Florida Department of
Environmental Protection

**Memorandum**

10/14/04

1050223-013-AC
190A

TO: Michael G. Cooke

THRU: Trina Vielhauer
Jim Pennington

FROM: Jonathan Holtom

DATE: October 13, 2004

SUBJECT: Final Construction Permit for Tiger Bay Cogeneration Facility

Attached for approval and signature is a Final construction permit for Progress Energy Florida's Tiger Bay Cogeneration Facility. This project is for the establishment of an allowable emissions limitation for emissions of nitrogen oxides ($NO_X$) during periods of start up and shut down of the combustion turbine, and to recognize excess emissions resulting from combustor tuning. The current permit allows emissions in excess of the permitted limit for up to 2 hours in any 24 hour period for occurrences of a unit start up, shut down or malfunction. However, due to the operational nature of the combined cycle combustion turbine, start up of the unit must be performed over as much as a five hour period to avoid heat stress damage to the steam turbine. As a result, emissions in excess of the emissions limit can sometimes occur for more than two hours during the start up and shut down periods.

The Public Notice requirements were met on September 30, 2004, by publishing in The Ledger (in Polk County) on September 16. No comments have been received from the public in response to this Public Notice, and no petitions were filed for an Administrative Hearing.

I recommend your approval and signature.

Attachments

/jh

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
**NOTICE OF FINAL PERMIT**

In the Matter of an
Application for Permit by:

Roger B. Zirkle, Plant Manager
Progress Energy Florida
3219 State Road 630 West
Ft. Meade, Florida 33841

DEP File No. 1050223-013-AC
Tiger Bay Cogeneration Facility
Polk County

Enclosed is Final Permit Number 1050223-013-AC. This permit authorizes Florida Power Corporation to establish an allowable emissions limitation for emissions of nitrogen oxides ($NO_X$) during periods of start up and shut down of the combustion turbine, and to recognize excess emissions resulting from combustor tuning. The current permit allows emissions in excess of the permitted limit for up to 2 hours in any 24 hour period for occurrences of a unit start up, shut down or malfunction. However, due to the operational nature of the combined cycle combustion turbine, start up of the unit must be performed over as much as a five hour period to avoid heat stress damage to the steam turbine. As a result, emissions in excess of the emissions limit can sometimes occur for more than two hours during the start up and shut down periods. This permit is issued pursuant to Chapter 403, Florida Statutes.

Any party to this order has the right to seek judicial review of it under section 120.68 of the Florida Statutes, 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 days after this order is filed with the clerk of the Department.

Executed in Tallahassee, Florida.

Trina L. Vielhauer, Chief
Bureau of Air Regulation

**CERTIFICATE OF SERVICE**

The undersigned duly designated deputy agency clerk hereby certifies that this Notice of Final Permit (including the Final permit) was sent by certified mail (*) and copies were electronically mailed by Internet e-mail before the close of business on 10/14/04 to the person(s) listed:

Mr. Roger B. Zirkle, Plant Manager, PEF*
Mr. Scott Osbourn, P.E. (sosbourn@golder.com)
Mr. Jason Waters, DEP-SWD
Mr. Hamilton Oven, P.E., DEP-SCO

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.

(Clerk) 10/14/04 (Date)

## FINAL DETERMINATION

Florida Power Corporation
Tiger Bay Cogeneration Facility
DEP File No. 1050223-013-AC

The Department distributed a public notice package on September 3, 2004, to establish an allowable emissions limitation for emissions of nitrogen oxides ($NO_X$) during periods of start up and shut down of the combustion turbine, and to recognize excess emissions resulting from combustor tuning at the Florida Power Corporation Tiger Bay Cogeneration Facility, located at 3219 State Road 630 East, Ft. Meade, Polk County. The current permit allows emissions in excess of the permitted limit for up to 2 hours in any 24 hour period for occurrences of a unit start up, shut down or malfunction. However, due to the operational nature of the combined cycle combustion turbine, start up of the unit must be performed over as much as a five hour period to avoid heat stress damage to the steam turbine. As a result, emissions in excess of the emissions limit can sometimes occur for more than two hours during the start up and shut down periods. The Public Notice of Intent to Issue was published in The Ledger (Polk County) on September 16, 2004.

### COMMENTS/CHANGES

No comments were received by the Department in response to the Draft permit and Public Notice.

### CONCLUSION

The final action of the Department is to issue the final permit as it was noticed.

