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BUREAU OF AIR REGULATION

December 2, 2002

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

Re: SUBMITTAL OF TITLE V PERMIT APPLICATION
UNIVERSITY OF FLORIDA COGENERATION PLANT
PERMIT #: 0010001-001-AV

Dear Mr. Linero:

Enclosed for your review is an original copy of the Title V application for Florida Power's University of Florida Cogeneration Plant. A copy has been sent to the FDEP's Northeast District Office as required by the current Title V Permit.

If you have any question regarding any of the information contained in this application, please do not hesitate to contact Matthew Lydon at (727) 826-4152, Scott Osbourn (ENSR) at (727) 898-9591, or Mike Kennedy at (727) 826-4334.

Sincerely,

Wilson B. Hicks
Plant Manager

cc. Chris Kirts
Matt Lydon

Enclosures

PERMITTEE:

Florida Power Corporation/UF Cogen Plant
Mowry Road, Building 82
University of Florida
Gainesville, Florida 32611-2295

Permit No. 0010001-003-AC
File No. 0010001-003-AC
SIC No. 4911
Expires: December 31, 2002

Authorized Representative:

Kris Edmondson – Plant Manager

PROJECT AND LOCATION:

This Air Construction Permit is pursuant to the requirements for the installation of a nominal 48 megawatt (MW) combustion turbine (GE LM6000-PC-ESPRINT) to replace the existing 43 MW combustion turbine (GE LM6000-PA) that has been operated at the permittee's facility since 1994. 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 unit will be located at the University of Florida Cogen Plant, Mowry Road, Building 82, UF, Gainesville, Alachua County. UTM coordinates are: Zone 17; 369.4 km E; 3,279.3 km N.

STATEMENT OF BASIS:

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

Attached Appendices and Tables made a part of this permit:

- Appendix GC - Construction Permit General Conditions
- Appendix GG - NSPS Subpart GG Requirements

Howard L. Rhodes, Director
Division of Air Resources
Management

AIR CONSTRUCTION PERMIT 0010001-003-AC

SECTION 1 – FACILITY INFORMATION

FACILITY DESCRIPTION

This existing University of Florida Cogen Plant consists of a single combustion turbine (CT), heat recovery steam generator (HRSG), duct burners (DB) located between the CT and the HRSG, and Boilers Nos. 4 and 5 utilized for backup only. This facility was permitted originally in 1992 to provide power and steam for the University of Florida. That project (PSD-FL-181) involved the construction of the cogen facility along with the permanent shutdown of Boilers Nos. 1, 2 and 3. This project is for the replacement of the original 43 Megawatt CT with a more efficient model that is moderately higher in capacity (48 MW).

EMISSIONS UNITS

This permit addresses the following emissions units:

E.U. NO.	EMISSION UNIT DESCRIPTION
001	GE LM6000-PC-ESPRINT Combustion Turbine
002	Duct Burner System/HRSG
003	No. 4 Boiler
004	No. 5 Boiler

REGULATORY CLASSIFICATION

The facility is classified as a Major or Title V Source of Air Pollution as defined in Rule 62-210.200. It is within an industry included in the list of the 28 Major Facility Categories per Table 62-212.400-1, F.A.C. and is a Major Facility with respect to Rule 62-212.400, Prevention of Significant Deterioration (PSD).

PSD review and a Best Available Control Technology (BACT) determination are not required for this project since the net emissions increases are less than PSD-significant levels for all pollutants. The new CT is subject to the New Source Performance Standard for Stationary Gas Turbines at 40CFR60, Subpart GG.

This facility is also subject to certain Acid Rain provisions of Title IV of the Clean Air Act.

PERMIT SCHEDULE/RELEVANT DOCUMENTS:

The documents listed below provide the basis of the permit. They are specifically related to this permitting action, but not all are incorporated into this permit. All documents are on file with the Department.

- Application received January 29, 2001
- Department's letter to the applicant dated February 9, 2001
- Applicant's response letter dated March 5, 2001
- Public Notice Package including Technical Evaluation and Preliminary Determination, April 18, 2001
- Department's Final Determination and BACT Determination issued May 18, 2001.

AIR CONSTRUCTION PERMIT 0010001-003-AC

SECTION II – ADMINISTRATIVE REQUIREMENTS

GENERAL AND ADMINISTRATIVE REQUIREMENTS

1. Permitting Authority: All documents related to applications for permits to construct, operate or modify an emissions unit should be submitted to the Bureau of Air Regulation (BAR), Florida Department of Environmental Protection (FDEP), at 2600 Blairstone Road, Tallahassee, Florida 32399-2400 and phone number (850)488-0114. Cover Page
of Permit
2. Compliance Authority: All documents related to reports, tests, and notifications should be submitted to the DEP Northeast District Office, 7825 Baymeadows Way, Suite 200B, Jacksonville, Florida 32256-7590, phone 904/448-4300 and Northeast District Branch Office, 101 NW 75th Street, Suite 3, Gainesville, Florida, phone 352/333-2850. F-w C.
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3. General Conditions: The owner and operator is subject to and shall operate under the attached General Permit Conditions G.1 through G.15 listed in Appendix GC of this permit. General Permit Conditions are binding and enforceable pursuant to Chapter 403 of the Florida Statutes. [Rule 62-4.160, F.A.C.] TV-4
4. Terminology: The terms used in this permit have specific meanings as defined in the corresponding chapters of the Florida Administrative Code.
5. Forms and Application Procedures: The permittee shall use the applicable forms listed in Rule 62-210.900, F.A.C. and follow the application procedures in Chapter 62-4, F.A.C. [Rule 62-210.900, F.A.C.] TV-4
6. 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.] F-w C.
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7. New or Additional Conditions: Pursuant to Rule 62-4.080, F.A.C., for good cause shown and after notice and an administrative hearing, if requested, the Department may require the permittee to conform to new or additional conditions. The Department shall allow the permittee a reasonable time to conform to the new or additional conditions, and on application of the permittee, the Department may grant additional time. [Rule 62-4.080, F.A.C.] TV-4
8. Completion of Construction: The permit expiration date is December 31, 2002. Physical construction shall be complete by September 30, 2002. The additional time provides for testing, submittal of results, and submittal of the Title V permit to the Department. obsolete
9. Permit Expiration Date Extension: The permittee, for good cause, may request that this PSD permit be extended. Such a request shall be submitted to the Bureau of Air Regulation prior to 60 days before the expiration of the permit (Rule 62-4.080, F.A.C.).

AIR CONSTRUCTION PERMIT 0010001-003-AC

SECTION II – ADMINISTRATIVE REQUIREMENTS (CONT'D)

10. BACT Determination: In conjunction with extension of the 18 month periods to commence or continue construction, the extension of the permit expiration date, or any increases in MW generated by steam, heat input limits, hours of operation, oil firing, low or baseload operation, short-term or annual emission limits, annual fuel heat input limits or similar changes; the permittee may be required to demonstrate the adequacy of any previous determination of best available control technology for the source.
[Note: 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 PSD-FL-181 will initiate preconstruction review requirements pursuant to Rule 62-212.400(5), F.A.C., for NO_x as if construction of these emissions units had not yet begun. [Rules 62-212.400(2)(g) and 62-212.400(5), F.A.C.]
11. Application for Title IV Permit: An application for a Title IV Acid Rain Permit must be submitted to the U.S. Environmental Protection Agency Region IV office in Atlanta, Georgia and a copy to the Department's Bureau of Air Regulation in Tallahassee at least 24 months before the date on which the new unit begins serving an electrical generator greater than 25 MW. [40 CFR 72] obsolete
12. Application for Title V Permit: An application for a Title V operating permit, pursuant to Chapter 62-213, F.A.C., must be submitted to the Department's Bureau of Air Regulation, and a copy to the Department's Southeast District Office. [Chapter 62-213, F.A.C.] Incomplete
letter
Response

OPERATIONAL REQUIREMENTS

13. Plant Operation - Problems: If temporarily unable to comply with any of the conditions of the permit due to breakdown of equipment or destruction by fire, wind or other cause, the permittee shall notify each Compliance Authority as soon as possible, but at least within one working day, excluding weekends and holidays. The notification shall include: pertinent information as to the cause of the problem; steps being taken to correct the problem and prevent future recurrence; and, where applicable, the owner's intent toward reconstruction of destroyed facilities. Such notification does not release the permittee from any liability for failure to comply with the conditions of this permit or the regulations. [Rule 62-4.130, F.A.C.] TV-4
14. 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.]
15. Circumvention: The permittee shall not circumvent the air pollution control equipment or allow the emission of air pollutants without the applicable air control device operating properly. [Rule 62-210.650, F.A.C.] TV-4
16. Unconfined Particulate Matter Emissions: During the construction period, unconfined particulate matter emissions shall be minimized by dust suppressing techniques such as covering and/or application of water or chemicals to the affected areas, as necessary. [Rule 62-296.320(4)(c), F.A.C.] obsolete

SECTION II – ADMINISTRATIVE REQUIREMENTS (CONT'D)

TESTING REQUIREMENTS

17. Test Notification: The permittee shall notify each Compliance Authority in writing at least 30 days prior to any initial NSPS performance tests and at least 15 days prior to any other required tests. Notification shall include the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and conducting the test. [Rule 62-297.310(7)(a)9., F.A.C. and 40 CFR 60.7, 60.8]
18. 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.]
19. Applicable Test Procedures
 - (a) *Required Sampling Time*. 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. The minimum observation period for a visible emissions compliance test shall be sixty (60) minutes. The observation period shall include the period during which the highest opacity can reasonably be expected to occur. [Rule 62-297.310(4)(a)1. and 2., F.A.C.]
 - (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. [Rule 62-297.310(4)(b), F.A.C.]
 - (c) *Calibration of Sampling Equipment*. Calibration of the sampling train equipment shall be conducted in accordance with the schedule shown in Table 297.310-1, F.A.C. [Rule 62-297.310(4)(d), F.A.C.]
20. 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. [Rule 62-297.310(5)(a), F.A.C.]
 - (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)(b), F.A.C.]
21. 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 shall 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. [Rule 62-297.310(7)(b), F.A.C.]

SECTION II – ADMINISTRATIVE REQUIREMENTS (CONT'D)

22. Stack Testing Facilities: Stack sampling facilities shall be installed in accordance with Rule 62-297.310(6), F.A.C. [Rule 62-297.310]
23. Operating Rate During Testing: Testing of emissions shall be conducted with the emissions unit operating at permitted capacity. Permitted capacity is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. If it is impractical to test at permitted capacity, an emissions unit may be tested at less than the maximum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test rate until a new test is conducted. Once the unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity. [Rule 62-297.310(2)(b), F.A.C.]

RECORDS

24. Records Retention: All measurements, records, and other data required by this permit shall be documented in a permanent, legible format and retained for at least five (5) years following the date on which such measurements, records, or data are recorded. Records shall be made available to the Department upon request. [Rules 62-4.160(14) and 62-213.440(1)(b)2., F.A.C.]

