for the boilers are as follows:

EU ID/Facility ID Nos.	Fuel Type	MMBtu/hr Heat Input
-002/Boiler 4	No. 2 Fuel Oil	69.6
	Natural Gas	69.6
-003/Boiler 5	No. 2 Fuel Oil	168
	Natural Gas	168

{Permitting Note: The heat input limitation has been placed in the permit to identify the capacity of the emissions unit for purposes of confirming that emissions testing is conducted within 90-100 percent of the emissions unit's rated capacity (or to limit future operation to 110 percent of the test load), to establish appropriate limits and to aid in determining future rule applicability. Regular record keeping 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 emissions unit was tested.}

[Rules 62-4.160(2), 62-210.200(PTE) and 62-296.406, F.A.C.]

C.2. Emissions Unit Operating Rate Limitation After Testing. See Specific Condition C.17.

[Rule 62-297.310(2), F.A.C.]

C.3. Methods of Operation.

- a. The only fuels allowed to be burned are No. 2 distillate fuel oil and natural gas.
- b. The boilers may be operated as necessary for backup to the CT and DB.

[Rule 62-213.410, F.A.C.; and, AC 01-204652/PSD-FL-181/PSD-FL-181(A)]

C.4. Hours of Operation. The boilers may be operated as necessary for backup to the CT and DB, and as long as the total nitrogen oxides emissions from this permitted facility does not exceed 194.3 tons per year. See Facility-wide Condition No. 10.

[AC 01-204652/PSD-FL-181/PSD-FL-181(A); and, Rule 62-212.400(2)(g), F.A.C.]

Emission Limitations and Standards

C.5. Visible Emissions. Visible emissions shall not exceed 10 percent opacity and 20 percent opacity when firing natural gas and No. 2 fuel oil, respectively. An opacity of 27 percent or less for one six-minute period per hour shall be allowed when firing No. 2 fuel oil.

[Rule 62-296.406(1), F.A.C.; and, AC 01-204652/PSD-FL-181/PSD-FL-181(A)]

C.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.

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.

[Rule 62-210.700(3), F.A.C.]

C.7. Particulate Matter. Particulate matter emissions shall be controlled by the firing of natural gas and/or low sulfur content No. 2 fuel oil.

[Rule 62-296.406(2), F.A.C., BACT; and, AC 01-204652/PSD-FL-181/PSD-FL-181(A)]

C.8. Sulfur Dioxide. Sulfur dioxide emissions shall be controlled by firing natural gas and No. 2 fuel oil with a sulfur content that shall not exceed 0.5 percent, by weight. See Specific Condition C.16.

[Rule 62-296.406(3), F.A.C., BACT; and, AC 01-204652/PSD-FL-181/PSD-FL-181(A)]

Excess Emissions

C.9. Excess emissions resulting from malfunction of any emissions unit shall be permitted providing (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.]

C.10. Excess emissions resulting 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.]

C.11. 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

C.12. 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.]

Test Methods and Procedures

C.13. Visible emissions. The test method for visible emissions shall be EPA Method 9, incorporated in Chapter 62-297, F.A.C.

[Rules 62-213.440 and 62-297.401, F.A.C.]

C.14. Nitrogen Oxides. In order to establish a "lbs/hr" or "lbs/MMBtu" emissions factor for nitrogen oxides for each boiler and for each fuel type fired, one-time performance tests shall be conducted on each boiler using EPA Method 20 or 7E in accordance with Rule 62-297.401, F.A.C., firing natural gas and then firing No. 2 fuel oil, or vice versa. This emissions factor per fuel type shall then be used in conjunction with the actual hours operated or total heat input in the previous year per fuel type to assess the nitrogen oxides contribution toward the facility cap of 194.3 TPY. See Specific Conditions C.4. and C.19. and Facility-wide Condition No. 10.

[Rules 62-210.200(PTE), 62-212.400(2)(g), 62-213.440, 62-297.310(7) and 62-297.401, F.A.C.]

C.15. Sulfur Dioxide - Sulfur Content. The sulfur content of the No. 2 fuel oil shall not exceed 0.5 %, by weight. The permittee shall demonstrate compliance with the liquid fuel sulfur limit by the vendor providing a fuel analysis upon each fuel delivery. See Specific Conditions C.8. and C.16.

[Rules 62-213.440, F.A.C.; Rule 62-296.406(3), F.A.C., BACT; and, applicant requested]

C.16. The fuel sulfur content, percent by weight, for liquid fuels shall be evaluated using either ASTM D2622-92, ASTM D4294-90, both ASTM D4057-88 and ASTM D129-91, or the latest edition(s).

[Rules 62-213.440, 62-296.406(3) and 62-297.440, F.A.C.]

C.17. Operating Rate During Testing. Testing of emissions shall be conducted with the 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.]

C.18. Applicable Test Procedures.

(a) Required Sampling Time.

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.

[Rule 62-297.310(4)(a)2.c., F.A.C.]

C.19. 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.

2. 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.

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 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; 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.

9. 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., shall apply.
[Rule 62-297.310(7), F.A.C.; and, SIP approved]

C.20. 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.]

Recordkeeping and Reporting Requirements

C.21. In the case of excess emissions resulting from malfunctions, each owner or operator shall notify the Department's Northeast District office or the Northeast District Branch office in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Department's Northeast District office or Northeast District Branch office.

[Rule 62-210.700(6), F.A.C.]

C.22. All recorded data shall be maintained on file by the owner or operator for a period of **five** years.

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

C.23. 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 or the Northeast District office or the Northeast District Branch office on the results of each such test.

(b) The required test report shall be filed with the Department or the Northeast District office or the Northeast District Branch office 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.]

Subsection D. Common Conditions: Combustion Turbine, Duct Burner, and Boilers Nos. 4 and 5

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

Essential Potential to Emit (PTE) Parameters

D.1. Hours of Operation, Fuel Usage Limitations and Compliance Demonstration. The CT and DB are allowed to operate continuously (i.e., 8760 hrs/yr) while firing NG. The CT is limited to firing No. 2 FO, at its maximum firing rate, for only 219 hrs/yr (the DB is not permitted to fire FO); and, the maximum NG usage by the DB is 519.5 million ft³/yr. Because compliance for NO_x emissions is by a CEMS (see Specific Condition E.44.), the CT and DB may operate individually or in combination provided 1) that NO_x emissions from the CT alone do not exceed 141 TPY for any calendar year; 2) that NO_x emissions from the CT/DB's combined operation do not exceed 174.6 TPY for any calendar year; and, 3) that the facility-wide NO_x emissions do not exceed 194.3 TPY for any calendar year.

EUs 002 and 003 (Boilers Nos. 4 and 5) are allowed to operate, as needed for backup, for only as long as the facility-wide NO_x cap of 194.3 TPY is not exceeded for any calendar year (see Facility-wide Condition No. 10). Emission factors pursuant to Specific Condition C.14. shall be applied to the fuel consumed by Boilers Nos. 4 and 5 to determine compliance with the facility cap. The permittee shall install and operate a continuous monitoring system to monitor and record fuel consumption as required by 40 CFR 60.334.

[Rules 62-212.400(2)(g) & (5), F.A.C.; 40 CFR 60, Subpart GG; PSD-FL-181/PSD-FL-181(A); 0010001-003-AC; 0010001-004-AC; and, 0010001-006-AC]

Emission Limitations and Standards

D.2.a. The permittee accepted a contemporaneous emissions increase of 39.7 TPY for NO_x, along with a combined total CT and DB NO_x limitation of 174.6 TPY, in order to escape PSD New Source Review requirements by 0.3 TPY, pursuant to Rule 62-212.400(5), F.A.C., in the permitting action of PSD-FL-181, issued August 17, 1992; and, elected not to provide appropriate spacing for future installation of NO_x controls during the initial construction. If the permittee later applies for a permit modification to increase capacity, the retrofit costs associated with not making provisions for such technology (initially) shall not be considered in the retrofit analysis required for the future expansion.

b. Any net increase in NO_x emissions of 0.3 TPY above the combined allowable limits of the CT and DB (174.6 TPY; and, see Specific Conditions E.6. and B.4. and Facility-wide Condition No. 11) will initiate preconstruction review requirements pursuant to Rule 62-212.400(5), F.A.C., for NO_x for the CT and DB as if construction of these emissions units had not yet begun.