# Department of Environmental Protection

Jeb Bush
Governor

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

Colleen M. Castille
Secretary

**PERMITTEE:**

Progress Energy

Tiger Bay Cogeneration Facility
3219 State Road 630 West
Ft. Meade, Florida.

| | |
|---|---|
| **ARMS Permit No.** | 1050223-013-AC / PSD-FL-190A |
| **Facility ID No.** | 1050223 |
| **SIC No.** | 4911 |
| **Expires:** | March 15, 2005 |

*Authorized Representative:*
Roger B. Zirkle, Plant Manager

**PROJECT AND LOCATION**

This permitting action is being issued at the applicant's request to establish an allowable emissions limitation for emissions of nitrogen oxides ($NO_X$) during periods of start up and shut down of the combustion turbine, and to recognize excess emissions resulting from combustor tuning. The current permit allows emissions in excess of the permitted limit for up to 2 hours in any 24 hour period for occurrences of a unit start up, shut down or malfunction. However, due to the operational nature of the combined cycle combustion turbine, start up of the unit must be performed over as much as a five hour period to avoid heat stress damage to the steam turbine. As a result, emissions in excess of the emissions limit can sometimes occur for more than two hours during the start up and shut down periods.

The facility is located at 3219 State Road 630 West, Ft. Meade, Polk County.

**STATEMENT OF BASIS**

This air pollution 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 permittee is authorized to make changes in accordance with the conditions of this permit.

**APPENDICES**

The following attached document is incorporated as part of this permit:

AC53-214903 / PSD-FL-190 Initial Air Construction Permit

Michael G. Cooke, Director
Division of Air Resource Management

## FACILITY DESCRIPTION

The subject facility consists of a single combustion turbine (CT) that exhausts through a heat recovery steam generator (HRSG). The facility is permitted to combust natural gas as the primary fuel and distillate fuel oil as back-up fuel. However, the fuel oil capability has yet to be installed. The total combined capacity of the facility is 269.5 megawatts. A nominal 184 megawatts are provided by the combustion turbine. In addition, a nominal 85.5 megawatts are provided by a steam generator. Emissions unit -001 is regulated under Acid Rain Phase II.

## REGULATORY CLASSIFICATION

Title V Major Source: This facility is a Title V major source of air pollution.

PSD Major Source: Each pollutant with potential emissions greater than the Significant Emissions Rates specified in Table 62-212.400-2, F.A.C. requires a PSD review and Best Available Control Technology (BACT) determination. This project will not result in a significant emissions increase of any pollutant, nor will it subject the emissions unit to any new BACT standards, provided that the Emissions Unit is operated as specified in this permit.

## RELEVANT DOCUMENTS

The documents listed form the basis of the permit. They are specifically related to this permitting action. These documents are on file with the Department.

- AC53-214903 / PSD-FL-190 issued 5-17-93
- Electronic construction permit application received 7-9-04

**1.** All of the terms and conditions of the attached air construction permit, No. AC53-214903 / PSD-FL-190, dated May 17, 1993, are incorporated into this air construction permit and remain the same, except for the changes that follow in Specific Condition 2, below.

**2.** In order to establish an allowable emissions limitation for emissions of nitrogen oxides ($NO_X$) during periods of start up and shut down of the combustion turbine, Specific Condition 1. is changed:

**From:**

1. The maximum allowable emissions from this source shall not exceed the emission rates listed in Table 1.

**To:**

1. a. The maximum allowable emissions from this source shall not exceed the emission rates listed in Table 1.

   b. The maximum allowable emissions of nitrogen oxides resulting from a start up or shut down of the CT shall not exceed an average of 120 lbs/hour, based on a 24 hour period commencing with the beginning of a start up or a shut down of the unit. The 24-hour average shall be based on all available data excluding calibration data and periods of emissions due to malfunction during the start up period.

[BACT determination dated May 17, 1993; Rule 62-210.700(5), F.A.C.; and, applicant request]

3. In order to recognize excess emissions resulting from combustor tuning, Specific Condition 22. is changed:

**From:**

22. This source shall be in compliance with all applicable provisions of F.A.C. Rules 17-210.650: Circumvention' 17-210: Excess Emissions; 17-296.800: Standards of Performance for New Stationary Sources (NSPS); 17-297: Stationary Sources-Emissions Monitoring; and, 17-4.130: Plant Operation-Problems.

