



# Department of Environmental Protection

Lawton Chiles  
Governor

Southwest District  
3804 Coconut Palm Drive  
Tampa, Florida 33619

Virginia B. Wetherell  
Secretary

In the Matter of Applications  
for Permits by:

DEP Files:

A052-253215A  
A052-253216A  
A052-253217A  
A052-253218A

Mr. W. Jeffrey Pardue, C.E.P.  
Manager - Environmental  
Florida Power Corporation  
Post Office Box 14042, MAC H2G  
St. Petersburg, Florida 33733

Pinellas County

## NOTICE OF AMENDED PERMITS

Enclosed are amended air pollution operating permits A052-253215A, A052-253216A, A052-253217A and A052-253218A for the operation of the Bartow Peaking Units Nos. 1, 2, 3 and 4, located at Weedon Island, St. Petersburg, Florida, issued pursuant to Section 403.087, Florida Statutes.

These operation permits are being amended per the December 13, 1994 request from Mr. Scott Osbourn, Senior Environmental Engineer, Florida Power Corporation to change the compliance testing to 90-100% of the operating range for each turbine, to incorporate a corrected turbine heat input performance curve, and other changes.

SPECIAL NOTE: The Department is presently reviewing permitting guidance relative to testing of combustion turbines, and as a result of this review, the Department may develop and issue revised permitting guidelines in the future. Issuance of such revised policy or guidelines by the Department may cause these operational permits to be amended. Also, subsequent permitting of these sources per Chapter 62-213, *Operation Permits for Major Sources of Air Pollution (Title V)* will require an assessment of the applicability of Rule 62-296.700, *F.A.C., Reasonably Available Control Technology (RACT), Particulate Matter*.

Mr. W. Jeffrey Pardue, C.E.P.  
Florida Power Corporation

Bartow Peaking Units 1,2,3 and 4

A person whose substantial interests are affected by these permits may petition for an administrative proceeding (hearing) in accordance with Section 120.57, Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, within 14 days of receipt of this Permit. Petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, Florida Statutes.

The Petition shall contain the following information;

- (a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Department Permit File Number and the county in which the project is proposed;
- (b) A statement of how and when each petitioner received notice of the Department's action or proposed action;
- (c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action;
- (d) A statement of the material facts disputed by Petitioner, if any;
- (e) A statement of facts which petitioner contends warrant reversal or modification of the Department's action or
- (f) A statement of which rules or statutes petitioner contends require reversal or modification of the Department's action or proposed action; and
- (g) A statement of the relief sought by petitioner, stating precisely the action petitioner wants the Department to take with respect to the Department's action or proposed action.

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in this permit. Persons whose substantial interests will be affected by any decision of the Department with regard to the application have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 14 days of receipt of this notice in the Office of General Counsel at the above address of the Department. Failure to petition within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, F.S., and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, F.A.C.

Mr. W. Jeffrey Pardue, C.E.P.  
Florida Power Corporation

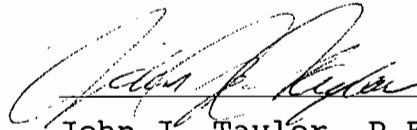
Bartow Peaking Units 1,2,3 and 4

These permit amendments are 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 and conforms to Rule 62-103.070, F.A.C. Upon timely filing of a petition or a request for an extension of time this permit will not be effective until further Order of the Department.

When the Order (Permits) is final, any party to the Order has the right to seek judicial review of the Order pursuant to Section 120.68, Florida Statutes, by the filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate procedure, with the Clerk of the Department in the Office of General Counsel, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400; and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 30 days from the date the Final Order is filed with the Clerk of the Department.

Executed in Tampa, Florida.

FLORIDA DEPARTMENT OF  
ENVIRONMENTAL PROTECTION



John J. Taylor, P.E.  
Air Permitting Engineer  
3804 Coconut Palm Drive  
Tampa, Florida 33619-8318  
Phone: (813) 744-6100 x117

Enclosures

copy to: Mr. Gary Robbins, Environmental Manager,  
Pinellas County Department of Environmental Management

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this NOTICE OF PERMIT ISSUANCE and all copies were mailed before the close of business on JUN 19 1995 to the listed persons.

Clerk Stamp

FILING AND ACKNOWLEDGEMENT  
FILED, on this date, pursuant  
to Section 120.52(11), Florida  
Statutes, with the designated  
Department Clerk, receipt of  
which is hereby acknowledged.

Marilyn Quispe JUN 19 1995  
(Clerk) (Date)

Is your RETURN ADDRESS completed on the reverse side?

SENDER: A052-253215A/216A/217A/218A JT

- Complete items 1 and/or 2 for additional services.
- Complete items 3, and 4a & b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "Return Receipt Requested" on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):

- Addressee's Address
- Restricted Delivery

Consult postmaster for fee.

MR W J PARDUE  
 MANAGER ENV PROGRAMS  
 FLORIDA POWER CORP  
 PO BOX 14042 - MAC H2G  
 ST PETERSBURG FL 33733

4a. Article Number  
 P 079 948 227

4b. Service Type

<input type="checkbox"/> Registered	<input type="checkbox"/> Insured
<input checked="" type="checkbox"/> Certified	<input type="checkbox"/> COD
<input type="checkbox"/> Express Mail	<input type="checkbox"/> Return Receipt for Merchandise

7. Date of Delivery  
 JUN 20 1995

5. Signature (Addressee)

8. Addressee's Address (Only if requested and fee is paid)

6. Signature (Agent)  
 Lisa Marie

PS Form 3811, December 1991 \*U.S. GPO: 1993-352-714 DOMESTIC RETURN RECEIPT

Thank you for using Return Receipt Service.

P 079 948 227

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED  
 NOT FOR INTERNATIONAL MAIL  
 (See Reverse)

MR W J PARDUE  
 MANAGER ENV PROGRAMS  
 FLORIDA POWER CORP  
 PO BOX 14042 - MAC H2G  
 ST PETERSBURG FL 33733

PS Form 3800, June 1985

Postage (Delivery Fee)	
Postage (Handling Fee)	
Postage (Insurance Fee) to whom and date delivered	
Return Receipt (according to whom) Date and Address of Delivery	
TOTAL Postage and Fees	\$
Postmark or Date	JUN 19 1995
A052-253215A " - 253216A " - 253217A R - 253218A	



# Department of Environmental Protection

Lawton Chiles  
Governor

Southwest District  
3804 Coconut Palm Drive  
Tampa, Florida 33619

Virginia B. Wetherell  
Secretary

**PERMITTEE:**

Florida Power Corporation  
Post Office Box 14042  
St. Petersburg, Florida 33733

**PERMIT/PROJECT:**

**Permit:** AO52-253218A  
**County:** Pinellas  
**Original Issue:** 11/23/95  
**Amended Date:** 06/19/95  
**Expiration Date:** 11-01-99  
**Project:** Bartow Peaking Unit  
No. 4

This amended permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Chapters 62-2 through 62-297. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans and other documents, attached hereto or on file with the Department and made a part hereof and specifically described as follows:

For the operation of an oil fired, gas turbine driven electrical generating unit with a rated maximum capacity of 55.7 MW. The unit is designated as the Bartow Peaking Unit No. 4 and is composed of a General Electric Company, Serial No. 335X118 electric generator driven by a General Electric Company, Model MS 7000, Serial No. 217712 gas turbine. The manufacturer's fuel flow and heat input ratings for the turbine are 121 barrels per hour or 714 MMBtu per hour, respectively. The peak heat input rate of the turbine is a function of the ambient temperature as shown on the graph of *Fuel Heat Input versus Ambient Temperature* included in this permit. The turbine utilizes new, No. 2 fuel oil with a maximum sulfur content of 0.5%, by weight.

**Location:** Weedon Island, St. Petersburg, Pinellas County  
**UTM:** 17-342.18 E 3082.87 N  
**NEDS No:** 0011  
**Point ID:** 08

Replaces Permit AO52-253218, issued 11/23/94.

Florida Power Corporation  
St. Petersburg, Florida

Permit: AO52-253218A  
Project: Bartow Peaking Unit  
No. 4

**SPECIFIC CONDITIONS:**

1. A part of this permit is the attached GENERAL CONDITIONS.  
[Rule 62-4.160, F.A.C.]

2. Issuance of this permit does not relieve the permittee from complying with applicable emission limiting standards or other requirements of Chapters 62-200 through 62-299, Florida Administrative Code, or any other requirements under federal, state or local law. [Rule 62-210.300, F.A.C.]

**EMISSION LIMITATIONS**

3. Visible emissions from Bartow Peaking Unit No. 4 shall not be equal to or greater than 20% opacity. [Rule 62-296.310(2)(a), F.A.C.]

**OPERATION LIMITATIONS**

4. The hours of operation for Bartow Peaking Unit No. 4 are not restricted (8760 hours per year). [Specified in permit application]

5. The peak heat input rate of the Bartow Peaking Unit No. 4 turbine shall be determined from the graph of *Fuel Heat Input versus Ambient Temperature* shown on Page 8 of this permit using the daily average ambient temperature. [Rule 62-297.310(2)(a), F.A.C.]

6. The Bartow Peaking Unit No. 4 shall only utilize new, No. 2 fuel oil with a maximum sulfur content of 0.5%, by weight. "New, No. 2 fuel oil" is defined as fuel oil that has been refined from crude oil and has not been used and which may or may not contain additives.

**TESTING AND COMPLIANCE REQUIREMENTS**

7. Test the Bartow Peaking Unit No. 4 for visible emissions annually within 60 days prior to February 1. The visible emissions compliance test can be waived, on a year by year basis, if fuel oil has not been used to fire this peaking unit for more than 400 hours for the previous 12 months and if this peaking unit is not expected to use fuel oil for more than 400 hours during the next 12 months.

(Specific Condition No. 7, Continued On Next Page)

Florida Power Corporation  
St. Petersburg, Florida

Permit: AO52-253218A  
Project: Bartow Peaking Unit  
No. 4

**SPECIFIC CONDITIONS:**

7; (Continued)

In order to request the annual visible emissions test waiver, a letter shall be sent each year, when the visible emissions test is due, to the Air Compliance Section, Southwest District Office of the Department of Environmental Protection, and to the Pinellas County Department of Environmental Management, Air Quality Division, stating the number of hours that fuel oil was utilized, and that the requirements for approval of the waiver have been satisfied. Include a copy of the fuel oil analysis with the waiver request. Regardless of fuel usage, a waiver will not be granted for the visible emission test for the 12 month period prior to permit renewal. A visible emissions test is required and shall be conducted during the 12 month period prior to permit renewal. (See Specific Condition No. 16).

[Rules 62-297.340(1)(d) and 62-297.340(1)(e), F.A.C.]

8. Compliance with the visible emission limitation of Specific Condition No. 3 shall be determined using DEP Method 9 and shall be conducted by a certified observer and be a minimum of 30 minutes in duration. The minimum requirements for stack sampling facilities, source sampling and reporting, shall be in accordance with Chapter 62-297, F.A.C., *Stationary Sources - Emission Monitoring* and 40 CFR 60, Appendix A. [Rule 62-297.420, F.A.C.]

9. Testing of visible emissions should be conducted with the turbines operating within 90-100% of the peak heat input rate based on the average ambient air temperature during the test. The peak heat input rate is defined by the graph of *Fuel Heat Input versus Ambient Temperature* for Peaking Unit No. 4 on Page 8 of this permit. The graph of *Fuel Heat Input versus Ambient Temperature* for Peaking Unit No. 4 is made a part of this permit. If it is not practical to test at the peak rate, then the source may be tested at less than the peak rate. In this case, subsequent source operation is then limited to 110 percent of the tested rate until a new test is conducted. Once the source is so limited, the maximum rate is then equal to 110 percent of the tested rate, and operation at a higher rate is only allowed for no more than 15 consecutive days for the purpose of additional compliance testing in order to regain the peak rate. Acceptance of a test by the Department of Environmental Protection will automatically amend this permit to a new maximum rate, but the new maximum rate shall not exceed the peak rate.

[Rules 62-297.570(2), 62-297.570(3), and 62-4.070(3), F.A.C.]



Florida Power Corporation  
St. Petersburg, Florida

Permit: A052-253218A  
Project: Bartow Peaking Unit  
No. 4

**SPECIFIC CONDITIONS:**

**MONITORING REQUIREMENTS**

10. In order to document compliance with Specific Condition No. 6, and provide reasonable assurance that new, No. 2 fuel oil is being utilized and that the fuel oil sulfur limit of 0.5%, by weight is not exceeded, the permittee shall provide either:

- (1) a fuel oil analysis from a fuel oil sample, indicating the sulfur content. The fuel oil analysis shall be determined by the ASTM D-129 method referenced in 40 CFR 60.17 (July 1, 1991), or a Department approved alternate test method, or
- (2) a certification of fuel oil analysis, indicating the sulfur content, obtained from the fuel oil supplier for the fuel oil delivered.

This information shall be maintained for a minimum of the most recent three year period and shall be made available to the Department and the Pinellas County Department of Environmental Management, upon request. [Permit A052-167175 and Rule 62-4.070(3), F.A.C.]

11. In order to provide reasonable assurance that the vendor's fuel oil analysis is accurate, Florida Power Corporation shall perform at least one audit sample analysis from a fuel oil delivery during the calendar year period. The fuel oil analysis shall be analyzed for the following:

Btu content  
API Gravity  
Density  
Sulfur content, percent by weight

An audit sample analysis is not required in any calendar year for which the oil supplier certifications were not used to demonstrate compliance with the fuel oil sulfur limitation. Records must be kept for a minimum of the most recent three year period and shall be made available to the Department and the Pinellas County Department of Environmental Management, Air Quality Division, upon request. [Permit A052-167175 and Rule 62-4.070(3), F.A.C.]

Florida Power Corporation  
St. Petersburg, Florida

Permit: AO52-253218A  
Project: Bartow Peaking Unit  
No. 4

**SPECIFIC CONDITIONS:**

**NOTIFICATION REQUIREMENTS**

12. The Permittee shall notify the Pinellas County Department of Environmental Management, Air Quality Division, in writing at least 15 days prior to the date on which each compliance test is to begin. [Rule 62-297.340(1)(i), F.A.C.]

**REPORTING REQUIREMENTS**

13. Submit to the Southwest District Office, Air Compliance Section of the Department of Environmental Protection, and the Pinellas County Department of Environmental Management, Air Quality Division, each calendar year on or before March 1, completed DEP Form 62-210.900(5), "Annual Operating Report for Air Pollutant Emitting Facility", including the Emissions Report, for the preceding calendar year. [Rule 62-210.370(3), F.A.C.]

The Annual Operating Report shall be based on the following:

- (1) The Btu heating value, sulfur content (percent by weight), API gravity and density of the fuel being fired in the peaking unit, shall be based on a weighted 12 month average (calendar year) and be calculated from the fuel delivery receipts and the vendor's fuel oil analysis.
- (2) Until further notice by the Pinellas County Department of Environmental Management, Air Quality Division, Florida Power Corporation shall calculate annual emissions (pounds per hour, and tons per year), for the Annual Operating Report, by multiplying the total MMBtu from fuel usage by the following emission factors:

	Emission Factors
	No. 2 Fuel Oil
	<u>Pounds per MMBtu</u>
Particulate Matter (PM)	0.061 (Total)
PM10	0.48PM
Carbon Monoxide	0.048
Sulfur Dioxide	1.01s
Nitrogen Oxides	0.698
Hydrocarbons (TOC)	0.017

(Specific Condition No. 13, Continued On Next Page)

Florida Power Corporation  
St. Petersburg, Florida

Permit: AO52-253218A  
Project: Bartow Peaking Unit  
No. 4

**SPECIFIC CONDITIONS:**

13. (Continued)

's' denotes sulfur content, percent by weight. The sulfur dioxide emissions shall be based on a weighted 12 month average 's' value. [Emission factors from AP-42, Table 3.1-1 (7/93)]

NOTE: For reference only, based on the original permit application the peak performance of the Bartow Peaking Unit No. 4. is:

Electrical Generating Rate:	55.7 MW per hour
Heat Input Rate:	714.0 MMBtu per hour
Fuel Usage Rate:	121.0 Barrels per hour

NOTE: For reference only, based on the original permit application, (714 MMBtu per hour) and AP-42 emission factors, the following are the maximum potential emission rates expected from this peaking unit, and are included for informational purposes only:

	<u>Pounds per Hour</u>	<u>Tons per Year</u>
Particulate Matter (Total)	43.55	191.77
PM10	20.91	91.57
Carbon Monoxide	34.27	150.11
Sulfur Dioxide	360.57	1579.30
Nitrogen Oxides	498.37	2182.87
Hydrocarbons (TOC)	12.14	53.17

14. Submit a copy of the visible emissions test reports required by Specific Condition Nos. 7 and 16, to the Pinellas County Department of Environmental Management, Air Quality Division, within 45 days of testing. Each test report shall include:

- (1) a statement of the maximum turbine performance based on the turbine performance criteria defined by Specific Condition No. 5;
- (2) a copy of the graph of *Fuel Heat Input versus Ambient Temperature* for Peaking Unit No. 4 noting the maximum heat input and the ambient temperature during the compliance test; and
- (3) a copy of the fuel oil analysis.

[Rules 62-297.570(2), and 62-297.570(3), F.A.C.]

Florida Power Corporation  
St. Petersburg, Florida

Permit: A052-253218A  
Project: Bartow Peaking Unit  
No. 4

**SPECIFIC CONDITIONS:**

**RECORDKEEPING REQUIREMENTS**

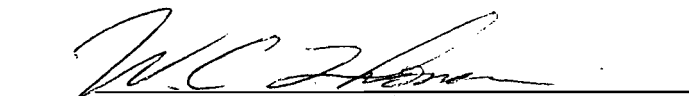
15. Florida Power Corporation shall maintain a monthly record of the hours of operation of the peaking unit. This record shall be updated monthly and shall be completed by the end of the following month. The records shall be maintained at the facility for a minimum of the most recent three year period and shall be made available to the Department and the Pinellas County Department of Environmental Management, Air Quality Division, upon request. [Permit A052-167175 and Rule 62-4.070(3), F.A.C.]

**PERMIT RENEWAL**

16. A visible emissions test must be conducted, per Specific Condition No. 3, during the 12 month period prior to permit renewal. [Rule 62-297.340(1)(c), F.A.C.]

17. Florida Power Corporation is subject to the permitting requirements of Rule 62-213.420, F.A.C. - *Operation Permits for Major Sources of Air Pollution, Permit Applications*, and shall apply for a Title V operation permit by submitting a completed application, DEP Form 62-210.900(1), to the Division of Air Resources Management, Bureau of Air Regulation, Department of Environmental Protection (Tallahassee) by the appropriate date referenced in Rule 62-213.420(1)(a), F.A.C. The application shall include the test results from Specific Condition No. 16. A copy of the application and the test results from Specific Condition No. 16 shall also be submitted to the Air Permitting Section of the Southwest District Office (Tampa), the Department of Environmental Protection and to the Pinellas County Department of Environmental Management, Air Quality Division. [Rules 62-4.090(1) and 62-213.420, F.A.C.]

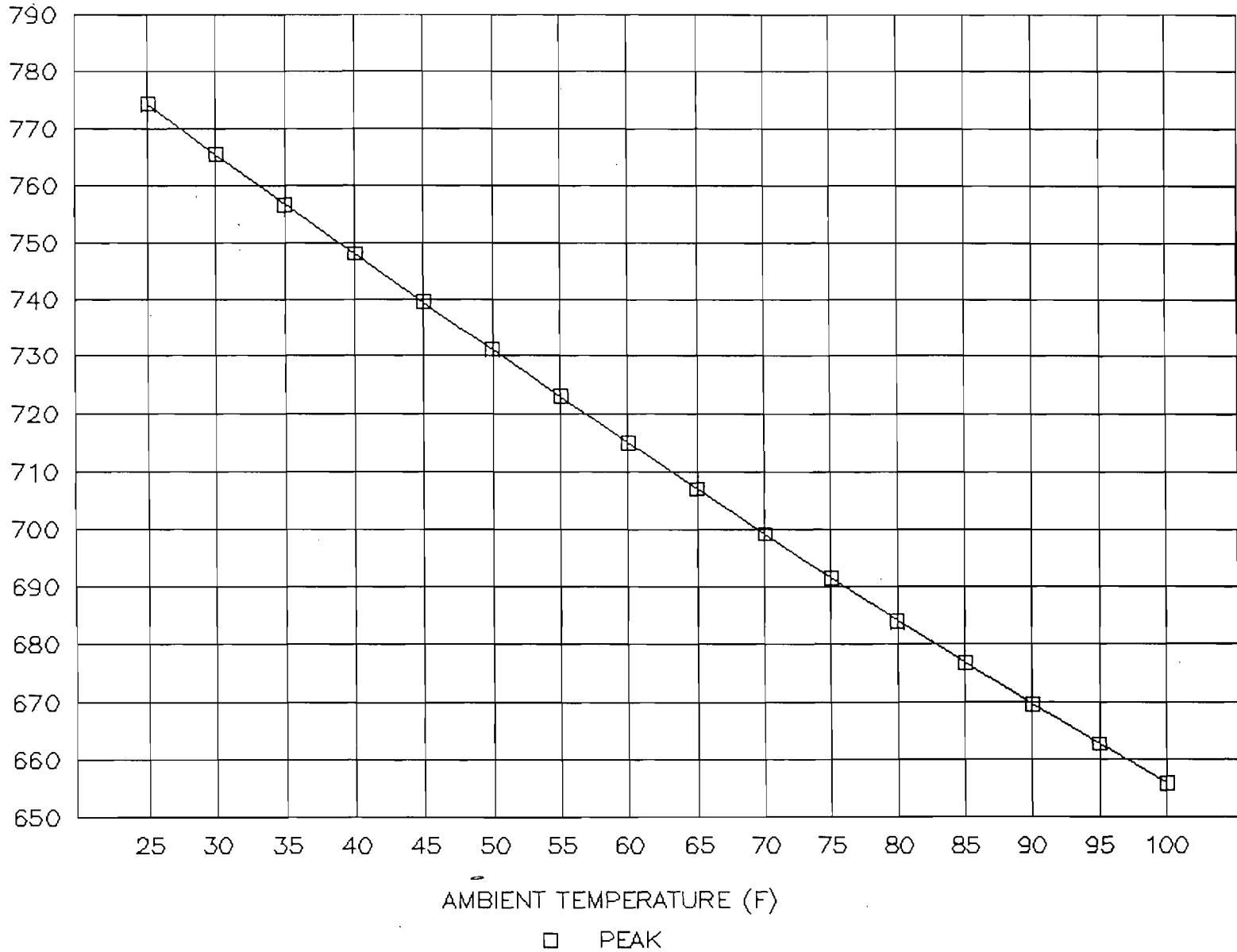
STATE OF FLORIDA DEPARTMENT  
OF ENVIRONMENTAL PROTECTION

  
Richard D. Garrity, Ph.D.  
Director of District Management  
Southwest District

5fpc218a.pmt

# BARTOW COMBUSTION TURBINE

## FUEL HEAT INPUT vs AMBIENT TEMPERATURE



**ATTACHMENT - 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 403.141, 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), F.S., 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.
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:

**GENERAL CONDITIONS:**

- 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, F.S. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

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 17-730.300, 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.

**GENERAL CONDITIONS:**

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

13. This permit also constitutes:

- ( ) Determination of Best Available Control Technology (BACT)
- ( ) Determination of Prevention of Significant Deterioration (PSD)
- ( ) 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;
  - 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.





# Department of Environmental Protection

## CERTIFIED MAIL

Lawton Chiles  
Governor

Southwest District  
3804 Coconut Palm Drive  
Tampa, Florida 33619

Virginia B. Wetherell  
Secretary

In the Matter of Applications  
for Permits by:

DEP Files: A052-253215  
A052-253216  
A052-253217  
A052-253218

Mr. W. Jeffrey Pardue, C.E.P.  
Manager - Environmental  
Florida Power Corporation  
Post Office Box 14042, MAC H2G  
St. Petersburg, Florida 33733

Pinellas County

### NOTICE OF PERMIT ISSUANCE

Enclosed are air pollution operating permits A052-253215, A052-253216, A052-253217 and A052-253218 for the operation of the Bartow Peaking Units Nos. 1, 2, 3 and 4, located at Weedon Island, St. Petersburg, Florida, issued pursuant to Section 403.087, Florida Statutes.

Operating permits A052-253215, A052-253216, A052-253217 and A052-253218 replace permits A052-167173, A052-167174, A052-167175, and A052-167172, respectively, for the operation of the Bartow Peaking Units Nos. 1, 2, 3 and 4.

*A person whose substantial interests are affected by these permits may petition for an administrative proceeding (hearing) in accordance with Section 120.57, Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, within 14 days of receipt of this Permit. Petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, Florida Statutes.*

*The Petition shall contain the following information;*

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

Page 1 of 3

Mr. W. Jeffrey Pardue, C.E.P  
Florida Power Corporation

Bartow Peaking Units 1,2,3 and 4

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

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

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

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

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

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

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in this permit. Persons whose substantial interests will be affected by any decision of the Department with regard to the application have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 14 days of receipt of this notice in the Office of General Counsel at the above address of the Department. Failure to petition within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, F.S., and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, F.A.C.

These permits are 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 and conforms to Rule 62-103.070, F.A.C. Upon timely filing of a petition or a request for an extension of time this permit will not be effective until further Order of the Department.

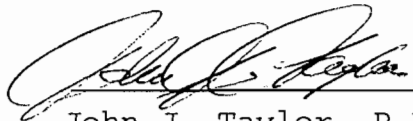
Mr. W. Jeffrey Pardue, C.E.P  
Florida Power Corporation

Bartow Peaking Units 1,2,3 and 4

When the Order (Permits) is final, any party to the Order has the right to seek judicial review of the Order pursuant to Section 120.68, Florida Statutes, by the filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate procedure, with the Clerk of the Department in the Office of General Counsel, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400; and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 30 days from the date the Final Order is filed with the Clerk of the Department.

Executed in Tampa, Florida.