[PSD-FL-181; Rules 62-212.400(2)(g) & (5), F.A.C.; and, 0010001-006-AC]

Compliance and Monitoring

D.3. For purposes of demonstrating compliance with the annual limits, the NO_x emission rate (lbs/MMBtu) from the CT and DB shall be calculated using the NO_x analyzer data and equation F-6 from 40 CFR 75, Appendix F. Hourly heat input rates (MMBtu/hr) shall be used to convert lbs/MMBtu of NO_x to lbs/hr of NO_x and actual operating hours shall be used to obtain tons per year.

[AC 01-204652/PSD-FL-181(A)]

D.4. Ongoing and annual compliance for EU 007, and EUs 007 and 005 firing simultaneously, shall be determined by the existing NO_x CEM system on a 30-day rolling average basis and reported as required by this permit, except for the following addition/revision: to verify compliance with the 141 TPY cap for EU 007 and facility-wide compliance with the 194.3 TPY cap for NO_x emissions, including EU 007 (CT), EU 005 (DB), and EUs 002 and 003 (Boilers Nos. 4 and 5, respectively), and to provide reasonable assurance that NO_x emissions will not be PSD-significant, CEM system records for EUs 007 and 005, along with cumulative fuel consumption records for EUs 002 and 003, shall be kept and maintained by the permittee. Total NO_x emissions for both calendar year caps shall be reported in the facility's annual operating report.

[PSD-FL-181; Rules 62-4.070(3) and 62-212.400(2)(g) & (5), F.A.C.; 0010001-003-AC; 0010001-004-AC; and, 0010001-006-AC]

Subsection E. This section addresses the following emissions unit.

E.U. ID No.	Brief Description
-007	New GE LM6000-PC-ESPRINT Combustion Turbine

The new GE LM6000-PC-ESPRINT combustion turbine (CT) has a nominal generator rating of 48 megawatts (MW) and a maximum heat input rating of 408 MMBtu/hr (LHV; 100% load; and, ambient conditions of 59°F temperature, 60% relative humidity, and 14.7 psia), while firing natural gas (NG), and 384 MMBtu/hr (LHV; 100% load; and, ambient conditions of 59°F temperature, 60% relative humidity, and 14.7 psia), while firing No. 2 distillate fuel oil (FO). The new CT will utilize spray intercooling to maximize throughput, thus reducing supplemental firing in the duct burner for meeting steam and power requirements. The NO_x emissions are controlled with steam injection. The CT and associated duct burner exhaust through the same HRSG and common stack. This emissions unit began commercial service on September 24, 2002.

{Permitting Note: This emissions unit is regulated under Acid Rain, Phase II; 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.; PSD-FL-181 dated August 17, 1992; PSD-FL-181(A); 0010001-003-AC; 0010001-004-AC; and, 0010001-006-AC.}

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

Essential Potential to Emit (PTE) Parameters

E.1. Permitted Capacity. The maximum heat input to the CT shall not exceed the values indicated on the turbine manufacturer's heat input vs. power output curve (see the attached "GE Curves Corrected for Site Conditions"). [Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.; AC 01-204652/PSD-FL-181(A); 0010001-003-AC; and, 0010001-004-AC]

E.2. Emissions Unit Operating Rate Limitation After Testing. See Specific Condition **E.31**.

E.3. Methods of Operation - Fuels. Only pipeline-quality NG or No. 2 FO shall be fired in the CT. See Specific Condition **E.60**. [Rule 62-213.410, F.A.C.; PSD-FL-181; and, 0010001-003-AC]

E.4. Hours of Operation. The hours of operation for the CT are specified in Specific Condition **D.1**. [Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.; PSD-FL-181; 0010001-003-AC; and, 0010001-006-AC]

Control Technology

E.5. Wet Injection. A wet injection system shall be installed to reduce NO_x emissions from the CT exhaust. The permittee shall install and operate a continuous monitoring system to monitor and record the ratio of water to fuel being fired in the CT. [Rule 62-212.400, F.A.C., 40 CFR 60, Subpart GG; and, 0010001-003-AC]

Emission Limitations and Standards

E.6. Pollutant and visible emissions from the CT shall not exceed the following allowable limits:

		CT Allowable Limits		
Pollutant	Fuel Type	@ 15% O ₂	lbs/hr	TPY
NO _x	NG	25 ppmvd ⁵ /25.0 ppmvd ^{3,6}	39.6 ³	141 ^{1,2}
	No. 2 FO	42.0 ppmvd ^{5,6}	66.3 ³	141 ^{1,2}
SO ₂	No. 2 FO	0.015%, by volume ⁷	(BACT) 0.5% Sulfur content, by weight	
CO	NG	31.6 ppmvd	29.9 ⁸	127.5 ⁸
	No. 2 FO	75.0 ppmvd	70.5 ⁹	7.7 ⁹
	NG and No. 2 FO			135.2 (total)
Parameter	Fuel Type	CT Allowable Limit		
VE	NG	10% opacity ⁴		
VE	No. 2 FO	20% opacity ⁴		

- ¹ The NO_x allowable limit was accepted by the applicant to escape PSD New Source Review. This limit includes the total annual NO_x emissions from the firing of all fuels.
- ² Any net increase in NO_x emissions of 0.3 TPY above the combined allowable limits of the CT and DB (174.6 TPY; and, see Specific Conditions **B.4.** and **D.2.b.**) will initiate preconstruction review requirements pursuant to Rule 62-212.400(5), F.A.C., for NO_x for the CT and DB as if construction of these emissions units had not yet begun.
- ³ 30-day rolling average, compliance timeframe. See Specific Condition **E.7.**
- ⁴ Since the CT and DB are in series, the opacity standard is applicable when the CT or the CT and DB are in operation, except when the CT is firing No. 2 FO, at which time the CT's opacity standard for FO will be in effect. See Specific Condition **B.4.**
- ⁵ Allowable limit - performance testing using EPA Method 7E or EPA Method 20.
- ⁶ Compliance is demonstrated using a NO_x CEMS. See Specific Condition **E.44.**
- ⁷ In lieu of an annual compliance test for SO₂, the fuels fired in the combustion turbine and/or duct burner shall have the following sulfur limits: (See Specific Conditions **E.8.** and **E.23.**)
 NG: 1.0 grain sulfur per 100 standard cubic feet
 No. 2 FO: 0.5 percent, by weight, sulfur [PSD-FL-181: BACT]; and,
 0.8 percent, by weight, sulfur [40 CFR 60.333, Subpart GG]
- ⁸ Based on 100% load of NG at 59 °F inlet conditions; and, 8541 hrs/yr operation.
- ⁹ Based on 100% load of No. 2 FO at 59 °F inlet conditions; and, 219 hrs/yr operation.

[PSD-FL-181(A); Rules 62-212.400(2)(g) & (5), F.A.C.; 40 CFR 60.333(a); 0010001-003-AC; 0010001-004-AC; and, 0010001-006-AC]

E.7. Since the initial performance tests have been conducted, the permittee has elected to demonstrate compliance with the allowable NO_x emissions limits using a continuous emissions monitor system (CEMS). Since the CT and DB are in series, the allowable emissions for both emissions units shall be combined for ongoing compliance demonstration purposes. For the purpose on demonstrating ongoing compliance with the applicable combined emissions limits for both the CT and DB, using the stack CEMS, compliance is considered to occur when the NO_x emissions are less than or equal to (1) 39.6 lbs/hr or 66.3 lbs/hr when only the CT is operating and firing NG or No. 2 FO, respectively; (2) 58.3 lbs/hr when both the CT and DB are operating and firing NG; or, (3) 85.0 lbs/hr when both the CT and DB are operating and the CT is firing No. 2 FO and the DB is

firing NG. The daily rolling average compliance value shall be calculated based on the proportion of hours operated in a day (midnight to midnight) that the CT or both the CT and DB are operating. Any portion of an hour that the DB operates shall be recognized as an hour-period on the daily operation. For example, in a given daily timeframe, with 20 hours of CT operation only while firing NG and 4 hours of CT-DB operation while firing NG:

$$\begin{aligned} \text{Calculated Daily NO}_x \text{ Emissions Value} &= \\ &[(39.6 \text{ lbs/hr} \times 20\text{-hrs}) + (58.3 \text{ lbs/hr} \times 4\text{-hrs})]/24\text{-hrs} = \\ &42.72 \text{ lbs/day NO}_x \text{ emissions value} \end{aligned}$$

For the 30-day rolling average, this daily calculated emissions value will then be added to the previous 29-day period of daily calculated emission values and divided by 30 (days) to establish the 30-day average emissions value for comparing to the CEMS data over the same 30-day period.

$$\begin{aligned} \text{Calculated 30-Day Average NO}_x \text{ Emissions Value} &= \\ &[42.72 \text{ lbs/day} + \text{"previous 29-daily emission values (lbs/day) summation"}]/30\text{-days} = \\ &\# \text{ lbs/30-day average NO}_x \text{ emissions value} \end{aligned}$$

Compliance with the permitted NO_x emission limitation is considered satisfied as long as the NO_x emissions value from the stack CEMS is less than or equal to the calculated NO_x emissions value, averaged over the same 30-day period.