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REPORTS

25. Emissions Performance Test Results Reports: A report indicating the results of any required emissions performance test shall be submitted to each Compliance Authority no later than 45 days after completion of the last test run. The test report shall provide sufficient detail on the tested emission unit and the procedures used to allow the Department to determine if the test was properly conducted and if the test results were properly computed. At a minimum, the test report shall provide the applicable information listed in Rule 62-297.310(8)(c), F.A.C. [Rule 62-297.310(8), F.A.C.]
26. Annual Operating Reports: The permittee is required to submit annual reports on the actual operating rates and emissions from this facility. Annual operating reports shall be sent to the Department's Northeast District Office by March 1st of each year. [Rule 62-210.370(2), F.A.C.]

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AIR CONSTRUCTION PERMIT 0010001-003-AC

SECTION III – EMISSIONS UNITS SPECIFIC CONDITIONS

APPLICABLE STANDARDS AND REGULATIONS

1. Regulations: Unless otherwise indicated in this permit, the construction and operation of the subject emission units shall be in accordance with the capacities and specifications stated in the application. The facility is subject to all applicable provisions of Chapter 403, F.S. and Florida Administrative Code Chapters 62-4, 62-17, 62-204, 62-210, 62-212, 62-213, 62-214, 62-296, and 62-297; and the applicable requirements of the Code of Federal Regulations Section 40, Parts 52, 60, 72, 73, and 75.
2. Applicable Requirements: Issuance of a permit does not relieve the owner or operator of an emissions unit from complying with any applicable requirements, any emission limiting standards or other requirements of the air pollution rules of the Department or any other such requirements under federal, state, or local law, notwithstanding that these applicable requirements are not explicitly stated in this permit. In cases where there is an ambiguity or conflict in the specific conditions of this permit with any of the above-mentioned regulations, the more stringent local, state, or federal requirement applies. [Rules 62-204.800 and Rules 62-210.300 and 62-4.070 (3) F.A.C.]
3. NSPS Requirements: The combustion turbine (EU 001) shall comply with the applicable provisions of 40 CFR 60, Subpart GG, Standards of Performance for Stationary Gas Turbines, adopted by reference in Rule 62-204.800(7)(b), F.A.C. The duct burner (EU 002) shall comply with the applicable provisions of 40 CFR 60, Subpart Db, Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units, adopted by reference in Rule 62-204.800(7)(b), F.A.C. The Emissions units subject to a specific NSPS subpart shall also comply with the applicable requirements of 40 CFR 60, Subpart A, General Provisions including:
 - 40CFR60.7 Notification and Record Keeping
 - 40CFR60.8 Performance Tests
 - 40CFR60.11 Compliance with Standards and Maintenance Requirements
 - 40CFR60.12 Circumvention
 - 40CFR60.13 Monitoring Requirements
 - 40CFR60.19 General Notification and Reporting requirements

GENERAL OPERATION REQUIREMENTS

4. Authorized Fuels: The combustion turbine shall fire only pipeline-quality natural gas or No. 2 distillate oil (or a superior grade) containing no more than 0.5% sulfur by weight. 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: (a) 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 (b) 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)]
5. Combustion Turbine/Duct Burner Capacity: The heat input to the combustion turbine shall not exceed 392 million Btu per hour (mmBtu/hr) when firing natural gas and 384 mmBtu/hr when firing E-1-

SECTION III – EMISSIONS UNITS SPECIFIC CONDITIONS (CONT'D)

fuel oil. The heat input to the duct burner system shall not exceed 188 MMBtu/hr on natural gas (no oil firing). The maximum heat input limits are based on the lower heating value (LHV) of each fuel, 100% load, and ambient conditions of 59°F temperature, 60% relative humidity, and 14.7 psia. These maximum heat input rates will vary depending upon ambient conditions and the combustion turbine characteristics. Manufacturer's curves corrected for site conditions or equations for correction to other ambient conditions shall be provided to the Department within 45 days of completing the initial compliance testing. [Rule 62-210.200, F.A.C. (Potential to Emit), Permit 0010001-001-AV] B.1.

6. Hours of Operation/Fuel Usage Limitations: Combustion turbine/duct burner operation at maximum firing rates shall be limited to 7,211 hours per year (to prevent retroactive PSD applicability for NOx under PSD-FL-181, pursuant to Rule 62-212.400(5), F.A.C., by reaching the 40 tons per year PSD applicability threshold). The turbine/duct burner may operate at lower than maximum rates for more hours per year provided that the annual fuel consumption limitations are not exceeded and that facility-wide NOx emissions do not exceed 194.3 TPY. The total annual fuel usage for the combustion turbine and the duct burner combined shall not exceed 3.48 trillion BTU (includes up to 635,100 gallons No. 2 fuel oil fired in the turbine). The annual fuel usage by the duct burner is limited to 519.5 million ft³ natural gas. E.1.3 B.1.

EU 003 and 004 (Boilers Nos. 4 and 5) shall be allowed to operate as required for backup only as long as the facility-wide NOx cap of 194.3 TPY is not exceeded for any calendar year. Emission factors pursuant to condition C.14 of the facility's Title V permit shall be applied to the fuel consumed by Boilers Nos. 4 and 5 to determine compliance with the facility cap. The NOx emissions calculations shall be submitted to the Compliance Authority with the Annual Operating Report. The permittee shall install and operate a continuous monitoring system to monitor and record fuel consumption as required by 40 CFR 60.334. [Applicant Request, Rules 62-210.200 (Definitions), 62-212.400(5), F.A.C., 40 CFR 60 Subpart GG] D.1.

CONTROL TECHNOLOGY

7. Wet Injection: A wet injection system shall be installed to reduce NO_x emissions from the combustion turbine 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 combustion turbine. [Rule 62-212.400, F.A.C., 40 CFR 60, Subpart GG]
8. Nitrogen Oxides (NO_x): [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.]
- a. Combustion Turbine (EU 001):
1. When firing natural gas, NO_x emissions from the combustion turbine shall not exceed any of the following: 25 ppmvd (corrected to 15% oxygen), 39.6 pounds per hour, 141* tons per year. [Applicant Request*, Rule 62-212.400, F.A.C., Permit 0010001-001-AV]
 2. When firing distillate oil, NO_x emissions from the combustion turbine shall not exceed any of the following: 42.0 ppmvd corrected to 15% oxygen, 66.3 pounds per hour, 7.3 tons per year. The nitrogen content of the fuel oil shall be monitored in accordance with 40 CFR 60.334(b). [40 CFR 60 Subpart GG, Rule 62-212.400, F.A.C., Permit 0010001-001-AV]

AIR CONSTRUCTION PERMIT 0010001-003-AC

SECTION III – EMISSIONS UNITS SPECIFIC CONDITIONS (CONT'D)

3. 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 the facility's current Title V permit. [40 CFR 60, Subpart GG, Permit 0010001-001-AV]

b. Duct Burner (EU 002):

1. NO_x emissions from firing natural gas in the duct burner shall not exceed any of the following: 0.1 lb/MMBtu, 18.7 pounds per hour, 24.6 tons per year. [Rule 62-212.400, F.A.C., Permit 0010001-001-AV] B.4.

2. The initial performance test and annual compliance tests shall be conducted as required in Specific Condition 8.a.3. above for EU 001 [40CFR60, Subpart GG]

c. CEM System (EU 001):

1. When firing natural gas, NO_x emissions from the combustion turbine shall not exceed 25.0 ppmvd corrected to 15% oxygen. [40CFR60, Subpart GG]

2. When firing distillate oil, NO_x emissions from the combustion turbine shall not exceed 42.0 ppmvd corrected to 15% oxygen. [40CFR60, Subpart GG]

3. Ongoing and annual compliance for EU 001 ~~and~~ shall be determined by the existing NO_x CEM system on a 30-day rolling average basis and reported as required by the current Title V permit, except for the following addition/revision: *To verify facility-wide compliance with the 194.3 TPY cap for NO_x emissions including EU 003 and 004 (Boilers Nos. 4 and 5), and to provide reasonable assurance that NO_x emissions will not be PSD-significant, CEM records along with cumulative fuel consumption records for EU 003 and 004 shall be kept and maintained by the permittee. Total NO_x emissions for the calendar year shall be reported in the facility's annual operating report.* [PSD-FL-181, Rule 62-212.400, F.A.C., Permit 0010001-001-AV]

what about the contributions from the DB?

9. Carbon Monoxide (CO) Emissions:

a. Combustion Turbine (EU 001):

1. When firing natural gas, CO emissions from the combustion turbine shall not exceed any of the following: 36 ppmvd (corrected to 15% oxygen), 35.8 pounds per hour, 127.5 tons per year. [Applicant Request, Rule 62-212.400, F.A.C.] E.S.

2. When firing distillate oil, CO emissions from the combustion turbine shall not exceed any of the following: 75.0 ppmvd (corrected to 15% oxygen), 70.5 pounds per hour, 7.7 tons per year. [Rule 62-212.400, F.A.C.] E.S.

3. Performance and annual compliance shall be determined in accordance with EPA Method 10. [40CFR60, Subpart GG and Appendix A]

b. Duct Burner (EU 002):

1. When firing natural gas, CO emissions from the duct burner shall not exceed any of the following: 0.15 lb/MMBtu, 28.1 pounds per hour, 36.9 tons per year. [Rule 62-212.400, Permit 0010001-001-AV] B.4.

2. Performance and annual compliance with the above limits shall be determined in accordance with EPA Method 10. [40CFR60, Subpart GG and Appendix A]

AIR CONSTRUCTION PERMIT 0010001-003-AC

SECTION III – EMISSIONS UNITS SPECIFIC CONDITIONS (CONT'D)

10. Sulfur Dioxide (SO₂) Emissions:

a. SO₂ emissions from the combustion turbine shall not exceed 0.015 percent by volume at 15 percent oxygen and on a dry basis. [40 CFR 60.333(a), Subpart GG]

b. The SO₂ performance test shall be conducted using EPA Method 20 in accordance with 40 CFR 60.335. [40 CFR 60, Subpart GG]

c. 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:

Natural Gas – 1.0 grain sulfur per 100 standard cubic feet

Fuel Oil – 0.5 percent (wt.) sulfur [PSD-FL-181], 0.8 percent (wt.) sulfur [40 CFR 60.333, Subpart GG]

d. 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 Compliance Authority, 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.]

11. Visible Emissions (VE):

a. When firing natural gas in the combustion turbine (EU 001) and/or duct burner (EU 002), visible emissions shall not exceed 10 percent opacity as determined by EPA Method 9. [Permit 0010001-001-AV, Rule 62-212.400, F.A.C.]

B.Y. E.S.

b. When firing fuel oil in the combustion turbine (EU 001), visible emissions shall not exceed 20 percent opacity as determined by EPA Method 9. [Permit 0010001-001-AV, Rule 62-212.400, F.A.C.]