FLORIDA DEPARTMENT OF  
ENVIRONMENTAL PROTECTION



John J. Taylor, P.E.  
Air Permitting Engineer  
3804 Coconut Palm Drive  
Tampa, Florida 33619-8318  
Phone: (813) 744-6100 x408

Enclosures

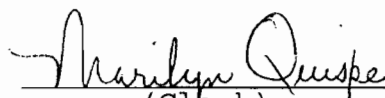
copy to: Mr. Gary Robbins, Environmental Manager  
Pinellas County Department of Environmental Management

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this NOTICE OF PERMIT ISSUANCE and all copies were mailed before the close of business on NOV 23 1994 to the listed persons.

Clerk Stamp

FILING AND ACKNOWLEDGEMENT  
FILED, on this date, pursuant  
to Section 120.52(11), Florida  
Statutes, with the designated  
Department Clerk, receipt of  
which is hereby acknowledged.

  
(Clerk) NOV 23 1994  
(Date)

P 648 755 254



### Certified Mail Receipt

No Insurance Coverage Provided  
Do not use for International Mail  
(See Reverse)

Sent to <i>Mr. W. J. Pardue</i>	
Street & No <i>Manager Env. Programs</i>	
P.O., State & Zip Code <i>Florida Power Corp.</i>	
Postage <i>PO Box 14042</i>	<i>\$ MAC H2G</i>
Certified Fee <i>St. Petersburg, FL</i>	
Special Delivery Fee	<i>33733</i>
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Address of Delivery	
TOTAL Postage & Fees	<b>\$</b>
Postmark or Date <b>NOV 23 1994</b>	
<i>A052-253207</i>	<i>215</i>
<i>ii - 253209</i>	<i>216</i>
<i>ii - 253211</i>	<i>217</i>
<i>ii - 253213</i>	<i>218</i>

PS Form 3800, June 1990



# Department of Environmental Protection

Lawton Chiles  
Governor

Southwest District  
3804 Coconut Palm Drive  
Tampa, Florida 33619

Virginia B. Wetherell  
Secretary

**PERMITTEE:**

Florida Power Corporation  
Post Office Box 14042  
St. Petersburg, Florida 33733

**PERMIT/PROJECT:**

**Permit:** AO52-253218  
**County:** Pinellas  
**Expiration Date:** 11-01-99  
**Project:** Bartow Peaking Unit  
No. 4

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Chapters 62-2 through 62-297. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans and other documents, attached hereto or on file with the Department and made a part hereof and specifically described as follows:

For the operation of an oil fired, gas turbine driven electrical generating unit with a rated maximum capacity of 55.7 MW. The unit is designated as the Bartow Peaking Unit No. 4 and is composed of a General Electric Company, Serial No. 335X118 electric generator driven by a General Electric Company, Model MS 7000, Serial No. 217712 gas turbine. The manufacturer's rating for the turbine is 121 barrels per hour or 714 MMBtu per hour at an ambient air temperature of 59°F. The maximum (peak) heat input rate of the turbine is a function of the ambient temperature as shown on the graph of *Fuel Heat Input versus Ambient Temperature* included in this permit. The turbine utilizes new, No. 2 fuel oil with a maximum sulfur content of 0.5%, by weight.

**Location:** Weedon Island, St. Petersburg, Pinellas County

**UTM:** 17-342.18 km E 3082.87 km N

**NEDS No:** 0011

**Point ID:** 08

Replaces Permit AO52-167172

Florida Power Corporation  
St. Petersburg, Florida

Permit: A052-253218  
Project: Bartow Peaking Unit  
No. 4

**SPECIFIC CONDITIONS:**

1. A part of this permit is the attached GENERAL CONDITIONS. [Rule 62-4.160, F.A.C.]
2. Issuance of this permit does not relieve the permittee from complying with applicable emission limiting standards or other requirements of Chapters 62-200 through 62-299, Florida Administrative Code, or any other requirements under federal, state or local law. [Rule 62-210.300, F.A.C.]

**EMISSION LIMITATIONS**

3. Visible emissions from Bartow Peaking Unit No. 4 shall not be equal to or greater than 20% opacity. [Rule 62-296.310(2)(a), F.A.C.]

**OPERATION LIMITATIONS**

4. The hours of operation for Bartow Peaking Unit No. 4 are not restricted (8760 hours per year). [Specified in permit application]
5. The maximum (peak) heat input rate of the Bartow Peaking Unit No. 4 turbine shall be determined from the graph of *Fuel Heat Input versus Ambient Temperature* shown on Page 8 of this permit using the daily average ambient temperature. [Rule 62-297.310(2)(a), F.A.C.]
6. The Bartow Peaking Unit No. 4 shall only utilize new, No. 2 fuel oil with a maximum sulfur content of 0.5%, by weight. "New" No. 2 fuel oil is defined as fuel oil that has been refined from crude oil and has not been used and which may or may not contain additives.

**TESTING AND COMPLIANCE REQUIREMENTS**

7. Test the Bartow Peaking Unit No. 4 for visible emissions annually within 60 days prior to February 1. The visible emissions compliance test could be waived, on a year by year basis, if fuel oil has not been used to fire this peaking unit for more than 400 hours for the previous 12 months and if this peaking unit is not expected to use fuel oil for more than 400 hours during the next 12 months.

(Specific Condition No. 7, Continued on Next Page)

Florida Power Corporation  
St. Petersburg, Florida

Permit: AO52-253218  
Project: Bartow Peaking Unit  
No. 4

**SPECIFIC CONDITIONS:**

7. (Continued)

In order to request the annual visible emissions test waiver, a letter shall be sent each year, when the visible emissions test is due, to the Air Compliance Section, Southwest District Office of the Department of Environmental Protection, and to the Pinellas County Department of Environmental Management, Air Quality Division, stating the number of hours that fuel oil was utilized, and that the requirements for approval of the waiver have been satisfied. Include a copy of the fuel oil analysis with the waiver request. Regardless of fuel usage, a waiver will not be granted for the visible emission test for the 12 month period prior to permit renewal. A visible emissions test is required and shall be conducted during the 12 month period prior to permit renewal. (See Specific Condition No. 16).  
[Rules 62-297.340(1)(d) and 62-297.340(1)(e), F.A.C.]

8. Compliance with the visible emission limitation of Specific Condition No. 3 shall be determined using DEP Method 9 and shall be conducted by a certified observer and be a minimum of 60 minutes in duration. The minimum requirements for stack sampling facilities, source sampling and reporting, shall be in accordance with Chapter 62-297, F.A.C., *Stationary Sources - Emission Monitoring* and 40 CFR 60, Appendix A. [Rule 62-297.420, F.A.C.]

9. Testing of visible emissions shall be conducted with the turbine operating within 95-100% of the peak heat input rate based on the average ambient air temperature during the test. The peak heat input rate is defined by the graph of *Fuel Heat Input versus Ambient Temperature* for Peaking Unit No. 4 on Page 8 of this permit. The graph of *Fuel Heat Input versus Ambient Temperature* for Peaking Unit No. 4 is made a part of this permit. A copy of the graph noting the actual heat input rate and the average ambient temperature during the compliance test shall be included in the compliance test report.  
[Rule 62-4.070(3), F.A.C.]

Florida Power Corporation  
St. Petersburg, Florida

Permit: AO52-253218  
Project: Bartow Peaking Unit  
No. 4

**SPECIFIC CONDITIONS:**

**MONITORING REQUIREMENTS**

10. In order to document compliance with Specific Condition No. 6, and provide reasonable assurance that new, No. 2 fuel oil is being utilized and that the fuel oil sulfur content limit of 0.5%, by weight, is not exceeded, the permittee shall provide, for each fuel oil delivery, either:

- (1) a fuel oil analysis from a fuel oil sample, indicating the sulfur content. The fuel oil analysis shall be determined by the ASTM D-129 method referenced in 40 CFR 60.17 (July 1, 1991), or a Department approved alternate test method, or
- (2) a certification of fuel oil analysis, indicating the sulfur content, obtained from the fuel oil supplier for the fuel oil delivered.

This information shall be maintained for a minimum of the most recent two year period and shall be made available to the Department and the Pinellas County Department of Environmental Management, upon request. [Permit AO52-167172 and Rule 17-4.070(3), F.A.C.]

11. In order to provide reasonable assurance that the fuel oil supplier's fuel oil analysis is accurate, Florida Power Corporation shall perform at least one audit sample analysis from a fuel oil delivery during the calendar year period. The fuel oil analysis shall be analyzed for the following:

Btu content  
API Gravity  
Density  
Sulfur content, percent by weight

An audit sample analysis is not required in any calendar year for which the oil supplier certifications were not used to demonstrate compliance with the fuel oil sulfur limitation. Records must be kept for a minimum of the most recent two year period and shall be made available to the Department and the Pinellas County Department of Environmental Management, Air Quality Division, upon request. [Permit AO52-167172 and Rule 62-4.070(3), F.A.C.]



Florida Power Corporation  
St. Petersburg, Florida

Permit: A052-253218  
Project: Bartow Peaking Unit  
No. 4

**SPECIFIC CONDITIONS:**

**NOTIFICATION REQUIREMENTS**

12. The Permittee shall notify the Pinellas County Department of Environmental Management, Air Quality Division, in writing at least 15 days prior to the date on which each compliance test is to begin. [Rule 62-297.340(1)(i), F.A.C.]

**REPORTING REQUIREMENTS**

13. Submit to the Southwest District Office, Air Compliance Section of the Department of Environmental Protection, and the Pinellas County Department of Environmental Management, Air Quality Division, each calendar year on or before March 1, completed DEP Form 62-213.900(5), "Annual Operating Report for Air Pollutant Emitting Facility", for the preceding calendar year. [Rule 62-210.370(2)(a)1., F.A.C.]

The *Annual Operating Report* shall be based on the following:

- (1) The Btu heating value, sulfur content (percent by weight), API gravity and density of the fuel being fired in the peaking unit, shall be based on a weighted 12 month average (calendar year) and be calculated from the fuel delivery receipts and the vendor's fuel oil analysis.
- (2) Until further notice by the Pinellas County Department of Environmental Management, Air Quality Division, Florida Power Corporation shall calculate annual emissions (pounds per hour, and tons per year), for the *Annual Operating Report*, by multiplying the total MMBtu from fuel usage by the following emission factors:

	Emission Factors No. 2 Fuel Oil <u>Pounds per MMBtu</u>
Particulate Matter (PM)	0.061 (Total)
PM10	0.048PM
Carbon Monoxide	0.048
Sulfur Dioxide	1.01s
Nitrogen Oxides	0.698
Hydrocarbons (TOC)	0.017

(Specific Condition No. 13, Continued on Next Page)

Florida Power Corporation  
St. Petersburg, Florida

Permit: A052-253218  
Project: Bartow Peaking Unit  
No. 4

**SPECIFIC CONDITIONS:**

13. (Continued)

's' denotes sulfur content, percent by weight. The sulfur dioxide emissions shall be based on a weighted 12 month average 's' value. [Emission factors from AP 42, Table 3.1-1 (7/93)]

NOTE: For reference only, based on the manufacturer's rated maximum heat input rate of 714 MMBtu per hour and AP 42 emission factors, the following are the maximum potential emission rates expected from this peaking unit, and are included for informational purposes only:

	<u>Pounds per Hour</u>	<u>Tons per Year</u>
Particulate Matter (Total)	43.55	191.77
PM10	20.91	91.57
Carbon Monoxide	34.27	150.11
Sulfur Dioxide	360.57	1579.30
Nitrogen Oxides	498.37	2182.87
Hydrocarbons (TOC)	12.14	53.17

14. Submit a copy of the visible emissions test reports required by Specific Condition Nos. 7 and 16, to the Pinellas County Department of Environmental Management, Air Quality Division, within 45 days of testing. Each test report shall include:

- (1) a statement of the maximum turbine performance based on the turbine performance criteria defined by Specific Condition No. 5;
- (2) a copy of the graph of *Fuel Heat Input versus Ambient Temperature* for Peaking Unit No. 4 noting the maximum heat input and the ambient temperature during the compliance test; and
- (3) a copy of the fuel oil analysis.

[Rules 62-297.570(2), and 62-297.570(3), F.A.C.]

Florida Power Corporation  
St. Petersburg, Florida

Permit: A052-253218  
Project: Bartow Peaking Unit  
No. 4

**SPECIFIC CONDITIONS:**

**RECORDKEEPING REQUIREMENTS**

15. Florida Power Corporation shall maintain a monthly record of the hours of operation of the peaking unit. This record shall be updated monthly and shall be completed by the end of the following month. The records shall be maintained at the facility for a minimum of the most recent two year period and shall be made available to the Department and the Pinellas County Department of Environmental Management, Air Quality Division, upon request. [Permit A052-167172 and Rule 62-4.070(3), F.A.C.]

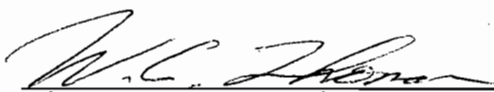
**PERMIT RENEWAL**

16. A visible emissions test must be conducted, per Specific Condition No. 3, during the 12 month period prior to permit renewal. [Rule 62-297.340(1)(c), F.A.C.]

17. Three applications to renew this operating permit, and the test results from Specific Condition No. 16, shall be submitted to the Air Section of the Southwest District Office of the Department of Environmental Protection, and one application, and the test results from Specific Condition No. 16 shall be submitted to the Pinellas County Department of Environmental Management, Air Quality Division, by September 1, 1999 (60 days prior to the expiration date of this permit). [Rule 62-4.090(1) and 62-213.420, F.A.C.]

NOTE: The permit renewal requirements of Rule 62-213.420, F.A.C. - *Operation Permits for Major Sources of Air Pollution, Permit Applications*, are applicable to this source.

STATE OF FLORIDA DEPARTMENT  
OF ENVIRONMENTAL PROTECTION

  
For Richard D. Garrity, Ph.D.  
Director of District Management  
Southwest District

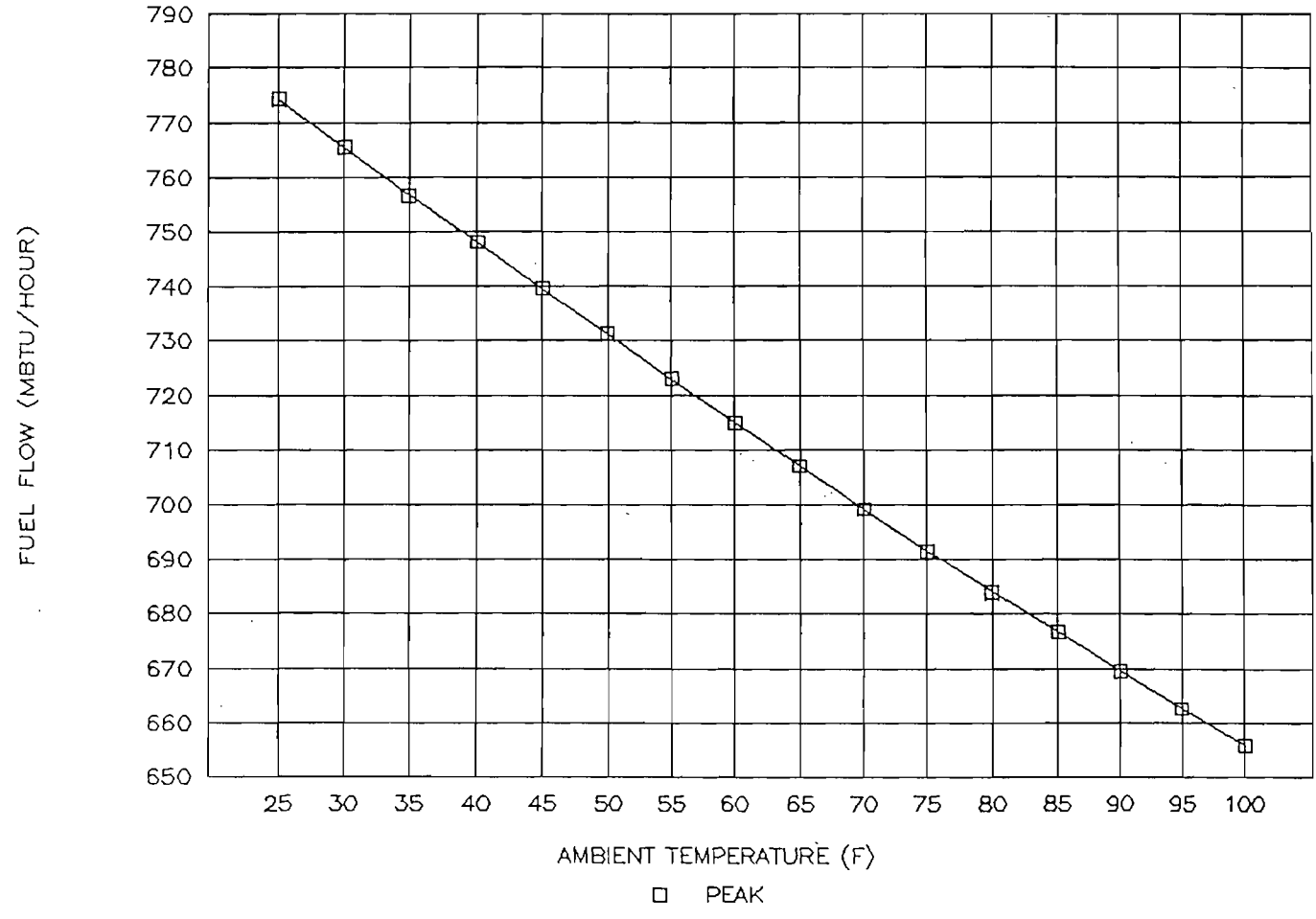
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Florida Power Corporation  
St. Petersburg, Florida

Permit: A052-253218  
Project: Bartow Peaking Unit No. 4

# BARTOW - COMBUSTION TURBINE

FUEL HEAT INPUT vs AMBIENT TEMPERATURE



**ATTACHMENT - 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 403.141, 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), F.S., 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.

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:

**GENERAL CONDITIONS:**

- 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, F.S. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

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 17-730.300, 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.

**GENERAL CONDITIONS:**

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

13. This permit also constitutes:

- ( ) Determination of Best Available Control Technology (BACT)
- ( ) Determination of Prevention of Significant Deterioration (PSD)
- ( ) 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;
  - 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.



Florida Department of Environmental Regulation

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

DER Form #	_____
Form Title	_____
Effective Date	_____
DER Application No.	_____ (Filed in by DER)

A052-253218

APPLICATION FOR RENEWAL OF PERMIT TO OPERATE AIR POLLUTION SOURCE(S)

If major alterations have occurred, the applicant should complete the Standard Air Permit Application Form.

Source Type: Combustion Turbine Renewal of DER Permit No. A0-52-167172

Company Name: Florida Power Corporation County: Pinellas

Identify the specific emission point source(s) addressed in this application (i.e., Lime Kiln No. 4 with Venturi Scrubber; Peaking Unit No. 2, Gas Fired):

Bartow Peaking Unit #4

Source Location: Street: Weedon Island City: St. Petersburg

UTM: East 342180 North 3082870

Latitude: 27° 51' 35" N. Longitude: 82° 36' 09" W.

- Attach a check made payable to the Department of Environmental Regulation in accordance with operation permit fee schedule set forth in Florida Administrative Code Rule 17-4.05. No fee required.
- Have there been any alterations to the plant since last permitted? [ ] Yes [x] No If minor alterations have occurred, describe on a separate sheet and attach.
- Attach the last compliance test report required per permit conditions if not submitted previously. Compliance test performed on January 18, 1994
- Have previous permit conditions been adhered to? [x] Yes [ ] No If no, explain on a separate sheet and attach.
- Has there been any malfunction of the pollution control equipment during tenure of current permit? [ ] Yes [ ] No If yes, and not previously reported, give brief details and what action was taken on a separate sheet and attach. N/A
- Has the pollution control equipment been maintained to preserve the collection efficiency last permitted by the Department? [ ] Yes [ ] No N/A
- Has the annual operating report for the last calendar year been submitted? [x] Yes [ ] No If no, please attach.



8. Please provide the following information if applicable:

A. Raw Materials and Chemical Used in Your Process:

Description	Contaminant		Utilization	
	Type	%Wt	Rate	lbs/hr

B. Product Weight (lbs/hr): \_\_\_\_\_

C. Fuels

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	Avg/hr*	Max/hr**	
No. 2 Fuel Oil	121	121 <sup>1</sup>	714 <sup>1</sup>

D. Normal Equipment Operating Time: hrs/day 24; days/wk 7; wks/yr 52;  
 hrs/yr (power plants only) 8760; if seasonal, describe \_\_\_\_\_

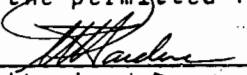
The undersigned owner or authorized representative\*\*\* of Florida Power Corporation is fully aware that the statements made in this application for a renewal of a permit to operate an air pollution source are true, correct and complete to the best of his knowledge and belief. Further, the undersigned agrees to maintain and operate the pollution source and pollution control facilities in such a manner as to comply with the provisions of Chapter 403, Florida Statutes, and all the rules and regulations of the Department. He also understands that a permit, if granted by the Department, will be non-transferable and he will promptly notify the Department upon sale or legal transfer of the permitted facility.

\*During actual time of operation.

\*\*Units: Natural Gas-MMCF/hr;  
 Fuel Oils-barrels/hr; Coal-lbs/hr.

\*\*\*Attach letter of authorization if not previously submitted

<sup>1</sup>Based on 59°F reference temperature

  
 Signature, Owner or Authorized Representative  
 (Notarization is mandatory)  
W. Jeffrey Pardue, C.E.P., Manager-Environmental  
 Typed Name and Title Programs  
P. O. Box 14042, MAC H2G  
 Address  
St. Petersburg, FL 33733  
 City State Zip  
20 June 1994 (813) 866-4387  
 Date Telephone No.

DER Form 17-1.202(4)

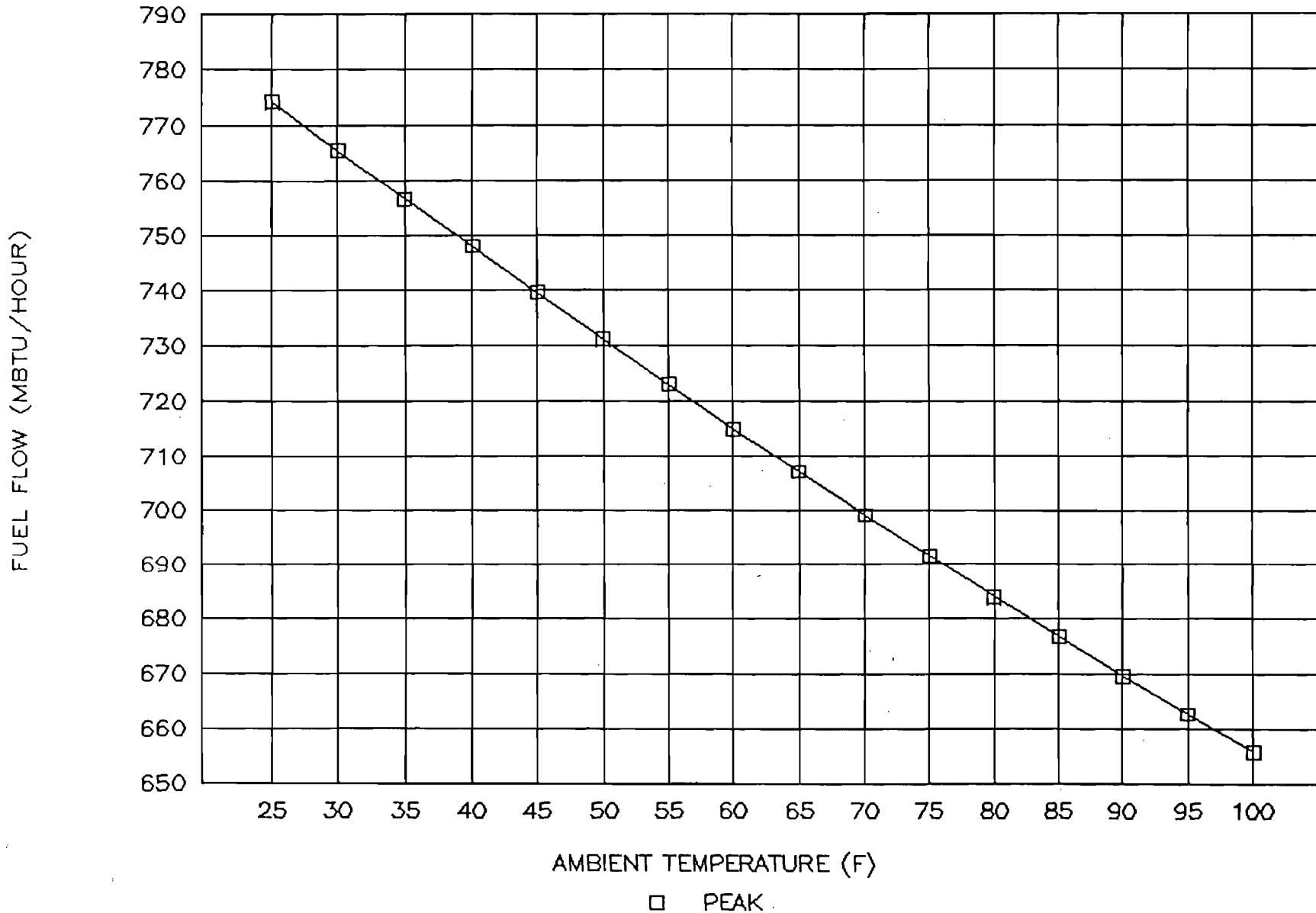
Effective November 20, 1993

OFFICIAL NOTARY SEAL  
 MARYJANE R BLAIN  
 NOTARY PUBLIC STATE OF FLORIDA  
 COMMISSION NO. CC373234  
 MY COMMISSION EXP. JUNE 3, 1998

*Witnessed before me this 20th day of June 1994.  
 Maryjane R. Blain*

# BARTOW P4 COMBUSTION TURBINE

## FUEL HEAT INPUT vs AMBIENT TEMPERATURE





# Florida Department of Environmental Regulation

Southwest District • 4520 Oak Fair Boulevard • Tampa, Florida 33610-7347 • 813-623-5561

Bob Martinez, Governor

Dale Twachtmann, Secretary

John Shearer, Assistant Secretary  
Dr. Richard Garrity, Deputy Assistant Secretary

January 26, 1990

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION  
NOTICE OF PERMIT ISSUANCE

Mr. J. A. Hancock  
Vice President, Fossil Operations  
Florida Power Corporation  
Post Office Box 14042  
St. Petersburg, Florida 33733

DER File No.: A052-167172  
County: Pinellas

Enclosed is Amended Permit Number A052-167172 to operate the Bartow Peaking Unit No. 4, issued pursuant to Section 403.087, Florida Statutes.