[AC 01-204652/PSD-FL-181/PSD-FL-181(A); 40 CFR 60.44b(i); and, Rule 62-212.400(2)(g), F.A.C.]

E.8. Sulfur Dioxide - Sulfur Content: The sulfur content of the No. 2 FO fired by the stationary gas turbine may be used to determine compliance with 40 CFR 60.333(b). Under such circumstances, the permittee shall not fire in any stationary gas turbine any fuel which contains a sulfur content in excess of 0.5 percent, by weight. [40 CFR 60.333(b); and, AC 01-204652/PSD-FL-181/PSD-FL-181(A)]

Excess Emissions

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

E.9. Excess emissions resulting from startup, shutdown or malfunction shall be permitted provided that best operational practices to minimize emissions are adhered to and 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 a longer duration.

[Rule 62-210.700(1), F.A.C.]

E.10. 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. These emissions shall be included in the 24-hour compliance averages for NO_x and for CO emissions.

[Rule 62-210.700(4), F.A.C.; and, 0010001-003-AC]

E.11. Excess Emissions Defined. During startup, shutdown, and documented unavoidable malfunction of the combined cycle gas turbine, the following permit conditions allow excess emissions or the exclusion of monitoring data for specifically defined periods of operation. These conditions apply only if operators employ the best operational practices to minimize the amount and duration of excess emissions during such incidents. If a CEM system reports emissions in excess of the standard, the permittee shall notify the Department's Northeast District office within (1) working day with a preliminary report 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.

[Turbine Manufacturer Data; Rule 62-210.700, F.A.C.; and, 0010001-003-AC]

E.12. 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]

E.13. 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

E.14. 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 air 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)]

E.15. 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 plant 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, 0010001-003-AC]

E.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.

[Rules 62-297.310(5)(a) & (b), F.A.C.]

E.17. The NO_x emission rate in lbs/hr and tons/yr from the cogeneration (CT and DB) stack shall be calculated using a continuous emissions monitoring (CEM) system, which is certified pursuant to 40 CFR 75, and used to determine lbs/MMBtu of NO_x. The CEM system shall be operated and maintained in accordance with the applicable requirements of 40 CFR 75, Subparts B and C. Missing data shall be substituted in a manner pursuant to 40 CFR 75, Subpart D. Recordkeeping and reporting shall be conducted pursuant to 40 CFR 75, Subparts F and G. Excess emissions pursuant to 40 CFR 60.334 shall be determined using the 40 CFR Part 75 CEM system. [Applicant requested; and, 40 CFR 75]

E.18. The power output of the generator shall be continuously monitored and recorded.
[AC 01-204652/PSD-FL-181]

E.19. The permittee shall monitor sulfur content and nitrogen content of No. 2 fuel oil. The frequency of determinations of these values shall be as follows:

- (1) If the emissions unit 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.
- (2) If the emissions unit is supplied its fuel oil 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 fuel monitoring schedule requests shall be substantiated with data and submitted to the Department. The Department will submit the request to the Administrator, who must approve the custom fuel monitoring schedule before it can be used to comply with 40 CFR 60.334(b).
[40 CFR 60.334(b)(1) and (2); and, 0010001-003-AC]

E.20. The sulfur content and nitrogen content of natural gas fired in the turbine shall be monitored as per the following custom fuel monitoring schedule:

Custom Fuel Monitoring Schedule for Natural Gas

- a. Monitoring of fuel nitrogen content shall not be required while natural gas is the only fuel being fired in the gas turbines.
- b. Sulfur Monitoring
 1. Analysis for fuel sulfur content of the natural gas shall be conducted using one of the approved ASTM reference methods for the measurement of sulfur in gaseous fuels, or an approved alternative method. The reference methods are ASTM D1072-90(94)E-1, ASTM D3031-81(86), ASTM D3246-92, and ASTM D4084-94, or the latest edition, as referenced in 40 CFR 60.335(d).
 2. This custom fuel monitoring schedule shall become effective on May 22, 1995. Effective the date of this custom schedule, sulfur monitoring shall be conducted twice monthly for six months. If this monitoring shows little variability in the fuel sulfur content, and indicates consistent compliance with 40 CFR 60.333 and the conditions of this permit, then sulfur monitoring shall be conducted once per quarter for six quarters. If monitoring data is provided by the applicant which demonstrates consistent compliance with the conditions of this permit, the applicant may begin monitoring as per the requirements of item b.3 below.
 3. If after the monitoring required in item b.2 above, or herein, the sulfur content of the fuel shows little variability and, calculated as sulfur dioxide, represents consistent compliance with the sulfur dioxide emission limits specified under 40 CFR 60.333 and the conditions of this permit, sample analysis shall be conducted twice per annum. This monitoring shall be conducted during the first and third quarters of each calendar year.
 4. Should any sulfur analysis as required in items b.2 or b.3 above indicate noncompliance with 40 CFR 60.333 and the conditions of this permit, the owner or operator shall notify the Department of such excess emissions and the custom schedule shall be re-examined by the Environmental Protection Agency. Sulfur monitoring shall be conducted weekly during the interim period when this custom fuel monitoring schedule is being re-examined.
- c. If there is a change in fuel supply, the owner or operator must notify the Department of such change for re-examination of this custom schedule. A substantial change in fuel quality shall be considered as a change in fuel supply. Sulfur monitoring shall be conducted weekly during the interim period when this custom schedule is being re-examined.
- d. Records of sample analysis and fuel supply pertinent to this custom schedule shall be retained for a period of five years, and be available for inspection by personnel of federal and state air pollution control agencies. [40 CFR 60.334(b)(2); and, PSD-FL-181 amendment dated May 22, 1995]

Test Methods and Procedures

E.21. Visible Emissions. The test method for visible emissions (VE) shall be EPA Method 9, incorporated and adopted by reference in Rule 62-204.800, F.A.C., and referenced in Chapter 62-297, F.A.C. [Rules 62-204.800, 62-296.320(4)(b)4.a. and 62-297.401, F.A.C.]

E.22. Nitrogen Oxides. The performance test shall be determined in accordance with EPA Method 7E or EPA Method 20. Ongoing and **annual** compliance thereafter shall be determined by the existing NO_x CEM system using hourly heat input rates applied to actual operating hours according to the procedures outlined in this permit. The NO_x emissions limits include oxides of nitrogen consisting of both Nitric Oxide (NO) and Nitrogen Dioxide (NO₂). By convention, total NO_x on a mass basis is expressed as equivalent NO₂. NO_x concentration (ppm) is measured as NO by EPA stack sampling methods 7E and 20 and as NO₂ by the CEM analyzer. The NO_x concentration is converted to mass emissions by applying the molecular weight of NO₂ to the total flow rate. See Specific Condition **E.27**.

[40 CFR 60, Subpart GG; 0010001-001-AV; and, 0010001-003-AC]

E.23. Sulfur Dioxide. The SO₂ performance test shall be conducted **annually** using EPA Method 20 in accordance with 40 CFR 60.335. See Specific Condition **E.6**.