E.S.

c. Ongoing compliance with the above visible emissions limits shall be determined in accordance with EPA Method 9. [40 CFR 60, Appendix A]

12. Performance Tests: The combustion turbine 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. The tests must be conducted within 60 days after achieving at least 90% of the maximum permitted capacity, but not later than 180 days after initial operation of the emissions units. 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]

13. Annual Compliance Tests: During each federal fiscal year (October 1st to September 30th), the combustion turbine/duct burner shall be tested when firing natural gas to demonstrate compliance with the emission limits for NO_x, CO and visible emissions. If the combustion turbine fires fuel oil more than 400 hours during the federal fiscal year, it shall also be tested for visible emissions when firing oil. [Rule 62-212.400, F.A.C.; Permit 0010001-001-AC]

SECTION III – EMISSIONS UNITS SPECIFIC CONDITIONS (CONT'D)

EXCESS EMISSIONS

14. Excess Emissions Prohibited: Excess emissions caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure that may reasonably be prevented during startup, shutdown or malfunction are 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.]
15. 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 Compliance Authority 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.]
16. Best operational practices: Best operational practices shall be used to minimize hourly emissions that occur during episodes of startup, shutdown and malfunction. Emissions of any quantity or duration that occur entirely or in part from poor maintenance, poor operation, or any other equipment or process failure, which may reasonably be prevented, shall be prohibited. [Rule 62-210.700, F.A.C.]

MONITORING REQUIREMENTS

17. 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 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]
18. Fuel Consumption Monitoring of Operations: To demonstrate compliance with the fuel consumption limits, 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. To demonstrate compliance with the turbine capacity requirements, 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.]
19. 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 combustion turbine. 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 or the Compliance Authority. [Rule 62-4.070(3), F.A.C.]

SECTION III – EMISSIONS UNITS SPECIFIC CONDITIONS (CONT'D)

NOTIFICATION, REPORTING, AND RECORDKEEPING

20. Records: All measurements, records, and other data required to be maintained shall be recorded in a permanent form and retained for at least five (5) years following the date on which such measurements, records, or data are recorded. These records shall be made available upon request. [Rules 62-4.160 and 62-213.440, F.A.C]
21. NSPS Notifications: All applicable notifications and reports required by 40 CFR 60, Subpart A shall be submitted to the Compliance Authority. [40 CFR 60, Subpart A]
22. Semi-Annual Reports: Semi-annual excess emission reports, in accordance with 40 CFR 60.7 (a)(7)(c) (2000 version), shall be submitted to each Compliance Authority. [40 CFR 60.7]
23. Addresses: 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, 825 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.

AIR CONSTRUCTION PERMIT 0010001-003-AC

TITLE V EMISSION LIMITS

(Summary of Emission Limits in Current Title V Permit 0010001-001-AV)

Pollutant	Fuel Type	Basis of Limit (CT/DB)	CT/DB	
			lbs/hr	TPY
NO _x ¹	Natural Gas	25 ppmvd/0.1 lb per MMBtu	39.6/18.7 ³	142.7/24.6 ^{1,2}
	No.2 Fuel Oil	42 ppmvd/Not Applicable	66.3 ³ /Not Applicable	7.3 ^{1,2} /Not Applicable
SO ₂	No.2 Fuel Oil	BACT	0.5% (wt.) Sulfur	
CO	Natural Gas	42 ppmvd/0.15 lb per MMBtu	38.8/28.1	158.0/36.9
	No.2 Fuel Oil	75 ppmvd/Not Applicable	70.5/Not Applicable	7.7/Not Applicable
VE	Natural Gas		10% opacity ⁴	
VE	No. 2 Fuel Oil		20% opacity, except for one 6-min. period per hour of not more than 27% 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 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 A.6.)
- 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 B.4.

The permittee has elected to demonstrate compliance with the 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 of 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:

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

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.]

AIR CONSTRUCTION PERMIT 0010001-003-AC

TECHNICAL EVALUATION
AND
PRELIMINARY DETERMINATION

FLORIDA POWER CORPORATION
University of Florida Cogen Plant
Gainesville, Alachua County

48 MW GE LM6000-PC-ESPRINT
TURBINE REPLACEMENT

Facility I.D. No. 0010001
Permit No. 0010001-003-AC

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

April 18, 2001

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

APPLICATION INFORMATION

Applicant Name and Address

Florida Power Corporation
University of Florida Cogen Plant
Mowry Road, Bldg. 82
University of Florida
Gainesville, Florida 32611-2295

Authorized Representative: Kris Edmondson – Plant Manager

Reviewing and Process Schedule

Date of receipt of application: 01-29-01
BAR incompleteness letter: 02-09-01
Received response to incompleteness letter: 03-08-01
Application deemed complete: 03-08-01

FACILITY INFORMATION

Facility Location

Florida Power Corporation's University of Florida Cogen Plant is located at Mowry Road, Bldg. 82 near the university's medical school in Gainesville, Alachua County. This site is approximately 100 kilometers (km) south of Okefenokee National Wildlife Refuge (NWR), a PSD Class I Area and approximately 100 km northeast of the Chassahowitzka NWR Class I PSD Area. The UTM coordinates of this facility are Zone 17; 369.4.0 km E; 3,279.3 km N.

Standard Industrial Classification Codes (SIC)

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

Facility Category

The facility is classified as a Major or Title V Source of air pollution because emissions of at least one regulated air pollutant, such as particulate matter (PM/PM₁₀), sulfur dioxide (SO₂), nitrogen oxides (NO_x), carbon monoxide (CO), or volatile organic compounds (VOC) exceeds 100 TPY. The facility is within an industry included in the list of the 28 Major Facility Categories per Table 212.400-1, F.A.C. Since present emissions are greater than 100 TPY for NO_x, the facility is also a Major Facility with respect to Rule 62-212.400, Prevention of Significant Deterioration (PSD).

As a Major Facility, project emissions greater than the significant emission rates given in Table 212.400-2 (100 TPY of CO; 40 TPY of NO_x, SO₂, or VOC, 25/15 TPY of PM/PM₁₀) require review per the PSD rules and a determination of Best Available Control Technology (BACT). This facility underwent PSD review and a BACT determination in 1994 (PSD-FL-181). This facility is also subject to the Title IV Acid Rain Program, 40 CFR 72.

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

PROJECT DESCRIPTION

The applicant proposes to install a 48 megawatt (MW) combustion turbine (GE LM6000-PC-ESPRINT) to replace an existing 43 MW combustion turbine (GE LM6000-PA) that has been operated continuously at the facility since 1994. The existing turbine is in need of a significant amount of repair/maintenance. General Electric does not support the older "PA" model. FPC determined that the economics of the new engine vs. repair of the existing unit are favorable, and concluded that the replacement with the updated "PC ESPRINT" model is the best alternative.

This emissions unit (EU001) is indicated in the table below listing each emissions unit at the facility. The new model will utilize spray intercooling to maximize throughput thus reducing supplementary firing in the duct burner for meeting steam and power requirements.

E.U. No.	EMISSION UNIT DESCRIPTION
001	GE LM6000-PC-ESPRINT Combustion Turbine
002	Duct Burner System/HRSG
003	No. 4 Boiler
004	No. 5 Boiler

According to information available from General Electric, the LM6000-PC-ESPRINT replacement turbine is a more fuel-efficient version of the existing GE LM6000 turbine presently installed. The GE SPRINT^(R) technology selected for this project is based on an atomized water spray injected through spray nozzles located between the high-pressure and low-pressure compressors. Water is atomized using high-pressure air taken off of eighth-stage bleed. The water-flow rate is metered, using the appropriate engine control schedules. On high-pressure ratio gas turbines, such as the LM6000, the compressor discharge temperature is controlled because compressed air is used to cool the hot section components. By injecting an atomized water spray in front of the LM6000 high-pressure compressor, the compressor inlet temperature is significantly reduced. Utilizing the same compressor discharge temperature control limit, the compressor is able to pump more air, achieving a higher-pressure ratio. The result is higher output and better efficiency. It is estimated that GE SPRINT technology will increase the maximum power output at ISO conditions from the current 43 MW to about 48 MW.

CURRENT COMBUSTION TURBINE/DUCT BURNER EMISSION LIMITS (TITLE V PERMIT)

Pollutant	Fuel Type	Basis of Limit (CT/DB)	CT/DB	
			lbs/hr	TPY
NO _x ¹	Natural Gas	25 ppmvd/0.1 lb per MMBtu	39.6/18.7	142.7/24.6
	No.2 Fuel Oil	42 ppmvd/Not Applicable	66.3 ³ /Not Applicable	7.3 ^{1,2} /Not Applicable
SO ₂	No.2 Fuel Oil	BACT	0.5% (wt.) Sulfur	
CO	Natural Gas	42 ppmvd/0.15 lb per MMBtu	38.8/28.1	158.0/36.9
	No.2 Fuel Oil	75 ppmvd/Not Applicable	70.5/Not Applicable	7.7/Not Applicable
VE	Natural Gas		10% opacity	
VE	No. 2 Fuel Oil		20% opacity, except for one 6-min. period per hour of not more than 27% opacity	

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

AIR POLLUTION EMISSIONS AND CONTROL TECHNIQUES

Regulated air pollutants of most concern that are emitted from natural gas-fired turbines include nitrogen oxides (NO_x) and carbon monoxide (CO), while particulate matter (PM/PM₁₀), sulfur dioxide (SO₂) and volatile organic compounds (VOC) are typically emitted in less significant amounts. As described below, water injection is the method used to control NO_x emissions. Emissions of other pollutants are limited through combustion design and proper operation and maintenance, and by limiting hours of operation.

NITROGEN OXIDES (NO_x) EMISSIONS

Oxides of nitrogen (NO and NO₂) are formed in the high temperature environment of the turbine combustion zone due to oxidation of molecular nitrogen in the combustion air. About 90-95% of the NO_x is formed as nitric oxide (NO). Although some of the NO is subsequently oxidized in the exhaust environment and the atmosphere to nitrogen dioxide (NO₂), the residence time in the combustion zone is too short for significant amounts of NO to be oxidized to NO₂. An alternate source of nitrogen is the chemically bound nitrogen in the fuel. Thermal NO_x forms in the high temperature area of the combustion zone, and increases exponentially with increasing flame temperature and linearly with increasing residence time. Flame temperature is dependent upon the ratio of fuel to air in the combustion zone. Prompt NO_x forms near the flame front as an intermediate combustion product and is a relatively small fraction of the NO_x formed under near-stoichiometric conditions. Fuel NO_x is formed from the nitrogen content in the fuel and is not a significant contributor to total NO_x when combusting natural gas or distillate fuel oil which contain little fixed nitrogen.

Actual emissions of NO_x will vary with operating load and ambient (inlet) air conditions. Increasing the operating load increases the fuel requirement, so mass emissions will increase as operation increases. Because of the increased density of colder air, higher mass throughput can be achieved which requires more fuel resulting in higher emissions. Ambient humidity will also affect mass flow, fuel requirements and emissions, but to a lesser extent.

This type of combustion turbine is designed to control NO_x emissions through the injection of water into the combustion zone. The injected water, through consumption of heat for vaporization, reduces the temperature in the combustion zone, thus controlling thermal NO_x. There is a practical limit to the amount of water that may be injected before flame instability or poor combustion conditions result. The monitoring of the water injection and fuel consumption rates is required in order to properly maintain the water to fuel ratio at a constant level. The system is operated so that as more fuel is fired at higher loads or cooler ambient conditions, more water is injected to maintain NO_x emissions at a constant exhaust concentration.

The turbine is designed to maintain an exhaust gas concentration of 25 ppmvd NO_x while firing gas, or 42 ppmvd while firing oil (corrected to 15% oxygen at ISO conditions). This is equivalent to 39.6 lb/hr while burning gas and 66.3 lb/hr while burning oil. While NO_x concentration is maintained at a near-constant level, mass emissions will vary with load and ambient temperature as discussed previously.