A person whose substantial interests are affected by this permit amendment may petition for an administrative proceeding (hearing) in accordance with Section 120.57, Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 2600 Blair Stone Road, Tallahassee 32399-2400, within fourteen (14) days of receipt of this permit amendment. Petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, Florida Statutes.

The Petition shall contain the following information;

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

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

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

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

Mr. J. A. Hancock  
St. Petersburg, Florida 33733

Page Two

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

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

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

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in this permit. Persons whose substantial interests will be affected by any decision of the Department with regard to the application have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 14 days of receipt of this notice, in the Office of General Counsel at the above address of the Department. Failure to petition within the allotted time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, F.S., and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, F.A.C.

This permit amendment 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 and conforms to Rule 17-103.070, F.A.C. Upon timely filing of a petition or a request for an extension of time this permit amendment will not be effective until further Order of the Department. When the Order (Permit Amendment) is final, any party to the Order has the right to seek judicial review of the Order pursuant to Section 120.68, Florida Statutes, by the filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the Clerk of the Department in the Office of General Counsel, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400; and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 30 days from the date the Final Order is filed with the Clerk of the Department.

Mr. J. A. Hancock  
St. Petersburg, Florida 33733

Page Three

Executed in Tampa, Florida

Sincerely,



George W. Richardson  
Air Permitting Engineer

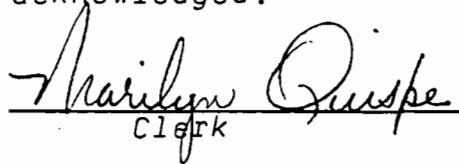
RDG/gr

cc: Pinellas County Department of  
Environmental Management

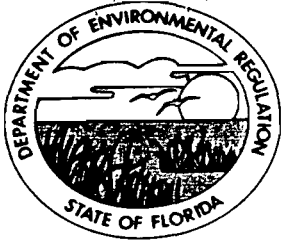
CERTIFICATE OF SERVICE

This is to certify that this NOTICE OF PERMIT AMENDMENT and all copies were mailed before the close of business on JAN 26 1990 to the listed persons.

FILING AND ACKNOWLEDGEMENT  
FILED, on this date, pursuant to  
§120.52(10), Florida Statutes, with  
the designated Department Clerk,  
receipt of which is hereby  
acknowledged.

  
Clerk

JAN 26 1990  
Date



# Florida Department of Environmental Regulation

Southwest District • 4520 Oak Fair Boulevard • Tampa, Florida 33610-7347 • 813-623-5561

Bob Martinez, Governor

Dale Twachtmann, Secretary

John Shearer, Assistant Secretary  
Dr. Richard Garrity, Deputy Assistant Secretary

PERMITTEE:  
Florida Power Corporation  
Post Office Box 14042  
St. Petersburg, Florida 33733

PERMIT/CERTIFICATION  
Permit No.: A052-167172  
County: Pinellas  
Expiration Date: 8-21-94  
Project: Bartow Peaking  
Unit No. 4

This permit amendment is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Rules 17-2 & 17-4. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents, attached hereto or on file with the department and made a part hereof and specifically described as follows:

For the operation of an oil fired, gas turbine driven electrical generating unit designated as Peaking Unit No. 4. The peaking unit is composed of a General Electric Company, Serial No. 335X118 electric generator driven by a General Electric Company Model MS 7000, Serial No. 217712 gas turbine. The turbine is fired on new No. 2 fuel oil at a maximum rate of 121 barrels/hour or 714 MMBTU/hour. The unit is rated at a maximum electrical generating capacity of 55.7 MW.

Location: Weedon Island, St. Petersburg, Pinellas County

UTM: 17-342.2 E 3082.9 N NEDS NO: 0011 Point ID: 08

Replaces Permit No.: A052-89902

PERMITTEE:  
Florida Power Corporation

Permit/Certification No.: A052-167172  
Project: Bartow Peaking Unit No. 4

SPECIFIC CONDITIONS:

1. A part of this permit is the attached 15 General Conditions.
2. Visible emissions from this peaking unit shall not be equal to or greater than 20% opacity in accordance with Subsection 17-2.610(2)(a), F.A.C.
3. The turbines shall be fired on new No. 2 fuel oil. The term new fuel oil means an oil that has been refined from crude oil and has not been used and which may or may not contain additives.
4. Test the peaking unit for visible emissions within 30 days of startup and annually thereafter between the dates of December 1, and February 28, if the peaking unit operated more than 400 hours during the preceding 12 month period, pursuant to Subsection 17-2.700(2)(a)8., F.A.C. Submit a copy of test data to the Air Sections of the Southwest District Office and the Pinellas County Department of Environmental Management, Air Quality Division within forty-five (45) days of such testing (Section 17-2.700(2) Florida Administrative Code (F.A.C.)).
5. Compliance with the emission limitations of Specific Condition No. 2 shall be determined using EPA Method No. 9 contained in 40 CFR 60, Appendix A and adopted by reference in Section 17-2.700, F.A.C. The minimum requirements for stack sampling facilities, source sampling and reporting, shall be in accordance with Section 17-2.700, F.A.C. and 40 CFR 60, Appendix A. The Method 9 visible emission compliance test shall be conducted by a certified observer and be a minimum of sixty (60) minutes in duration.
6. The Pinellas County Department of Environmental Management, Air Quality Division shall be notified in writing at least 15 days prior to any compliance testing.
7. Maintain monthly records on site for the hours this peaking unit operates. If the peaking unit operated less than 400 hours per calendar year, submit these records in lieu of testing to this office and the Pinellas County Department of Environmental Management, Air Quality Division.
8. Fuel oil quality is to be analyzed prior to each delivery. The fuel oil sample is to be analyzed for the following and the analysis kept on site for future inspections:
  - a. BTU content
  - b. API Gravity
  - c. Density
  - d. Sulfur Content by weight

as per Subsection 403.061(13), Florida Statutes.

PERMITTEE:  
Florida Power Corporation

Permit/Certification No.: A052-167172  
Project: Bartow Peaking Unit No. 4

9. Compliance testing of emissions shall be accomplished while operating the peaking unit at 100% +10% of the permitted capacity stated in Specific Condition No. 10. A compliance test submitted at operating rates less than 90% of the permitted capacities will automatically constitute an amended permit at the lesser rate. The permittee shall submit a statement of the operating mode and a copy of the fuel oil analysis as a part of the compliance test. Failure to submit the operating mode statement, fuel oil analysis and actual operating conditions may invalidate the test (Section 403.161(1)(c), Florida Statutes).

10. Based on the application submitted for this peaking unit it is permitted to operate at 43 MW/hour and 66 barrels/hour of new No. 2 fuel oil. If the peaking unit exceeds this permitted level by more than 10%, a compliance test must be conducted within 15 days, following Specific Conditions No. 4, 5 and 6.

11. Submit for this facility, each calendar year, on or before March 1, an emission report for the preceding calendar year containing the following:

- (A) Annual amount of materials and/or fuels utilized.
- (B) Annual emissions for particulates,  $PM_{10}$ , carbon monoxide,  $SO_2$ , and  $NO_x$  based on fuel use, operating hours, and fuel analysis (provide a copy of the calculation sheet(s) and basis for calculations).
- (C) Any changes in the information contained in the permit application.


A copy of this report shall be submitted to the Air Sections of the Southwest District Office and the Pinellas County Department of Environmental Management, Air Quality Division.

11. Three applications to renew this operating permit shall be submitted to the Department and one copy to the Pinellas County Department of Environmental Management, Air Quality Division sixty (60) days prior to the expiration date of this permit.

Issued this 28th day of September  
1989.

Amended this 15 day of Jan.  
1990

STATE OF FLORIDA DEPARTMENT OF  
ENVIRONMENTAL REGULATION

  
Richard D. Garrity, Ph.D.  
Deputy Assistant Secretary



## GENERAL CONDITIONS

1. The terms, conditions, requirements, limitations, and restrictions set forth herein are "Permit Conditions" and are binding and enforceable pursuant to the authority of Section 403.141, 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 403.712(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 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 any 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.
7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credential or other documents as maybe required by law and at reasonable times, access to the premises, where the permitted activity is located or conducted:

GENERAL CONDITIONS (con't):

7. (con't):

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 (17-6.130) with the following information:

(a) a description of and cause of noncompliance; and

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

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 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 Section 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 Procedures and appropriate evidentiary rules.

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, as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the department.

GENERAL CONDITIONS (con't):

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

13. This permit also constitutes:

- ( ) Determination of Best Available Control Technology (BACT)
- ( ) Determination of Prevention of Significant Deterioration (PSD)
- ( ) Certification of Compliance with State Water Quality Standards (Section 401. PL 92-500)
- ( ) Compliance with New Source Performance Standards

14. The permittee shall comply with the following:

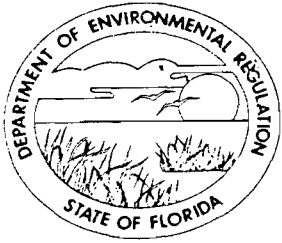
a. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically, unless otherwise stipulated by the Department.

b. The permittee shall retain 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), 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 measurement;
- the person responsible for performing the sampling or measurements;
- the date(s) 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 submitted or corrected promptly.



# Florida Department of Environmental Regulation

Southwest District • 4520 Oak Fair Boulevard • Tampa, Florida 33610-7347 • 813-623-5561

Bob Martinez, Governor

Dale Twachtmann, Secretary

John Shearer, Assistant Secretary  
Richard Garrity, Deputy Assistant Secretary

September 28, 1989

## NOTICE OF PERMIT

Mr. J. A. Hancock  
Vice President, Fossil Operations  
Florida Power Corporation  
Post Office Box 14042  
St. Petersburg, Florida 33733

Dear Mr. Hancock:

Re: Pinellas County - AP  
Bartow Peaking Unit No. 4

Enclosed is Permit Number A052-167172 to operate the Bartow Peaking Unit No. 4, issued pursuant to Section 403.087, Florida Statutes.

Persons whose substantial interests are affected by this permit have a right, pursuant to Section 120.57, Florida Statutes, to petition for an administrative determination (hearing) on it. The petition must conform to the requirements of Chapters 17-103 and 28-5.201, FAC, and must be filed (received) in the Department's Office of General Counsel, 2600 Blair Stone Road, Tallahassee 32399-2400, within fourteen (14) days of receipt of this notice. Failure to file a petition within the fourteen (14) days constitutes a waiver of any right such person has to an administrative determination (hearing) pursuant to Section 120.57, Florida Statutes. This permit is final and effective on the date filed with the Clerk of the Department unless a petition is filed in accordance with this paragraph or unless a request for extension of time in which to file a petition is filed within the time specified for filing a petition and conforms to Rule 17-103.070, FAC. Upon timely filing of a petition or a request for an extension of time this permit will not be effective until further Order of the Department.

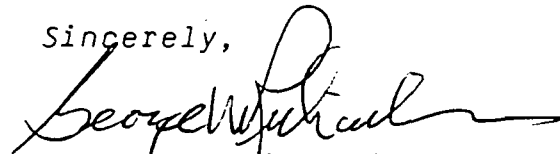
Mr. J. A. Hancock  
St. Petersburg, Florida 33733

Page Two

When the Order (Permit) is final, any party to the Order has the right to seek judicial review of the Order pursuant to Section 120.68, Florida Statutes, by the filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the Clerk of the Department in the Office of General Counsel, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400; and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 30 days from the date the Final Order is filed with the Clerk of the Department.

Executed in Tampa, Florida.

Sincerely,



George W. Richardson  
Air Permitting Engineer

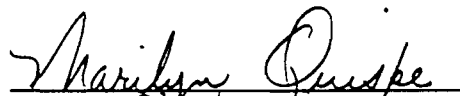
GWR/gr

cc: Pinellas County Department of  
Environmental Management

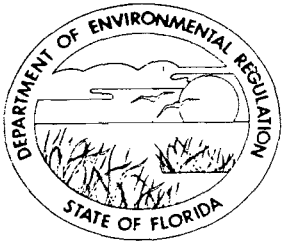
CERTIFICATE OF SERVICE

This is to certify that this NOTICE OF PERMIT and all copies were mailed before the close of business on SEP 28 1989 to the listed persons.

FILING AND ACKNOWLEDGEMENT  
FILED, on this date, pursuant to  
§120.52(10), Florida Statutes, with  
the designated Department Clerk,  
receipt of which is hereby  
acknowledged.

  
Clerk

SEP 28 1989  
Date



# Florida Department of Environmental Regulation

Southwest District • 4520 Oak Fair Boulevard • Tampa, Florida 33610-7347 • 813-623-5561

Bob Martinez, Governor

Dale Twachtmann, Secretary

John Shearer, Assistant Secretary  
Richard Garrity, Deputy Assistant Secretary

PERMITTEE:  
Florida Power Corporation  
Post Office Box 14042  
St. Petersburg, Florida 33733

PERMIT/CERTIFICATION  
Permit No.: A052-167172  
County: Pinellas  
Expiration Date: 8-21-94  
Project: Bartow Peaking  
Unit No. 4

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Rules 17-2 & 17-4. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents, attached hereto or on file with the department and made a part hereof and specifically described as follows:

For the operation of an oil fired, gas turbine driven electrical generating unit designated as Peaking Unit No. 4. The peaking unit is composed of a General Electric Company, Serial No. 335X118 electric generator driven by a General Electric Company Model MS 7000, Serial No. 217712 gas turbine. The turbine is fired on new No. 2 fuel oil at a maximum rate of 121 barrels/hour or 714 MMBTU/hour. The unit is rated at a maximum electrical generating capacity of 55.7 MW.

Location: Weedon Island, St. Petersburg, Pinellas County

UTM: 17-342.2 E 3082.9 N NEDS NO: 0011 Point ID: 08

Replaces Permit No.: A052-89902

PERMITTEE:  
Florida Power Corporation

Permit/Certification No.: A052-167172  
Project: Bartow Peaking Unit No. 4

SPECIFIC CONDITIONS

1. A part of this permit is the attached 15 General Conditions.
2. Visible emissions from this peaking unit shall not be equal to or greater than 20% opacity in accordance with Subsection 17-2.610(2)(a), F.A.C.
3. The turbines shall be fired on new No. 2 fuel oil. The term new fuel oil means an oil that has been refined from crude oil and has not been used and which may or may not contain additives.
4. Test the peaking unit for visible emissions within 30 days of startup and annually thereafter, if the peaking unit operated more than 400 hours during the preceding 12 month period, pursuant to Subsection 17-2.700(2)(a)8., F.A.C. Submit a copy of test data to the Air Sections of the Southwest District Office and the Pinellas County Department of Environmental Management within forty-five days of such testing (Section 17-2.700(2), Florida Administrative Code (F.A.C.)).
5. Compliance with the emission limitations of Specific Condition No. 2 shall be determined using EPA Method No. 9 contained in 40 CFR 60, Appendix A and adopted by reference in Section 17-2.700, F.A.C. The minimum requirements for stack sampling facilities, source sampling and reporting, shall be in accordance with Section 17-2.700, F.A.C. and 40 CFR 60, Appendix A. The Method 9 visible emission compliance test shall be conducted by a certified observer and be a minimum of sixty (60) minutes in duration.
6. The Pinellas County Department of Environmental Management, Air Quality Division shall be notified in writing at least 15 days prior to any compliance testing.
7. Maintain monthly records for the hours this peaking unit operates. If the peaking unit operated less than 400 hours per Specific Condition No. 4, submit these records at twelve month intervals from the date this peaking unit was tested to this office and the Pinellas County Department of Environmental Management, Air Quality Division in lieu of the visible emission compliance test.
8. Fuel oil quality is to be monitored prior to delivery and a sample taken for each day of operation for a monthly composite analysis. The monthly fuel oil composite sample is to be analyzed for the following:
  - a. BTU content
  - b. API Gravity
  - c. Density
  - d. Sulfur Content by weight

as per Subsection 403.061(13), Florida Statutes.

PERMITTEE:  
Florida Power Corporation

Permit/Certification No.: A052-167172  
Project: Bartow Peaking Unit No. 4

9. Compliance testing of emissions shall be accomplished while operating the peaking unit at 90-100% of the permitted capacity stated in Specific Condition No. 10. A compliance test submitted at operating rates less than 90% of the permitted capacities will automatically constitute an amended permit at the lesser rate. The permittee shall submit a statement of the operating mode and a copy of the fuel oil analysis as a part of the compliance test. Failure to submit the operating mode statement, fuel oil analysis and actual operating conditions may invalidate the test (Section 403.161(1)(c), Florida Statutes).

10. Based on the compliance test to be conducted within 30 days of startup, this peaking unit is permitted to operate at 90-100% of the operating rate during the compliance test. If the peaking unit exceeds this permitted level by 10%, a compliance test must be conducted within 10 days, following Specific Conditions No. 4, 5 and 6.

11. Submit for this facility, each calendar year, on or before March 1, an emission report for the preceding calendar year containing the following:

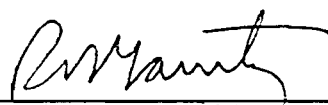
- (A) Annual amount of materials and/or fuels utilized.
- (B) Annual emissions for particulates,  $PM_{10}$ , carbon monoxide,  $SO_2$ , and  $NO_x$  based on fuel use, operating hours, and fuel analysis (provide a copy of the calculation sheet(s) and basis for calculations).
- (C) Any changes in the information contained in the permit application.

A copy of this report shall be submitted to the Air Sections of the Southwest District Office and the Pinellas County Department of Environmental Management, Air Quality Division.

12. Three applications to renew this operating permit shall be submitted to the Southwest District of the Department of Environmental Regulation and one copy to the Pinellas County Department of Environmental Management, Air Quality Division sixty (60) days prior to the expiration date of this permit.

Issued this 27 day of Sept  
1989.

STATE OF FLORIDA DEPARTMENT OF  
ENVIRONMENTAL REGULATION

  
Richard D. Garrity, Ph.D.  
Deputy Assistant Secretary



## GENERAL CONDITIONS

1. The terms, conditions, requirements, limitations, and restrictions set forth herein are "Permit Conditions" and are binding and enforceable pursuant to the authority of Section 403.141, 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 403.712(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 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 any 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.
7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credential or other documents as maybe required by law and at reasonable times, access to the premises, where the permitted activity is located or conducted:

GENERAL CONDITIONS (con't):

7. (con't):

- 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 (17-6.130) with the following information:

- (a) a description of and cause of noncompliance; and
- (b) the period of noncompliance, including exact dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance.

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 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 Section 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 Procedures and appropriate evidentiary rules.

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, as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the department.

GENERAL CONDITIONS (con't):

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

13. This permit also constitutes:

- ( ) Determination of Best Available Control Technology (BACT)
- ( ) Determination of Prevention of Significant Deterioration (PSD)
- ( ) Certification of Compliance with State Water Quality Standards (Section 401. PL 92-500)
- ( ) Compliance with New Source Performance Standards

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 retain 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), 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:

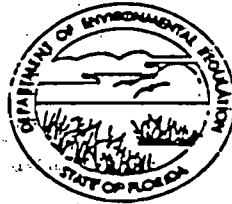
- the date, exact place, and time of sampling or measurement;
- the person responsible for performing the sampling or measurements;
- the date(s) analyses were performed;
- the person responsible for performing the analyses;
- the analytical techniques or methods used; and
- the results of such analyses.

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 submitted or corrected promptly.

A052-16717B

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING  
2600 BLAIR STONE ROAD  
TALLAHASSEE, FLORIDA 32301



D. E. R.

BOB GRAHAM  
GOVERNOR

VICTORIA J. TSCHINKEL  
SECRETARY

JUL 6 1989

SOUTHWEST DISTRICT  
TAMPA

APPLICATION FOR RENEWAL OF  
PERMIT TO OPERATE AIR POLLUTION SOURCE(S)

If major alterations have occurred, the applicant should complete the Standard Air Permit Application Form.

Source Type: Combustion Turbine Renewal of DER Permit No. A0-52-89902

Company Name: Florida Power Corporation County: Pinellas

Identify the specific emission point source(s) addressed in this application (i.e., Lime Kiln No. 4 with Venturi Scrubber; Peaking Unit No. 2, Gas Fired):

Bartow Peaking Unit #4

Source Location: Street: Weedon Island City: St. Petersburg

UTM: East 342180 North 3082870

Latitude: 27° 51' 35" N. Longitude: 82° 36' 09" W.

1. Attach a check made payable to the Department of Environmental Regulation in accordance with operation permit fee schedule set forth in Florida Administrative Code Rule 17-4.05. Ch17-4.050(4)(a)(2)(b) \$750
2. Have there been any alterations to the plant since last permitted?  Yes  No  
If minor alterations have occurred, describe on a separate sheet and attach.
3. Attach the last compliance test report required per permit conditions if not submitted previously.
4. Have previous permit conditions been adhered to?  Yes  No If no, explain on a separate sheet and attach.
5. Has there been any malfunction of the pollution control equipment during tenure of current permit?  Yes  No. If yes, and not previously reported, give brief details and what action was taken on a separate sheet and attach.
6. Has the pollution control equipment been maintained to preserve the collection efficiency last permitted by the Department?  Yes  No
7. Has the annual operating report for the last calendar year been submitted?  Yes  No If no, please attach.

1. Please provide the following information if applicable:

A. Raw Materials and Chemical Used in Your Process:

Description	Contaminant		Utilization	
	Type	Wt	Rate	lbs/hr

B. Product Weight (lbs/hr): \_\_\_\_\_

C. Fuels

Type (Be Specific)	Consumption*		Maximum Heat Inout (MMBTU/hr)
	Avg/hr*	Max/hr**	
No. 2 Fuel Oil	121	121	714

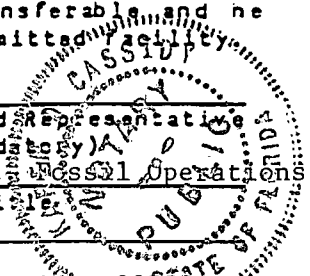
D. Normal Equipment Operating Time: hrs/day 24 ; days/wk 7 ; wks/yr 52 ;

hrs/yr (power plants only) 8760 ; if seasonal, describe \_\_\_\_\_

The undersigned owner or authorized representative\*\*\* of Florida Power Corporation is fully aware that the statements made in this application for a renewal of a permit to operate an air pollution source are true, correct and complete to the best of his knowledge and belief. Further, the undersigned agrees to maintain and operate the pollution source and pollution control facilities in such a manner as to comply with the provisions of Chapter 403, Florida Statutes, and all the rules and regulations of the Department. He also understands that a permit, if granted by the Department, will be non-transferable and he will promptly notify the Department upon sale or legal transfer of the permitted facility.

- \*During actual time of operation.
- \*\*Units: Natural Gas-MMCF/hr; Fuel Oils-barrels/hr; Coal-lbs/hr.
- \*\*\*Attach letter of authorization if not previously submitted

*J. A. Hancock*  
 Signature, Owner or Authorized Representative  
 (Notarization is mandatory)  
J. A. Hancock, Vice President, Fossil Operations  
 Typed Name and Title  
Post Office Box 14042  
 Address  
St. Petersburg Florida 33733  
 State  
6/23/89 (813) 866-4524  
 Date Telephone No.



RF

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION



**SOUTHWEST DISTRICT**

7601 HIGHWAY 301 NORTH  
TAMPA, FLORIDA 33610-9544

BOB GRAHAM  
GOVERNOR

VICTORIA J. TSCHINKEL  
SECRETARY

DR. RICHARD D. GARRITY  
DISTRICT MANAGER

November 6, 1984

Mr. R. E. Parnelle, Manager  
Environmental Operations  
Florida Power Corporation  
Post Office Box 14042  
St. Petersburg, FL 33733

Re: Pinellas County - AP  
Florida Power Corporation  
Bartow Peaking Unit #4  
A052-89902

Dear Mr. Parnelle:

In response to your letter dated October 9, 1984, concerning Specific Condition No. 6 which established the maximum sulfur content of the fuel, the Department hereby amends permit number A052-89902 as follows:

From: Specific condition No. 6: This unit must be fired on No. 2 fuel oil with a maximum sulfur content of 0.5%

To: Specific Condition No. 6: This unit must be fired on No. 2 fuel oil.

This letter must be attached to and becomes a part of said permit.

Sincerely,

W. C. Thomas, P.E.  
District Engineer  
Air Programs

JWE/scm

cc: PCDEM

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION



SOUTHWEST DISTRICT

7601 HIGHWAY 301 NORTH  
TAMPA, FLORIDA 33610-9544

BOB GRAHAM  
GOVERNOR

VICTORIA J. TSCHINKEL  
SECRETARY

DR. RICHARD D. GARRITY  
DISTRICT MANAGER

October 5, 1984

Mr. J. A. Hancock  
Vice President  
Fossil Operations  
Florida Power Corporation  
Post Office Box 14042  
St. Petersburg, FL 33733

Dear Mr. Hancock:

Re: Pinellas County - AP  
Bartow Peaking Unit #4

Attached is Permit No. A052-89902. Should you object to the issuance of this permit or the specific conditions of the permit, you have a right to petition for a hearing pursuant to the provisions of Section 120.57, Florida Statutes. The petition must be filed within fourteen (14) days from receipt of this letter. The petition must comply with the requirements of Section 17-103.155 and Rule 28-5.201, Florida Administrative Code, (copies attached) and be filed pursuant to Rule 17-103.155(1) in the Office of General Counsel of the Department of Environmental Regulation at 2600 Blair Stone Road, Tallahassee, Florida 32301. Petitions which are not filed in accordance with the above provisions are subject to dismissal by the Department.