**To:**

22. a. This source shall be in compliance with all applicable provisions of F.A.C. Rules 62-210.650: Circumvention; 62-210.700: Excess Emissions; 62-296.800: Standards of Performance for New Stationary Sources (NSPS); 62-297: Stationary Sources-Emissions Monitoring; and, 62-4.130: Plant Operation-Problems.

   b. Excess emissions resulting from a combustor tuning session shall be permitted provided the tuning session is performed in accordance with the manufacturer's specifications and in no case shall exceed 72 hours in any calendar year. A "tuning session" would occur after a combustor change-out, a repair to a combustor, or as required to maintain compliance. Prior to performing any tuning session, the permittee shall provide the Compliance Authority with an advance notice that details the activity and proposed tuning schedule. The notice may be made by telephone, facsimile transmittal, or electronic mail.

[Rule 62-210.700(1) & (5), F.A.C.; and, applicant request]

1050223-NA-AC
PSD-FL-190

# Florida Department of Environmental Regulation

Twin Towers Office Bldg. • 2600 Blair Stone Road • Tallahassee, Florida 32399-2400

Lawton Chiles, Governor

Virginia B. Wetherell, Secretary

**PERMITTEE:**
**Central Florida Power, L.P.**
**2500 City West Blvd., Ste. 150**
**Houston, Texas 77042**

**Permit Number: AC53-214903**
**PSD-FL-190**
**Expiration Date: January 1, 1996**
**County: Polk**
**Latitude/Longitude: 27°44'46.7"N**
**81°51'0.3"W**
**Project: A 258 MW Cogeneration Facility**

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Chapters 17-210, 212, 275, 296, 297 and 17-4. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawings, plans, and other documents attached hereto or on file with the Department and made a part hereof and specifically described as follows:

Central Florida Power, Limited Partnership, proposes to operate a 258 MW cogeneration facility consisting of one combustion turbine generator, one steam turbine generator, one duct burner-fired heat recovery steam generator and ancillary equipment. This facility is located near Ft. Meade, Polk County, Florida. The UTM coordinates are Zone 17, 416.22 km East and 3069.22 km North.

The sources shall be constructed in accordance with the permit application, plans, documents, amendments and drawings, except as otherwise noted in the General and Specific Conditions.

Attachments are listed below:

1. Central Florida Power, Limited Partnership's (CFPLP) application received on June 15, 1992.
2. Department's letters dated July 14 and October 9, 1992.
3. CFPLP's letters received on August 26, October 9, and October 23, 1992.

**GENERAL CONDITIONS:**

1. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.

2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.

3. As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit is not a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.

4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgement of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.

5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.

6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.

**GENERAL CONDITIONS:**

7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at a reasonable time, access to the premises, where the permitted activity is located or conducted to:

a. Have access to and copy any records that must be kept under the conditions of the permit;

b. Inspect the facility, equipment, practices, or operations regulated or required under this permit; and

c. Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

Reasonable time may depend on the nature of the concern being investigated.

8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:

a. a description of and cause of non-compliance; and

b. the period of noncompliance, including dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance.

The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.73 and 403.111, Florida Statutes. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

**GENERAL CONDITIONS:**

10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance, provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.

11. This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 17-4.120 and 17-30.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.

12. This permit or a copy thereof shall be kept at the work site of the permitted activity.

13. This permit also constitutes:

(x) Determination of Best Available Control Technology (BACT)
(x) Determination of Prevention of Significant Deterioration (PSD)
(x) Compliance with New Source Performance Standards (NSPS)

14. The permittee shall comply with the following:

a. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.

b. The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.

c. Records of monitoring information shall include:

- the date, exact place, and time of sampling or measurements;

**GENERAL CONDITIONS:**

- the person responsible for performing the sampling or measurements;
- the dates analyses were performed;
- the person responsible for performing the analyses;
- the analytical techniques or methods used; and
- the results of such analyses.

15. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

**SPECIFIC CONDITIONS:**

Emission Limits

1. The maximum allowable emissions from this source shall not exceed the emission rates listed in Table 1.

2. Visible emissions for full load operation shall not exceed 10% opacity when firing natural gas and 20% opacity when firing distillate fuel oil.

Operating Rates

3. This source is allowed to operate continuously (8,760 hours per year).

4. This source is allowed to use natural gas as the primary fuel for 8,760 hours per year and low sulfur distillate fuel oil (0.05% S) as the secondary fuel up to 3,742,327 gallons per calendar year.