[40 CFR 60, Subpart GG; and, 0010001-003-AC]

E.24. Carbon Monoxide. EPA Method 10 shall be used **annually** to demonstrate compliance in accordance with Chapter 62-297, F.A.C., and 40 CFR 60, Appendix A.

[PSD-FL-181]

E.25. The permittee shall comply with the stack sampling requirements contained in Appendix SS-1, Stack Sampling Facilities (attached).

[Rule 62-297.310(6), F.A.C.]

E.26. To compute the nitrogen oxide emissions, the permittee shall use analytical methods and procedures that are accurate to within 5 percent and are approved by the Administrator to determine the nitrogen content of the fuel being fired.

[40 CFR 60.335(a)]

E.27. Compliance with the NSPS NO_x emission limitation pursuant to 40 CFR 60.332 is considered satisfied as long as the NO_x emissions value from the stack CEMS is less than or equal to the allowable NO_x emissions limit. See Specific Condition **E.6**.

(3) For the RATA demonstration pursuant to 40 CFR 60, Appendix B, to satisfy the requirements of 40 CFR 75, EPA Method 20 (40 CFR 60, Appendix A) shall be used to determine the nitrogen oxides and oxygen concentrations. The span values shall be 300 ppm of nitrogen oxide and 21 percent oxygen.

{Permitting Note: Because the permittee has agreed to use the NO_x CEMS for compliance and the formal annual stack test requirement is being incorporated into the CEMS RATA demonstration, then a separate annual stack test is not required. However, this does not preclude the imposition of a "Special Compliance Test" pursuant to Rule 62-297.310(7)(b), F.A.C. See Specific Condition **E.33**.}

[40 CFR 60.335(c)(3)]

E.28. Fuel Sulfur.

a. The permittee shall determine compliance with the sulfur content standard in 40 CFR 60.333(b) as follows: ASTM D2880-96, or the latest edition, shall be used to determine the sulfur content of liquid fuels and ASTM D1072-90(94)E-1, D3031-81(86), D4084-94, D3246-92, or the latest edition, shall be used for the sulfur content of gaseous fuels (incorporated by reference in 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 approval of the Administrator.
[40 CFR 60.335(d)]

b. Ongoing compliance with the fuel sulfur limit for natural gas and fuel oil shall be demonstrated by the fuel supplier's analysis reports containing the sulfur content of the fuel being supplied. Methods for determining the sulfur content of natural gas shall be ASTM methods D4084-82, D3246-81, or more recent versions. Ongoing compliance with the fuel oil sulfur limits shall be demonstrated by fuel analyses certified according to the provisions of 40 CFR 75, Appendix D, by the fuel supplier. At the request of the Department's Northeast District office, the permittee shall perform additional sampling and analysis for the fuel sulfur content.
[40 CFR 60, Subpart Db; Rules 62-4.070(3) and 62-4.160(15), F.A.C.; and, 0010001-003-AC]

E.29. To meet the requirements of 40 CFR 60.334(b), the permittee shall use the methods specified in 40 CFR 60.335(a) and (d) to determine the nitrogen and sulfur contents of the fuel being burned. The analysis may be performed by the permittee, a service contractor retained by the permittee, the fuel vendor, or any other qualified agency. See Specific Conditions E.19., E.20., E.26. and E.28.
[40 CFR 60.335(e)]

E.30. 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.]

E.31. Operating Rate During Testing. Testing of emissions shall be conducted with the emissions unit operating at permitted capacity as defined below. If it is impracticable to test at permitted capacity, an emissions unit may be tested at less than minimum permitted capacity, in which case subsequent emissions unit operations are 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. The permitted capacity shall at no time be exceeded. Capacity is defined as 90 to 100 percent of the manufacturer's rated heat input achievable for the average ambient (or conditioned) air temperature during the test. If it is impracticable to test at capacity, an emissions unit may be tested at less than capacity. In such cases, the entire heat input vs. inlet temperature curve will be adjusted by the increment equal to the difference between the design heat input value and 110 percent of

the value reached during the test. Data, average ambient temperature during the test, capacity vs. ambient temperature curves, and calculations necessary to demonstrate the heat input rate correction at both design and test conditions shall be submitted to the Department with the compliance test report.

[Rule 62.297.310(2), F.A.C.; and, AC 01-204652/PSD-FL-181]

E.32. Calculation of Emission Rate. For each emissions performance test, 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.]

E.33. 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 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; or 100 tons per year or more of any other regulated air pollutant (See Specific Condition A.19.); and,

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

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

9. 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 investigations, 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, 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., shall apply.

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

E.34. 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 (TPY) or more of particulate matter, and thirty (30) minutes for emissions units which have potential emissions less than 100 TPY 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:

a. For batch, cyclical processes, or other operations which are normally completed within less than the minimum observation period and do not recur within that time, the period of observation shall be equal to the duration of the batch cycle or operation completion time.

b. The observation period for special opacity tests that are conducted to provide data to establish a surrogate standard pursuant to Rule 62-297.310(5)(k), F.A.C., Waiver of Compliance Test Requirements, shall be established as necessary to properly establish the relationship between a proposed surrogate standard and an existing mass emission limiting standard.

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 or test method, 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, CALIBRATION SCHEDULE (attached).

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

E.35. Performance Tests. The CT and duct burner shall be stack-tested as required above when firing each authorized fuel to demonstrate compliance with the emission standards for NO_x, SO₂, CO and visible emissions. Tests for NO_x, SO₂ and CO shall be conducted concurrently.

[Rule 62-297.310(7)(a)1., F.A.C.; 40 CFR 60.335; and, 0010001-003-AC]

E.36. 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)]

Continuous Monitoring Requirements

E.37. For the purposes of 40 CFR 60.13, all continuous monitoring systems required under applicable subparts shall be subject to the provisions of 40 CFR 60.13 upon promulgation of performance specifications for continuous monitoring systems under Appendix B, 40 CFR 60, and, if the continuous monitoring system is used to demonstrate compliance with emission limits on a continuous basis, Appendix F, 40 CFR 60, unless otherwise specified in an applicable subpart or by the Administrator. Appendix F, 40 CFR 60, is applicable December 4, 1987.

[40 CFR 60.13(a)]

E.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)]

E.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)]

E.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)]

E.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)]

E.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 O₂ 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); and, 0010001-003-AC]

E.43. 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 install and 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 for compliance purposes and satisfies this requirement.** See Specific Condition E.47.

[40 CFR 60.334(a)]

E.44. Continuous Emission Monitoring System. The owner or operator shall install, calibrate, maintain, and operate a continuous emission monitoring (CEM) system in the stack to measure and record the emissions of NO_x from these emissions units (specifically, the turbine and the duct burner) in a manner sufficient to demonstrate compliance with the CEM emission limits of this permit. The oxygen content or the carbon dioxide (CO₂) content of the flue gas shall also be monitored at the location where NO_x is monitored to correct the measured NO_x emissions rates to 15% oxygen.

[Rule 62-210.700, F.A.C.; 40 CFR 60, Subpart GG; and, 0010001-003-AC]

E.45. Fuel Consumption Monitoring of Operations. The permittee shall monitor and record the rates of consumption of each allowable fuel in accordance with the provisions of 40 CFR 75, Appendix D. The permittee shall monitor and record the operating rate of the combustion turbine on a daily average basis, considering the number of hours of operation during each day (including the times of startup, shutdown and malfunction). Such monitoring shall be made using a monitoring component of the CEM system required above, or by monitoring daily rates of consumption and heat content of each allowable fuel in accordance with the provisions of 40 CFR 75, Appendix D.

[Rules 62-4.070(3) and 62-212.400(BACT), F.A.C.; 0010001-003-AC; and, 0010001-004-AC]

E.46. Fuel Consumption Rates Monthly Monitoring. By the fifth calendar day of each month, the permittee shall record the monthly fuel consumption and hours of operation for the CT. The information shall be recorded in a verifiable manner and shall summarize the previous month of operation and the previous 12 months of operation. Information recorded and stored as an electronic file shall be available for inspection and printing within at least three days of a request by the Department.