In the event a formal hearing is conducted pursuant to Section 120.57(1), all parties shall have an opportunity to respond, to present evidence and argument on all issues involved, to conduct cross-examination of witnesses and submit rebuttal evidence, to submit proposed findings of facts and orders, to file exceptions to any order or hearing officer's recommended order, and to be represented by counsel.

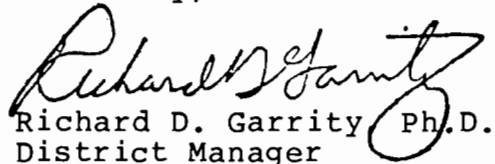
If an informal hearing is requested, the agency, in accordance with its rules of procedure, will provide affected persons or parties or their counsel an opportunity, at a convenient time and

Mr. J. A. Hancock  
St. Petersburg, FL

Page Two

place, to present to the agency or hearing officer, written or oral evidence in opposition to the agency's action or refusal to act, or a written statement challenging the grounds upon which the agency has chosen to justify its action or inaction, pursuant to Section 120.57(2), Florida Statutes.

Sincerely,

  
Richard D. Garrity Ph.D.  
District Manager

JLM/scm

Attachment: as stated

cc: PCDEM



STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION



**SOUTHWEST DISTRICT**

7601 HIGHWAY 301 NORTH  
TAMPA, FLORIDA 33610-9544

BOB GRAHAM  
GOVERNOR

VICTORIA J. TSCHINKEL  
SECRETARY

DR. RICHARD D. GARRITY  
DISTRICT MANAGER

**PERMITTEE:**

Mr. J. A. Hancock  
Vice President, Fossil Operations  
Florida Power Corporation  
Post Office Box 14042  
St. Petersburg, FL 33733

**PERMIT/CERTIFICATION**

Permit No.: A052-89902  
County: Pinellas  
Expiration Date: 9/11/89  
Project: Bartow Peaking  
Unit #4

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Rules 17-2 & 17-4. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents, attached hereto or on file with the department and made a part hereof and specifically described as follows:

For the operation of a combustion turbine peaking unit burning No. 2 fuel oil at a maximum rate of 121 barrels/hr.

Location: Weedon Island, St. Petersburg

UTM: 17-342.2E 3082.9N NEDS NO: 0011 Point ID: 08

Replaces Permit No.: A052-22555

PERMITTEE: Permit/Certification No.: A052-89902  
Florida Power Corporation Project: Bartow Peaking Unit #4

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations, and restrictions set forth herein are "Permit Conditions" and as such are binding upon the permittee and enforceable pursuant to the authority of Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is hereby placed on notice that the department will review this permit periodically and may initiate the enforcement action for any violation of the "Permit Conditions" by the permittee, its agents, employees, servants or representatives.

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 403.712(5), Florida Statutes, the issuance of this permit does not convey any vested rights or any exclusive privileges. Nor does it authorize any injury to public or private property or any invasion of personal rights, nor infringement of federal, state or local laws or regulations. This permit does not constitute 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, plant or aquatic life or property and penalties therefore caused by the construction or operation of this permitted source, nor does it allow the permittee to cause pollution in contravention of Florida Statutes and department rules, unless specifically authorized by any order from the department.

PERMITTEE:  
Florida Power Corp.

Permit/Certification Number: A052-89902  
Project: Bartow Peaking Unit #4

6. The permittee shall at all times 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.

7. The permittee, by accepting this permit, specifically agrees to allow authorized department personnel, upon presentation of credentials or other documents as maybe required by law, access to the premises, at reasonable times, where the permitted activity is located or conducted for the purposes of;

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

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

c. Sampling or monitoring 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 notify and provide the department with the following information:

(a) a description of and cause of non-compliance; and

(b) the period of non-compliance, including exact 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 revocation of this permit.

PERMITTEE: Permit/Certification No: A052-89902  
Florida Power Corporation Project: Bartow Peaking Unit #4

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 arising under the Florida Statutes or department rules, except where such use is proscribed by Section 403.73 and 403.111, Florida Statutes.

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 17-4.12 and 17-30.30, 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 is required to be kept at the work site of the permitted activity during the entire period of construction or operation.

13. This permit also constitutes:

- ( ) Determination of Best Available Control Technology (BACT)
- ( ) Determination of Prevention of Significant Deterioration (PSD)
- ( ) Certification of Compliance with State Water Quality Standards (Section 401. PL 92-500)
- ( ) Compliance with New Source Performance Standards

14. The permittee shall comply with the following monitoring and record keeping requirements:

a. Upon request, the permittee shall furnish all records and plans required under department rules. The retention period for all records will be extended automatically, unless otherwise stipulated by the department, during the course of any unresolved enforcement action.

PERMITTEE: Permit/Certification No.: AO52-89902  
Florida Power Corporation Project: Bartow Peaking Unit #4

14. (con't)

b. The permittee shall retain 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), copies of all reports required by this permit, and records of all data used to complete the application for this permit. The time period of retention shall be 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;
- the person responsible for performing the sampling or measurements;
- the date(s) 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 submitted or corrected promptly.

SPECIFIC CONDITIONS:

1. This unit shall be tested for visible emissions at intervals of 12 months from the date of August 13, 1984, if the unit operates more than 5 days (120 hours) on fuel oil during the preceding 12 month period. A copy of the test results should be submitted to the Department's Southwest District Office and the Pinellas County Department of Environmental Management within 45 days of testing.

2. Visible emissions shall not be equal to or greater than 20% opacity in accordance with Subsection 17-2.610(2)(a), F.A.C.

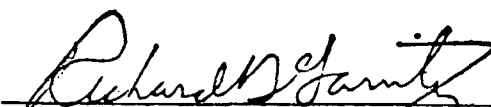
PERMITTEE: Permit/Certification No.: A052-89902  
Florida Power Corporation Project: Bartow Peaking Unit #4

SPECIFIC CONDITIONS (con't):

3. Testing of emissions must be accomplished at approximately the rates as stated in this permit. Failure to submit the input rates or operation at conditions which do not reflect actual operating conditions may invalidate the data (Section 403.161(1)(c), Florida Statutes).
4. Visible emission testing, in order to meet Specific Condition No. 2, shall be in accordance with Method 9-Visible Determination of the Opacity of Emissions from Stationary Sources (36FR24895; Federal Register, December 23, 1971).
5. The Department and the Pinellas County Department of Environmental Management will be contacted as soon as possible prior to all compliance tests.
6. This unit shall be fired on No. 2 fuel oil with a maximum sulfur content of 0.5%.
7. Maintain monthly records for the hours this unit operated and submit these records at 12 month intervals from the date of August 13, 1984, to the Department and the Pinellas County Department of Environmental Management.
8. Submit for this facility, each calendar year, on or before March 1, an emission report for the preceding calendar year containing the following information as per Section 17-4.14, F.A.C.
  - (A) Annual amount of materials and/or fuels utilized.
  - (B) Annual emissions (note calculation basis).
  - (C) Any changes in the information contained in the permit application.
9. An application to renew this operating permit shall be submitted to the Department and the Pinellas County Department of Environmental Management 90 days prior to the expiration date of this permit.

Issued this 5<sup>th</sup> day of October  
1984.

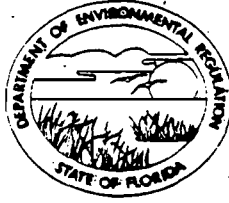
STATE OF FLORIDA DEPARTMENT OF  
ENVIRONMENTAL REGULATION

  
Richard D. Garrity, Ph.D.  
District Manager

1052-089902  
PAID JUL 12 1984

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING  
2600 BLAIR STONE ROAD  
TALLAHASSEE, FLORIDA 32301



D. E. R.

BOB GRAHAM  
GOVERNOR

VICTORIA J. TSCHINKEL  
SECRETARY

JUL 12 1984

SOUTH WEST DISTRICT  
APPLICATION FOR RENEWAL OF  
PERMIT TO OPERATE AIR POLLUTION SOURCE(S) TAMPA

If major alterations have occurred, the applicant should complete the Standard Air Permit Application Form.

Source Type: Combustion Turbine Renewal of DER Permit No. AO-52-22555  
Company Name: Florida Power Corporation County: Pinellas

Identify the specific emission point source(s) addressed in this application (i.e., Line Kiln No. 4 with Venturi Scrubber; Peaking Unit No. 2, Gas Fired):

Bartow Peaking Unit #4

Source Location: Street: Weedon Island City: St. Petersburg

UTM: East 342180 North 3082870

Latitude: 2 7° 5 1' 3 5" N. Longitude: 8 2° 3 6' 0 9" W.

1. Attach a check made payable to the Department of Environmental Regulation in accordance with operation permit fee schedule set forth in Florida Administrative Code Rule 17-4.05.
2. Have there been any alterations to the plant since last permitted?  Yes  No  
If minor alterations have occurred, describe on a separate sheet and attach.
3. Attach the last compliance test report required per permit conditions if not submitted previously.
4. Have previous permit conditions been adhered to?  Yes  No If no, explain on a separate sheet and attach.
5. Has there been any malfunction of the pollution control equipment during tenure of current permit?  Yes  No If yes, and not previously reported, give brief details and what action was taken on a separate sheet and attach.
6. Has the pollution control equipment been maintained to preserve the collection efficiency last permitted by the Department?  Yes  No
7. Has the annual operating report for the last calendar year been submitted?  Yes  No If no, please attach.

8. Please provide the following information if applicable:

A. Raw Materials and Chemical Used in Your Process:

Description	Contaminant		Utilization lbs/hr
	Type	%wt	

B. Product Weight (lbs/hr): \_\_\_\_\_

C. Fuels

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	Avg/hr*	Max/hr**	
No. 2 Fuel Oil	121	121	714

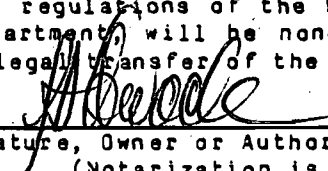
D. Normal Equipment Operating Time: hrs/day 24; days/wk 7; wks/yr 52;  
 hrs/yr (power plants only) 207; if seasonal, describe \_\_\_\_\_

The undersigned owner or authorized representative\*\*\* of Florida Power Corporation is fully aware that the statements made in this application for a renewal of a permit to operate an air pollution source are true, correct and complete to the best of his knowledge and belief. Further, the undersigned agrees to maintain and operate the pollution source and pollution control facilities in such a manner as to comply with the provisions of Chapter 403, Florida Statutes, and all the rules and regulations of the Department. He also understands that a permit, if granted by the Department, will be non-transferable and he will promptly notify the Department upon sale or legal transfer of the permitted facility.

\*During actual time of operation.

\*\*Units: Natural Gas-MMCF/hr;  
 Fuel Oils-barrels/hr; Coal-lbs/hr.

\*\*\*Attach letter of authorization if not previously submitted

  
 Signature, Owner or Authorized Representative  
 (Notarization is mandatory)  
J. A. Hancock, Vice President, Fossil Operations  
 Typed Name and Title  
Post Office Box 14042  
 Address  
St. Petersburg, FL 33733  
 City State Zip  
7/8/84 Date  
(813) 866-4524 Telephone No.





STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

SOUTHWEST DISTRICT  
Pinellas County AP  
Florida Power Corp.

Mr. George C. Moore  
Florida Power Corporation  
P.O. Box 14042  
St. Petersburg, Fla. 33733

Dear Mr. Moore:

Enclosed is Permit Number A052-22555, dated October 23, 1979  
to operate the subject air pollution source  
issued pursuant to Section 403, Florida Statutes.

Should you object to this permit, including any and all of the conditions contained therein, you may file an appropriate petition for administrative hearing. This petition must be filed within fourteen (14) days of the receipt of this letter. Further, the petition must conform to the requirements of Section 28-5.15, Florida Administrative Code, (see reverse side of this letter). The petition must be filed with the Office of General Counsel, Department of Environmental Regulation, Twin Towers Office Building, 2600 Blair Stone Road, Tallahassee, Florida 32301.

If no petition is filed within the prescribed time, you will be deemed to have accepted this permit and waived your right to request an administrative hearing on this matter.

Acceptance of the permit constitutes notice and agreement that the Department will periodically review this permit for compliance, including site inspections where applicable, and may initiate enforcement action for violation of the conditions and requirements thereof.

cc: Record Center  
George W. Marshall, P.E.

Sincerely,

A handwritten signature in black ink, appearing to read "P. David Puchaty", is written over a large, stylized circular flourish.

P. David Puchaty  
District Manager

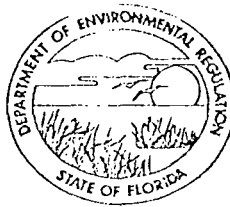
Enclosure

RULES OF THE ADMINISTRATIVE COMMISSION  
MODEL RULES OF PROCEDURE  
CHAPTER 28-5  
DECISIONS DETERMINING SUBSTANTIAL INTERESTS

28-5.15 Requests for Formal and Informal Proceedings

- (1) Requests for proceedings shall be made by petition to the agency involved. Each petition shall be printed typewritten or otherwise duplicated in legible form on white paper of standard legal size. Unless printed, the impression shall be on one side of the paper only and lines shall be double spaced and indented.
- (2) All petitions filed under these rules should contain:
  - (a) The name and address of each agency affected and each agency's file or identification number, if known;
  - (b) The name and address of the petitioner or petitioners;
  - (c) All disputed issues of material fact. If there are none, the petition must so indicate;
  - (d) A concise statement of the ultimate facts alleged, and the rules, regulations and constitutional provisions which entitle the petitioner to relief;
  - (e) A statement summarizing any informal action taken to resolve the issues, and the results of that action;
  - (f) A demand for the relief to which the petitioner deems himself entitled; and
  - (g) Such other information which the petitioner contends is material.

7601 HIGHWAY 301 NORTH  
TAMPA, FLORIDA 33610



BOB GRAHAM  
GOVERNOR  
JACOB D. VARN  
SECRETARY  
DAVID PUCHATY  
DISTRICT MANAGER

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

SOUTHWEST DISTRICT

APPLICANT:

Florida Power Corporation  
P.O. Box 14042  
St. Petersburg, Fla. 33733

PERMIT/CERTIFICATION  
NO. A052-22555

COUNTY: Pinellas

PROJECT: Peaking Unit  
Bartow P 4

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Chapter 17-2, Florida Administrative Code. The above named applicant, hereinafter called Permittee, is hereby authorized to perform the work or operate the facility shown on the approved drawing(s), plans, documents, and specifications attached hereto and made a part hereof and specifically described as follows:

For the operation of a combustion turbine peaking unit burning distillate oil.

UTM: 17 East 342.2 North 3082.9

Located at Weedon Island, St. Petersburg

Replaces Permit NO: A052-2573 NEDS NO: 0011 Point ID: 08

Expires: September 11, 1984

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations, and restrictions set forth herein are "Permit Conditions", and as such are binding upon the permittee and enforceable pursuant to the authority of Section 403.161(1), Florida Statutes. Permittee is hereby placed

PERMIT NO.: AO52-22555  
APPLICANT: Florida Power Corporation

on notice that the department will review this permit periodically and may initiate court action for any violation of the "Permit Conditions" by the permittee, its agents, employees, servants or representatives.

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

3. 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 notify and provide the department with the following information: (a) a description of and cause of non-compliance; and (b) the period of non-compliance, including exact 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 revocation of this permit.

4. As provided in subsection 403.087(6), Florida Statutes, the issuance of this permit does not convey any vested rights or any exclusive privileges. Nor 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.

5. This permit is required to be posted in a conspicuous location at the work site or source during the entire period of construction or operation.

6. 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 arising under the Florida Statutes or department rules, except where such use is proscribed by Section 403.111, F.S.

7. In the case of an operation permit, 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.

8. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, plant, or aquatic life or property and penalties therefore caused by the construction or operation of this permitted source, nor does it allow the permittee to cause pollution in contravention of Florida Statutes and department rules, except where specifically authorized by an order from the department granting a variance or exception from department rules or state statutes.

9. This permit is not transferable. Upon sale or legal transfer of the property or facility covered by this permit, the permittee shall notify the department within thirty (30) days. The new owner must apply for a permit transfer within thirty (30) days. The permittee shall be liable for any non-compliance of the permitted source until the transferee applies for and receives a transfer of permit.

10. The permittee, by acceptance of this permit, specifically agrees to allow access to permitted source at reasonable times by department personnel presenting credentials for the purposes of inspection and testing to determine compliance with this permit and department rules.

11. This permit does not indicate a waiver of or approval of any other department permit that may be required for other aspects of the total project.

12. This permit conveys no title to land or water, nor constitutes state recognition or acknowledgement of title, and does not constitute authority for the reclamation 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.

13. This permit also constitutes:

- Determination of Best Available Control Technology (BACT)
- Determination of Prevention of Significant Deterioration (PSD)
- Certification of Compliance with State Water Quality Standards (Section 401, PL 92-500)

SPECIFIC CONDITIONS:

PERMIT NO.: A052-22555  
APPLICANT: Florida Power Corporation

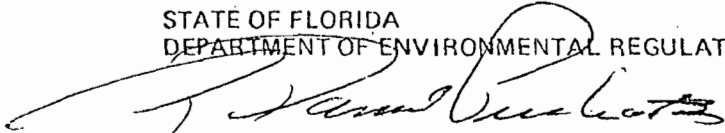
SPECIFIC CONDITIONS:

1. Test for plume density (visible emissions) at intervals of 12 months from the date of 8/13/79 and submit a copy of the test to the District Engineer of this agency within fifteen days of such testing. (Chapter 17-2.08(1), Florida Administrative Code (F.A.C.).
2. Testing of emissions must be accomplished at approximately the rates as stated in the application. Failure to submit the input rates or operation at conditions which do not reflect actual operating conditions may invalidate the data (Chapter 403.161(1)(c), Florida Statutes).
3. Submit for this facility, each calendar year, on or before March 1, an emission report for the preceding calendar year containing the following information as per Chapter 17-4.14, F.A.C.
  - (A) Annual amount of materials and/or fuels utilized.
  - (B) Annual emissions (note calculation basis).
  - (C) Any changes in the information contained in the permit application.

Expiration Date: September 11, 1984

Issued this 23 day of October, 19 79.

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION

  
P. David Puchaty  
District Manager

PERMIT REVIEW CHECKLIST  
SOUTHWEST DISTRICT

County Pinellas Type of Permit Operate  
Applicant Fla Power Corp. Permitting Engineer B. Brown  
Barlow Peaking Unit # 4

Supervisor's  
Initials

1. The permit package is complete and all required documents included. RP
2. The calculations (if required) are correct. RP
3. Written review comments are attached with recommendations which are justified in terms of applicable rules and regulations. RP
4. The project description on the permit accurately describes and clearly defines the limits of the project being permitted. RP
5. The project location is correct and adequate for the purpose of locating the project site. RP
6. The expiration date is correct on the permit. RP
7. The effluent limitations (if applicable) are correct and justified in terms of applicable rules and regulations. RP
8. All provisos are correct and justified. Any special conditions are explained in the written review comments. RP
9. The permit is correctly signed by the local program head if applicable. RP
10. The application has been checked as to the need to obtain permits from other sections within the department, and if so, the appropriate sections have been consulted. RP

SIGNED:

DATE:

Supervisor Robert R. Garrett 10-16-79  
PE III Dan A. Williams 10-23-79

State of Florida

DEPARTMENT OF ENVIRONMENTAL REGULATION

INTEROFFICE MEMORANDUM

For Routing To District Offices  
And/Or To Other Than The Addressee

To: _____	Loctn.: _____
To: _____	Loctn.: _____
To: _____	Loctn.: _____
From: _____	Date: _____

TO: P. David Puchaty

THRU: Dan A. Williams *DW*

FROM: William H. Brown *WAB*

DATE: October 16, 1979

SUBJECT: Florida Power Corporation  
Bartow P4 A052-22555

The application submitted is for a renewal of an operating permit for a combustion peaking unit consisting of a distillate fired turbine generator. Visible emissions test made 8/13/79 showed this unit to be in compliance.

I recommend approval for the continuance of this operating permit.

WHB/rkt

DER  
AUG 6 1979  
SOUTHWEST DISTRICT  
TAMPA



PAID  
8-6-79 JB  
A052-22555

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION  
APPLICATION TO OPERATE/CONSTRUCT AIR POLLUTION SOURCES

Source Type:  Air Pollution  Incinerator  
Application Type:  Construction  Operation  Modification  Renewal of DER Permit No. A052 2573  
Company Name: Florida Power Corporation County: Pinellas  
Identify the specific emission point source(s) addressed in this application (i.e.: Lime Kiln No. 4 with Venturi Scrubber; Peaking Unit No. 2, Gas Fired): Bartow Peaking Unit P-4  
Source Location: Street: Weedon Island City: St. Petersburg  
UTM: East 342180 North 3082870  
Latitude: \_\_\_\_\_ "N. Longitude: \_\_\_\_\_ "W.  
Appl. Name and Title: George C. Moore, Asst. Vice President, Power Production  
Appl. Address: P.O. Box 14042, St. Petersburg, FL 33733

SECTION I: STATEMENTS BY APPLICANT AND ENGINEER

A. APPLICANT

I am the undersigned owner or authorized representative of Florida Power Corporation operating \_\_\_\_\_ permit are true, correct and complete to the best of my knowledge and belief. Further, I agree to maintain and operate the pollution control source and pollution control facilities in such a manner as to comply with the provisions of Chapter 403, Florida Statutes, and all the rules and regulations of the Department and revisions thereof. I also understand that a permit, if granted by the Department, will be nontransferable and I will promptly notify the Department upon sale or legal transfer of the permitted establishment.

George C. Moore  
Name of Person Signing (Please Type or Print)

George C. Moore  
Signature of the Owner or Authorized Representative and Title  
Date: 7/31/79 Telephone No.: 813/866-4140

\*Attach a letter of authorization.

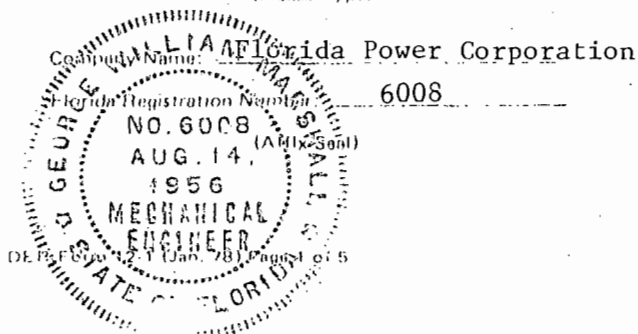
B. PROFESSIONAL ENGINEER REGISTERED IN FLORIDA

This is to certify that the engineering features of this pollution control project have been designed/examined by me and found to be in conformity with modern engineering principles applicable to the treatment and disposal of pollutants characterized in the permit application. There is reasonable assurance, in my professional judgement, that the pollution control facilities, when properly maintained and operated, will discharge an effluent that complies with all applicable statutes of the State of Florida and the rules and regulations of the Department. It is also agreed that the undersigned will furnish the applicant a set of instructions for the proper maintenance and operation of the pollution control facilities and, if applicable, pollution sources.

Signature: George W. Marshall  
Name: George W. Marshall  
(Please Type)

Mailing Address: P.O. Box 14042  
St. Petersburg, FL 33733

Telephone No.: 813/866-4420  
Date: July 31, 1979





SECTION II: GENERAL PROJECT INFORMATION

A. Describe the nature and extent of the project. Refer to pollution control equipment, and expected improvements in source performance as a result of installation. State whether the project will result in full compliance. Attach additional sheet if necessary.

This is an application for renewal of an operation permit for a combustion turbine peaking unit.

B. Schedule of Project Covered in this Application (Construction Permit Application Only). N/A

Start of Construction: \_\_\_\_\_ Completion of Construction: \_\_\_\_\_

C. Costs of Construction. (Note: show breakdown of estimated costs only for individual components/units of the project serving pollution control purpose. Information on actual costs shall be furnished with the application for operation permit.)

N/A

D. Indicate any previous DER permits, orders and notices associated with the emission point, including permit issuance and expiration dates.

DER Permit A052 2573 issued 8/21/74 expires 8/21/79.

E. Is the emission point considered to be a New\* or Existing\* source, as defined in Chapter 17-2.02(5) & (6), Florida Administrative Code?  
       New   X   Existing

F. Is this application associated with or part of a Development of Regional Impact (DRI) pursuant to Chapter 380, Florida Statutes, and Chapter 22F-2, Florida Administrative Code?        Yes   X   No

G. Normal Equipment Operating Time: hrs/day: Ave. 5 ; days/wk: 7 ; wks/yr: \_\_\_\_\_ ; if seasonal, describe: \_\_\_\_\_

This unit is used when demand and system conditions require. It averages approximately five hours per day per year or about 1825 hours.

\*Note

New Source: any source which came into existence, began operation or construction, or received a permit for the latter on or after January 18, 1972.

Existing Source: any source in existence, operating or under construction (or with a permit to construct) prior to January 18, 1972.

SECTION III: AIR POLLUTION SOURCES & CONTROL DEVICES

(other than incinerators)

A. Raw Materials and Chemicals Used in Your Process: N/A

Description	Utilization Rate lbs./hr.	Relate to Flow Diagram

B. Process Rate: N/A

- 1) Total Process Input Rate (lbs./hr.): \_\_\_\_\_
- 2) Product Weight (lbs/hr): \_\_\_\_\_

C. Airborne Contaminants Discharged: 1978 data

Name of Contaminant	Actual Discharge*		Allowed Discharge Rate Per Ch. 17-2, F.A.C.**	Allowable Discharge*** (lbs./hr.)	Relate to Flow Diagram
	lbs./hr.	T/yr.			
Particulate	10.46	4.74	N/A	N/A	
SO <sub>2</sub>	79.42	36.02	N/A	N/A	
NO <sub>x</sub>	274.91	124.69	N/A	N/A	

D. Control Devices: N/A

Name and Type (Model and Serial No.)	Contaminant	Efficiency†	Range of Particles Size Collected (in microns)	Basis for Efficiency††

\* Estimate only if this is an application to construct.