5. The permitted materials and utilization rates for the combined cycle gas turbine system shall be as stated in the application. The operating parameters include, but are not limited to:

184 MW Combustion Turbine

a) The maximum heat input of 1,849.9 MMBtu/hr (LHV) at 27°F and at base load for distillate fuel oil.

b) The maximum heat input of 1,614.8 MMBtu/hr (LHV) at 27°F and at base load for natural gas.

**SPECIFIC CONDITIONS:**

Duct Burner

c) The maximum heat input of 100 MMBtu/hr (HHV) of natural gas.

6. Any change in the method of operation, equipment or operating hours pursuant to Rule 17-212.200, F.A.C., Definitions-Modifications, shall be submitted to DER's Bureau of Air Regulation and Southwest District offices.

7. Any other operating parameters established during compliance testing and/or inspection that will ensure the proper operation of this facility shall be included in the operating permit.

Compliance Determination

8. Compliance with the $NO_x$, $SO_2$, CO, PM, $PM_{10}$, and VOC standards shall be determined (while operating at 95-100% of the permitted maximum heat rate input corresponding to the particular ambient conditions) within 180 days of initial operation of the maximum capability of the unit and annually thereafter, by the following reference methods as described in 40 CFR 60, Appendix A (July, 1992 version) and adopted by reference in F.A.C. Rule 17-297.

- Method 1 Sample and Velocity Traverses for Stationary Sources
- Method 2 Determination of Stack Gas Velocity and Volumetric Flow Rate
- Method 3 Gas Analysis
- Method 5 or Method 17 Determination of Particulate Emissions from Stationary Sources / Determination of Particulate Emissions from Stationary Sources
- Method 18 Measurement of Gaseous Organic Compound Emissions by Gas Chromatography
- Method 9 Visual Determination of the Opacity of Emissions from Stationary Sources
- Method 8 Determination of Sulfuric Acid Mist and Sulfur Dioxide Emissions from Stationary Sources
- Method 10 Determination of Carbon Monoxide Emission from Stationary Sources
- Method 20 Determination of Nitrogen Oxides, Sulfur Dioxide, and Diluent Emissions from Stationary Gas Turbines
- Method 25A Determination of Total Gaseous Organic Concentrations Using a Flame Ionization Analyzer

**SPECIFIC CONDITIONS:**

- Method 201A and Method 202 — Determination of $PM_{10}$ Emissions from Stationary Sources; Determination of Condensible Particulate Emissions from Stationary Sources

Other DER approved methods may be used for compliance testing after prior Departmental approval.

9. Method 5 or Method 17 or Method 201A and Method 202 must be performed to determine the initial compliance status of particulate matter emissions of the unit. Thereafter, the opacity emissions test, Method 9, may be used unless the applicable opacity is exceeded. Also, the ambient particulate matter entering the gas turbine can be subtracted from the total particulate matter emissions if that quantity can be measured at the inlet of the gas turbine.

10. Compliance with the $SO_2$ and sulfuric acid mist emission limit can also be determined by calculations based on fuel analysis using ASTM D4294 for the sulfur content of liquid fuels and ASTM D3246-81 for sulfur content of gaseous fuel.

11. Trace elements of Beryllium (Be) shall be tested during initial compliance test using EMTIC Interim Test Method. As an alternative, Method 104 may be used; or Be may be determined from fuel sample analysis using either Method 7090 or 7091, and sample extraction using Method 3040 as described in the EPA solid waste regulations SW 846.

12. Mercury (Hg) shall be tested during initial compliance test using EPA Method 101 (40 CFR 61, Appendix B) or fuel sampling analysis using methods acceptable to the Department.

13. During performance tests, to determine compliance with the $NO_X$ standard, measured $NO_X$ emissions at 15 percent oxygen will be adjusted to ISO ambient atmospheric conditions by the following correction factor:

$$NO_X = (NO_X\ obs)\ \left(\frac{P_{ref}}{P_{obs}}\right)^{0.5}\ e^{19\ (H_{obs} - 0.00633)}\ \left(\frac{288°K}{T_{AMB}}\right)^{1.53}$$

where:

**SPECIFIC CONDITIONS:**

$NO_X$ = Emissions of $NO_X$ at 15 percent oxygen and ISO standard ambient conditions.

$NO_{X\ obs}$ = Measured $NO_X$ emission at 15 percent oxygen, ppmv.

$P_{ref}$ = Reference combustor inlet absolute pressure at 101.3 kilopascals (1 atmosphere) ambient pressure.

$P_{obs}$ = Measured combustor inlet absolute pressure at test ambient pressure.