[Rule 62-4.070(3), F.A.C.; and, 0010001-003-AC]

E.47. CEMS in lieu of Water to Fuel Ratio. The NO_x 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 (2000 version). The calibration of the water/fuel monitoring device required in 40 CFR 60.335(c)(2) (2000 version) will be replaced by the 40 CFR 75 certification tests of the NO_x CEMS. Upon request from Department, the CEMS emission rates for NO_x on this Unit shall be corrected to ISO conditions to demonstrate compliance with the NO_x standard established in 40 CFR 60.332. See Specific Condition E.43.

[0010001-003-AC]

Recordkeeping and Reporting Requirements

E.48. 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)]

E.49. The permittee 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.

[40 CFR 60.7(b)]

E.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, postmarked by the 30th day following the end of each calendar half, 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)]

E.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)]

E.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)]

E.53. The permittee shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required by this part recorded in a permanent form suitable for inspection. The file shall be retained for at least five years following the date of such measurements, maintenance, reports, and records.
[Rule 62-213.440(1)(b), F.A.C.; and, 40 CFR 60.7(f)]

E.54. In case of excess emissions resulting from malfunctions, each owner or operator shall notify the Department in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Department.
[Rule 62-210.700(6), F.A.C.]

E.55. For the purpose of reports required under 40 CFR 60.7(c), periods of excess emissions that shall be reported are defined as follows:

- a. The NO_x CEMS will be used in lieu of the water/fuel monitoring system and fuel bound nitrogen (FBN) monitoring, which are required in 40 CFR 60.334. The NO_x CEMS shall be used to report excess emissions during periods of startup, shutdown, and malfunction in lieu of FBN monitoring and the water/fuel monitoring system described in 40 CFR 60.334(c)(1). Each report shall include the average fuel consumption, ambient conditions, and gas turbine load during the period of excess emissions.
 - b. Sulfur dioxide. Any daily period during which the sulfur content of the fuel being fired in the gas turbine exceeds 0.5 percent, by weight.
- [40 CFR 60.334(c); and, PSD-FL-181]

E.56. NSPS Notifications. All applicable notifications and reports required by 40 CFR 60, Subpart A, shall be submitted to the Department's Northeast District office.
[40 CFR 60, Subpart A; and, 0010001-003-AC]

E.57. Semi-Annual Reports. Semi-annual excess emission reports, in accordance with 40 CFR 60.7(c) (2000 version), shall be submitted to the Department's Northeast District office. See Specific Condition E.50.
[40 CFR 60.7(c); and, 0010001-003-AC]

E.58. 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

E.59. 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)]

Compliance Plan for No. 2 Distillate Fuel Oil Firing

E.60. Before regular operation on No. 2 distillate fuel oil is authorized, the permittee must demonstrate compliance with all emissions limits for No. 2 distillate fuel oil as specified by this permit and receive acknowledgement from the Department that compliance has been demonstrated.

[Rule 62-4.070(3), F.A.C.]

Section IV. This Section is the Acid Rain Program.

Operated by: Progress Energy Florida (was Florida Power Corporation)
ORIS code: 7345

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

The emissions unit listed below is regulated under Acid Rain Part, Phase II.

E.U. ID No.	Description
-007	New General Electric LM6000-PC-ESPRINT Combustion Turbine

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

- a. DEP Form No. 62-210.900(1)(a), dated 04/16/2001.
- b. Phase II Acid Rain Part Application received 02/10/03
- c. Retired Unit Exemption received 02/10/03

[Chapter 62-213 and Rule 62-214.320, F.A.C.]

A.2. Sulfur dioxide (SO₂) allowance allocations requirements for the Acid Rain unit are as follows:

E.U. ID No.	EPA ID No.	Year	2000	2001	2002	2003	2004
-007	-P1	SO ₂ allowances under Table 2 of 40 CFR 73	0*	0*	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 U.S. EPA 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.
 [Rule 62-213.440(1)(c), F.A.C.]

A.4. 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 51., APPENDIX TV-4, TITLE V CONDITIONS.}
 [Rule 62-214.420(11), F.A.C.]

A.5. 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, F.A.C.
[Rules 62-213.413 and 62-214.370(4), F.A.C.]

A.6. Where an applicable requirement of the Act is more stringent than an applicable requirement of 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, Definitions - Applicable Requirements, F.A.C.]

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

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

Progress Energy Florida, Inc.
University of Florida Cogeneration Plant

FINAL Permit No.: 0010001-005-AV
Facility ID No.: 0010001

Unregulated Emissions Unit(s) 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.

Brief Description of Emissions Units and/or Activities: **The facility has none at this time.**

E.U. ID No.	Brief Description of Emissions unit(s) and/or Activity

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

Progress Energy Florida, Inc.
University of Florida Cogeneration Plant

FINAL Permit No.: 0010001-005-AV
Facility ID No.: 0010001

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:

<u>Brief Description of Emissions units and/or Activities</u>
Solvent Use and Hood
Lube Oil Vents
Two (2) 193,200 gallon No. 2 Fuel Oil Storage Tanks
Fresh Water Cooling Towers
Surface Coating < 6.0 gal./day containing > 5.0% VOCs, by volume, averaged monthly (non-RACT)
Brazing, Soldering or Welding
Non-halogenerated Solvents
Emergency generator firing less than 10,000 gallons per year of diesel fuel

Appendix H-1, Permit History/ID Number Changes

Progress Energy Florida, Inc.
University of Florida Cogeneration Plant

FINAL Permit No.: 0010001-005-AV
Facility ID No. 0010001

Permit History (for tracking purposes):

E.U. ID No.	Description	Permit No.	Effective Date	Expiration Date	Project Type ¹
-001	GE LM6000-PA Cogeneration CT	AC 01-204652/ PSD-FL-181	08/17/1992	12/31/1994	Construction (new)
-005	Duct Burner System with a HRSG	0010001-001-AV AC 01-204652/ PSD-FL-181	01/01/2000 08/17/1992	12/31/2004 12/31/1994	Initial Construction (new)
		0010001-001-AV 0010001-003-AC 0010001-004-AC 0010001-005-AV 0010001-006-AC	01/01/2000 05/18/2001 02/20/2003 12/19/2003 10/15/2003	12/31/2004 12/31/2003 12/31/2003 12/31/2004 12/31/2004	Initial Construction (mod.) Construction (mod.) Revision Construction (mod.)
-002	Boiler #4	AO 01-214830 0010001-001-AV	08/28/1992 01/01/2000	12/31/1994 12/31/2004	08/14/1996 Initial
-003	Boiler #5	AO 01-214831 0010001-001-AV	08/28/1992 01/01/2000	12/31/1994 12/31/2004	08/14/1996 Initial
-007	New GE LM6000-PC-ESPRINT Cogeneration CT (replaced EU -001)	0010001-003-AC 0010001-004-AC 0010001-005-AV 0010001-006-AC	05/18/2001 02/20/2003 12/19/2003 10/15/2003	12/31/2003 12/31/2003 12/31/2004 12/31/2004	Construction (new) Construction (mod.) Revision Construction (mod.)

(if applicable) ID Number Changes (for tracking purposes):

From: Facility ID No.: 31GVL010014

To: Facility ID No.: 0010001

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 resolution of any objections.

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 University of Florida Cogeneration	State Florida	ORIS Code 7345
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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.

Compliance Plan				
a	b	c	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
001	Yes	No	06/02/2001	NA
	Yes			
	Yes			
	Yes			
	Yes			
	Yes			
	Yes			
	Yes			
	Yes			
	Yes			
	Yes			
	Yes			
	Yes			
	Yes			
	Yes			

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.

STEP 4

Read the standard requirements and certification, enter the name of the designated representative, and sign and date

Plant Name (from Step 1)

Standard RequirementsAcid Rain Part Requirements.

- (1) The designated representative of each Acid Rain source and each Acid Rain unit at the source shall:
 - (i) Submit a complete Acid Rain part application (including a compliance plan) under 40 CFR part 72 and Rules 62-214.320 and 330, F.A.C., in accordance with the deadlines specified in Rule 62-214.320, F.A.C.; and
 - (ii) Submit in a timely manner any supplemental information that the Department determines is necessary in order to review an Acid Rain part application and issue or deny an Acid Rain part;
- (2) The owners and operators of each Acid Rain source and each Acid Rain unit at the source shall:
 - (i) Operate the unit in compliance with a complete Acid Rain part application or a superseding Acid Rain part issued by the Department; and
 - (ii) Have an Acid Rain Part.