\*\* Specify units in accordance with emission standards prescribed within Section 17-2.04, F.A.C. (e.g. Section 17-2.04(6)(a)1.a. specifies that new fossil fuel steam generators are allowed to emit particulate matter at a rate of 0.1 lbs. per million BTU heat input computed as a maximum 2-hour average.)

\*\*\* Using above example for a source with 260 million BTU per hour heat input:  $\frac{0.1 \text{ lbs.}}{\text{MMBTU}} \times \frac{260 \text{ MMBTU}}{\text{hr.}} = 26 \text{ lbs./hr.}$

† See Supplemental Requirements, page 5, number 2.

†† Indicate whether the efficiency value is based upon performance testing of the device or design data.

E. Fuels: 1978 data

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	avg./hr.	Max./hr.	
Distillate oil	36306 lb.	36306 lb.	708

\*Units: Natural Gas - MMCF/hr.; Fuel Oils, Coal - lbs./hr.

Fuel Analysis:

Percent Sulfur: 0.18 Percent Ash: trace

Density: 7.16 lb./gal.

Heat Capacity: 19510 BTU/lb. 139692 BTU/gal.

Other Fuel Contaminants: \_\_\_\_\_

F. If applicable, indicate the percent of fuel used for space heating: N/A Annual Average: \_\_\_\_\_ Maximum: \_\_\_\_\_

G. Indicate liquid or solid wastes generated and method of disposal: N/A

H. Emission Stack Geometry and Flow Characteristics (provide data for each stack):

Stack Height: 45 ft. Stack Diameter: 18 X 13 ft.

Gas Flow Rate: 1043297 ACFM Gas Exit Temperature: 930 °F

Water Vapor Content: 5 %

SECTION IV: INCINERATOR INFORMATION

Type of Waste	Type O (Plastics)	Type I (Rubbish)	Type II (Refuse)	Type III (Garbage)	Type IV (Pathological)	Type V (Liq. & Gas By-prod.)	Type VI (Solid By-prod.)
Lbs./Hr. Incinerated							

Description of Waste: \_\_\_\_\_

Total Weight Incinerated (lbs./hr.): \_\_\_\_\_ Design Capacity (lbs./hr.): \_\_\_\_\_

Approximate Number of Hours of Operation per Day: \_\_\_\_\_, days/week: \_\_\_\_\_

Manufacturer: \_\_\_\_\_

Date Constructed: \_\_\_\_\_ Model No.: \_\_\_\_\_

	Volume (ft.) <sup>3</sup>	Heat Release (BTU/hr.)	Fuel		Temp. (°F)
			Type	BTU/hr.	
Primary Chamber					
Secondary Chamber					

Stack Height: \_\_\_\_\_ ft. Stack Diameter: \_\_\_\_\_ Stack Temp.: \_\_\_\_\_ °F

Gas Flow Rate: \_\_\_\_\_ ACFM \_\_\_\_\_ DSCFM\*

\*If 50 or more tons per day design capacity, submit the emissions rate in grains per standard cubic foot dry gas corrected to 50% excess air.

Type of Pollution Control Device:             Cyclone                     Wet Scrubber                     Afterburner  
 Other (Specify): \_\_\_\_\_

Brief Description of Operating Characteristics of Control Device: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Ultimate Disposal of Any Effluent Other Than That Emitted From the Stack (scrubber water, ash, etc.): \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**SECTION V: SUPPLEMENTAL REQUIREMENTS**

**Please Provide the Following Supplements Required For All Pollution Sources:**

1. Total process input rate and product weight - show derivation.
2. Efficiency estimation of control device(s) - show derivation. Include pertinent test and/or design data.
3. An 8½" x 11" flow diagram, which will, without revealing trade secrets, identify the individual operations and/or processes. Indicate where raw materials enter, where solid and liquid waste exit, where gaseous emissions and/or airborne particles are evolved and where finished products are obtained.
4. An 8½" x 11" plot plan of facility showing the exact location of manufacturing processes and outlets for airborne emissions. Relate all flows to the flow diagram.
5. An 8½" x 11" plot plan showing the exact location of the establishment, and points of airborne emissions in relation to the surrounding area, residences and other permanent structures and roadways. (Example: Copy of USGS topographic map.)
6. Description and sketch of storm water control measures taken both during and after construction.
7. An application fee of \$20.00, unless exempted by Chapter 17-4.05(3), FAC, made payable to the Department of Environmental Regulation.
8. With construction permit application, include design details for control device(s). Example: for baghouse, include cloth to air ratio; for scrubber, include cross-sectional sketch; etc.
9. Certification by the P.E. with the operation permit application that the source was constructed as shown in the construction permit application.



STATE OF FLORIDA  
DEPARTMENT OF POLLUTION CONTROL

WEST CENTRAL REGION  
P.O. BOX 9205  
WINTER HAVEN, FLORIDA 33880

DAVID H. LEVIN  
CHAIRMAN

TER P. BALLET  
EXECUTIVE DIRECTOR

PINELLAS COUNTY AP  
FLORIDA POWER CORPORATION

Mr. G. W. Marshall  
Florida Power Corporation  
P.O. Box 14042  
St. Petersburg, Florida 33733

Dear Mr. Marshall,

Pursuant to your recent application, please find enclosed a permit (No. A052-2573 ) dated August 21, 1974 to ~~construct~~/operate the subject pollution source.

This permit will expire on August 21, <sup>8/21/79</sup>1974, and will be subject to the conditions, requirements and restrictions checked or indicated otherwise in the attached sheet "~~Construction~~/Operation Permit Conditions".

This permit is issued under the authority of Florida Statute 403.061(16). The time limits imposed herein are a condition to this permit and are enforceable under Florida Statute 403.161. You are hereby placed on Notice that the Department will review this permit before the scheduled date of expiry and will seek court action for violation of the conditions and requirements of this permit.

You have ten days from the date of receipt hereof within which to seek a review of the conditions and requirements contained in this permit. Failure to file a written request to review or modify the conditions or requirements contained in this permit shall be deemed a waiver of any objections thereto.

Your continued cooperation in this matter is appreciated and in future communication please refer to your permit number.

Yours very truly,

J. H. Kerns, P.E.

Regional Engineer  
West Central Region

*file*  
JHK/pm  
cc: Bill Nickonovitz

JOHN R. MIDDLEMAS  
BOARD MEMBER

GEORGE RUPPEL  
BOARD MEMBER

ALICE C. WAINWRIGHT  
BOARD MEMBER

W. D. FREDERICK, JR.  
BOARD MEMBER

FS 3  
1-74

STATE OF FLORIDA  
DEPARTMENT OF  
POLLUTION CONTROL

OPERATION PERMIT

*Bartow P-4*

FOR FLORIDA POWER CORPORATION

P.O. BOX 14042

ST. PETERSBURG, FLORIDA 33733

PERMIT NO. AO 52-2573

DATE August 21, 1974

PURSUANT TO THE PROVISIONS OF SECTION 403.061, (16) OF CHAPTER 403 FLORIDA STATUTES AND CHAPTER 17-4 FLORIDA ADMINISTRATIVE CODE, THIS PERMIT IS ISSUED TO:

Mr. G. W. Marshall - Production Superintendent

FOR THE OPERATION OF THE FOLLOWING:

Bartow #4 Oil Fired, Gas Turbine Driven Electrical Generating Unit

LOCATED AT: Weedon Island, Pinellas Co.

UTM: 342.180E 3082.870N

IN ACCORDANCE WITH THE APPLICATION DATED April 8, 1974

AND IN CONFORMITY WITH THE STATEMENTS AND SUPPORTING DATA ENTERED THEREIN, ALL OF WHICH ARE FILED WITH THE DEPARTMENT AND ARE CONSIDERED A PART OF THIS PERMIT:

THIS PERMIT SHALL BE EFFECTIVE FROM THE DATE OF ITS ISSUANCE UNTIL 8/21/79 OR UNTIL REVOKED OR SURRENDERED, AND SHALL BE SUBJECT TO ALL LAWS OF THE STATE AND THE RULES AND REGULATIONS OF THE DEPARTMENT.

*J. H. Kerns*  
REGIONAL ENGINEER

J. H. KERNS, P.E.  
WEST CENTRAL REGION

FORM 1-1

001108

OPERATION PERMIT CONDITIONS

FOR AIR POLLUTION SOURCES

Permit No.: A052-2573

Date: August 21, 1974

- (X) 1. Fugitive dusts, odors and other pollutants from all sources shall be effectively controlled or eliminated by suitable means. (Chapter 17-2.04 (3)(4)(5) )
- (X) 2. The pollution control equipment shall be maintained and operated in such a manner that all emissions will be in compliance with applicable rules and regulations of the DPC. A log of maintenance activities shall be kept and available for DPC review. (Chapter 17-2.03 (7) )
- (X) 3. Report any problems encountered in the operation of the source that may result in discharge of pollutants in amounts higher than permitted herein. Cease operation forthwith unless permission has been obtained from the regional office of the DPC to operate the source for an interim period. (Chapter 17-4.13)
- (X) 4. This permit is issued on the basis of the data submitted in the application and the existing requirements of this agency as set forth in Chapter 17-2 (revised January 18, 1972) Florida Administrative Code. The owner shall obtain written permission from the DPC before making changes in the operation of the source (i.e. higher production rate, different raw materials and fuels, etc.) that may increase the quantity of pollutants or change their composition. (Chapter 17-2.01)
- (X) 5. This permit is not transferable. Upon the sale or legal transfer of the source covered by this permit, the new owner must apply by letter for a transfer of this permit within thirty days. (Chapter 17-4.12)
- ( ) 6. Test the emissions for the following pollutant(s) at intervals of \_\_\_\_\_ from the date of this permit and submit two copies of test results to the regional engineer of this agency within fifteen days of such testing. (Chapter 17-2.07 (1) )
- |                   |                     |
|-------------------|---------------------|
| ( ) Particulates  | ( ) Sulfur Oxides   |
| ( ) Fluorides     | ( ) Nitrogen Oxides |
| ( ) Plume Density | ( ) Hydrocarbons    |
- ( ) 7. Provide such sampling and testing facilities as may be necessary for the proper determination of the nature and quantity of air pollutants emitted from this source. (Chapter 17-2.07)
- ( ) 8. Identify the pollution source and/or control equipment by its manufacturer, model number, serial number, capacity, and any other pertinent information. Submit this information on or before \_\_\_\_\_
- ( ) 9. There shall be no discharge of liquid effluents or contaminated run-off from this site.
- (X) 10. The operation of this installation shall be observed for visible emissions annually in accordance with method 9, visible determination of the opacity of emissions from stationary sources (Federal Register, December 23, 1971). The results shall be submitted in duplicate to the DPC West Central Region P.O. Box 9205, Winter Haven, Florida 33880.



**D. P. C.**

APR 22 1977

WEST CENTRAL REGION

STATE OF FLORIDA  
DEPARTMENT OF POLLUTION CONTROL

APPLICATION TO OPERATE/CONSTRUCT POLLUTION SOURCES

SECTION I - GENERAL INFORMATION FOR ALL POLLUTION SOURCES  
I TO BE FILLED IN BY APPLICANT

Source Type: Air Pollution  
 Type application:  Operation     Temporary Operation     Construction  
 Status Source:     New     Existing     Modification

Source Name: Florida Power Corporation (Bartow) P-4 County: Pinellas

Source Location: Street: Weedon Island City: St. Petersburg  
 (Water Source Only) Lat: \_\_\_\_\_' \_\_\_\_\_" Long: \_\_\_\_\_° \_\_\_\_\_' \_\_\_\_\_"  
 (Air Source Only) UTM: East 342180 mE North 3082870 mN

Appl. Name and Title: G. W. Marshall, Production Superintendent  
 Appl. Address: P. O. Box 14042, St. Petersburg, FL 33733

II TO BE FILLED IN BY REGION (\*BY BUREAU OF PERMITTING)

Control No: Region \_\_\_\_\_ County \_\_\_\_\_ Type \_\_\_\_\_ \*Project \_\_\_\_\_

Type Permit	Date Rec'd	*Permit No.	*Issue Date	*Compl. Date	*Exp. Date

Source Description: \_\_\_\_\_  
 Control Equipment: \_\_\_\_\_

Water Permits

Receiving Body Code: \_\_\_\_\_ Surface Water Code: \_\_\_\_\_  
 Station No.: Influent: \_\_\_\_\_ Effluent: \_\_\_\_\_

Effluent:	Average	Design	% Reduction
Flow rate, MGD	_____	_____	_____
BOD, lbs/day	_____	_____	_____
Susp. Sol., lbs/day	_____	_____	_____
Other: _____	_____	_____	_____

Air Permits

Operating Time:     Continuous     Intermittent  
 Fuel: Type Processed crude or distillate oil M-BTU/hr. In Put 660 x 10<sup>6</sup> BTU/HR  
 Incinerator: Capacity, tons/day \_\_\_\_\_ Type Waste \_\_\_\_\_  
 Mfg. & Model \_\_\_\_\_

Pollutant Emissions, lbs/day	Actual	Design	Allowable
12 Hr./Day Particulate	<u>547.2 lbs/Day</u>	<u>435.6 lbs/Day</u>	<u>N/A</u>
(Crude) Sulfur Oxides	<u>3774 lbs/Day</u>	<u>8712 lbs/Day</u>	<u>N/A</u>
Other: _____	_____	_____	_____

Implementation: Estimated Appl. Filing Date \_\_\_\_\_  
 Estimated Start of Const. \_\_\_\_\_ Estimated Compliance Date \_\_\_\_\_



**DESCRIPTION OF PROPOSED PROJECT**

A. Describe the nature and extent of the proposed project. Refer to existing pollution control facilities, DPC permits, conditions, orders and notices, expected improvement in performance of the facilities and state whether the proposed project will result in full compliance of the source. Attach additional sheet if necessary.

N/A

B. Schedule of Project Covered in this Application (Construction Permit Application Only).

Federally or State Financed Projects only:

Planning Complete \_\_\_\_\_ N/A

Financing Program Complete \_\_\_\_\_

Indicate other local, state and/or federal agency approvals and dates \_\_\_\_\_

All projects:

Start of Construction \_\_\_\_\_

Completion of Construction \_\_\_\_\_

C. Costs of Construction (Show a breakdown of costs for individual components/units of the proposed project serving pollution control purpose only). Information on actual costs shall be furnished with the application for operation permit.

N/A

D. Indicate any previous DPC permits, issuance dates, and expiration dates.

Construction Permit AC-369 Issued 6-24-71

### AIR POLLUTION SOURCES & CONTROL DEVICES

**A. Identification of Air Contaminants**

- 1)  Particulates
  - a)  Dust
  - b)  Fly Ash
  - c)  Smoke
  - d)  Other (Identify)
- 2)  Sulfur Compounds
  - a)  SO<sub>x</sub> as SO<sub>2</sub>
  - b)  Reduced Sulfur as H<sub>2</sub>S
  - c)  Other (Identify)
- 3)  Nitrogen Compounds
  - a)  NO<sub>x</sub> as NO<sub>2</sub>
  - b)  NH<sub>3</sub>
  - c)  Other (Identify)
- 4)  Fluorides
- 5)  Acid Mist
- 6)  Odor
- 7)  Hydrocarbons
- 8)  Volatile Organic Compounds
- 9)  Other (Specify): \_\_\_\_\_

**B. Raw Materials and Chemicals Used (Be Specific)**

Description	Utilization Tons/day, lbs./day, etc.	Approximate Contaminant Content		Relate to Flow Diagram
		Type	% Wt.	
Fuel	36,300 lb/Hr.	Ash	45.6/lb./hr.	(2)
		Sulfur	312 lb./hr.	(2)
Air	1,765,000 lb/hr.			(1)

**C. Process Weight: N/A**

- 1) Total Process Weight Rate \_\_\_\_\_ lbs./hr. [See Sec. 17-2.04(2)]
- 2) Product Weight \_\_\_\_\_ lb./hr. expressed as \_\_\_\_\_
- 3) Normal Operating Time \_\_\_\_\_, if seasonal describe: \_\_\_\_\_

**D. Airborne Contaminants Discharged: (Based on 12 hrs. of operation per day)**

Name of Contaminant	Actual Discharge	Discharge Criteria*	Allowable Discharge*	Relate Location to Flow Diagram
Particulates	547 lb/day	N/A	N/A	(3)
SO <sub>2</sub>	3744 lb/day	N/A	N/A	(3)
NO <sub>x</sub>	5472 lb/day	N/A	N/A	(3)
CO	238 lb/day	N/A	N/A	(3)
HC	60 lb/day	N/A	N/A	(3)

\* Refer to Chapter 17-2 Florida Administrative Code  
(Discharge Criteria: Process Weight Rate, #/tonP<sub>2</sub>O<sub>5</sub>, #/M BTU/hr etc.)

**E. Control Devices:**

Name	Eff.	Conditions of Operation, Particle Size Range, etc.	Relate to Flow Diagram
None			

**F. Fuels:**

(12 Hrs./Day)

Type (Be specific)	Daily Consumption	Heat Input BTU/hr.	Relate to Flow Diagram
Libyan Crude (0.43%S)	435,600 lbs/Day	557.03 x 10 <sup>6</sup> B/Hr.	(2)
Distillate Oil (0.18%S)	" "	" "	(2)

**G. Describe briefly, without revealing trade secrets, the unit processes/operations generating the airborne emissions identified in this application:**

This is an oil-fired, gas turbine driven, electrical  
generating unit.

**H. Indicate liquid or solid wastes generated and method of disposal.**

No liquid or solid waste will be generated during the operation of these  
gas turbines

**Discharge Point:**

Exhaust Stack    45 Ft. above ground    240 Ft.<sup>2</sup>    1050° (Max)

STATEMENTS BY APPLICANT AND ENGINEER

A. Applicant

The undersigned owner or authorized representative of \* Florida Power Corporation is fully aware that the statements made in this application for a Operating permit are true, correct and complete to the best of his knowledge and belief. Further, the undersigned agrees to maintain and operate the pollution source and pollution control facilities in such a manner as to comply with the provisions of Chapter 403 Florida Statutes and all the rules and regulations of the Department or revisions thereof. He also understands that a permit, if granted by the Department, will be non-transferable and he will promptly notify the Department upon sale or legal transfer of the permitted establishment.

G. W. Marshall  
Signature of the Owner or Authorized Representative

G. W. Marshall, Production Superintendent  
Name and Title (Please Type)

Date: 4-8-74 Telephone No.: (813) 866-4420

\* Attach a letter of authorization

B. Professional Engineer Registered in Florida:

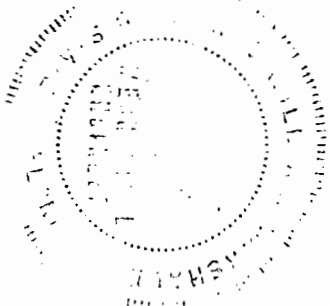
This is to certify that the engineering features of this pollution control project have been ~~designed~~/examined by me and found to be in conformity with modern engineering principles applicable to the control and discharge of pollutants characterized in the permit application. There is reasonable assurance, in my professional judgment, that the pollution source(s) with appropriate control facilities, when properly maintained and operated, will comply with all applicable statutes of the State of Florida and the rules and regulations of the Department. It is also agreed that the undersigned will furnish the applicant a set of instructions for the proper maintenance and operation of the installation covered in this application.

Signature G. W. Marshall  
Name: G. W. Marshall  
(please type)

Mailing Address: Florida Power Corporation  
P. O. Box 44042 C-4  
St. Petersburg, FL 33733  
Telephone No.: (813) 866-4420

Florida Registration Number 6008  
(Please affix seal)

Date: August 8, 1974



If applicant is a corporation, a Certificate of Good Standing must be submitted with application.

This may be obtained, for a \$5.00 charge, from the Secretary of State, Bureau of Corporate Records, Tallahassee, Florida 32304.

ENGINEERING REPORT

P. L. BARTOW GAS TURBINE UNITS

P1, P2, P3, P4

This report is to certify that the subject gas turbine generator units were constructed and installed in accordance to the engineering design drawings that were prepared or approved by Florida Power Corporation.

The power plant is presently in operation and has been accepted by Florida Power Corporation as meeting the manufacturer's performance guarantees.

Up-to-date drawings on the facility are kept on file in the Production Department engineering drawing vault and at the power plant.

*Walter A. Szelistowski*  
Walter A. Szelistowski  
Director, Generation Engineering  
FLORIDA POWER CORPORATION  
Florida Registration Number 14557

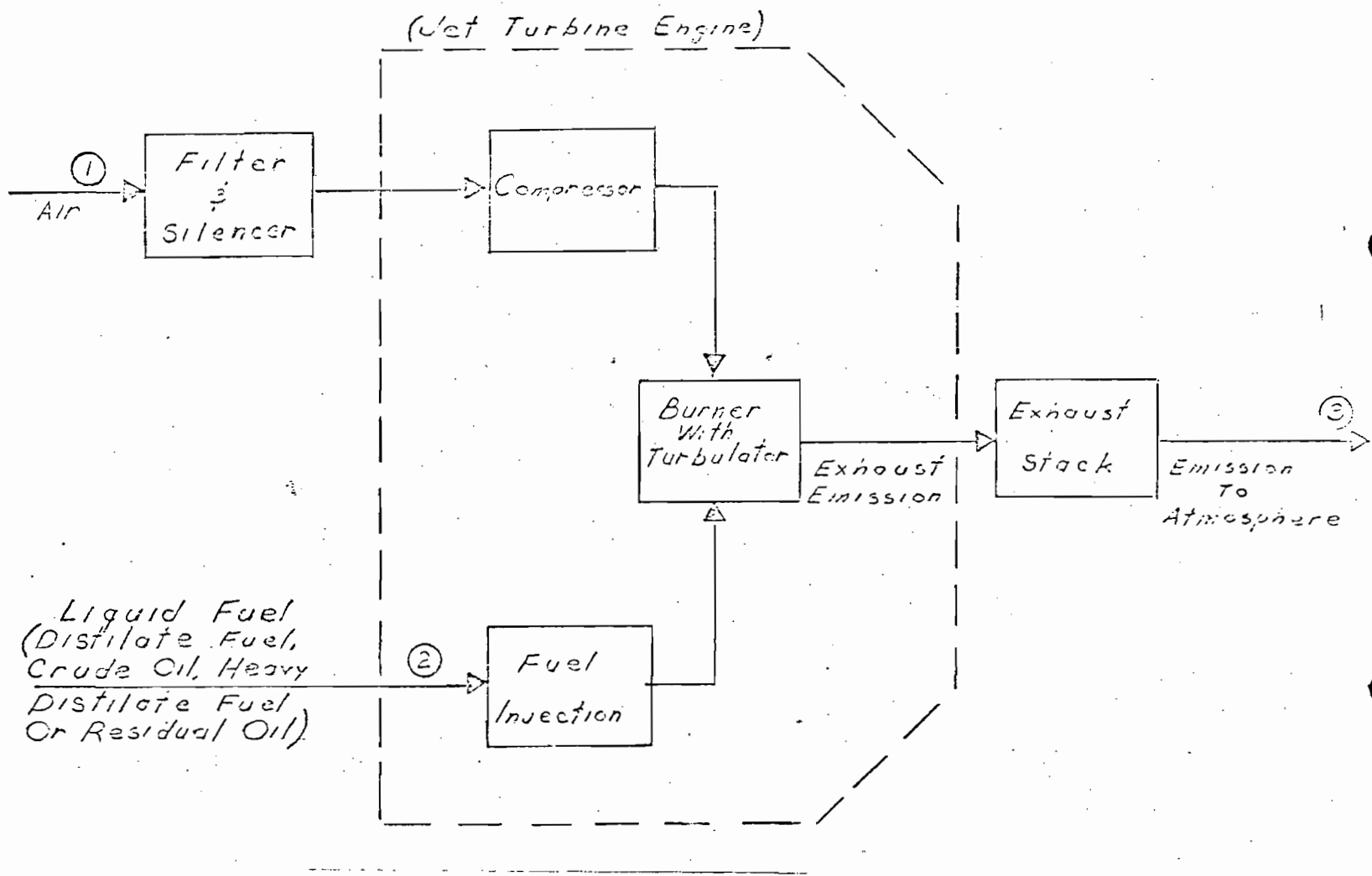


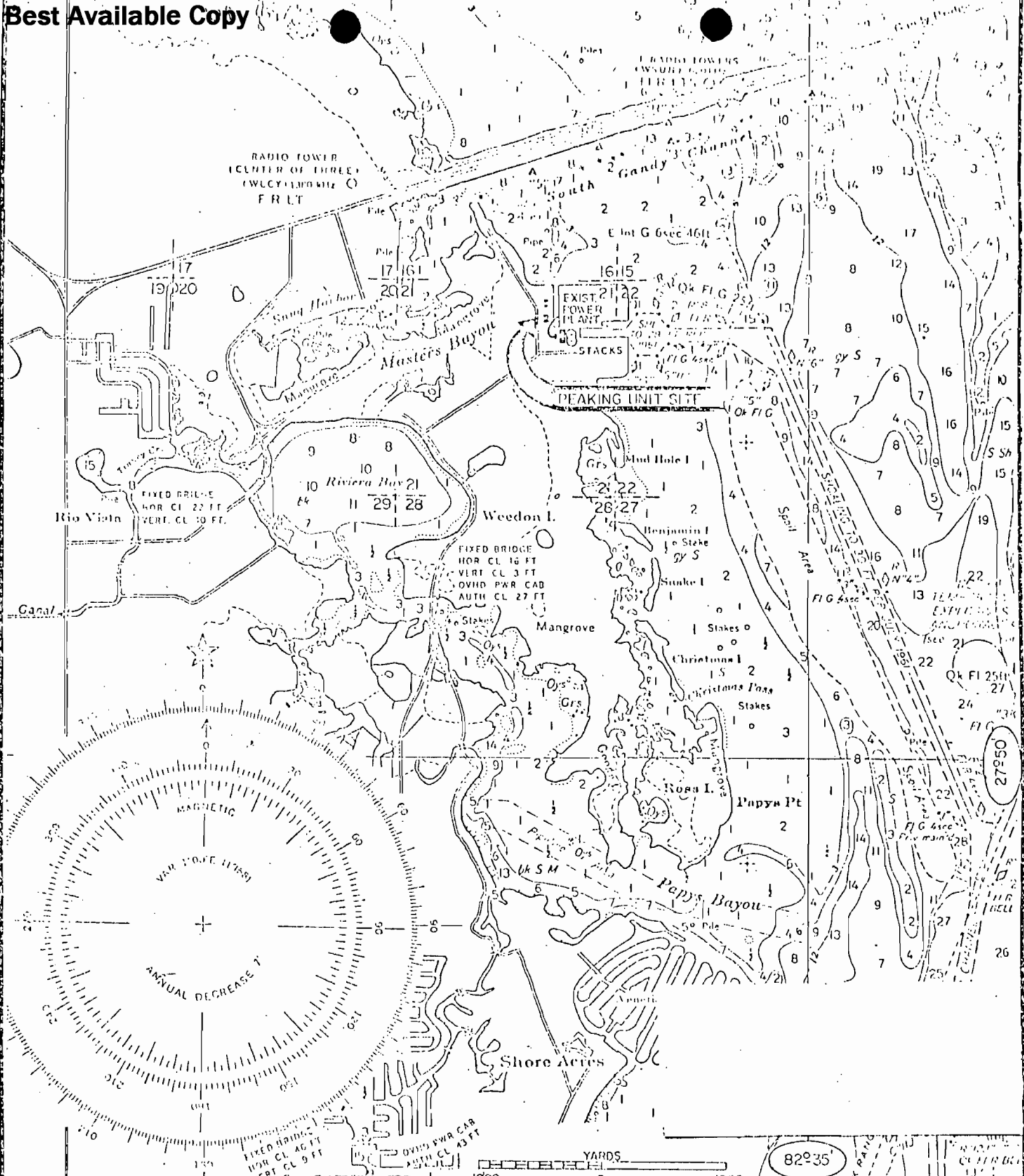
NO	DATE	REVISION	BY	CHK	APP

PROJECT BARTON PEAKERS  
 FLORIDA POWER CORPORATION  
 ST. PETERSBURG, FLORIDA

DRAWING NO. B-142-A-0

FLOW DIAGRAM





NO.	DATE	REVISION	BY	CK.	APP.