The permit will require that compliance be demonstrated annually with the total NO_x emissions from the combustion turbine (EU001), duct burner (EU002), and the two boilers used for backup only (EU003 and EU004), being limited to 194.3 tons per year. Also required is that the water-to-fuel ratio be maintained at a level necessary to demonstrate compliance with the concentration standard during the latest annual compliance test (40 CFR 60, Subpart GG). Annual operation and compliance will be effected through the use of a NO_x continuous emission monitor (CEMS).

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

CARBON MONOXIDE (CO) & VOLATILE ORGANIC COMPOUND (VOC) EMISSIONS

CO and VOC emissions are formed in the combustion process as a result of incomplete fuel combustion. In general, CO emissions are inversely proportional to NO_x emissions for turbines. The water injection system used to control NO_x could, if not properly operated and maintained, increase CO emissions if combustion temperatures are quenched so that cold spots form in the combustion zone. Combustion design and proper operation and maintenance are the air pollution control techniques. The permit requires that facility staff are trained in proper operation and maintenance of the turbines, so that emissions are kept to a minimum. The permit requires that compliance be demonstrated annually with the maximum CO emission rate of 36 ppmvd @ 15% O₂, and 35.8 pounds per hour, and 127.5 tons per year. VOC emissions vary similarly with CO, although potential emissions of VOC are considerably lower than CO.

PARTICULATE MATTER (PM/PM₁₀) EMISSIONS

Particulate matter is generated by various physical and chemical processes during combustion and will be affected by the fuel type and the design and operation of the combustion system. The fuel fired will be primarily natural gas with distillate fuel oil used for backup (maximum sulfur content of 0.5%, by weight). Since natural gas is a very clean-burning fuel, it generates very little particulate matter. Likewise, distillate fuel oil with its low ash and sulfur content generates very low quantities of particulate matter. According to worst case estimates by the applicant, PM/PM₁₀ emissions will be less than 10 tons per year.

SULFUR DIOXIDE (SO₂) & SULFURIC ACID MIST EMISSIONS

Emissions of sulfur dioxide and sulfuric acid mist vary with the sulfur content of the fuel. Fuel sulfur is oxidized during combustion to sulfur dioxide. Through further reaction with oxygen and the water vapor in the inlet air, some of the SO₂ is further oxidized to sulfur trioxide (SO₃) and the exhaust gas leads to the formation of sulfuric acid. Limiting the hours of operation on fuel oil and the sulfur content of the fuel are the most effective control measures. The sulfur content of the fuel oil is limited by this permit as well as the applicant's Title V permit to 0.5% (wt.). Since annual emissions will not increase as a result of this project and therefore PSD does not apply, the current BACT limit of 0.05% sulfur for distillate fuel oil fired in gas turbines will not be required.

RULE APPLICABILITY

The proposed project is subject to preconstruction review requirements under the provisions of Chapter 403, Florida Statutes, and Chapters 62-4, 62-204, 62-210, 62-212, 62-214, 62-296, and 62-297 of the Florida Administrative Code (F.A.C.). The Department determined that the Rules for the Prevention of Significant Deterioration of Air Quality (PSD) do not apply to this project because the modification will not result in emissions increases greater than the significant emission rates given in Table 212.400-2, F.A.C. Additionally, annual facility emissions after replacement of the turbine will be capped at currently permitted levels. These caps, in addition to other conditions, were imposed during the permitting of the original combustion turbine to avoid PSD applicability.

The Florida Statutes authorize the Department of Environmental Protection to establish rules and regulations regarding air quality as part of the Florida Administrative Code (F.A.C.). This project is subject to the following applicable requirements of the rules and regulations of the Florida Administrative Code as follows:

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

Chapter 62-4	Permitting Requirements
Chapter 62-204	Ambient Air Quality Protection and Standards, PSD Increments, and Federal Regulations Adopted by Reference
Chapter 62-210	Required Permits, Public Notice and Comments, Reports, Stack Height Policy, Circumvention, Excess Emissions, Forms and Instructions
Chapter 62-212	Preconstruction Review, PSD Requirements, BACT Determinations
Chapter 62-213	Operation Permits for Major Sources of Air Pollution
Chapter 62-214	Acid Rain Program Requirements
Chapter 62-296	Emission Limiting Standards
Chapter 62-297	Test Requirements, Test Methods, Supplementary Test Procedures, Capture Efficiency Test Procedures, Continuous Emissions Monitoring Specification and Alternate Sampling Procedures

The project is also subject to federal air pollution control rules including the applicable provisions of 40 CFR 60, Subpart GG, Standards of Performance for Stationary Gas Turbines, adopted by reference in Rule 62-204.800(7)(b), F.A.C. The duct burner (EU 002) shall comply with the applicable provisions of 40 CFR 60, Subpart Db, Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units, adopted by reference in Rule 62-204.800(7)(b), F.A.C. The Emissions Units subject to a specific NSPS subpart shall also comply with the applicable requirements of 40 CFR 60, Subpart A, General Provisions including:

- 40CFR60.7 Notification and Record Keeping
- 40CFR60.8 Performance Tests
- 40CFR60.11 Compliance with Standards and Maintenance Requirements
- 40CFR60.12 Circumvention
- 40CFR60.13 Monitoring Requirements
- 40CFR60.19 General Notification and Reporting requirements

SOURCE IMPACT ANALYSIS

An impact analysis was not required for this project because it is not subject to the requirements of PSD.

CONCLUSION

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

DEPARTMENT CONTACT FOR ADDITIONAL INFORMATION

John Reynolds, Permit Engineer
New Source Review Section
Bureau of Air Regulation, MS 5505
2600 Blair Stone Road
Tallahassee, Florida 32399-2400
Phone: 850-921-9530
Fax: 850-921-6979



Department of Environmental Protection

Lawton Chiles
Governor

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

Virginia B. Wetherell
Secretary

September 11, 1997

CERTIFIED MAIL RETURN RECEIPT REQUESTED

Mr. W. Jeffrey Pardue, Director
Environmental Service Department
Florida Power Corp.
3201 34th Street South
St. Petersburg, Florida 33733

Re: FPC UF Cogen - AC01-204652/PSD-FL-181(A)
Final Permit Amendment

Dear Mr. Pardue:

The Department has evaluated your request for an increase in the heat input to the combustion turbine for operation at ambient temperatures near 45°F and a corresponding increase in the short term NO_x emission standard (lb/hr). Your request (page 8 of application) and subsequent information submitted on March 7, 1997 indicated that no increase in annual NO_x emissions would occur as a result of this amendment. The Department hereby amends the above referenced permit Specific Conditions 2 and 3 as follows and clarifies that continuous monitors are to be used to quantify the contribution from the combined cycle combustion turbine and duct burner in order to demonstrate compliance with the annual emissions caps for NO_x:

2. Emissions from this facility shall not exceed the limits listed below:

Pollutant	Source	Fuel	Basis of Limit	lbs/hr	tons/yr
NO _x	Turbine	Gas	EBM*: 25 ppmvd @ 15% O ₂	35.0 39.6	142.7
	Turbine	Oil	EBM*: 42 ppmvd @ 15% O ₂	66.3	7.3
	D. Burner	Gas	EBM*: 0.1 lb/MMBtu	18.7	24.6
	Facility	Gas/Oil			194.3
SO ₂	Turbine	Oil	BACT: 0.5% Sulfur Max.	---	---
	Boiler 4	Oil	BACT: 0.5% Sulfur Max.	---	---
	Boiler 5	Oil	BACT: 0.5% Sulfur Max.	---	---
VE	Turbine	Gas/Oil	Equivalent of mass EBM*	10%/20% opacity**	
	D. Burner	Gas	" " "	10% opacity	
	Boiler 4	Gas/Oil	" " "	10%/20% opacity**	
	Boiler 5	Gas/Oil	" " "	10%/20% opacity**	
CO	Turbine	Gas	BACT: 42 ppmvd	38.8	158.0
	Turbine	Oil	EBA***: 75 ppmvd	70.5	7.7
	D. Burner	Gas	BACT: 0.15 lb/MMBtu****	28.1	36.9

* EBM: Established by manufacturer

** Except for one 6-minute period per hour of not more than 27% opacity

*** EBA: Established by applicant

**** BACT limit proposed by applicant in Table A-2 of application

3. Fuel consumption rates and hours of operation for the turbine and duct burner shall not exceed those listed below:

	<u>Natural Gas</u>			<u>No. 2 Fuel Oil</u>		
	<u>M ft³/hr*</u>	<u>MM ft³/yr</u>	<u>hrs/yr*</u>	<u>M gal/hr*</u>	<u>Mgal/yr</u>	<u>hrs/yr*</u>
Turbine	367.9 <u>420.3</u>	2997.2**	8146.8**	2.9	635.1	219.0**
Duct Burner	197.7	519.5	2628.0	0	0	0


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

**An additional 1.9 hours/yr operation on natural gas will be allowed for each 1.0 hour/yr that fuel oil is not burned (up to 219 x 1.9 hrs/yr), in which case, the emissions limits in Specific Condition No. 2 shall be adjusted accordingly.

Boilers Nos. 4 and 5, firing natural gas or No. 2 fuel oil, may be operated as necessary for backup, as long as total NO_x emissions from the four sources emissions units within the permitted facility do not exceed 194.3 tons NO_x per year. The permittee shall maintain the required fuel use records to demonstrate compliance with this condition and include the total NO_x emission calculation in each annual operating report. For purposes of demonstrating compliance with the annual limits the NO_x emission rate (lbs/MMBtu) from the combustion turbine and duct burner 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 lb/MMBtu of NO_x to lb/hour of NO_x and actual operating hours shall be used to obtain tons per year.

This permit amendment replaces the one issued on March 17, 1997. A copy of this permit amendment shall be filed with the referenced permit and shall become part of the permit. Any party to this order (permit amendment) 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 permit amendment is filed with the Clerk of the Department.

Executed in Tallahassee, Florida.


for Howard L. Rhodes, Director
Division of Air Resources
Management

1/8/04

Matt,

Was the heat input curve in a hard copy form or e-mail, for I have the latest heat input curve provided and received on September 22, 2003, which should be the appropriate heat input curve to be used for compliance purposes? If this is the case, we will resend the latest heat input curve....I did not oversee the FINAL permit package nor the attached "heat input curve", when they were mailed. The Placard Page has the "latest curve" as the one to be used, so the fix is easy. Please advise how you received it.

-----Original Message-----

From: Lydon, Matthew [mailto:Matthew.Lydon@pgnmail.com]

Sent: Thursday, January 08, 2004 5:11 PM

To: Mitchell, Bruce

Subject: University of Florida Permit

Good Afternoon,

I received the Final University of Florida Title V Air Operation Permit. The old curve was still an attachment to the permit.

The letter sent on September 18th, 2003 requested the incorporation of the new curve, and as previously discussed, as seen attached.

<<UF 9_18 Test Table.JPG>> <<UF 9_18 Curve.jpg>> <<UF 9_18 Letter.JPG>>

Please give me a call when you get the chance.

Thanks.