Monitoring Requirements.

- (1) The owners and operators and, to the extent applicable, designated representative of each Acid Rain source and each Acid Rain unit at the source shall comply with the monitoring requirements as provided in 40 CFR part 75, and Rule 62-214.420, F.A.C.
- (2) The emissions measurements recorded and reported in accordance with 40 CFR part 75 shall be used to determine compliance by the unit with the Acid Rain emissions limitations and emissions reduction requirements for sulfur dioxide and nitrogen oxides under the Acid Rain Program.
- (3) The requirements of 40 CFR part 75 shall not affect the responsibility of the owners and operators to monitor emissions of other pollutants or other emissions characteristics at the unit under other applicable requirements of the Act and other provisions of the operating permit for the source.

Sulfur Dioxide Requirements.

- (1) The owners and operators of each source and each Acid Rain unit at the source shall:
 - (i) Hold allowances, as of the allowance transfer deadline, in the unit's compliance subaccount (after deductions under 40 CFR 73.34(c)) not less than the total annual emissions of sulfur dioxide for the previous calendar year from the unit; and
 - (ii) Comply with the applicable Acid Rain emissions limitations for sulfur dioxide.
- (2) Each ton of sulfur dioxide emitted in excess of the Acid Rain emissions limitations for sulfur dioxide shall constitute a separate violation of the Act.
- (3) An Acid Rain unit shall be subject to the requirements under paragraph (1) of the sulfur dioxide requirements as follows:
 - (i) Starting January 1, 2000, an Acid Rain unit under 40 CFR 72.6(a)(2); or
 - (ii) Starting on the later of January 1, 2000 or the deadline for monitor certification under 40 CFR part 75, an Acid Rain unit under 40 CFR 72.6(a)(3).
- (4) Allowances shall be held in, deducted from, or transferred among Allowance Tracking System accounts in accordance with the Acid Rain Program.
- (5) An allowance shall not be deducted in order to comply with the requirements under paragraph (1)(i) of the sulfur dioxide requirements prior to the calendar year for which the allowance was allocated.
- (6) An allowance allocated by the Administrator under the Acid Rain Program is a limited authorization to emit sulfur dioxide in accordance with the Acid Rain Program. No provision of the Acid Rain Program, the Acid Rain part application, the Acid Rain part, or an exemption under 40 CFR 72.7, 72.8, or 72.14 and no provision of law shall be construed to limit the authority of the United States to terminate or limit such authorization.
- (7) An allowance allocated by the Administrator under the Acid Rain Program does not constitute a property right.

Nitrogen Oxides Requirements. The owners and operators of the source and each Acid Rain unit at the source shall comply with the applicable Acid Rain emissions limitation for nitrogen oxides.

Excess Emissions Requirements.

- (1) The designated representative of an Acid Rain unit that has excess emissions in any calendar year shall submit a proposed offset plan, as required under 40 CFR part 77.
- (2) The owners and operators of an Acid Rain unit that has excess emissions in any calendar year shall:
 - (i) Pay without demand the penalty required, and pay upon demand the interest on that penalty, as required by 40 CFR part 77; and
 - (ii) Comply with the terms of an approved offset plan, as required by 40 CFR part 77.

Recordkeeping and Reporting Requirements.

- (1) Unless otherwise provided, the owners and operators of the source and each Acid Rain unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time prior to the end of 5 years, in writing by the EPA or the Department:
 - (i) The certificate of representation for the designated representative for the source and each Acid Rain unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation, in accordance with Rule 62-214.350, F.A.C.; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the submission of a new certificate of representation changing the designated representative;
 - (ii) All emissions monitoring information, in accordance with 40 CFR part 75, provided that to the extent that 40 CFR part 75 provides for a 3-year period for recordkeeping, the 3-year period shall apply;
 - (iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the Acid Rain Program; and

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 J. Michael Kennedy	
Signature 	Date 02/04/2003

Retired Unit Exemption

For more information, see instructions and refer to Rule 62-214.340(2), F.A.C., and 40 CFR 72.8

This submission is:



New



Revised

Page 1

STEP 1

Identify the unit by plant name, State, ORIS code and unit ID#.

Plant Name University of Florida Cogeneration	State Florida	ORIS Code 7345	Unit ID# 001
--	----------------------	-----------------------	---------------------

STEP 2

Identify the first full calendar year in which the unit meets (or will meet) the requirements of Rule 62-214.340(2)(a), F.A.C.

January 1, 2002

STEP 3

Read the special provisions.

Special Provisions


- (1) A unit exempt under Rule 62-214.340(2), F.A.C., shall not emit any sulfur dioxide and nitrogen oxides starting on the date that the exemption takes effect. The owners and operators of the unit will be allocated allowances in accordance with 40 CFR part 73 subpart B. If the unit is a Phase I unit, for each calendar year in Phase I, the designated representative of the unit shall submit a Phase I permit application in accordance with 40 CFR part 72 subparts C and D and an annual certification report in accordance with 40 CFR 72.90 through 72.92 and is subject to 40 CFR 72.95 and 72.96.
- (2) A unit exempt under Rule 62-214.340(2), F.A.C., shall not resume operation unless the designated representative of the source that includes the unit submits a complete Acid Rain part application under Rule 62-214.320, F.A.C., for the unit not less than 24 months prior to the date on which the unit is first to resume operation.
- (3) The owners and operators and, to the extent applicable, the designated representative of a unit exempt under Rule 62-214.340(2), F.A.C., shall comply with the requirements of Chapter 62-214, F.A.C., and the Acid Rain Program concerning all periods for which the exemption is not in effect, even if such requirements arise, or must be complied with, after the exemption takes effect.
- (4) For any period for which a unit is exempt under Rule 62-214.340(2), F.A.C., the unit is not an Acid Rain unit and is not eligible to be an opt-in source under 40 CFR part 74. As a non-Acid Rain Unit, the unit shall continue to be subject to any other applicable requirements under 40 CFR part 70.
- (5) For a period of 5 years from the date the records are created, the owners and operators of a unit exempt under Rule 62-214.340(2), F.A.C., shall retain at the source that includes the unit records demonstrating that the unit is permanently retired. The 5-year period for keeping records may be extended for cause, at any time prior to the end of the period, in writing by the EPA or the Department. The owners and operators bear the burden of proof that the unit is permanently retired.
- (6) On the earlier of the following dates, a unit exempt under Rule 62-214.340(2), F.A.C., shall lose its exemption and become an Acid Rain Unit: (i) the date on which the designated representative submits an Acid Rain part application under paragraph (2); or (ii) the date on which the designated representative is required under paragraph (2) to submit an Acid Rain part application. For the purpose of applying monitoring requirements under 40 CFR part 75, a unit that loses its exemption under Rule 62-214.340(2), F.A.C., shall be treated as a new unit that commenced commercial operation on the first date on which the unit resumes operation.

STEP 4

Read the appropriate certification and sign and date.

Certification (for designated representatives only)

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 J. Michael Kennedy	
Signature 	Date 02/04/2003

Plant Name (from Step 1)
University of Florida Cogeneration

STEP 4, cont'd.
Read the appropriate
certification and sign
and date.

Certification (for certifying officials only)

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	
Signature	Date

Certification (for additional certifying officials, if applicable)

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.