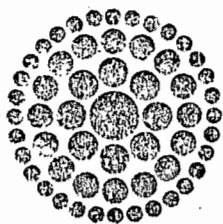
DATE 4-17-71 SCALE AS NOTED BY TBS. CK. H. APP. H. T.

**SITE AREA MAP**  
 (TRACED FROM C. & G.S. CHART 587 aug. 70)

**PROJECT BARTOW PEAKING UNITS**

**FLORIDA WATER CORPORATION**  
2500 BAYVIEW BLVD. MIAMI, FLA. 33133

**DRAWING NO. B-69-A-0**



**Florida  
Power**  
CORPORATION

Florida Department of Pollution Control  
2562 Executive Center Circle East  
Montgomery Building  
Tallahassee, FL 32301

Gentlemen:

Subject: Letter of Authorization

Please be advised that Mr. George W. Marshall, Production Superintendent, is properly authorized to be the representative in matters relating to Applications for Permits to Operate Existing Air and Water Pollution Sources of Florida Power Corporation, as required by the Florida Department of Pollution Control.

Sincerely,

B. L. Griffin  
Vice President

BLG:c1



S T A T E   O F   F L O R I D A

OFFICE OF SECRETARY OF STATE

I, Richard (Dick) Stone, Secretary of State of the State of Florida, do hereby certify that the records of this office indicate that FLORIDA POWER CORPORATION (the "Company"), a corporation organized under the Laws of the State of Florida on July 18, 1899, has filed instruments in this office affecting its Charter as follows:

- (a) A Composite Certificate of Reincorporation, as amended through June 16, 1966 (with Appendix consisting of Items A, B and C), containing only such provisions as were in effect as of such date;
- (b) On March 31, 1970, a Certificate of Amendment of the Composite Certificate of Reincorporation of the Company;
- (c) On November 12, 1970, certified copy of a Resolution duly adopted by its Board of Directors on November 5, 1970, creating and establishing an 8.80% Series of Cumulative Preferred Stock;
- (d) On April 2, 1971, a Certificate of Amendment of the Composite Certificate of Reincorporation of the Company;
- (e) On April 4, 1972, a Certificate of Amendment of the Composite Certificate of Reincorporation of the Company; and
- (f) On June 8, 1972, a certified copy of a Resolution duly adopted by its Board of Directors on June 1, 1972, creating and establishing a 7.40% Series of Cumulative Preferred Stock.

I do hereby further certify that (i) no Amendments to the Composite Certificate of Reincorporation (other than as mentioned above) have been filed by the Company; (ii) the Company has complied with the requirements of Chapter 28170, Laws of Florida, Acts of 1953, as amended, and has paid in full its corporation capital stock taxes thereunder; and (iii) the Charter of the Company remains in full force and effect.

GIVEN under my hand and the Great Seal of  
the State of Florida, at Tallahassee,  
the Capital, this the 4th day of  
December, A.D. 1973.



*Richard (Dick) Stone*

SECRETARY OF STATE



# Department of Environmental Protection

Lawton Chiles  
Governor

Southwest District  
3804 Coconut Palm Drive  
Tampa, Florida 33619

Virginia B. Wetherell  
Secretary

## NOTICE OF PERMIT AMENDMENT

### CERTIFIED MAIL

Mr. Scott Osbourn  
Senior Environmental Engineer  
Florida Power Corporation  
P.O. Box 14042  
St. Petersburg, Florida 33733

Dear Mr. Osbourn:

Re: Bartow Combustion Turbine Peaking Units 1 - 4  
Operation Permit Amendments -  
Addition of Natural Gas as a Permitted Fuel  
Permit Numbers: A052-253215A (Peaking Unit No. 1)  
A052-253216A (Peaking Unit No. 2)  
A052-253217A (Peaking Unit No. 3)  
A052-253218A (Peaking Unit No. 4)  
(Processed under ARMS PA Project 1030011-003-A0)

On November 18, 1996, the Department received your request to amend the above permits. The requested amendments consist of the addition of natural gas as a permitted fuel for each of the four combustion turbine peaking units. Review of the Department permit files for these emission units shows that the only construction permit for these units, AC-369, was issued on June 24, 1971, well prior to the date that would make any of its provisions federally enforceable. Therefore, since there are no federally enforceable permit requirements limiting the fuel used in these peaking units to No. 2 fuel oil only, and since the use of natural gas will not result in an increase in emission rates of any regulated pollutant, this change is not considered a modification as defined in Rule 62-210.300, F.A.C. As a result, the requested change can be accomplished by an operation permit amendment. Establishing of all of the permit requirements as federally enforceable will be accomplished at a later date through issuance of a Title V major source operation permit for this facility.

Therefore, permit numbers A052-253215A, A052-253216A, A052-253217A, and A052-253218A are hereby amended as follows:

Page 1 of 8 Description

From:

For the operation of an oil fired, gas turbine driven electrical generating unit with a rated maximum capacity of 55.7 MW. The unit is designated as the Bartow Peaking Unit No. (insert appropriate unit number) and is composed of a General Electric Company, Serial No. ((insert appropriate unit number) electric generator driven by a General Electric Company, Model MS 7000, Serial No. (insert appropriate unit number) gas turbine. The manufacturer's fuel flow and heat input ratings for the turbine are 121 barrels per hour or 714 MMBtu per hour, respectively. The peak heat input rate of the turbine is a function of the ambient temperature as shown on the graph of *Fuel Heat Input versus Ambient Temperature* included in this permit. The turbine utilizes new, No. 2 fuel oil with a maximum sulfur content of 0.5%, by weight.

To:

For the operation of an oil/natural gas fired gas turbine driven electrical generating unit with a rated maximum capacity of 55.7 MW. The unit is designated as the Bartow Peaking Unit No. (insert appropriate unit number) and is composed of a General Electric Company, Serial No. ((insert appropriate unit number) electric generator driven by a General Electric Company, Model MS 7000, Serial No. (insert appropriate unit number) gas turbine. The manufacturer's fuel flow and heat input ratings for the turbine are 5,174 gallons per hour of No. 2 fuel oil, or 714 MCF per hour of natural gas (corresponds to approximately 714 MMBtu per hour). The peak heat input rate of the turbine is a function of the ambient temperature as shown on the graph of *Fuel Heat Input versus Ambient Temperature* included in this permit. The turbine utilizes new No. 2 fuel oil with a maximum sulfur content of 0.5% (by weight), and/or natural gas.

- - - - -

Page 2 of 8 Specific Condition No. 6.

From:

6. The Bartow Peaking Unit No. (insert appropriate unit number) shall only utilize new, No. 2 fuel oil with a maximum sulfur content of 0.5%, by weight. "New, No. 2 fuel oil" is defined as fuel oil that has been refined from crude oil and has not been used and which may or may not contain additives.

To:

6. The Bartow Peaking Unit No. (insert appropriate unit number) shall only utilize new No. 2 fuel oil with a maximum sulfur content of 0.5%, by weight, or natural gas. "New, No. 2 fuel oil" is defined as fuel oil that has been refined from crude oil and has not been used and which may or may not contain additives.

Page 3 of 8      Specific Condition No. 9.

From:

9. Testing of visible emissions should be conducted with the turbines operating within 90-100% of the peak heat input rate based on the average ambient air temperature during the test. The .....  
.....(remainder of condition unaffected).

To:

9. Testing of visible emissions should be conducted while firing No. 2 fuel oil with the turbines operating within 90-100% of the peak heat input rate based on the average ambient air temperature during the test. The .....(remainder of condition unaffected).

-----

A person whose substantial interests are affected by this permit amendment may petition for an administrative proceeding (hearing) in accordance with Section 120.57, Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Tallahassee, Florida 32399-3000, within 14 days of receipt of this permit. Petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under section 120.57 Florida Statutes.

The Petition shall contain the following information;

- (a) The name, address, and the telephone number of each petitioner, the applicant's name and address, the Department Permit File Number and the county in which the project is proposed;
- (b) A statement of how and when each petitioner received notice of the Department's action or proposed action;
- (c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action;
- (d) A statement of the material facts disputed by petitioner;
- (e) A statement of facts which petitioner contends warrants reversal or modification of the Department's action;
- (f) A statement of which rules or statutes petitioner contends require reversal or modification of the Department's action or proposed action; and
- (g) A statement of the relief sought by petitioner, stating precisely the action petitioner wants the Department to take with respect to the Department's action or proposed action.

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in this permit amendment. Persons whose substantial interests will be affected by any decision of the Department with regard to the application have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 14 days of receipt of this notice, in the Office of General Counsel at the above address of the Department. Failure to petition within the allotted time frame constitutes a waiver of any rights such person has to request a hearing under Section 120.57, F.S., and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, F.A.C.

This permit amendment 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 and conforms to Rule 62-103.070, F.A.C. Upon timely filing of a petition or a request for an extension of time this permit amendment will not be effective until further Order of the Department.

When the Order (Permit Amendment) is final, any party to the Order has the right to seek judicial review of the Order pursuant to Section 120.68, Florida Statutes, by the filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the Clerk of the Department in the Office of General Counsel, 2600 Blair Street Road, Tallahassee, Florida 32399-2400; and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 30 days from the date the Final Order is filed with the Clerk of the Department.

This letter must be attached to and becomes a part of permits A052-253215A, A052-253216A, A052-253217A, and A052-253218A. If you have any questions please call Mr. David Zell of my staff at (813) 744-6100, extension 118.

Sincerely,



W.C. Thomas, P.E.  
Director Air Program Administrator  
Southwest District

DRZ/

copies to:

Gary Robbins, Pinellas County Dept. of Environmental Management  
Charles Logan, FDEP BAR Tallahassee, Tile V Permit Section



MEMORANDUM

TO: Jerry Kissel, P.E. *JK*  
District Air Engineer

DATE: 01/10/97

FROM: David Zell *DZ* Permit Engineer

SUBJECT: Company: Florida Power Corporation, Bartow Plant  
Permit Nos: Amendment Letter affecting:

A052-253215A (Peaking Unit No. 1)

A052-253216A (Peaking Unit No. 2)

A052-253217A (Peaking Unit No. 3)

**A052-253218A (Peaking Unit No. 4)**

County: Pinellas

Project: Bartow Combustion Turbines (4)

Add Natural Gas as Permitted Fuel

(Processed under ARMS Project 1030011-003-AO)

On 12/20/96, the Department received a request to amend the above permits to add natural gas as a permitted fuel for all four of the combustion turbines (CT's).

Review of the Department permit files for these emission units shows that the only construction permit for these units, AC-369, was issued on June 24, 1971, well prior to the date that would make any of its provisions federally enforceable. Therefore, since there are no federally enforceable permit requirements limiting the fuel used in these peaking units to No. 2 fuel oil only, and since the use of natural gas will not result in an increase in emission rates of any regulated pollutant, this change is not considered a modification as defined in Rule 62-210.300, F.A.C. As a result, the requested change can be accomplished by an operation permit amendment. Establishing of all of the permit requirements as federally enforceable will be accomplished at a later date through issuance of a Title V major source operation permit for this facility.

Due to the fact that the operation permits for all four CT's are identical (except for unit and serial numbers), this change is being accomplished through issuance of one amendment letter which amends all four permits. Due to the fact that these are peaking units with very low actual operating hours (< 400 hrs/yr for each unit in 1995) and minimal visible emissions are expected from natural gas combustion, it was not considered necessary to require a special set of VE tests for these units while firing natural gas.

In a comment letter dated 12/18/96, PCDEM noted several minor discrepancies in the application but otherwise expressed no objections to approval of this request.

I recommend that this permit amendment be issued as drafted and submit it for your review and approval.

-----  
Note: Application and Pinellas County DEM letter in file for Peaking Unit No. 1 only (A052-253216).



Table BA-EU1-H8b. Maximum Emissions of Criteria Pollutants for Bartow, Simple Cycle-GE MS7000 Natural Gas Peak Load @ 59 F

3

1030011-003-AD

Pollutant	Unit P1	Unit P2	Unit P3	Unit P4
Hours of Operation	8,760	8,760	8,760	8760
Particulate (lb/hr)= Emission rate (lb/hr) from manufacturer				
Basis (including H2SO4), lb/hr	5.0	5.0	5.0	5.0
lb/hr	5.0	5.0	5.0	5.0
TPY- 1 Unit	21.9	21.9	21.9	21.9
<del>4 Units</del>	87.6	87.6	87.6	87.6
Sulfur Dioxide (lb/hr)= Natural gas (cf/hr) x sulfur content(gr/100 cf) x 1 lb/7000 gr x (lb SO2/lb S) + 100				
Natural Gas (cf/hr)	714,000	714,000	714,000	714,000
Basis, gr/100 cf	1.0	1.0	1.0	1.0
lb SO2/lb S (64/32)	2.0	2.0	2.0	2.0
lb/hr	2.04	2.04	2.04	2.04
TPY- 1 Unit	8.94	8.94	8.94	8.94
<del>4 Units</del>	35.7	35.7	35.7	35.7
Nitrogen Oxides (lb/hr)= Based on Manufacturer				
Basis, ppmvd @15% O2 (1)	102	102	102	102
Volume Flow (acfm)	1,070,692	1,070,692	1,070,692	1,070,692
Temperature (°F)	928	928	928	928
lb/hr	265	265	265	265
TPY- 1 Unit	1,160.7	1,160.7	1,160.7	1,160.7
<del>4 Units</del>	4642.8	4642.8	4642.8	4642.8
Carbon Monoxide (lb/hr)= Based on Manufacturer				
Basis, ppmvd (1)	10	10	10	10
Volume Flow (acfm)	1,070,692	1,070,692	1,070,692	1,070,692
Temperature (°F)	928	928	928	928
lb/hr	18.0	18.0	18.0	18.0
TPY- 1 Unit	78.8	78.8	78.8	78.8
<del>4 Units</del>	315.4	315.4	315.4	315.4
VOCs (lb/hr)= VOC(ppm) x [1 - Moisture(%)/100] x 2116.8 lb/ft2 x Volume flow (acfm) x 16 (mole. wgt as methane) x 60 min/hr + [1545 x (CT temp.(°F) + 460°F) x 1,000,000 (adj. for ppm)]				
Basis, ppmvw (1)	2.0	2.0	2.0	2.0
Moisture (%)	12.00	12.00	12.00	12.00
Volume Flow (acfm)	1,070,692	1,070,692	1,070,692	1,070,692
Temperature (°F)	928	928	928	928
lb/hr	1.8	1.8	1.8	1.8
TPY- 1 Unit	7.8	7.8	7.8	7.8
<del>4 Units</del>	31.3	31.3	31.3	31.3
Sulfuric Acid Mist (lb/hr) = Fuel consumption (lb/hr) x sulfur content (%) x (Conversion (fraction) of S to H2SO4) x lb H2S				
Fuel consumption (lb/hr)	34,408	34,408	34,408	34,408
Sulfur Content (gr/100 cf)	1.0	1.0	1.0	1.0
Sulfur content (%) (a)	0.00294	0.00294	0.00294	0.00294
lb H2SO4/lb S (98/32)	3.1	3.1	3.1	3.1
CT Exhaust- % S Conversion to H2SO4	10.0	10.0	10.0	10.0
lb/hr	0.31	0.3	0.3	0.31
TPY- 1 Unit	1.36	1.36	1.36	1.36
<del>4 Units</del>	5.4	5.4	5.4	5.4

Note: ppmvd= parts per million, volume dry; O2= oxygen.

Source: (1) GE, 1995

Moisture (%)	12	12	12	12
Oxygen (%)	14.63	14.63	14.63	14.63
Moisture (%)	12	12	12	12
Fuel density (lb/scf)	0.0486	0.0486	0.0486	0.0486





# Department of Environmental Protection

Lawton Chiles  
Governor

Southwest District  
3804 Coconut Palm Drive  
Tampa, Florida 33619

Virginia B. Wetherell  
Secretary

## NOTICE OF PERMIT AMENDMENT

### CERTIFIED MAIL

Mr. Scott Osbourn  
Senior Environmental Engineer  
Florida Power Corporation  
P.O. Box 14042  
St. Petersburg, Florida 33733

Dear Mr. Osbourn:

Re: Bartow Combustion Turbine Peaking Units 1 - 4  
Operation Permit Amendments -  
Addition of Natural Gas as a Permitted Fuel  
Permit Numbers: A052-253215A (Peaking Unit No. 1)  
A052-253216A (Peaking Unit No. 2)  
A052-253217A (Peaking Unit No. 3)  
A052-253218A (Peaking Unit No. 4)  
*(Processed under ARMS PA Project 1030011-003-AO)*

On November 18, 1996, the Department received your request to amend the above permits. The requested amendments consist of the addition of natural gas as a permitted fuel for each of the four combustion turbine peaking units. Review of the Department permit files for these emission units shows that the only construction permit for these units, AC-369, was issued on June 24, 1971, well prior to the date that would make any of its provisions federally enforceable. Therefore, since there are no federally enforceable permit requirements limiting the fuel used in these peaking units to No. 2 fuel oil only, and since the use of natural gas will not result in an increase in emission rates of any regulated pollutant, this change is not considered a modification as defined in Rule 62-210.300, F.A.C. As a result, the requested change can be accomplished by an operation permit amendment. Establishing of all of the permit requirements as federally enforceable will be accomplished at a later date through issuance of a Title V major source operation permit for this facility.

Therefore, permit numbers A052-253215A, A052-253216A, A052-253217A, and A052-253218A are hereby amended as follows:

Page 1 of 8 DescriptionFrom:

For the operation of an oil fired, gas turbine driven electrical generating unit with a rated maximum capacity of 55.7 MW. The unit is designated as the Bartow Peaking Unit No. *(insert appropriate unit number)* and is composed of a General Electric Company, Serial No. *((insert appropriate unit number)* electric generator driven by a General Electric Company, Model MS 7000, Serial No. *(insert appropriate unit number)* gas turbine. The manufacturer's fuel flow and heat input ratings for the turbine are 121 barrels per hour or 714 MMBtu per hour, respectively. The peak heat input rate of the turbine is a function of the ambient temperature as shown on the graph of *Fuel Heat Input versus Ambient Temperature* included in this permit. The turbine utilizes new, No. 2 fuel oil with a maximum sulfur content of 0.5%, by weight.

To:

For the operation of an oil/natural gas fired gas turbine driven electrical generating unit with a rated maximum capacity of 55.7 MW. The unit is designated as the Bartow Peaking Unit No. *(insert appropriate unit number)* and is composed of a General Electric Company, Serial No. *((insert appropriate unit number)* electric generator driven by a General Electric Company, Model MS 7000, Serial No. *(insert appropriate unit number)* gas turbine. The manufacturer's fuel flow and heat input ratings for the turbine are 5,174 gallons per hour of No. 2 fuel oil, or 714 MCF per hour of natural gas (corresponds to approximately 714 MMBtu per hour). The peak heat input rate of the turbine is a function of the ambient temperature as shown on the graph of *Fuel Heat Input versus Ambient Temperature* included in this permit. The turbine utilizes new No. 2 fuel oil with a maximum sulfur content of 0.5% (by weight), and/or natural gas.

Page 2 of 8      Specific Condition No. 6.

From:

6. The Bartow Peaking Unit No. *(insert appropriate unit number)* shall only utilize new, No. 2 fuel oil with a maximum sulfur content of 0.5%, by weight. "New, No. 2 fuel oil" is defined as fuel oil that has been refined from crude oil and has not been used and which may or may not contain additives.

To:

6. The Bartow Peaking Unit No. *(insert appropriate unit number)* shall only utilize new No. 2 fuel oil with a maximum sulfur content of 0.5%, by weight, or natural gas. "New, No. 2 fuel oil" is defined as fuel oil that has been refined from crude oil and has not been used and which may or may not contain additives.

Page 3 of 8      Specific Condition No. 9.

From:

9. Testing of visible emissions should be conducted with the turbines operating within 90-100% of the peak heat input rate based on the average ambient air temperature during the test. The .....  
.....(remainder of condition unaffected).

To:

9. Testing of visible emissions should be conducted while firing No. 2 fuel oil with the turbines operating within 90-100% of the peak heat input rate based on the average ambient air temperature during the test. The .....(remainder of condition unaffected).

-----

A person whose substantial interests are affected by this permit amendment may petition for an administrative proceeding (hearing) in accordance with Section 120.57, Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Tallahassee, Florida 32399-3000, within 14 days of receipt of this permit. Petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under section 120.57 Florida Statutes.

The Petition shall contain the following information;

- (a) The name, address, and the telephone number of each petitioner, the applicant's name and address, the Department Permit File Number and the county in which the project is proposed;
- (b) A statement of how and when each petitioner received notice of the Department's action or proposed action;
- (c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action;
- (d) A statement of the material facts disputed by petitioner;
- (e) A statement of facts which petitioner contends warrants reversal or modification of the Department's action;
- (f) A statement of which rules or statutes petitioner contends require reversal or modification of the Department's action or proposed action; and
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This permit amendment 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 and conforms to Rule 62-103.070, F.A.C. Upon timely filing of a petition or a request for an extension of time this permit amendment will not be effective until further Order of the Department.

When the Order (Permit Amendment) is final, any party to the Order has the right to seek judicial review of the Order pursuant to Section 120.68, Florida Statutes, by the filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the Clerk of the Department in the Office of General Counsel, 2600 Blair Street Road, Tallahassee, Florida 32399-2400; and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 30 days from the date the Final Order is filed with the Clerk of the Department.

This letter must be attached to and becomes a part of permits A052-253215A, A052-253216A, A052-253217A, and A052-253218A. If you have any questions please call Mr. David Zell of my staff at (813) 744-6100, extension 118.

Sincerely,



W.C. Thomas, P.E.  
Director Air Program Administrator  
Southwest District

DRZ/

copies to:

Gary Robbins, Pinellas County Dept. of Environmental Management  
Charles Logan, FDEP BAR Tallahassee, Tile V Permit Section

CERTIFICATE OF SERVICE

This is to certify that this NOTICE OF PERMIT AMENDMENT and all copies were mailed by certified mail before the close of business on JAN 13 1997 to the listed persons.

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

Carol S. Moore      1/13/97  
Clerk                              Date



D.E.P.

NOV 21 1996

SOUTHWEST DISTRICT  
TAMPA

*Day 1 is 11/18 (when rec'd  
by Tall's)*

November 15, 1996

Mr. Clair Fancy  
Florida Department of Environmental Protection  
2600 Blair Stone Rd.  
Tallahassee, Florida 32399-2400

Dear Mr. Fancy:

Re: Air Construction Permit Application for Combustion Turbine Natural Gas Conversion  
at FPC's Bartow Plant (DEP Permit Nos. AO52-253215, -253216, -253217, -253218)

This letter serves to transmit Florida Power Corporation's (FPC) application for an air construction permit to install natural gas-firing capability for combustion turbines at the above-referenced site. Please find enclosed four copies of the application, as well as a check in the amount of \$250.00 for the processing of this application.

FPC has the opportunity to use, on an interruptible basis, natural gas as a supplemental fuel in peaking units P1-P4 at Bartow Plant. Because the natural gas will be supplied on an interruptible basis, the currently permitted No. 2 fuel oil will continue to be the primary fuel for these units.

If you should have any questions or require additional information, please do not hesitate to contact me at (813) 866-5158.

Sincerely,

A handwritten signature in black ink, appearing to read "Scott H. Osbourn".

Scott H. Osbourn  
Senior Environmental Engineer

Enclosure

cc: Jerry Kissel, DEP SW District  
Gary Robbins, Pinellas Co. DEM  
Ken Kosky, P.E., KBN

MEMORANDUM

Amended Operating Permits for:

Florida Power Bartow Peaking Units Nos. 1,2,3 and 4

(No PATS Processing Nos.)

TO: W.C. Thomas, P.E.  
District Air Administrator

June 14, 1995

THRU: Gerald J. Kissel, P.E.  
District Air Engineer

FROM: John J. Taylor, P.E.  
Air Permit Engineer

SUBJECT: **Florida Power Corporation**  
Bartow Peaking Units Nos. 1,2,3 and 4

Location: Weedon Island, St. Petersburg

Amended Permits: A052-253215A, A052-253216A, A052-253217A, A052-253218A

Pats 90: Not Applicable

On June 21, 1994, the Southwest District Office received a request for renewal of DEP air pollution operating permits A052-167173, A052-167174, A052-167175, and A052-167172 for the operation of the Bartow Peaking Units Nos. 1, 2, 3 and 4, respectively.