Matthew Lydon
Environmental Specialist
Progress Energy Florida
Mail Code: BB1A
100 Central Avenue
St. Petersburg, FL 33701
internal: 230-4152
external: (727) 826-4152
cell: (727) 409-0325
matthew.lydon@pgnmail.com

Mitchell, Bruce

From: Lydon, Matthew [Matthew.Lydon@pgnmail.com]
Sent: Wednesday, September 24, 2003 7:27 AM
To: Mitchell, Bruce
Subject: FW: University of Florida Cogeneration Public Notice, Update

Good Morning,

Just left a message on your machine concerning the public notice. Below is the email from the Gainesville Sun.

Talk to you soon.

Matthew Lydon
Associate Environmental Scientist
Progress Energy Florida
Mail Code: BB1A
100 Central Avenue
St. Petersburg, FL 33701
internal: 230-4152
external: (727) 826-4152
cell: (727) 409-0325
matthew.lydon@pgnmail.com

-----Original Message-----

From: blakek@gvillesun.com [mailto:blakek@gvillesun.com]
Sent: Monday, September 22, 2003 11:35 AM
To: Lydon, Matthew
Subject: Re: University of Florida Cogeneration Public Notice, Update

Good morning.

The public notice was published on Sunday, September 21st, and the affidavit will be mailed this afternoon.

-Ken Blake

"Lydon, Matthew" <Matthew.Lydon@pgnmail.com>

09/22/03 10:26 AM

To: blakek@gvillesun.com
cc:
Subject: University of Florida Cogeneration Public Notice, Update

Good Morning,

Just checking if the public notice was published? If not, do you have a tentative date?

The affidavit must be mailed to the address below when the notice is published.

I appreciate all your help.

9/24/2003

Matthew Lydon
Associate Environmental Scientist
Progress Energy Florida
Mail Code: BB1A
100 Central Avenue
St. Petersburg, FL 33701
internal: 230-4152
external: (727) 826-4152
cell: (727) 409-0325
matthew.lydon@pgnmail.com



RECEIVED
SEP 22 2003
DIVISION OF AIR
RESOURCE MANAGEMENT

September 16, 2003

Mr. Michael Cooke, Director
Florida Department of Environmental Protection
Division of Air Resource Management
2600 Blair Stone Rd. MS 5500
Tallahassee, FL 32399-2400

Subject: Additional Responsible Officials for Title V – Florida Power Corporation d/b/a
Progress Energy Florida University of Florida Cogen Plant

Dear Mr. Cooke:

As the Responsible Official for the University of Florida Cogen Plant, I am submitting a
Department of Environmental Protection form 62-213.900(8) to identify additional
Responsible Officials.

If you have any questions, please contact me at (352) 337-6904.

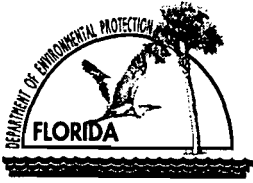
Very truly yours,

A handwritten signature in cursive script that reads 'Wilson B. Hicks, Jr.'.

Wilson B. Hicks, Jr.

Attachment

- c: Mr. Ernie L. Bass
Mr. Paul V. Crimi
Mr. J. Michael Kennedy
Mr. Leonard Kozlov (FL-DEP)
Mr. Scott Sheplak (FL-DEP)



Department of Environmental Protection

RECEIVED

Division of Air Resource Management

SEP 22 2003

RESPONSIBLE OFFICIAL NOTIFICATION FORM

DIVISION OF AIR RESOURCE MANAGEMENT

Note: A responsible official is not necessarily a designated representative under the Acid Rain Program. To become a designated representative, submit a certificate of representation to the U.S. Environmental Protection Agency (EPA) in accordance with 40 CFR Part 72.24.

Identification of Facility

1. Facility Owner/Company Name: Florida Power Corporation d/b/a Progress Energy Florida, Inc.	
2. Site Name: University of Florida Cogen Plant	3. County: Alachua County
4. Title V Air Operation Permit/Project No. (leave blank for initial Title V applications): 10001-001-AV	

Notification Type (Check one or more)

<input type="checkbox"/>	INITIAL:	Notification of responsible officials for an initial Title V application.
<input type="checkbox"/>	RENEWAL:	Notification of responsible officials for a renewal Title V application.
<input checked="" type="checkbox"/>	CHANGE:	Notification of change in responsible official(s). Effective date of change in responsible official(s) <u>September 10, 2003</u>

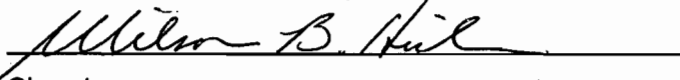
Primary Responsible Official

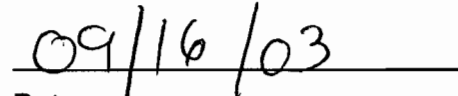
1. Name and Position Title of Responsible Official: Wilson B. Hicks, Jr. – Plant Manager
2. Responsible Official Mailing Address: Organization/Firm: Progress Energy Florida, Inc. Street Address: 100 Central Ave. Mail Code GV44 City: St. Petersburg State: FL Zip Code: 33701
3. Responsible Official Telephone Numbers: Telephone: (352) 337-6902 Fax: (352) 337-6920
4. Responsible Official Qualification (Check one or more of the following options, as applicable): <input checked="" type="checkbox"/> For a corporation, the president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit under Chapter 62-213, F.A.C. <input type="checkbox"/> For a partnership or sole proprietorship, a general partner or the proprietor, respectively. <input type="checkbox"/> For a municipality, county, state, federal, or other public agency, either a principal executive officer or ranking elected official. <input type="checkbox"/> The designated representative at an Acid Rain source.

11-20-03
ARMS Updated
Buen

5. Responsible Official Statement:

I, the undersigned, am a responsible official, as defined in Rule 62-210.200, F.A.C., of the Title V source addressed in this notification. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this notification are true, accurate and complete. Further, I certify that I have authority over the decisions of all other responsible officials, if any, for purposes of Title V permitting.


Signature


Date

Additional Responsible Official

RECEIVED

11-20-03
ARMS Updated.
B...

1. Name and Position Title of Responsible Official:

Ernie L. Bass, Production Manager – CT

SEP 22 2003

2. Responsible Official Mailing Address:

Organization/Firm: Progress Energy Florida, Inc.
Street Address: 100 Central Ave. Mail Code GV44
City: St. Petersburg State: FL

DIVISION OF AIR
RESOURCE MANAGEMENT

Zip Code: 33701

3. Responsible Official Telephone Numbers:

Telephone: (352) 337-6919 Fax: (352) 337-6920

4. Responsible Official Qualification (*Check one or more of the following options, as applicable*):

- For a corporation, the president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit under Chapter 62-213, F.A.C.
- For a partnership or sole proprietorship, a general partner or the proprietor, respectively.
- For a municipality, county, state, federal, or other public agency, either a principal executive officer or ranking elected official.
- The designated representative at an Acid Rain source.

Additional Responsible Official

11-20-03
ARMS Updated.
B...

1. Name and Position Title of Responsible Official:

Paul V. Crimi, General Manager CT Operations

2. Responsible Official Mailing Address:

Organization/Firm: Progress Energy Florida, Inc.
Street Address: 100 Central Ave. Mail Code BB1C
City: St. Petersburg State: FL

Zip Code: 33701

3. Responsible Official Telephone Numbers:

Telephone: (727) 826-4224 Fax: (727) 826-4222

4. Responsible Official Qualification (*Check one or more of the following options, as applicable*):

- For a corporation, the president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit under Chapter 62-213, F.A.C.
- For a partnership or sole proprietorship, a general partner or the proprietor, respectively.
- For a municipality, county, state, federal, or other public agency, either a principal executive officer or ranking elected official.
- The designated representative at an Acid Rain source.

Additional Responsible Official

RECEIVED

11-20-03
ARMS Updated.
B...

1. Name and Position Title of Responsible Official:

J. Michael Kennedy, Manager Permitting & Compliance, DR

SEP 22 2003

2. Responsible Official Mailing Address:

Organization/Firm: Progress Energy Florida, Inc.

DIVISION OF AIR
RESOURCE MANAGEMENT

Street Address: 100 Central Ave. Mail Code BB1A

City: St. Petersburg

State: FL

Zip Code: 33701

3. Responsible Official Telephone Numbers:

Telephone: (727) 826-4334

Fax: (727) 826-4216

4. Responsible Official Qualification (*Check one or more of the following options, as applicable*):

For a corporation, the president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit under Chapter 62-213, F.A.C.

For a partnership or sole proprietorship, a general partner or the proprietor, respectively.

For a municipality, county, state, federal, or other public agency, either a principal executive officer or ranking elected official.

The designated representative at an Acid Rain source.



RECEIVED

SEP 16 2003

Progress Energy Florida, Inc
Bayboro Plant
160 13th Ave., S.
St. Petersburg, FL 33701

DIVISION OF AIR
RESOURCE MANAGEMENT

Bruce M. Baldwin
Vice President
CT – Operations Department
(727) 826-4201

September 10, 2003

Mr. Howard Rhodes, Director
Florida Department of Environmental Protection
Division of Air Resource Management
2600 Blair Stone Rd. MS 5500
Tallahassee, FL 32399-2400

Subject: Alternate Responsible Officials: Title V Air Permits

Dear Mr. Rhodes:

This letter is intended to delegate the alternate “responsible officials” for Title V air permits for Florida Power Corporation d/b/a Progress Energy Florida combustion turbine facilities. All delegations are made in accordance with a corporate procedure, and each person is duly qualified in accordance with applicable statute and regulation. The delegations being made today are noted on Attachment 1. Each facility will submit a Department of Environmental Protection form 62-213.900(8) at a later date.

By copy of this letter, notification of this delegation is provided to individuals newly authorized to sign on behalf of the company. This letter supersedes and negates any previous correspondence relating to the responsible officials for these facilities. Delegations for Progress Energy facilities not referenced in this letter and provided to you previously are not changed.

Very truly yours,

Bruce M. Baldwin
Vice President – Combustion Turbine Operations

Attachment

- C: Mr. Reginald D. Anderson
Mr. Ernie L. Bass
Mr. Paul V. Crimi
Mr. Martin J. Drango
Mr. William Dudley
Mr. Kris Edmondson
Mr. Wilson B. Hicks, Jr.
Mr. David R. Karp
Mr. J. Michael Kennedy
Mr. Leonard Kozlov (FL-DEP)
Mr. George Kerst
Mr. Mike W. Lentz
Mr. Dennis A. Merrick
Mr. Scott Sheplak (FL-DEP)
Mr. Roger B. Zirkle

Attachment 1
Progress Energy Florida Combustion Turbine
Title V Responsible Officials

Facility	Current RO: Plant Managers	Alternate: General Manager CT Operations	Alternate: Production Managers - CT	Alternate: DR if applicable
Avon Park	Kris Edmondson	Paul V. Crimi	William Dudley	
Bayboro	Mike W. Lentz	Paul V. Crimi	David R. Karp	
DeBary	Martin J. Drango	Paul V. Crimi	Reginald D. Anderson	J. Michael Kennedy
Higgins	Mike W. Lentz	Paul V. Crimi	David R. Karp	
Hines	Roger B. Zirkle	Paul V. Crimi	George Kerst	J. Michael Kennedy
Intercession City	Kris Edmondson	Paul V. Crimi	William Dudley	J. Michael Kennedy
Rio Pinar	Martin J. Drango	Paul V. Crimi	Reginald D. Anderson	
Tiger Bay	Roger B. Zirkle	Paul V. Crimi	Dennis A. Merrick	J. Michael Kennedy
Turner	Martin J. Drango	Paul V. Crimi	Reginald D. Anderson	
University of Florida Cogen	Wilson B. Hicks, Jr.	Paul V. Crimi	Ernie L. Bass	J. Michael Kennedy

5/2/03

Dear Matt,

I haven't heard from you in a while, so I thought I would check of the status of the request that we spoke about a couple of weeks ago, specifically addressing the NOx and CO issues and their restrictions in the current and proposed permit(s) for the University of Florida's CT. Look forward to hearing from you. Take care.