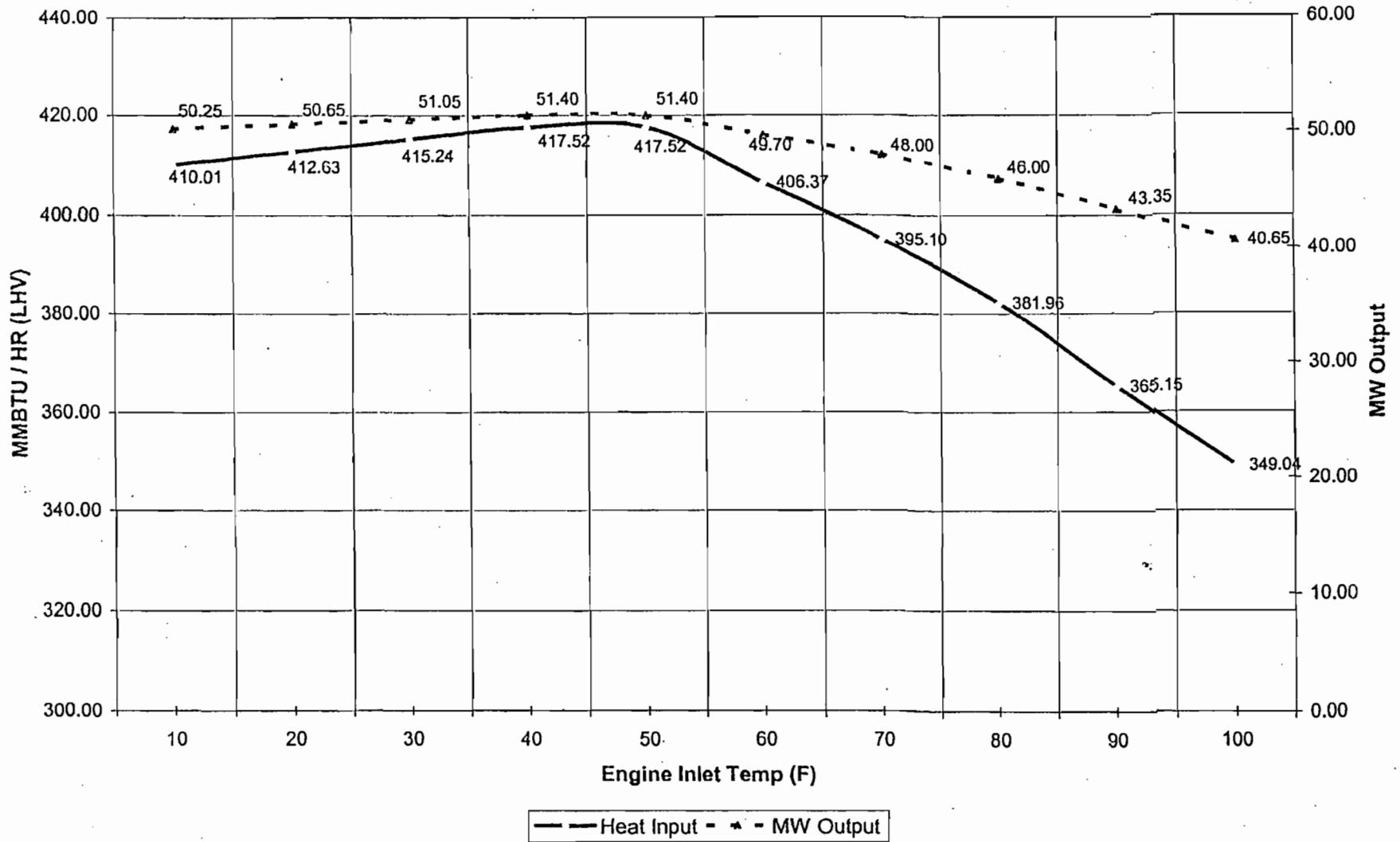
Name	
Signature	Date

Certification (for additional certifying officials, if applicable)

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	
Signature	Date

Engine Inlet Temp. Vs. Heat Input (LHV) and MW Output
LM6000PC-Esprint - University of Florida Cogen - Florida Power



12/3/103

Dear Yi,

Please check ARMS for the above referenced Title V and NSR permitting project updates. I have linked the affected EUs with the permits. Please advise if you need anything. Take care and wishing you the best for the upcoming year! Take care.

Bruce

12/18/03

Dear Barbara,

After signing, please post the following permitting package located at:

o:BAR/Title V/Bruce/Permits.0010001.005AV.Revision.006AC.UofF

0010001.005AV.SOB

0010001.005AV.Revision.FD

0010001f.005.AV.Revision.UofF

0010001G.005AV

0010001H.005AV

0010001U.005AV

Many thanks!

Bruce

Mitchell, Bruce

From: Friday, Barbara
Sent: Tuesday, December 30, 2003 11:48 AM
To: Walker, Elizabeth (AIR); Gracy Danois; Joel Huey; Kathleen Forney
Cc: Mitchell, Bruce
Subject: New Posting #0010001

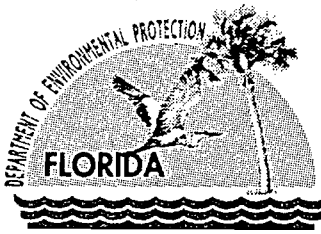
There is a new posting on Florida's website.

0010001005AV
PROGRESS ENERGY FLORIDA, INC.
UNIVERSITY OF FLORIDA COGENERATION PLANT

Final Permit Revision

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

Thanks,
Barbara



Jeb Bush
Governor

Department of Environmental Protection

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

David B. Struhs
Secretary

January 9, 2004

CERTIFIED MAIL – Return Receipt Requested

Mr. Wilson B. Hicks, Jr.
Plant Manager
Progress Energy Florida
University of Florida Cogeneration Plant
Mowery Road, Building 82, University of Florida
Gainesville, Florida 32611

Re: FINAL Title V Air Operation Permit Revision No.: 0010001-005-AV
University of Florida Cogeneration Plant
Heat Input Curve

Dear Mr. Hicks:

Based on an e-mail from Mr. Matthew Lydon, received on January 8, 2004, we realize that the latest heat input curve was not included as part of the FINAL Title V Air Operation Permit Revision package when it was mailed out on January 5, 2004. We apologize for the error. Therefore, we are enclosing the latest heat input curve that was received on September 22, 2003.

If you have any questions, please contact Bruce Mitchell at 850/413-9198, or write to me at the letterhead address.

Sincerely,

James K. Pennington
Program Administrator
Bureau of Air Regulation

JP/bm

Enclosures

cc: Mr. Scott Osbourn, P.E., ENSRI
Mr. Chris Kirts, FDEP Northeast District Office
Ms. Norma Castlen, FDEP Northeast District Branch Office
Mr. J. Michael Kennedy, Application Contact, PEFI
USEPA, Region 4

"More Protection, Less Process"

Printed on recycled paper.



September 18, 2003

Mr. Bruce Mitchell
Bureau of Air Regulation
Florida Department of Environmental Protection
2600 Blair Stone Rd.
Tallahassee, Florida 32399-2400

RECEIVED

SEP 22 2003

BUREAU OF AIR REGULATION

Dear Mr. Mitchell

Re: Florida Power University of Florida Facility
Permit No. 0010001-005-AV

Progress Energy Florida requests the incorporation of the enclosed revised heat input curve into the above referenced permit.

The enclosed curve represents applied correction factors to the 2001 GE acceptance test curve. The correction factors reflect degradation as the result of normal operation of the engine.

As seen in the facility's attached 2003 annual compliance test report summary, the engine demonstrated compliance while maintaining operation to the current heat input curve. The compliance test demonstrated, on a pounds per hour basis, nitrogen oxide emissions that are 31 percent below the permitted emission limit and carbon monoxide emissions that are 42 percent below the newly revised emission limit as expressed in the draft 0010001-005-AV, 52 percent below the current permitted emission limit as expressed in the current permit 0010001-004-AC. However, the megawatt (MW) output of the engine was restricted between 48MW to 49MW. In this event, the total restriction due to maintaining adherence to the current heat input curve results in a 3MW to 4MW loss and the generator is restricted to a total output of 52MW.

Daily operation of the engine is restricted to approximately 45 MW of the achievable 52MW, due to a very conservative adherence to the current permitted heat input curve with the inlet temperature ranging from 68°F degrees to 80°F. The facility recognizes environmental compliance as a priority of the engine's operation. The incorporation of the attached corrected heat input curve would allow for flexible operation while maintaining all emission limits and permit conditions as expressed in the current draft permit 0010001-006-AC and draft permit 0010001-005-AV.