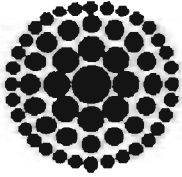
These permits were renewed to operating permits A052-253215, A052-253216, A052-253217 and A052-253218, respectively and issued 11/23/94.

After release of these renewal permits, Mr. Scott Osbourn, Florida Power Corporation's Engineer called to ask about the testing specific condition which included the recommended policy language for testing of combustion turbines, which states "**..shall be conducted with the turbine operating within 95-100% of the permitted heat input rate....**" with the maximum permitted heat input rate being defined by the "**..graph of Fuel Heat Input versus Ambient Temperature...**".

FPC's position was that the 95-100% testing range was not reasonable for these old turbines, and provided the Department with related correspondence on this issue.

**Recommendation:**

I recommend that the attached amended permits be issued with the standard language used previously: 90-100% testing range, and submit them for your review and approval. These amendments also include revised language on the use of the words "PEAK" and "MAXIMUM", a revised turbine Fuel Heat Input versus Ambient Temperature performance curve, and other changes.



**Florida  
Power**  
CORPORATION

December 9, 1994

Mr. John J. Taylor  
Florida Department of Environmental Protection  
Southwest District  
3804 Coconut Palm Drive  
Tampa, Florida 33619

D.E.P.  
DEC 19 1994  
TAMPA

Dear Mr. Taylor:

Re: Renewal of Air Operation Permits for FPC Combustion Turbine Peaking Units  
Bayboro Peakers P1-P4 (FDEP Permit Nos. A052-167163, -167164, -167165, and -167166)  
Bartow Peakers P1-P4 (FDEP Permit Nos. **A052-167172**, -167173, -167174, and -167175)

On November 25, 1994, Florida Power Corporation (FPC) was in receipt of renewed operating permits for the above-referenced facilities. This letter serves to transmit FPC's comments upon review of the draft permits received.

FPC notes that, as requested, the Department has incorporated heat input vs. ambient temperature curves to the renewed permits. This is consistent with recent "draft" Department guidance and will make compliance determinations much more straightforward. FPC has noted an error in the labeling of the curves (i.e., the correct label should be heat input and not fuel flow) and is transmitting corrected versions (Attachment 1) with this letter.

This same "draft" Department guidance also suggests some tightening of the usual 90 to 100 percent operating range for compliance testing, as it is assumed that newer CTs can be operated more easily at or near maximum rates. This "draft" guidance further suggests that the maximum rate may need to be lowered slightly as the CT ages. FPC, through the Florida Electric Power Coordinating Group (FCG), has been working with the Department's Division of Air Resource Management on various aspects of the current draft guidance. The FCG's position, and FPC's comment in this regard, is that a tightening of the operating range is justifiable for newer CTs (i.e., those constructed after 1989), but that for older CTs, the current 90 to 100 percent operating range should still apply.

FPC has several additional minor comments and proposed changes regarding permit language. To assist in your review, FPC has attached a copy of the marked-up draft (Attachment 2).

If you should have any questions or require clarification of the above, please do not hesitate to contact me at (813) 866-5158.

Sincerely,

Scott H. Osbourn  
Senior Environmental Engineer

Attachments

cc: Gary Robbins, Pinellas County

ENVIRONMENTAL SERVICES DEPARTMENT

H26 • 3201 Thirty-fourth Street South • P.O. Box 14042 • St. Petersburg, Florida 33733 • (813) 866-5151



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# ATTACHMENT 1

ENVIRONMENTAL SERVICES DEPARTMENT

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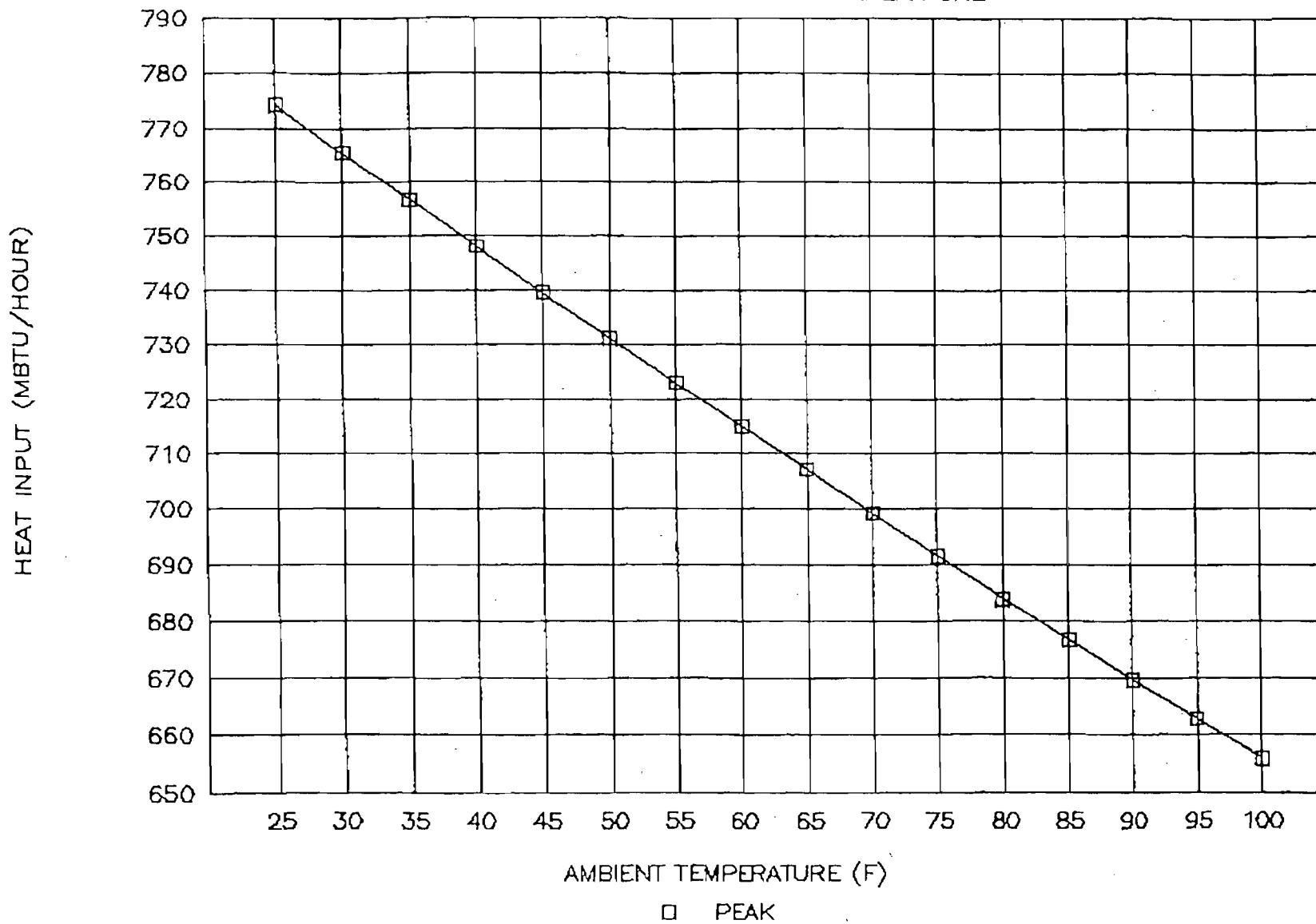


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*A Florida Progress Company*

# BARTOW COMBUSTION TURBINE

FUEL HEAT INPUT vs AMBIENT TEMPERATURE



## ATTACHMENT 2



# Department of Environmental Protection

Lawton Chiles  
Governor

Southwest District  
3804 Coconut Palm Drive  
Tampa, Florida 33619

Virginia B. Wetherell  
Secretary

**PERMITTEE:**

Florida Power Corporation  
Post Office Box 14042  
St. Petersburg, Florida 33733

**PERMIT/PROJECT:**

Permit: A052-253209  
County: Pinellas  
Expiration Date: 11-01-99  
Project: Bayboro Peaking Unit  
No. 2

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Chapters 62-2 through 62-297. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans and other documents, attached hereto or on file with the Department and made a part hereof and specifically described as follows:

For the operation of an oil fired, gas turbine<sup>at</sup> driven electrical generating unit ~~with a rated maximum capacity of~~ 56.7 MW. The unit is designated as the Bayboro Peaking Unit No. 2 and is composed of an Electric Machinery, Serial No. 371184701 electric generator driven by two Pratt & Whitney, Model No. FT4C-1LF gas turbines, designated as 2A (Engine Serial No. P686501, Turbine Serial No. P600400) and 2B (Engine Serial No. P686514, Turbine Serial No. P600401). The manufacturer's ~~maximum~~ ratings for the turbines ~~are~~ <sup>are</sup> 132 barrels per hour <sup>or</sup> 774 MMBtu per hour. <sup>respectively</sup> The unit can operate with one or both turbines in operation. The maximum (peak) heat input rate of the turbines is a function of the ambient temperature as shown on the graph of Fuel Heat Input versus Ambient Temperature included in this permit. The turbines utilize new, No. 2 fuel oil with a maximum sulfur content of 0.5% by weight.

Location: 13th Avenue and 2nd Street South, St. Petersburg  
UTM: 17-338.80 km E 3071.27 km N  
NEDS No: 0013  
Point ID: 02

Replaces Permit A052-167164

Florida Power Corporation  
 St. Petersburg, Florida

Permit: A052-253215  
 Project: Bartow Peaking Unit  
 No. 1

**SPECIFIC CONDITIONS:**

**NOTIFICATION REQUIREMENTS**

12. The Permittee shall notify the Pinellas County Department of Environmental Management, Air Quality Division, in writing at least 15 days prior to the date on which each compliance test is to begin. [Rule 62-297.340(1)(1), F.A.C.]

**REPORTING REQUIREMENTS**

13. Submit to the Southwest District Office, Air Compliance Section of the Department of Environmental Protection, and the Pinellas County Department of Environmental Management, Air Quality Division, each calendar year on or before March 1, completed DEP Form 62-213.900(5), "Annual Operating Report for Air Pollutant Emitting Facility", for the preceding calendar year. [Rule 62-210.370(2)(a)1., F.A.C.]

The Annual Operating Report shall be based on the following:

- (1) The Btu heating value, sulfur content (percent by weight), API gravity and density of the fuel being fired in the peaking unit, shall be based on a weighted 12 month average (calendar year) and be calculated from the fuel delivery receipts and the vendor's fuel oil analysis.
- (2) Until further notice by the Pinellas County Department of Environmental Management, Air Quality Division, Florida Power Corporation shall calculate annual emissions (pounds per hour, and tons per year), for the Annual Operating Report, by multiplying the total MMBtu from fuel usage by the following emission factors:

Emission Factors  
 No. 2 Fuel Oil  
Pounds per MMBtu

Particulate Matter (PM)	0.061 (Total)	
PM10	0.048PM	0.48
Carbon Monoxide	0.048	
Sulfur Dioxide	1.01s	
Nitrogen Oxides	0.698	
Hydrocarbons (TOC)	0.017	

(Specific Condition No. 13, Continued on Next Page)

# ATTACHMENT 2

ENVIRONMENTAL SERVICES DEPARTMENT

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# Department of Environmental Protection

Lawton Chiles  
Governor

Southwest District  
3804 Coconut Palm Drive  
Tampa, Florida 33619

Virginia B. Wetherell  
Secretary

**PERMITTEE:**

Florida Power Corporation  
Post Office Box 14042  
St. Petersburg, Florida 33733

**PERMIT/PROJECT:**

Permit: A052-253209  
County: Pinellas  
Expiration Date: 11-01-99  
Project: Bayboro Peaking Unit  
No. 2

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Chapters 62-2 through 62-297. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans and other documents, attached hereto or on file with the Department and made a part hereof and specifically described as follows:

For the operation of an oil fired, gas turbine <sup>at</sup> driven electrical generating unit ~~with a rated maximum capacity of~~ 56.7 MW. The unit is designated as the Bayboro Peaking Unit No. 2 and is composed of an Electric Machinery, Serial No. 371184701 electric generator driven by two Pratt & Whitney, Model No. FT4C-1LF gas turbines, designated as 2A (Engine Serial No. P686501, Turbine Serial No. P600400) and 2B (Engine Serial No. P686514, Turbine Serial No. P600401). The manufacturer's ~~maximum~~ ratings for the turbines ~~is~~ <sup>are</sup> 132 barrels per hour <sup>and</sup> 774 MMBtu per hour <sup>respectively</sup>. The unit can operate with one or both turbines in operation. The maximum (peak) heat input rate of the turbines is a function of the ambient temperature as shown on the graph of Fuel Heat Input versus Ambient Temperature included in this permit. The turbines utilize new, No. 2 fuel oil with a maximum sulfur content of 0.5%, by weight.

*fuel flow and heat input*

Location: 13th Avenue and 2nd Street South, St. Petersburg  
UTM: 17-338.80 km E 3071.27 km N  
NEDS No: 0013  
Point ID: 02

Replaces Permit A052-167164

Florida Power Corporation  
St. Petersburg, Florida

Permit: A052-253215  
Project: Bartow Peaking Unit  
No. 1

**SPECIFIC CONDITIONS:**

**NOTIFICATION REQUIREMENTS**

12. The Permittee shall notify the Pinellas County Department of Environmental Management, Air Quality Division, in writing at least 15 days prior to the date on which each compliance test is to begin. [Rule 62-297.340(1)(i), F.A.C.]

**REPORTING REQUIREMENTS**

13. Submit to the Southwest District Office, Air Compliance Section of the Department of Environmental Protection, and the Pinellas County Department of Environmental Management, Air Quality Division, each calendar year on or before March 1, completed DEP Form 62-213.900(5), "Annual Operating Report for Air Pollutant Emitting Facility", for the preceding calendar year. [Rule 62-210.370(2)(a)1., F.A.C.]

The Annual Operating Report shall be based on the following:

- (1) The Btu heating value, sulfur content (percent by weight), API gravity and density of the fuel being fired in the peaking unit, shall be based on a weighted 12 month average (calendar year) and be calculated from the fuel delivery receipts and the vendor's fuel oil analysis.
- (2) Until further notice by the Pinellas County Department of Environmental Management, Air Quality Division, Florida Power Corporation shall calculate annual emissions (pounds per hour, and tons per year), for the Annual Operating Report, by multiplying the total MMBtu from fuel usage by the following emission factors:

Emission Factors  
No. 2 Fuel Oil  
Pounds per MMBtu

Particulate Matter (PM)	0.061 (Total)
PM10	0.048PM <span style="margin-left: 20px;">0.48</span>
Carbon Monoxide	0.048
Sulfur Dioxide	1.01s
Nitrogen Oxides	0.698
Hydrocarbons (TOC)	0.017

(Specific Condition No. 13, Continued on Next Page)



FLORIDA ELECTRIC POWER COORDINATING GROUP, INC. (FCG)  
405 REO STREET, SUITE 100 • (813) 289-5644 • FAX (813) 289-5646  
TAMPA, FLORIDA 33609-1004

RECEIVED  
DEC 21 1994

Department of Environmental Protection  
SOUTHWEST DISTRICT

BY \_\_\_\_\_

December 20, 1994

RECEIVED

DEC 20 1994

Clair E. Fancy, P.E., Chief  
Bureau of Air Regulation  
Department of Environmental Protection  
111 South Magnolia Street, Suite 29  
Tallahassee, FL 32399-2400

Bureau of  
Air Regulation

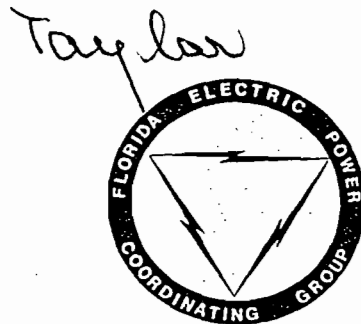
RE: Draft Guidance Memoranda on "Rate of Operation  
During Compliance Testing for Combustion Turbines"

Dear Clair:

I am writing on behalf of the Florida Electric Power Coordinating Group, Inc. (FCG) in response to the Department's ongoing efforts to develop interpretive guidance on the referenced subject. The FCG has previously addressed this issue in a letter dated April 5, 1994 (attached) and in a meeting with you and members of your staff held on April 19, 1994. The FCG continues to have a strong interest in this subject. As discussed below, the FCG believes that guidance on the heat input rate during combustion turbine (CT) compliance testing is welcome and appropriate. Guidance requiring correction of emission rates to "ISO" conditions for CTs is neither warranted nor appropriate, however.

The FCG understands that the Department originally identified a need for special guidance on heat input rate during compliance testing after the initial testing of recently constructed CT (and combined cycle) units. Specifically, the effect of variation in ambient temperature on CT performance raised questions about the acceptability of some compliance tests and the relationship of the tested heat input rate to the "maximum permitted" rate. The particular significance of these issues to CTs was explicitly recognized in the Department's draft guidance memorandum of November 22, 1993.

Continuing questions suggest that general interpretive guidance from the Division Director would still be appropriate on this subject. The FCG's position remains as stated in its April 5, 1994 letter. Such guidance should: 1) recognize the effect of ambient condition variations on maximum CT heat input rates; and 2) provide for correction of heat input rates based on the difference between ambient conditions assumed in establishing maximum permitted heat input rates and those conditions actually experienced during compliance testing.



Clair E. Fancy, P.E.  
December 20, 1994  
Page 2

A recent "draft" version of Department guidance on these CT compliance issues also suggests some tightening of the usual 90 to 100 percent operating range for compliance testing, as it is assumed that newer CTs can be operated more easily at or near maximum rates. The "draft" guidance further suggests that the maximum rate may need to be lowered slightly as the CT ages. The FCG's position is that a tightening of the operating range may be justifiable for newer CTs (i.e., those constructed after 1989), but that for older CTs, the current 90 to 100 percent operating range should still apply. In addition, whether the permit establishes 90 or 95 percent of maximum (corrected) heat input as the presumptive minimum for compliance testing, the Department's guidance should allow for testing at lower heat input rates with the traditional condition that subsequent operation would be limited to 110 (or 105) percent of the tested heat input rate (after correction) until compliance is demonstrated at a higher rate.

The FCG also stands by its April 5, 1994 letter with respect to the second aspect of the draft guidance memoranda concerning correction of measured emission rates to "ISO" conditions. While "ISO" correction is specified in the Subpart GG regulations for performance testing to demonstrate compliance with the NSPS emission limits for CTs, there is no legal or technical basis for imposing this approach in the case of far more stringent BACT emission limits established independently in Department PSD permits. These BACT emission limits typically resulted from considerable negotiation between the Department and the permit applicant. The BACT limits are based on a variety of assumed ambient conditions (ranging from 40°F or lower to 75°F or higher) depending on the information and manufacturers data available at the time of permitting. It would be inappropriate for the Department to encourage that these limits be reopened, in effect, by "interpretive guidance" arbitrarily and retroactively requiring correction of all emission test results to "ISO" conditions. Moreover, the "ISO" correction approach, which was developed for 1970s-vintage aircraft gas turbines, is simply not a meaningful methodology for some of the current generation of CTs when BACT emission limits are specified on a concentration (ppm) basis. For these reasons, the FCG strongly recommends that any guidance regarding CTs be limited to the heat input rate subject.

As always, the FCG appreciates the opportunity to provide input on this matter. Should you or members of your staff have any questions on the FCG's position, please do not hesitate to call Peter Cunningham at (904) 425-2205 or me.

Sincerely,



*arm* Dwain Waters, Chairman  
FCG Air Subcommittee

Enclosure

Clair E. Fancy, P.E.  
December 20, 1994  
Page 3

cc: FCG Air Subcommittee  
Peter Cunningham, HBGS

47807

GARY ROBBINS - PCDEM AQD. 12/27/94


MEMORANDUM

Renewal Operating Permits for:

Florida Power Bartow Peaking Units Nos. 1,2,3 and 4  
(PATS Processing Nos. 253215, 253216, 253217, and 253218)

TO: W.C. Thomas, P.E. November 9, 1994  
District Air Administrator

THRU: Gerald J. Kissel, P.E.  
District Air Engineer

FROM: John J. Taylor, P.E.  
Air Permit Engineer 

SUBJECT: **Florida Power Corporation**  
**Bartow Peaking Units Nos. 1,2,3 and 4**

Location: Weedon Island, St. Petersburg  
County: Pinellas  
Pats 90: November 30, 1994

On June 21, 1994, the Southwest District Office received a request for renewal of DEP air pollution operating permits A052-167173, A052-167174, A052-167175, and A052-167172 for the operation of the Bartow Peaking Units Nos. 1, 2, 3 and 4, respectively.

These permits have been renewed to operating permits A052-253215, A052-253216, A052-253217 and A052-253218, respectively.

These renewal permits include the recommended language for testing of combustion turbines, which includes " ..shall be conducted with the turbine operating within 95-100% of the permitted heat input rate...." with the maximum permitted heat input rate being defined by the "..graph of Fuel Heat Input versus Ambient Temperature...".

The graph of *Fuel Heat Input versus Ambient Temperature* for each Peaking Unit's combustion turbine is included in each permit and is made a part of each permit.

**Recommendation:**

The PCDEM and I recommend that the renewal permits be issued, and submit them for your review and approval.

(Coordinated with Gary Robbins - PCDEM)

JERRY

I REVISED S.C. NO. 10 IN ALL THE PERMITS TO INCLUDE ...'FOR EVERY DELIVERY'... THIS IS CONSISTENT WITH THE WORDING IN THE OLD PERMITS. I FAXED A COPY TO SCOTT OSBOURN OF FLORIDA POWER ON 11-10-94 AND HE HAD NO PROBLEM WITH IT.

HOWEVER, SCOTT HAD SOME OTHER CONCERNS. I HAVE ADDRESSED HIS NEW CONCERNS AND RE-FAXED A COPY OF ONE PERMIT TO HIM ON 11-16-94 AND I AM AWAITING HIS REPLY..

ONE CHANGE I MADE IS TO ADD THE WORD ...'PEAK'.. TO BE USED WITH THE WORD 'MAXIMUM' SO THAT THE WORDS MATCH UP WITH THE WORD 'PEAK' USED ON THE GRAPH SUPPLIED BY FLORIDA POWER. I ALSO HAVE USE THE WORDS ...'MANUFACTURER'S RATING...' VERY CAREFULLY.

I HAVE AVOIDED THE ISO CONDITIONS REFERENCED IN THE POLICY STATEMENTS AND THE LINEAR CALCULATIONS REFERENCE BY CHUCK COLLINS (I THINK?) BECAUSE I AM NOT TOO SURE THAT ALL THIS IS NECESSARY AND I AM NOT TOO SURE THAT THESE REFERENCES TO ISO CONDITIONS AND LINEARITY ARE EVEN ACCURATE.

I SUGGEST YOU RE-PROOF READ THESE REVISED PERMITS NOW, AND IF SCOTT CALLS BY NEXT TUESDAY I WILL LET YOU KNOW IF I NEED TO REVISIT THIS AGAIN.

PATS 90 = NOVEMBER 30

JOHN TAYLOR  
11-17-94

APPLICATION TRACKING SYSTEM

NOV 23 1994

11/02/94

APPL NO:253218

APPL RECVD:06/21/94 TYPE CODE:AD SUBCODE:1A

LAST UPDATE:10/31/94

DER OFFICE RECVD:TPA DER OFFICE TRANSFER TO:\_\_\_

APPLICATION COMPLETE:\_\_\_/\_\_\_/\_\_\_

DER PROCESSOR:TAYLOR

APPL STATUS:AC DATE:06/21/94 (ACTIVE/DENIED/WITHDRAWN/EXEMPT/ISSUED/GENERAL)

RELIEF:\_\_\_ (SSAC/EXEMPTIONS/VARIANCE)

(Y/N) N MANUAL TRACKING

DISTRICT:40 COUNTY:52

(Y/N) N OGC HEARING REQUESTED

LAT/LONG:27.51.35/82.36.09

(Y/N) N PUBLIC NOTICE REQD?

BASIN-SEGMENT:\_\_\_

(Y/N) N GOV BODY LOCAL APPROVAL REQD?

COE #:\_\_\_

(Y/N) Y LETTER OF INTENT REQD? \_\_\_ (I/ISSUE D/DENY)

ALT#:AD -167172

PROJECT SOURCE NAME:BARTOW PEAK UNIT #4 (A052-167172)

STREET:WEEDON ISLAND

CITY:ST. PETE

STATE:FL

ZIP:\_\_\_

PHONE:\_\_\_

APPLICATION NAME:FLORIDA POWER CORP.

STREET:P O BOX 14042

CITY:ST. PETE

STATE:FL

ZIP:33733

PHONE:\_\_\_

AGENT NAME:KBM ENG & APPLIED SCIENCES, INC.