Bruce Mitchell
850/413-9198

-----Original Message-----

From: Lydon, Matthew [mailto:Matthew.Lydon@pgnmail.com]

Sent: Wednesday, March 05, 2003 11:15 AM

To: Mitchell, Bruce

Subject: University of Florida Cogeneration Permit

Good Morning,

The University of Florida Cogeneration Facility received a final determination on an air construction permit amendment. Can you please instruct me on the proper steps to take in order to promptly incorporate the amendments into the Title V permit.

Talk to you soon

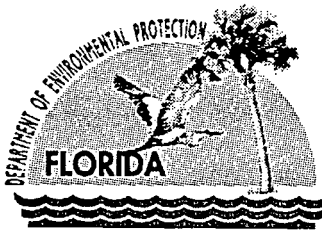
Matthew Lydon
Associate Environmental Scientist
Florida Power
Mail Code: BB1A
100 Central Avenue
St. Petersburg, FL 33701
internal: 230-4152
external: (727) 826-4152
cell: (727) 409-0325
matthew.lydon@pgnmail.com

4/8/03

Dear Mike and Matt,

Please look at Specific Conditions D.1. and E.6. for CO (DRAFT Permit attached). With the allowed hours per year at 7211, which is non-fuel specific, you not only would violate the TPY limitation for CO (7.7 TPY), but the allowed change would trip PSD NSR as well for CO (> 200 TPY increase). For reasonable assurance, we can fix the issue by placing an hours/yr limitation at 219 hrs while firing fuel oil, which was the previous limitation on firing fuel oil before the latest AC permitting actions for the new CT. Please advise. Scott's phone number is 850/921-9532 and mine is 850/413-9198. Take care.

Bruce



Department of Environmental Protection

Jeb Bush
Governor

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400
March 26, 2003

David B. Struhs
Secretary

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

Mr. Wilson B. Hicks, Plant Manager
Florida Power Corporation
University of Florida Cogen Plant
Mowry Road, Bldg. 82, UF
Gainesville, FL 32611-2295

Re: DEP File No. 0010001-004-AC (Request for Construction Permit Expiration Date Extension)
Florida Power Corporation – University of Florida (FPC-UF)

Dear Mr. Hicks:

The Department reviewed your letter dated March 5, 2003 for extension of the referenced air construction permit until December 31, 2004. Physical construction has been completed. The Department will therefore extend the permit only until December 31, 2003. This should provide sufficient time to test the new unit and submit a complete Title V Permit Application reflecting the as-built project.

All references in the permit to the expiration date are hereby revised to **December 31, 2003**.

This determination is issued pursuant to Chapter 403, Florida Statutes. A person whose substantial interests are affected by the proposed agency action may petition for an administrative proceeding (hearing) under Sections 120.569 and 120.57 of the Florida Statutes (F.S.). The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida, 32399-3000. Petitions filed by the applicant or any of the parties listed below must be filed within fourteen (14) days of receipt of this notice of intent. Petitions filed by any persons other than those entitled to written notice under section 120.60(3), F.S., must be filed within fourteen (14) days of publication of the public notice or within fourteen (14) days of receipt of this notice of intent, whichever occurs first. Under Section 120.60(3), F.S., however, any person who asked the Department for notice of agency action may file a petition within fourteen (14) days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57, F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205 of the Florida Administrative Code (F.A.C.)

A petition that disputes the material facts on which the Department's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address, and telephone number of the petitioner, the name, address, and telephone number of the petitioner's representative, if any, which shall be the address for

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service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination; (c) A statement of how and when petitioner received notice of the agency action or proposed action; (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate; (e) A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the agency's proposed action; (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action; and (g) A statement of the relief sought by the petitioner, stating precisely the action petitioner wishes the agency to take with respect to the agency's proposed action.

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

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

Mediation is not available in this proceeding.

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

The application for a variance or waiver is made by filing a petition with the Office of General Counsel of the Department, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000. The petition must specify the following information: (a) The name, address, and telephone number of the petitioner; (b) The name, address, and telephone number of the attorney or qualified representative of the petitioner, if any; (c) Each rule or portion of a rule from which a variance or waiver is requested; (d) The citation to the statute underlying (implemented by) the rule identified in (c) above; (e) The type of action requested; (f) The specific facts that would justify a variance or waiver for the petitioner; (g) The reason why the variance or waiver would serve the purposes of the underlying statute (implemented by the rule); and (h) A statement whether the variance or waiver is permanent or temporary and, if temporary, a statement of the dates showing the duration of the variance or waiver requested.

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

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

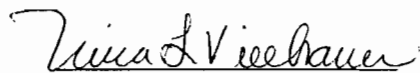
This determination is final and effective on the date filed with the clerk of the Department unless a petition is filed in accordance with the above paragraphs or unless a request for extension of time in which to file a petition is filed within the time specified for filing a petition pursuant to Rule 62-110.106,

F.A.C., and the petition conforms to the content requirements of Rules 28-106.201 and 28-106.301, F.A.C. Upon timely filing of a petition or a request for extension of time, this action will not be effective until further order of the Department.

Any party to this order has the right to seek judicial review of it under Section 120.68, F.S., by filing a notice of appeal under Rule 9.110 of the Florida Rules of Appellate Procedure with the clerk of the Department of Environmental Protection in the Office of General Counsel, Mail Station #35, 3900 Commonwealth Boulevard, Tallahassee, Florida, 32399-3000, 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 must be filed within thirty (30) days after this order is filed with the clerk of the Department.

A copy of this letter shall be filed with the referenced permit and shall become part of the permit.

Executed in Tallahassee, Florida.



Trina Vielhauer, Chief
Bureau of Air Regulation
Division of Air Resources Management

CERTIFICATE OF SERVICE

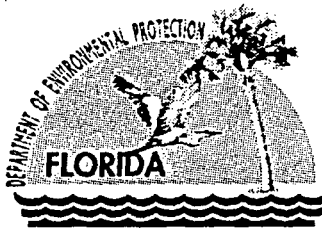
The undersigned duly designated deputy agency clerk hereby certifies that this Permit Modification was sent by certified mail (*) and copies were mailed by U.S. Mail before the close of business on 3/27/03 to the person(s) listed:

Wilson B. Hicks, FPC*
Mike Kennedy, FPC
Chris Kirts, NED
Scott Osbourn, P.E.

Clerk Stamp

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

Victoria Gibson / March 27, 2003
(Clerk) (Date)



Jeb Bush
Governor

Department of Environmental Protection

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

David B. Struhs
Secretary

January 30, 2003

CERTIFIED MAIL – Return Receipt Requested

Mr. Wilson B. Hicks, Jr.
Plant Manager and Responsible Official
Florida Power
University of Florida Cogeneration Plant
Mowery Road, Building 82
Mail Code GV44
Gainesville, FL 32611-6920

Re: Title V Air Operation Permit Revision Application
University of Florida Cogeneration Plant
Permit Project No.: 0010001-005-AV
Facility ID: 0010001
LM6000-PC-ESPRINT

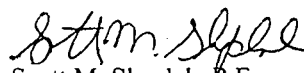
Dear Mr. Hicks:

The Department received the application for revision on December 13, 2002, for the incorporation of the LM6000-PC-ESPRINT project at the Florida Power's University of Florida Cogeneration Plant. Based on our initial review of the proposed project, we have determined that additional information is needed in order to continue processing this application package. Please provide all assumptions, calculations, and reference material(s), that are used or reflected in any of your responses to the following issues:

1. The Acid Rain Forms for the "Retired Unit Exemption", DEP Form No. 62-210.900(1)(a)3. (effective 04/16/2001), and the "Phase II Acid Rain Part Application", DEP Form No. 62-210.900(1)(a) (effective 04/16/2001), were not provided for the retired LM6000 and the new LM6000-PC-ESPRINT, respectively. Please provide these forms.

Once the information has been received, we will resume processing the application. If you have any questions, please contact Bruce Mitchell at 850/413-9198.

Sincerely,


Scott M. Sheplak, P.E.
Administrator
Title V Section

cc: Chris Kirts, DEP – NED
J. Michael Kennedy, Application Contact, Florida Power
Scott Osbourn, P.E., ENSRI

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Florida Power
A Progress Energy Company

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MAR 12 2003

BUREAU OF AIR REGULATION

March 5, 2003

Ms. Trina Vielhauer
Bureau Chief, Bureau of Air Regulation
Florida Department of Environmental Protection
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Re: University of Florida Cogeneration Facility Request for Incorporation of Air Construction Permit 0010001-004-AC Conditions into the Air Operating Permit 0010001-005-AV.

This letter is in request of incorporating the recent amendments to the University of Florida Cogeneration Facility's Air Construction Permit 0010001-004-AC into the facility's Air Operating Permit 0010001-005-AV. Enclosed is letter of Final Determination containing the recent amendments to the permit.

Please contact Matthew Lydon (727) 826-4152 if you have any questions.

Sincerely,

Wilson B. Hicks
Plant Manager

cc. Scott Sheplak

enclosure

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

FINAL DETERMINATION

DEP File No. 0010001-004-AC

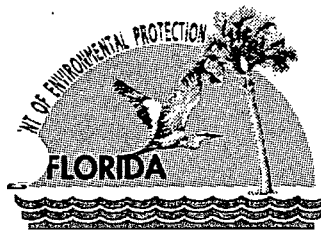
FPC University of Florida Cogeneration Plant
Alachua County, Florida

An Intent to Issue an air construction permit modification to revise some specific conditions and to allow for the adjustment of the combustion turbine (CT) heat input to reflect actual performance capabilities while capping CT emissions of nitrogen oxides (NOx) at 141 tons per year was distributed on January 17, 2003. This FPC facility is located at Gainesville, Alachua County, Florida.

The Public Notice of Intent to Issue Air Construction Permit was published in the Gainesville Sun on February 1, 2003. No comments were received as a result of the Public Notice period.

Based on subsequent internal review and for the sake of clarity, Unit 002 (duct burner) was specifically included in the final facility-wide cap of 194.3 tons of NOx.

The final action of the Department will be to issue the permit modification as noted during the Public Notice period.