$H_{obs}$ = Specific humidity of ambient air at test.

e = Transcendental constant (2.718).

$T_{AMB}$ = Temperature of ambient air at test.

14. Test results will be the average of 3 valid runs. The Southwest District office will be notified at least 30 days in writing in advance of the compliance test(s). The sources, combustion turbine and duct burner, shall operate between 95% and 100% of maximum capacity for the ambient conditions experienced during compliance test(s). The turbine manufacturer's capacity vs temperature (ambient) curve shall be included with the compliance test results. Compliance test results shall be submitted to the Southwest District office no later than 45 days after completion.

15. The permittee shall comply with the following by 12/31/97:

a) For this turbine, if the 15 (gas)/42 (oil) ppmvd, corrected to 15% $O_2$ emission rates cannot be met by 12/31/97, SCR or other control technology will be installed. Hence, the permittee shall install a duct module suitable for future installation of SCR equipment.

16. The permittee shall install, calibrate, maintain, and operate a continuous emission monitor in the stack to measure and record the nitrogen oxides emissions from this source. The continuous emission monitor must comply with 40 CFR 60, Appendix B, Performance Specification 2 (July 1, 1992).

17. A continuous monitoring system shall be installed to monitor and record the fuel consumption on the CT and duct burner. While water/steam injection is being utilized for $NO_X$ control, the water/steam to fuel ratio at which compliance is achieved shall be incorporated into the permit and shall be continuously monitored. The system shall meet the requirements of 40 CFR Part 60, Subpart GG.

**SPECIFIC CONDITIONS:**

18. Sulfur and nitrogen content and lower heating value of the fuel being fired in the combustion turbines shall be determined as specified in 40 CFR 60.334(b). Any request for a future custom monitoring schedule shall be made in writing and directed to the Southwest District office. Any custom schedule approved by DER pursuant to 40 CFR 60.334(b) will be recognized as enforceable provisions of the permit, provided that the holder of this permit demonstrates that the provisions of the schedule will be adequate to assure continuous compliance. The records of distillate fuel oil usage shall be kept by the company for a two-year period for regulatory agency inspection purposes. For sulfur dioxide, periods of excess emissions shall be reported if the fuel being fired in the gas turbine exceeds 0.05 percent sulfur by weight.

Rule Requirements

19. This source shall comply with all applicable provisions of Chapter 403, Florida Statutes, Chapters 17-210, 212, 275, 296, 297 and 17-4, Florida Administrative Code and 40 CFR 60 (July, 1992 version).

20. The sources shall comply with all requirements of 40 CFR 60, Subpart GG and Subpart Dc, and F.A.C. Rule 17-296.800,(2)(a), Standards of Performance for Stationary Gas Turbines and Standards of Performance for Industrial, Commercial, and Institutional Steam Generating Units.

21. Issuance of this permit does not relieve the facility owner or operator from compliance with any applicable federal, state, or local permitting requirements and regulations (F.A.C. Rule 17-210.300(1)).

22. This source shall be in compliance with all applicable provisions of F.A.C. Rules 17-210.650: Circumvention; 17-210.700: Excess Emissions; 17-296.800: Standards of Performance for New Stationary Sources (NSPS); 17-297: Stationary Sources-Emissions Monitoring; and, 17-4.130: Plant Operation-Problems.

23. If construction does not commence within 18 months of issuance of this permit, then the permittee shall obtain from the Department a review and, if necessary, a modification of the control technology and allowable emissions for the unit(s) on which contruction has not commenced (40 CFR 52.21(r)(2)).

24. Quarterly excess emission reports, in accordance with the July 1, 1992 version of 40 CFR 60.7 and 60.334 shall be submitted to the Department's Southwest District office.

**SPECIFIC CONDITIONS:**

25. Fugitive dust emissions, during the construction period, shall be minimized by covering or watering dust generation areas.

26. Pursuant to F.A.C. Rule 17-210.300(2), Air Operating Permits, the permittee is required to submit annual reports on the actual operating rates and emissions from this facility. These reports shall include, but are not limited to the following: sulfur content and the lower heating value of the fuel being fired, fuel usage, hours of operation, air emissions limits, etc. Annual reports shall be sent to the Department's Southwest District office by March 1 of each calendar year.

27. The permittee, for good cause, may request that this construction 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 (F.A.C. Rule 17-4.090).