Thank you for your continued consideration of this submittal. Please contact Matt Lydon at (727) 826-4152 if you have any questions.

Sincerely,

A handwritten signature in black ink that reads 'Wilson B. Hicks'.

Wilson B. Hicks
Plant Manager
Responsible Official

enclosures

University of Florida
Heat Input Curve for the GE LM6000-PC-ESPRINT Combustion Turbine

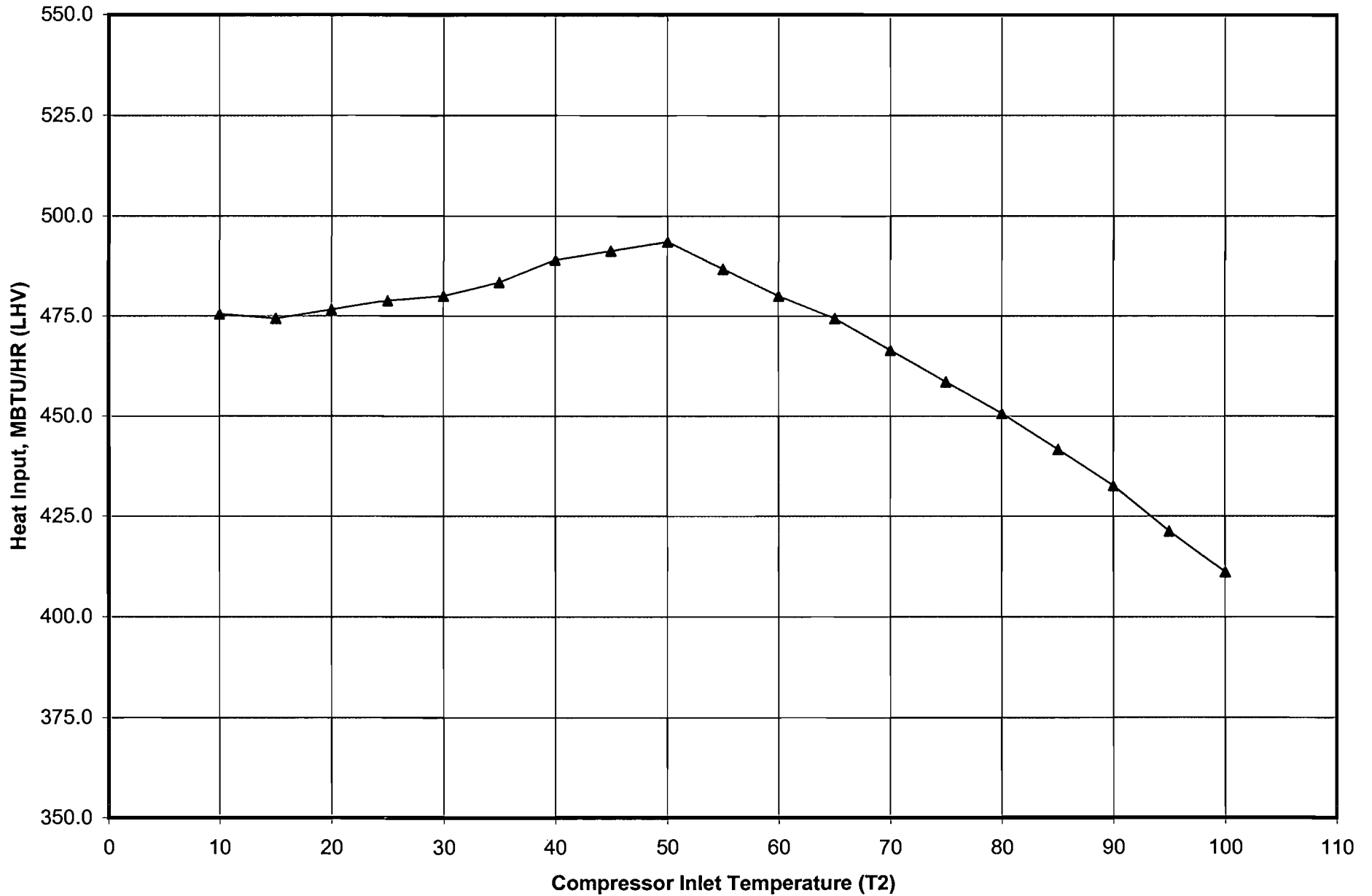


Table 2 Executive Summary

Plant: Florida Power - University of FLorida Cogen. Facility

Location: Gainesville, Florida

Test Dates: April 29, 2003

Test Engineer: JTL

Technician: LRF, DTA

Source: GE Model LM-6000PC- Esprint Turbine

	FDER Permit Limit	Subpart GG Limit	100% Load
NOx (lb/hr)	39.6	n.a.	27.32
NOx (ppmvd @ 15% O2)	25	126	18.30
CO (lb/hr)	35.8	n.a.	17.14
CO (ppmvd @ 15% O2)	36	n.a.	18.87
SO2 (vol % @ 15% O2)	0.015	0.015	4.17E-06

INTEROFFICE MEMORANDUM

TO: Michael Cooke

THRU: Trina Vielhauer
Scott Sheplak *sms*

FROM: Bruce Mitchell *bm*

SUBJECT: FINAL Title V Air Operation Permit Revision No.: 0010001-005-AV
Progress Energy Florida, Inc.: University of Florida Cogeneration Facility

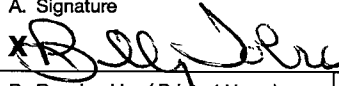
DATE: December 19, 2003 = Day 46

The attached FINAL Title V Air Operation Permit Revision, No. 0010001-005-AV, is being issued to incorporate: 1) the terms and limitations for the operation of the new nominal 48 megawatts (MW) General Electric (GE) LM6000-PC-ESPRINT combustion turbine established in Air Construction Permit, No. 0010001-003-AC, which replaced the existing 43 MW GE LM6000-PA combustion turbine at the University of Florida Cogeneration Plant; 2) the changes established in Air Construction Permit, No. 0010001-004-AC, which allowed an increase in heat input to the combustion turbine; 3) the changes established in Air Construction Permit, No. 0010001-006-AC, which reduced the short-term allowable limits for CO and altered some compliance language associated with NO_x established in previously issued Air Construction Permits, Nos. 0010001-003-AC and 0010001-004-AC; and, 4) the correction of the emissions unit IDs based on ARMS data. The new model will utilize spray intercooling to maximize throughput, thus reducing supplemental firing in the duct burner for meeting steam and power requirements.

There were no comments received from Region 4, U.S. EPA, during their 45-Day comment period, which concluded on December 18th. Therefore, it is recommended that the FINAL Permit be signed.

Attachments

MGC/sms/bm

SENDER: COMPLETE THIS SECTION		COMPLETE THIS SECTION ON DELIVERY	
<ul style="list-style-type: none"> 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. 		A. Signature  <input checked="" type="checkbox"/> Agent <input type="checkbox"/> Addressee	
1. Article Addressed to: Mr. Wilson B. Hicks, Jr. Plant Manager Progress Energy Florida University of Florida Cogeneration Plant Mowery Road, Building 82, University of Florida Gainesville, Florida 32611		B. Received by (Printed Name) _____ C. Date of Delivery JAN 1 9 2001	
2. Article Number (Transfer from service label)		D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input type="checkbox"/> No	
PS Form 3811, August 2001		3. Service Type <input checked="" type="checkbox"/> Certified Mail <input type="checkbox"/> Express Mail <input type="checkbox"/> Registered <input type="checkbox"/> Return Receipt for Merchandise <input type="checkbox"/> Insured Mail <input type="checkbox"/> C.O.D.	
7001 1140 0002 1578 0447		4. Restricted Delivery? (Extra Fee) <input type="checkbox"/> Yes	
Domestic Return Receipt		102595-02-M-1540	

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

OFFICIAL USE

Mr. Wilson B. Hicks, Jr., Plant Manager

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

Sent To
Mr. Wilson B. Hicks, Jr., Plant Manager
Street, Apt. No.,
or PO Box No. Mowery Road, Building 82
City, State, ZIP+4
Gainesville, Florida 32611

PS Form 3800, January 2001 See Reverse for Instructions

7001 1140 0002 1578 0447