Jeb Bush
Governor

Department of Environmental Protection

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

David B. Struhs
Secretary

February 17, 2003

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

Mr. Wilson B. Hicks, Plant Manager
Florida Power Corporation
University of Florida Cogen Plant
Mowry Road, Bldg. 82, UF
Gainesville, FL 32611-2295

Re: DEP File No. 0010001-004-AC (Request for Increase in CT Permitted Heat Input)

Dear Mr. Hicks:

This is the Department's permitting action in response to the referenced request received from Florida Power Corporation (FPC) on May 7, 2002. FPC submitted a request to modify Permit No. 0010001-003-AC by increasing the permitted heat input to the UF combustion turbine (CT) from the current 392 mmBTU/hr to 408 mmBTU/hr at 59°F. The adjustment reflects the engine's actual performance curve. On June 6, the Department replied to FPC that the requested increase amounting to about 3 MW in the CT's output rating would trigger retroactive Prevention of Significant Deterioration (PSD) review for NOx from the CT if no offsets are applied such as a further limitation on operating hours. This was due to the fact that PSD automatically applied upon reaching the threshold of 40 tons per year, since PSD review was avoided for the original turbine based on a netting increase of 39.7 tons of NOx per year.

On November 8, 2002, FPC modified its application by proposing that the baseline annual fuel usage cap for the turbine be replaced with a cap limiting total annual NOx emissions from the turbine to 141 TPY, as verified by the existing continuous NOx monitor. This proposal is acceptable to the Department since the original PSD-baseline turbine installed in 1994 was replaced in 2001 with a more efficient, less polluting model and thus the 2001 actual average lbs NOx/hr is 12.3 percent lower than the 1994 actual average. Therefore, the expiration date of Permit No. 0010001-003-AC is hereby extended to March 31, 2003 and Section III of the permit is otherwise modified as indicated below:

SPECIFIC CONDITION No. 5

Combustion Turbine/Duct Burner Capacity: The heat input to the combustion turbine shall not exceed ~~392 million Btu per hour (mmBtu/hr) when firing natural gas and 384 mmBtu/hr when firing fuel oil~~ **the values indicated on the turbine manufacturer's heat input vs. power output curve attached to this permit (Attachment C).** The heat input to the duct burner system shall not exceed 188 MMBtu/hr on natural gas (no oil firing). The maximum heat input limits are based on the lower heating value (LHV) of each fuel, 100% load, and ambient conditions of 59°F temperature, 60% relative humidity, and 14.7 psia. These maximum heat input rates will vary depending upon ambient conditions and the combustion turbine characteristics. Manufacturer's curves corrected for site conditions or equations for correction to other ambient conditions shall be provided to the Department within 45 days of completing the initial compliance testing. [Rule 62-210.200, F.A.C. (Potential to Emit), Permit 0010001-001-AV]

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SPECIFIC CONDITION No. 6

Hours of Operation/Fuel Usage Limitations: Combustion turbine/duct burner operation at maximum firing rates shall be limited to 7,211 hours per year (to prevent retroactive PSD applicability for NO_x under PSD-FL-181, pursuant to Rule 62-212.400(5), F.A.C., by reaching the 40 tons per year PSD applicability threshold). The turbine/duct burner may operate at lower than maximum rates for more hours per year provided that ~~the annual fuel consumption limitations are not exceeded~~ **NO_x emissions from the turbine alone do not exceed 141 tons per year** and that facility-wide NO_x emissions do not exceed 194.3 TPY. ~~The total annual fuel usage for the combustion turbine and the duct burner combined shall not exceed 3.48 trillion BTU (includes up to 635,100 gallons No. 2 fuel oil fired in the turbine).~~ The annual fuel usage by the duct burner is limited to 519.5 million ft³ natural gas.

EU 003 and 004 (Boilers Nos. 4 and 5) shall be allowed to operate as required for backup only as long as the facility-wide NO_x cap of 194.3 TPY is not exceeded for any calendar year. Emission factors pursuant to condition C.14 of the facility's Title V permit shall be applied to the fuel consumed by Boilers Nos. 4 and 5 to determine compliance with the facility cap. The NO_x emissions calculations shall be submitted to the Compliance Authority with the Annual Operating Report. The permittee shall install and operate a continuous monitoring system to monitor and record fuel consumption as required by 40 CFR 60.334. [Applicant Request, Rules 62-210.200 (Definitions), 62-212.400(5), F.A.C., 40 CFR 60 Subpart GG]

SPECIFIC CONDITION No. 8.a.1

When firing natural gas, NO_x emissions from the combustion turbine shall not exceed any of the following: 25 ppmvd (corrected to 15% oxygen), 39.6 pounds per hour, 141* tons per year **(141 tons per year includes total annual NO_x emissions from firing natural gas or distillate oil in the combustion turbine)**. [Applicant Request*, Rule 62-212.400, F.A.C., Permit 0010001-001-AV]

SPECIFIC CONDITION No. 8.a.2

When firing distillate oil, NO_x emissions from the combustion turbine shall not exceed any of the following: 42.0 ppmvd corrected to 15% oxygen, 66.3 pounds per hour, ~~7.3 tons per year~~ **(141 tons per year includes total annual NO_x emissions from firing natural gas or distillate oil in the combustion turbine)**. The nitrogen content of the fuel oil shall be monitored in accordance with 40 CFR 60.334(b). [40 CFR 60 Subpart GG, Rule 62-212.400, F.A.C., Permit 0010001-001-AV]

SPECIFIC CONDITION No. 8.c.3

Ongoing and annual compliance for EU 001 and shall be determined by the existing NO_x CEM system on a 30-day rolling average basis and reported as required by the current Title V permit, except for the following addition/revision: *To verify **compliance with the 141 TPY cap for EU 001 and facility-wide compliance with the 194.3 TPY cap for NO_x emissions including EU 002, EU 003 and 004 (Duct burner, Boilers Nos. 4 and 5)**, and to provide reasonable assurance that NO_x emissions will not be PSD-significant, CEM records along with cumulative fuel consumption records for EU 003 and 004 shall be kept and maintained by the permittee. Total NO_x emissions for ~~the~~ **both** calendar year **caps** shall be reported in the facility's annual operating report. [PSD-FL-181, Rule 62-212.400, F.A.C., Permit 0010001-001-AV]*

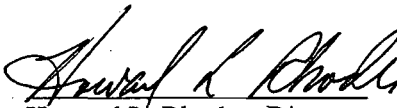
SPECIFIC CONDITION No. 18

Fuel Consumption Monitoring of Operations: ~~To demonstrate compliance with the fuel consumption limits,~~ ~~†~~ 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. ~~To demonstrate compliance with the turbine capacity requirements,~~ ~~†~~ 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.]

Any party to this order has the right to seek judicial review of it under Section 120.68, F.S., by filing a notice of appeal under Rule 9.110 of the Florida Rules of Appellate Procedure with the clerk of the Department of Environmental Protection in the Office of General Counsel, Mail Station #35, 3900 Commonwealth Boulevard, Tallahassee, Florida, 32399-3000; 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 thirty (30) days after this order is filed with the clerk of the Department.

Executed in Tallahassee, Florida.


Howard L. Rhodes, Director
Division of Air Resources
Management


CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this Permit Modification was sent by certified mail (*) and copies were mailed by U.S. Mail before the close of business on 2/20/03 to the person(s) listed:

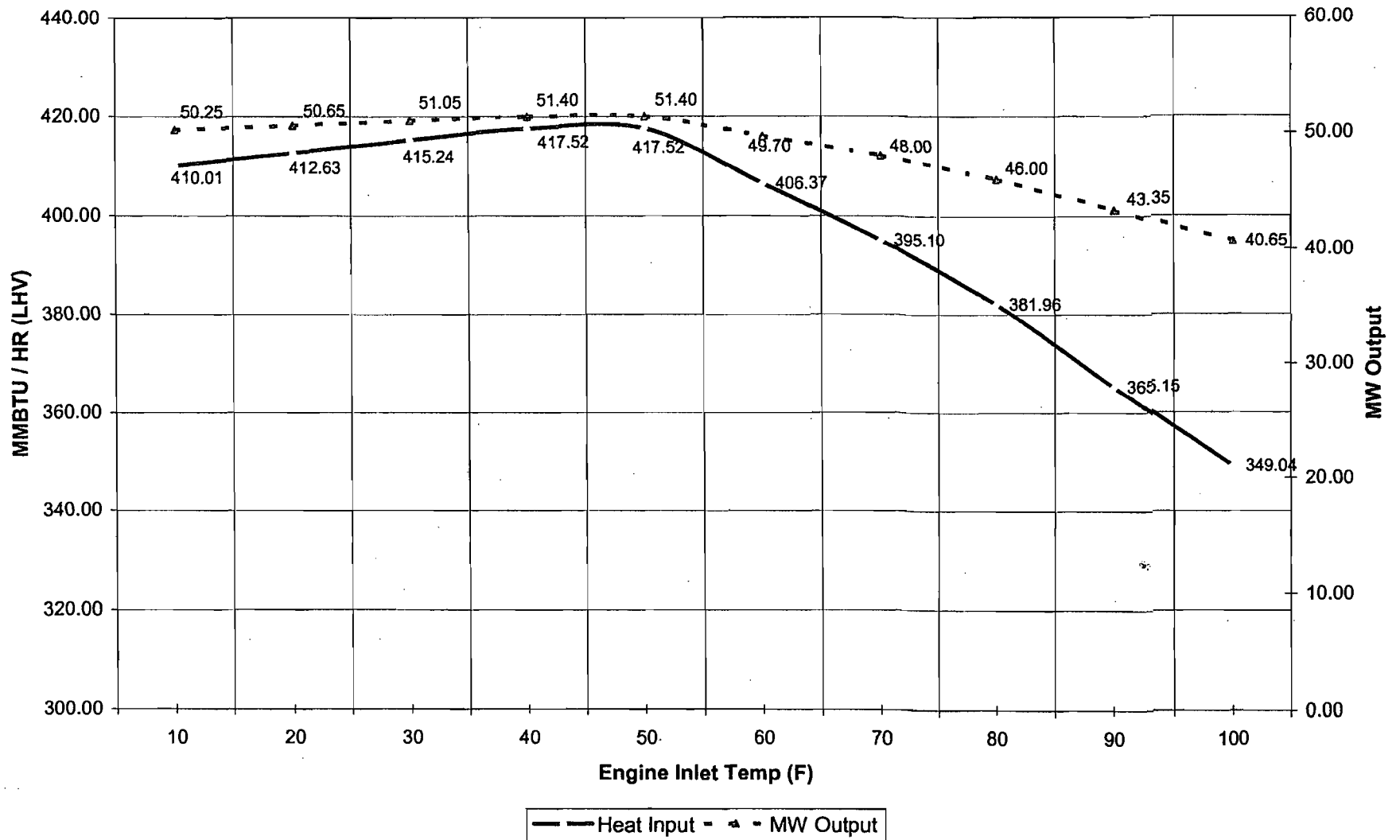
Wilson B. Hicks, FPC*
Mike Kennedy, FPC
Chris Kirts, NED
Scott Osbourn, P.E.

Clerk Stamp

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

 / February 20, 2003
(Clerk) (Date)

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



Mitchell, Bruce

From: Friday, Barbara
Sent: Monday, August 18, 2003 9:32 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/0010001006AC
PROGRESS ENERGY FLORIDA -
UNIVERSITY OF FLORIDA COGENERATION PLANT

Draft Permit Revision

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

Thanks,
Barbara

8/19/2003

8/14/03

Dear Barbara,

Please post the above referenced permitting project located at:

o:Bar/Title V/Bruce/Permits/0010001.005AV.Revision.006AC.UofF
0010001.005AV.SOB
0010001d.005.1.AVRevision.UofF
0010001G.005AV
0010001H.005.AV
0010001i.005AV
0010001U.005AV
0010001.006AC.letterAC.Draft
0010001.005AV.006AC.TEPD

Many thanks.