28. An application for an operation permit must be submitted to the Southwest District office at least 90 days prior to the expiration date of this construction permit. To properly apply for an operation permit, the applicant shall submit the appropriate application form, fee, certification that construction was completed noting any deviations from the conditions in the construction permit, and compliance test reports as required by this permit (F.A.C. Rules 17-4.055 and 17-4.220).

Issued this 17th day
of May, 1993

**STATE OF FLORIDA DEPARTMENT**
**OF ENVIRONMENTAL REGULATION**

Virginia B. Wetherell
Virginia B. Wetherell
Secretary

**CENTRAL FLORIDA POWER, L.P. - AC53-214903 (PSD-FL-190)**
**258 MW COMBINED CYCLE GAS TURBINE**

Table 1 - Allowable Emission Rates

| Pollutant | Fuel[A] | Allowable Emission[C] Standard/Limitation | Basis |
|---|---|---|---|
| $NO_x$ (CT) | Gas | 15 ppmvd @ 15% $O_2$ (97.2 lbs/hr; 425.7 TPY)[B] | BACT |
| | Gas | 25 ppmvd @ 15% $O_2$ (161.9 lbs/hr; 709.1 TPY) | BACT |
| | Oil | 42 ppmvd @ 15% $O_2$ (326 lbs/hr; 48.9 TPY) | BACT |
| $NO_x$ (DB) | Gas | 0.1 lbs/MMBtu (10 lbs/hr, 43.8 TPY) | BACT |
| CO (CT) | Gas | 15 ppmvd (48.8 lbs/hr; 213.7 TPY)[D] | BACT |
| | Oil | 30 ppmvd (98.4 lbs/hr; 14.8 TPY) | BACT |
| CO (DB) | Gas | 10 lbs/hr; 43.8 TPY | BACT |
| VOC (CT) | Gas | 2.8 lbs/hr; 12.3 TPY | BACT |
| | Oil | 7.5 lbs/hr; 1.1 TPY | BACT |
| VOC (DB) | Gas | 2.9 lbs/hr; 12.7 TPY | BACT |
| $PM_{10}$ (CT) | Gas | 9 lbs/hr; 39.4 TPY | BACT |
| | Oil | 17 lbs/hr; 2.6 TPY | BACT |
| $PM_{10}$ (DB) | Gas | 0.0100 lbs/MMBtu | BACT |
| $SO_2$ (CT) | Gas | 4.86 lbs/hr; 21.3 TPY | Appl. |
| | Oil | 99.7 lbs/hr; 15.0 TPY | Appl. |
| $SO_2$ (DB) | Gas | 0.3 lbs/hr; 1.32 TPY | Appl. |
| $H_2SO_4$ (CT) | Gas | $5.95 \times 10^{-1}$ lbs/hr; 2.6 TPY | Appl. |
| | Oil | 1.22 lbs/hr; 0.183 TPY | Appl. |
| $H_2SO_4$ (DB) | Gas | $3.7 \times 10^{-2}$ lbs/hr; $1.61 \times 10^{-1}$ TPY | Appl. |
| Opacity | Gas | 10% opacity[D] | BACT |
| | Oil | 20% opacity[D] | BACT |
| Hg | Oil | $3.0 \times 10^{-6}$ lbs/MMBtu ($5.55 \times 10^{-3}$ lbs/hr; $8.32 \times 10^{-4}$ TPY) | Appl. |
| As | Oil | $4.2 \times 10^{-6}$ lbs/MMBtu ($7.77 \times 10^{-3}$ lbs/hr; $1.17 \times 10^{-3}$ TPY) | BACT |
| Be | Oil | $2.5 \times 10^{-6}$ lbs/MMBtu ($4.62 \times 10^{-3}$ lbs/hr; $6.94 \times 10^{-4}$ TPY) | BACT |
| Pb | Oil | $8.9 \times 10^{-6}$ lbs/MMBtu ($1.65 \times 10^{-2}$ lbs/hr; $2.47 \times 10^{-3}$ TPY) | Appl. |

A) Fuel: Natural Gas: Emissions are based on 8760 hours per year operating time.
Fuel: Distillate Fuel Oil (0.05% S): Emissions are based on fuel usage equivalent to 300 hours per year at maximum capacity (i.e., 3,742,327 gallons per year).

B) The $NO_x$ maximum limit will be lowered to 97.2 (lbs/hr) equivalent to 15 ppmvd @ 15% $O_2$ not later than 12/31/97 using appropriate combustion technology improvements or SCR.

C) Emission rates are based on 27°F at base load.

D) At full load conditions.