Bruce

Final Determination

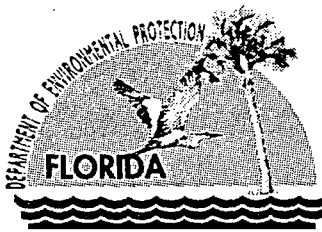
Progress Energy Florida
University of Florida Cogeneration Plant

Air Construction Permit No.: 0010001-006-AC

Alachua County

An Intent to Issue an air construction permit to Progress Energy Florida's University of Florida Cogeneration Plant, located on Mowry Road at Building 82, University of Florida, Gainesville, Alachua County, Florida, was distributed on August 14, 2003. The Public Notice of Intent to Issue an Air Construction Permit was published in the Gainesville Sun Newspaper on September 21, 2003. There were no comments submitted in response to the Public Notice.

The final action of the Department will be to issue the air construction permit as noticed.



Department of Environmental Protection

Jeb Bush
Governor

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

David B. Struhs
Secretary

October 9, 2003

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: ~~Draft~~ ^{Final} Air Construction Permit No.: 0010001-006-AC
Amendment to Air Construction Permit No.: 0010001-004-AC
University of Florida Cogeneration Plant

Dear Mr. Hicks:

This letter modification reduces the combustion turbine's (CT's) short-term allowable limits for CO, alters some compliance language associated with NO_x established in previously issued air construction permits, Nos. 0010001-003-AC and 0010001-004-AC, and corrects the emissions unit IDs based on ARMS data. The changes are being incorporated into the Title V Air Operation Permit under revision No. 0010001-005-AV. Therefore, the following are changed:

1. Specific Condition 9a.1.: 0010001-003-AC

FROM:

Carbon Monoxide (CO) Emissions:

a. Combustion Turbine (EU 001):

1. When firing natural gas, CO emissions from the combustion turbine shall not exceed any of the following: 36 ppmvd (corrected to 15% oxygen), 35.8 pounds per hour, 127.5 tons per year.
[Applicant Request, Rule 62-212.400, F.A.C.]

TO:

Carbon Monoxide (CO) Emissions:

a. Combustion Turbine (EU 007):

1. When firing natural gas, CO emissions from the combustion turbine shall not exceed any of the following: 31.6 ppmvd (corrected to 15% oxygen), 29.9 pounds per hour, 127.5 tons per year.
[Applicant Request; and, Rule 62-212.400, F.A.C.]

2. Specific Condition 6: 0010001-004-AC

FROM:

6. Hours of Operation/Fuel Usage Limitations: Combustion turbine/duct burner operation at maximum firing rates shall be limited to 7,211 hours per year (to prevent retroactive PSD applicability for NO_x under PSD-FL-181, pursuant to Rule 62-212.400(5), F.A.C., by reaching the 40 tons per year PSD applicability threshold). The turbine/duct burner may operate at lower than maximum rates for more hours per year provided that ~~the annual fuel consumption limitations are not exceeded~~ **NO_x emissions from the turbine alone do not exceed 141 tons per year** and that facility-wide NO_x emissions do not exceed 194.3 TPY. ~~The total annual fuel usage for the combustion turbine and the duct burner combined shall not exceed 3.48 trillion BTU (includes up to 635,100~~

"More Protection, Less Process"

Printed on recycled paper.

~~gallons No. 2 fuel oil fired in the turbine).~~ The annual fuel usage by the duct burner is limited to 519.5 million ft³ natural gas.

EU 002 and 003 (Boilers Nos. 4 and 5) shall be allowed to operate as required for backup only as long as the facility-wide NO_x cap of 194.3 TPY is not exceeded for any calendar year. Emission factors pursuant to condition C.14 of the facility's Title V permit shall be applied to the fuel consumed by Boilers Nos. 4 and 5 to determine compliance with the facility cap. The NO_x emissions calculations shall be submitted to the Compliance Authority with the Annual Operating Report. The permittee shall install and operate a continuous monitoring system to monitor and record fuel consumption as required by 40 CFR 60.334.

[Applicant Request, Rules 62-210.200 (Definitions), 62-212.400(5), F.A.C., 40 CFR 60 Subpart GG]

TO:

6. 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; and, 0010001-004-AC]

3. Specific Condition 8.a.1.: 0010001-004-AC

FROM:

Nitrogen Oxides (NO_x) Emissions:

a. Combustion Turbine (EU 001):

1. When firing natural gas, NO_x emissions from the combustion turbine shall not exceed any of the following: 25 ppmvd (corrected to 15% oxygen), 39.6 pounds per hour, 141* tons per year (**141 tons per year includes total annual NO_x emissions from firing natural gas or distillate oil in the combustion turbine.**)

[Applicant Request*, Rule 62-212.400, F.A.C., Permit 0010001-001-AV]

TO:

Nitrogen Oxides (NO_x) Emissions:

a. Combustion Turbine (EU 007):

1. When firing natural gas, NO_x emissions from the combustion turbine shall not exceed any of the following: 25 ppmvd (corrected to 15% oxygen), 39.6 pounds per hour, 141* tons per year (141 tons per year includes total annual NO_x emissions from the firing of all fuels in the combustion turbine).

[Applicant Request*, Rule 62-212.400, F.A.C.; 0010001-001-AV; 0010001-003-AC; and, 0010001-004-AC]

Air Construction Permit Project No.: 0010001-006-AC

Amendment to Air Construction Permits Nos.: 0010001-003-AC and 0010001-004-AC

Page 3 of 4

4. Specific Condition 8.a.2.: 0010001-004-AC

FROM:

Nitrogen Oxides (NO_x) Emissions:

a. Combustion Turbine (EU 001):

2. When firing distillate oil, NO_x emissions from the combustion turbine shall not exceed any of the following: 42.0 ppmvd corrected to 15% oxygen, 66.3 pounds per hour, ~~7.3 tons per year~~ **(141 tons per year includes total annual NO_x emissions from firing natural gas or distillate oil in the combustion turbine)**. The nitrogen content of the fuel oil shall be monitored in accordance with 40 CFR 60.334(b).
[40 CFR 60 Subpart GG, Rule 62-212.400, F.A.C., Permit 0010001-001-AV]

TO:

Nitrogen Oxides (NO_x) Emissions:

a. Combustion Turbine (EU 007):

2. When firing distillate oil, NO_x emissions from the combustion turbine shall not exceed any of the following: 42.0 ppmvd corrected to 15% oxygen, 66.3 pounds per hour (141 tons per year includes total annual NO_x emissions from the firing of all fuels in the combustion turbine). The nitrogen content of the fuel oil shall be monitored in accordance with 40 CFR 60.334(b).
[40 CFR 60, Subpart GG; Rule 62-212.400, F.A.C.; 0010001-001-AV; 0010001-003-AC; and, 0010001-004-AC]

5. Specific Condition 8.a.3.: 0010001-004-AC

FROM:

Nitrogen Oxides (NO_x) Emissions:

a. Combustion Turbine (EU 001):

3. Ongoing and annual compliance for EU 001 and shall be determined by the existing NO_x CEM system on a 30-day rolling average basis and reported as required by the current Title V permit, except for the following addition/revision: *To verify **compliance with the 141 TPY cap for EU 001 and facility-wide compliance with the 194.3 TPY cap for NO_x emissions including EU 002, EU 003 and 004 (Duct burner, Boilers Nos. 4 and 5), and to provide reasonable assurance that NO_x emissions will not be PSD-significant, CEM records along with cumulative fuel consumption records for EU 003 and 004 shall be kept and maintained by the permittee. Total NO_x emissions for the both calendar year caps shall be reported in the facility's annual operating report.***
[PSD-FL-181, Rule 62-212.400, F.A.C., Permit 0010001-001-AV]

TO:

Nitrogen Oxides (NO_x) Emissions:

a. Combustion Turbine (EU 007):


3. 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 001 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; and, 0010001-004-AC]

This permit (letter) is issued pursuant to Chapter 403, Florida Statutes (F.S.). Any party to this order has the right to seek judicial review of it under Section 120.68, F.S., by filing a notice of appeal under Rule 9.110 of the Florida Rules of Appellate Procedure with the clerk of the Department of Environmental Protection in the Office of

Air Construction Permit Project No.: 0010001-006-AC
Amendment to Air Construction Permits Nos.: 0010001-003-AC and 0010001-004-AC
Page 4 of 4

General Counsel, Mail Station #35, 3900 Commonwealth Boulevard, Tallahassee, Florida, 32399-3000, 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 must be filed within thirty days after this order is filed with the clerk of the Department.
Executed in Tallahassee, Florida.

Sincerely,



Michael G. Cooke, Director
Division of Air Resource Management

MGC/sms/rbm

cc: Mr. Chris Kirts, NED
Mr. Scott Osbourn, P.E., ENSRI
Ms. Norma Castlen, FDEP Northeast District Branch Office
Mr. J. Michael Kennedy, Application Contact, PEF
Mr. Matt Lydon, Application Contact, PEF

10/15/03 cc: Bruce Mitchell
Reading File
Trine's File

SENDER: COMPLETE THIS SECTION

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

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

2. Article Number
 (Transfer from service label) 7001 1140 0002 1577 9601

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X Billy Davis Agent
 Addressee

B. Received by (Printed Name)
 C. Date of Delivery
OCT 20 2001

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

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

4. Restricted Delivery? (Extra Fee) Yes

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7001 1140 0002 1577 9601

OFFICIAL USE
 Mr. Wilson B. Hicks, Jr.

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Restricted Delivery Fee (Endorsement Required)	
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 Mr. Wilson B. Hicks, Jr.
 Street, Apt. No.;
 or PO Box No. Mowery Road, Building 82
 City, State, ZIP+4
 Gainesville, Florida 32611

INTEROFFICE MEMORANDUM

TO: Michael Cooke

FROM: Bruce Mitchell *BM*

THRU: Scott Sheplak *sms*
Trina Vielhauer

SUBJECT: Final Air Construction Permit No.: 0010001-006-AC
Progress Energy Florida: University of Florida Cogeneration Facility

DATE: October 8, 2003

The attached Final Air Construction Permit is being issued to correct the carbon monoxide (CO) short-term emissions limits to avoid the New Source Review Requirements pursuant to Rule 62-212.400(5), F.A.C., which was not evaluated when the new combustion turbine was authorized to be constructed under Air Construction Permit, No. 0010001-003-AC, and amended under Air Construction Permit, No. 0010001-004-AC. Therefore, this Air Construction Permit, No. 0010001-006-AC, is being issued to reduce the short-term allowable limits for CO and alter some compliance language associated with NO_x established in previously issued air construction permits, Nos. 0010001-003-AC and 0010001-004-AC.

Originally, a revision project (0010001-005-AV) was ready to be issued and posted when the CO error was discovered. Upon notification to the company's representatives, an amendment to the application was submitted on June 13, 2003, to address this concern and requested an Air Construction Permit be issued in conjunction with the revision. It is recommended that the combined permitting project be issued as noticed.

RBM/sms/bm

Attachment

cc: Scott Sheplak, P.E.