STREET:1034 NW 57TH STREET

CITY:GAINESVILLE

STATE:FL

ZIP:32605

PHONE:904-331-9000

FEE #1 DATE PAID:\_\_\_/\_\_\_/\_\_\_

AMOUNT PAID:NOFEE

RECEIPT NUMBER:\_\_\_\_\_

B DATE APPLICANT INFORMED OF NEED FOR PUBLIC NOTICE - - - - - \_\_\_/\_\_\_/\_\_\_

C DATE DER SENT DNR APPLICATION/SENT DNR INTENT - - - - - \_\_\_/\_\_\_/\_\_\_

D DATE DER REQ. COMMENTS FROM GOV. BODY FOR LOCAL APP. - - - - - \_\_\_/\_\_\_/\_\_\_

E DATE #1 ADDITIONAL INFO REQ--REC FROM APPLICANT - - - - - 07/21/94--09/01/94

E DATE #2 ADDITIONAL INFO REQ--REC FROM APPLICANT - - - - - \_\_\_/\_\_\_/\_\_\_

E DATE #3 ADDITIONAL INFO REQ--REC FROM APPLICANT - - - - - \_\_\_/\_\_\_/\_\_\_

E DATE #4 ADDITIONAL INFO REQ--REC FROM APPLICANT - - - - - \_\_\_/\_\_\_/\_\_\_

E DATE #5 ADDITIONAL INFO REQ--REC FROM APPLICANT - - - - - \_\_\_/\_\_\_/\_\_\_

E DATE #6 ADDITIONAL INFO REQ--REC FROM APPLICANT - - - - - \_\_\_/\_\_\_/\_\_\_

F DATE LAST 45 DAY LETTER WAS SENT - - - - - \_\_\_/\_\_\_/\_\_\_

G DATE FIELD REPORT WAS REQ--REC - - - - - \_\_\_/\_\_\_/\_\_\_

H DATE DNR REVIEW WAS COMPLETED - - - - - \_\_\_/\_\_\_/\_\_\_

I DATE APPLICATION WAS COMPLETE - - - - - 09/01/94

J DATE GOVERNING BODY PROVIDED COMMENTS OR OBJECTIONS - - - - - \_\_\_/\_\_\_/\_\_\_

K DATE NOTICE OF INTENT WAS SENT--REC TO APPLICANT - - - - - \_\_\_/\_\_\_/\_\_\_

L DATE PUBLIC NOTICE WAS SENT TO APPLICANT - - - - - \_\_\_/\_\_\_/\_\_\_

M DATE PROOF OF PUBLICATION OF PUBLIC NOTICE RECEIVED - - - - - \_\_\_/\_\_\_/\_\_\_

N WAIVER DATE BEGIN--END (DAY 90) - - - - - \_\_\_/\_\_\_/\_\_\_

COMMENTS:

PERMIT APPLICATION FEE/ASSIGNMENT SHEET

APPLICATION TYPE: A01A FILE PROCESSING NO: A052-253218  
COMPANY: FLA. POWER COUNTY: 52 PINELLAS  
(Code/name)  
DESCRIPTION/COMMENTS: BARTOW PEAKING UNIT  
RENEW A052-167172  
(amend/extend/transfer/etc.) and permit no., when applicable  
DATE REC'D (Day 1): 6/21/94  
CHECK ATTACHED: Y  Not Required ( TITLE I, NOT NSPS)  
FEE SUBMITTED: ( correct ( ) incorrect - Should Be \$ 0  
Submitted \$ 0  
Needed/Refund \$ \_\_\_\_\_  
FEE CHECKED BY: gpk DATE: 6/24  
APPLICATION ASSIGNED TO: TAYLOR DATE: 7-5-94

PERMIT APPLICATION PROCESSING STATUS

	<u>Completed</u>	<u>Initials</u>
Date PATS Updated With Processor Name:	<u>7-6-94</u>	<u>[Signature]</u>
Permit Engineer Submit Finished Permit Package & Recommendations to District Air Engineer:	<u>11-9-94</u>	<u>[Signature]</u>
Permit Package to District Air Administrator:	<u>11/17/94</u>	<u>gpk</u>
Permit Package to Director of District Management:	<u>11/17/94</u>	<u>[Signature]</u>
Permit Package Mailed Out:	<u>NOV 23 1994</u>	<u>mq</u>

DATA FOLLOW UP

Issue Date Updated on PATS:	<u>NOV 23 1994</u>	<u>mq</u>
Updated on DEC:	_____	_____





**Florida  
Power**  
CORPORATION

August 31, 1994

Mr. John J. Taylor  
Air Permit Engineer  
Florida Department of Environmental Protection  
Southwest District  
3804 Coconut Palm Drive  
Tampa, Florida 33619

**RECEIVED**  
SEP 01 1994  
Department of Environmental Protection  
SOUTHWEST DISTRICT

Dear Mr. Taylor:

Re: Renewal of Air Operation Permits for FPC Combustion Turbine Peaking Units  
Bayboro Peakers P1-P4 (FDEP Permit Nos. A052-167163, -167164, -167165, and -167166)  
Bartow Peakers P1-P4 (FDEP Permit Nos. A052-167172, -167173, -167174, and -167175)

On June 21, 1994, the Department was in receipt of Florida Power Corporation's (FPC) permit renewal applications for the eight peaking units listed above. The applications were reviewed by the Department and in a subsequent letter to FPC, dated July 21, 1994, deemed incomplete. The Department's letter stated that, in order to continue processing these applications, a Professional Engineer (PE) must either sign and seal each application or provide a Professional Engineer Certification statement.

Enclosed please find Professional Engineer Certification statements prepared by Mr. Ken Kosky of KBN Engineering and Applied Sciences, Inc. Two certification statements were prepared, one for each of the two sites referenced above.

If you should have any questions regarding the enclosed, please do not hesitate to contact me at (813) 866-5158.

Sincerely,

Scott H. Osbourn  
Senior Environmental Engineer

Enclosure

cc: Gary Robbins, Pinellas County  
Ken Kosky, KBN





OPERATION PERMIT RENEWAL  
PROFESSIONAL ENGINEER CERTIFICATION

This certification must be attached to the renewal application  
(required by Rule 17-4.050(3), FAC) for :

Company Name: *Florida Power Corporation*  
*Bartow Peaking Units*  
Source ID: *FDEP Files: 253215, 253216, 253217, and 253218*  
County: *Pinellas*  
Renewal of DER Permit Nos.: *AO52-167172, AO52-167173, AO52-167174,*  
*and AO52-167175*

PROFESSIONAL ENGINEER REGISTERED IN FLORIDA (WHERE REQUIRED BY  
Chapter 471, F.S.)

This is to certify that the engineering features of this  
pollution source(s) have been examined by me and found to be  
in conformity with good engineering principles which provide  
reasonable assurance, in my professional judgment, that the  
pollution source(s), when properly maintained and operated,  
will discharge an effluent that complies with all applicable  
Statutes of the State of Florida and the rules and regulations  
of the Department. It is also agreed that the undersigned  
will furnish, if authorized by the owner, the applicant a set  
of instructions for the proper maintenance and operation of  
the pollution source(s).

Signed *Thomas F. Kosky*

*Kennard F. Kosky*  
Name (Please Type)

*KBN Engineering and Applied Sciences, Inc.*  
Company Name (Please Type)

*1034 NW 57th Street, Gainesville, FL 32605*  
Mailing Address (Please Type)

Affix Seal

Florida Registration No. *14996*

Date *August 30, 1994*

Telephone No. *(904) 331-9000*

DER FORM 17-1.202(4) -----attachment (Effective 10-01-88)  
(Revised 04-10-91)



Florida Department of Environmental Regulation

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

DER Form # \_\_\_\_\_
Form Title \_\_\_\_\_
Effective Date \_\_\_\_\_
DER Application No. \_\_\_\_\_ (Filled in by DER)

APPLICATION FOR RENEWAL OF PERMIT TO OPERATE AIR POLLUTION SOURCE(S)

If major alterations have occurred, the applicant should complete the Standard Air Permit Application Form.

Source Type: Combustion Turbine Renewal of DER Permit No. A0-52-167172

Company Name: Florida Power Corporation County: Pinellas

Identify the specific emission point source(s) addressed in this application (i.e., Lime Kiln No. 4 with Venturi Scrubber; Peaking Unit No. 2, Gas Fired):

Bartow Peaking Unit #4

Source Location: Street: Weedon Island City: St. Petersburg

UTM: East 342180 North 3082870

Latitude: 27° 51' 35"N. Longitude: 82° 36' 09"W.

- 1. Attach a check made payable to the Department of Environmental Regulation in accordance with operation permit fee schedule set forth in Florida Administrative Code Rule 17-4.05. No fee required.
2. Have there been any alterations to the plant since last permitted? [ ] Yes [x] No
3. Attach the last compliance test report required per permit conditions if not submitted previously. Compliance test performed on January 18, 1994
4. Have previous permit conditions been adhered to? [x] Yes [ ] No
5. Has there been any malfunction of the pollution control equipment during tenure of current permit? [ ] Yes [ ] No
6. Has the pollution control equipment been maintained to preserve the collection efficiency last permitted by the Department? [ ] Yes [ ] No
7. Has the annual operating report for the last calendar year been submitted? [x] Yes [ ] No

DER Form 17-1.202(4) Effective November 30, 1982

8. Please provide the following information if applicable:

A. Raw Materials and Chemical Used in Your Process:

Description	Contaminant		Utilization	
	Type	%Wt	Rate	lbs/hr

B. Product Weight (lbs/hr): \_\_\_\_\_

C. Fuels

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	Avg/hr*	Max/hr**	
No. 2 Fuel Oil	121	121 <sup>1</sup>	714 <sup>1</sup>

D. Normal Equipment Operating Time: hrs/day 24; days/wk 7; wks/yr 52;  
 hrs/yr (power plants only) 8760; if seasonal, describe \_\_\_\_\_

The undersigned owner or authorized representative\*\*\* of Florida Power Corporation is fully aware that the statements made in this application for a renewal of a permit to operate an air pollution source are true, correct and complete to the best of his knowledge and belief. Further, the undersigned agrees to maintain and operate the pollution source and pollution control facilities in such a manner as to comply with the provisions of Chapter 403, Florida Statutes, and all the rules and regulations of the Department. He also understands that a permit, if granted by the Department, will be non-transferable and he will promptly notify the Department upon sale or legal transfer of the permitted facility.

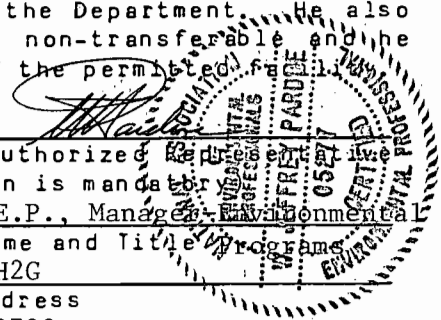
\*During actual time of operation.

\*\*Units: Natural Gas-MMCF/hr;  
 Fuel Oils-barrels/hr; Coal-lbs/hr.

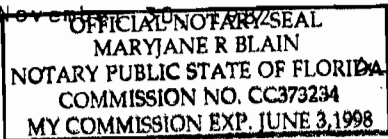
\*\*\*Attach letter of authorization if not previously submitted

<sup>1</sup>Based on 59°F reference temperature

Signature, Owner or Authorized Representative: W. Jeffrey Pardue, C.E.P., Manager, Environmental Programs  
 (Notarization is mandatory for Environmental Programs)  
 Typed Name and Title: W. Jeffrey Pardue, C.E.P., Manager, Environmental Programs  
 P. O. Box 14042, MAC H2G  
 Address  
 St. Petersburg, FL 33733  
 City State Zip  
20 June 1994 Date (813) 866-4387 Telephone No.



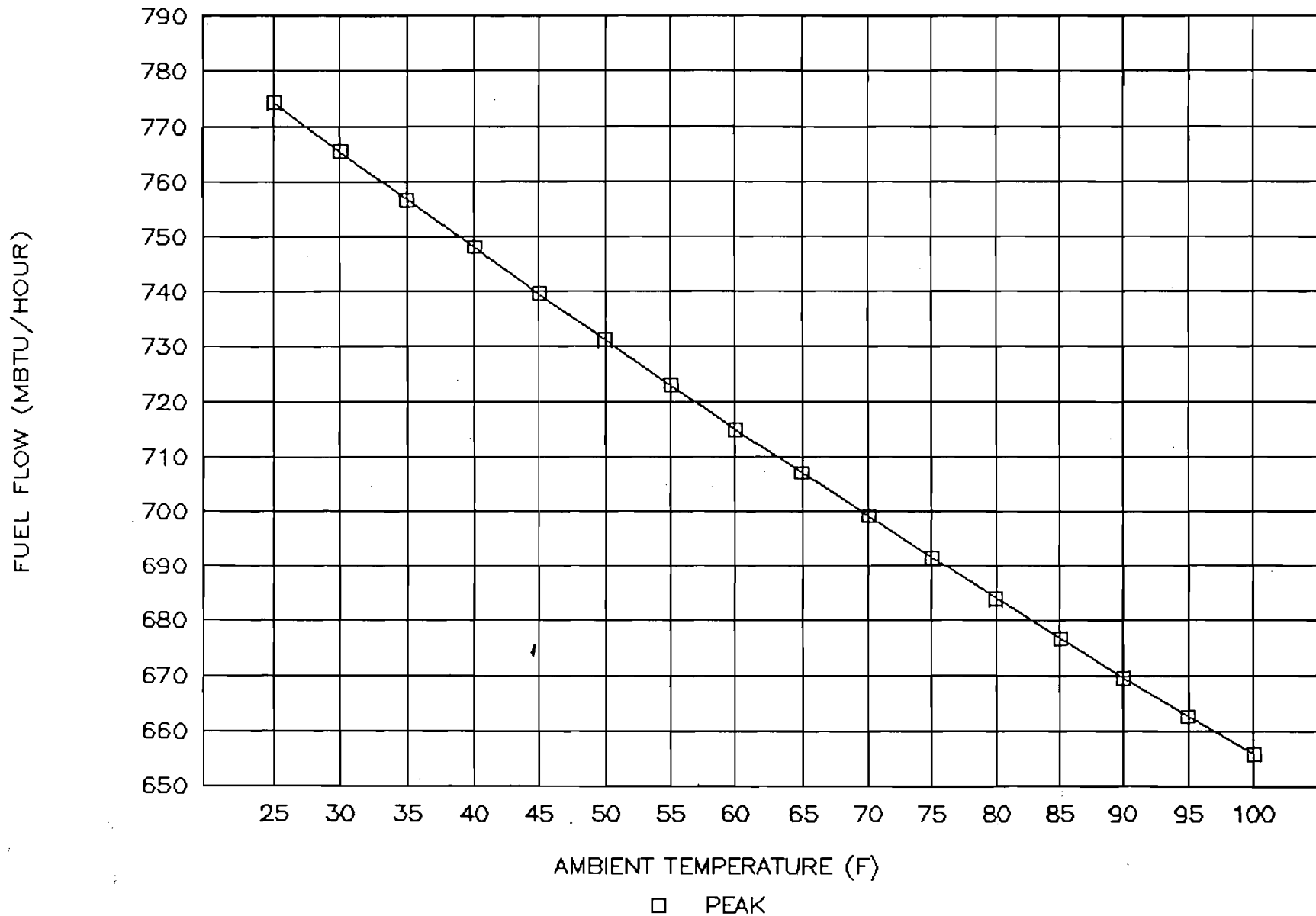
DER Form 17-1.202(4)  
 Effective November 20, 1990



*Witnessed before me this 20th day of June 1994.  
 Maryjane R. Blain*

# BARTOW P4 COMBUSTION TURBINE

FUEL HEAT INPUT vs AMBIENT TEMPERATURE





BOARD OF COUNTY COMMISSIONERS  
PINELLAS COUNTY, FLORIDA

D.E.P.

JUL 25 1994

SOUTHWEST DISTRICT  
TAMPA

DEPT. OF ENVIRONMENTAL MGMT.  
AIR QUALITY DIVISION  
300 S. GARDEN AVE.  
CLEARWATER, FL 34616

COMMISSIONERS

BRUCE TYNDALL - CHAIRMAN  
BARBARA SHEEN TODD - VICE CHAIRMAN  
SALLIE PARKS  
CHARLES E. RAINEY  
STEVE SEIBERT

July 21, 1994

Mr. John Taylor  
Department of Environmental Protection  
3804 Coconut Palm Drive  
Tampa, Florida 33619-8318

RE: Florida Power, Bartow Peaker No. 4, Permit No. A052-2532215 <sup>218</sup>

Mr. Taylor:

This office has reviewed Florida Power's application for renewal of permit for the above mentioned facility. The application is deemed incomplete due to:

1. This is a major source at a major facility, and is required to be signed and sealed by a PE.

Once this issue is resolved and DEP determines a permit should be issued, the following recommendations are suggested:

2. The current permit does not restrict the sulfur content of the fuel oil. The County recommends that 0.5% by weight sulfur limitation be placed in the permit. This is the same limitation found in the Florida Power, Higgins Peaking Units' permits. Without a SO<sub>2</sub> limit, the calculation of fees is difficult.
3. In Specific Condition No. 7, include, as part of the letter requesting test waiver, a requirement to include the number of hours fuel oil was burned and a copy of the fuel oil analysis.

A draft permit is attached for your consideration.

If you have any questions, please call me at (813) 464-4422 (Suncom 570-4422).

Sincerely,

Gary Robbins, Environmental Program Manager  
Air Quality Division

cc: RF, PF  
AQC\FLPOW215.PER



Florida Power - Bartow Peaking Unit No. 4

Permit: AO52-253215  
218

## Electric Utility Turbines

### Fuel Usage

	No. 2 Fuel Oil	Natural Gas
BBL/hour	121	
Gallons/hour	5082	
MMcf/hour		NA
MMBtu/hr	714	
SO2 %	0.5	
Hours/year	8760	

### Emissions Table Fuel Oil\*

	lb/hour	Tons/year	lb/MMBtu
Particulate	43.55	190.77	0.061
PM10	20.91	91.57	0.02928
CO	34.27	150.11	0.048
SO2	360.57	1579.30	1.01S
NOx	498.37	2182.87	0.698
Hydrocarbons	12.14	53.16	0.017

### Emissions Table Natural Gas

	lb/hour	Tons/year
Particulate	0.00	0.00
CO	0.00	0.00
SO2		0.00
NOx	0.00	0.00
Hydrocarbons	0.00	0.00

PERMITTEE:

Florida Power Corporation  
Post Office Box 14042  
St. Petersburg, Florida 33733

PERMIT/CERTIFICATION

Permit No: A052-2532<sup>218</sup>215  
County: Pinellas  
Expiration Date: August 21, 1994  
Project: Bartow Peaking Unit No. 4

This permit amendment is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Rules 17-200 through 297 & 17-4. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans and other documents, attached hereto or on file with the Department and made a part hereof and specifically described as follows:

For the operation of an oil fired, gas turbine driven electrical generating unit, designated as Bartow Peaking Unit No. 4. The peaking unit is composed of a General Electric Company, Serial No. 335X118 electric generator, driven by a General Electric Company, Model MS 7000, Serial No. 217712 gas turbine. The turbine is fired on new No. 2 fuel oil, at a maximum rate of 121 barrels/hour or 714 MMBtu/hour. The maximum sulfur content of the new No. 2 fuel oil shall not exceed 0.5% by weight. The unit is rated at a maximum electrical generating capacity of 55.7 MW. This unit's daily maximum performance is a function of ambient temperature, as shown in the attached graph of heat input versus ambient temperature.

Location: Weedon Island, St. Petersburg, Pinellas County

UTM: 17-336.5 E 3098.3 N NEDS NO: 0011 Point ID: 08

Replaces Permit No.: A052-167172

PERMITTEE:  
Florida Power Corporation

Permit No.: A052-2532<sup>218</sup>215  
Project: Bartow Peaking

SPECIFIC CONDITIONS:

1. A part of this permit is the attached 15 General Conditions.
2. Visible emissions from Bartow Peaking Unit No. 4 shall not be equal to or greater than 20% opacity. [Rule 17-296.310(2)(a), F.A.C.]
3. Test Bartow Peaking Unit No. 4 for visible emissions annually within 60 days prior to February 1. The visible emissions compliance test could be waived, on a year by year basis, if fuel oil has not been used to fire this peaking unit for more than 400 hours for the previous 12 months and if it is not expected to be used to fire this peaking unit for more than 400 hours during the next 12 months. Florida Power Corporation shall maintain records on site for the hours this peaking unit operates. Each year, when the VE test is due, a letter must be sent to the Air Section of the Department's Southwest District Office and the Pinellas County Department of Environmental Management, Air Quality Division, stating that the above limitations for the waiver have been satisfied. Regardless of fuel usage, a VE test shall be required and conducted during the 6 month period prior to the submittal of an operation permit renewal application. The test report shall be submitted within 45 days of testing to the Air Section of the Department's Southwest District Office and the Pinellas County Department of Environmental Management, Air Quality Division. [Rule 17-297.340, F.A.C.]
4. Compliance with the visible emission limitation of Specific Condition No. 2 shall be determined using DER Method 9 contained in Rule 17-297, F.A.C. The visible emissions test shall be conducted by a certified observer and be a minimum of 30 minutes in duration. The minimum requirements for source emission test procedures and reporting shall be in accordance with Rule 17-297, F.A.C.
5. Testing of emissions shall be conducted with the source operating within 95-100% of permitted heat input. The maximum permitted heat input is defined by the graph of "Ambient Temperature" versus "Fuel Flow", submitted with the 6/20/94 renewal application for Peaking Unit No. 4. This graph is made a part of this permit. A copy of the this graph, noting the maximum heat input versus ambient temperature, during the compliance test, shall be included in the compliance test report. [Rule 17-4.070(3), F.A.C.]
6. The Permittee shall notify the Pinellas County Department of Environmental Management, Air Quality Division, in writing at least 15 days prior to the date on which the compliance test is to begin (Rule 17-297.340(1)(i), F.A.C.).



7. Bartow Peaking Unit No. 4 is permitted to operate at the following parameters:

A. Process Parameters:

1. Maximum Load Rate 55.7 MW/hour
2. Maximum Heat Input Rate: 714 MMBTU/hour
3. Maximum Fuel Usage: 121 BBL/hour new No. 2 fuel oil having a maximum sulfur content not to exceed 0.5% by weight

8. The BTU heating value, sulfur content (% by weight), API gravity and density of the fuel being fired in the peaking unit, shall be based on a weighted 12 month average (calendar year) and be calculated from the fuel delivery receipts and the vendor's fuel oil analysis. This average shall be used to calculate the sulfur dioxide emissions for the Annual Operating Report. To ensure the vendor's fuel oil analysis is accurate, Florida Power Corporation shall perform at least one audit sample analysis from a fuel oil delivery during the 12 month period. Records must be kept for a minimum of two years and be made available for inspection upon request.

9. Submit to the Air Section of the Department's Southwest District Office and the Pinellas County Department of Environmental Management, Air Quality Division, each calendar year on or before March 1, completed DER Form 17-213.900(4), "Annual Operating Report for Air Pollutant Emitting Facility," for the preceding calendar year.  
[Rule 17-210.370(2)(a)1., F.A.C.]

10. Based on the original permit application, and AP 42 emission factors, the following are the maximum potential emission rates expected from this peaking unit, and are included for informational purposes only:

	<u>pounds/hour</u>	<u>tons/year</u>
Particulate	43.55	191.77
PM10	20.91	91.57
Carbon Monoxide	34.27	150.11
Sulfur Dioxide	360.57	1,579.30
Nitrogen Oxides	498.37	2,182.87
Hydrocarbons	12.14	53.217

11. Issuance of this permit does not relieve the permittee from complying with applicable emission limiting standards or other requirements of Rules 17-200 through 17-299, or any other requirements under federal, state or local law. [Rule 17-210.300, F.A.C.]

Page 3 of 4

PERMITTEE:  
Florida Power Corporation

218  
Permit No.: A052-2532215  
Project: Bartow Peaking  
Unit No. 4

12. Until further notice by the Pinellas County Department of Environmental Management, Air Quality Division, Florida Power

Corporation shall calculate annual emissions, for the Annual Operating Report, by multiplying the fuel use by the following emissions factors:

	<u>No. 2 Fuel Oil</u> <u>Pounds/MMBTU</u>
Particulate	0.061
Carbon Monoxide	0.048
Nitrogen Oxides	0.698
Sulfur Dioxide	140s.*
VOC	5.57

\* s denotes sulfur content, % by weight

Emission factors are from AP 42, Table 3.1-1 (7/93).

13. Two applications for the renewal of this operating permit shall be submitted to the Air Section of the Department's Southwest District Office and one copy of the application shall be submitted to the Pinellas County Department of Environmental Management, Air Quality Division, at least 60 days prior to the expiration date of this permit [Rule 17-4.090(1), F.A.C.]

STATE OF FLORIDA DEPARTMENT  
OF ENVIRONMENTAL PROTECTION

---

Dr. Richard D. Garrity, Ph.D.  
Director of District Management  
Southwest District

3804 Coconut Palm Drive  
Tampa, FL 33619-8318  
(813) 744-6100



# Department of Environmental Protection

Lawton Chiles  
Governor

Southwest District  
3804 Coconut Palm Drive  
Tampa, Florida 33619

Virginia B. Wetherell  
Secretary

Mr. W. Jeffrey Pardue, C.E.P.  
Manager Environmental Programs  
Florida Power Corporation  
Post Office Box 14042, MAC H2G  
St. Petersburg, Florida 33733

July 21, 1994

Dear Mr. Pardue:

RE: (8) Permit Renewal Applications

Bayboro Peaking Units No. 1, No. 2, No. 3, and No. 4  
(D.E.P. Files: 253207, 209, 211, and 213)  
Bartow Peaking Units No. 1, No. 2, No. 3, and No. 4  
(D.E.P. Files: 253215, 216, 217, and 218)

On June 21, 1994, the Department received your permit renewal applications for the (8) peaking units listed above. The applications have been reviewed and have been deemed incomplete for the following reason:

1. All (8) applications must be signed and sealed by a Professional Engineer registered in the State of Florida [Rule 17-4.050(3), Florida Administrative Code].

Enclosed is a copy of each of the (8) applications received by the Department on June 21, 1994. Please have a Professional Engineer either sign and seal each application, or provide a Professional Engineer Certification statement, either one statement for all (8) applications, or (8) separate statements. The statement(s) must be signed and sealed by a Professional Engineer registered in the State of Florida.

If you have any questions, please call me, at this Department, at (813) 744-6100, ext. 408.

A copy of your response should also be sent to Mr. Gary Robbins, Environmental Program Manager, Air Quality Division, Department of Environmental Management, Pinellas County.

(Continued on Next Page)

Page 1 of 2

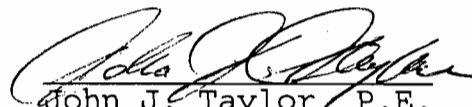
Mr. W. Jeffrey Pardue, C.E.P.  
Florida Power Corporation

July 21, 1994

Your response is requested by August 30, 1994. This information is required in order for the Department to continue processing your applications.

"NOTICE: Pursuant to the provisions of Section 120.60, F.S. and Chapter 17-12.070(5), F.A.C., if the Department does not receive a response to this request for information within 90 days of the date of this letter, the Department may issue a final order denying your applications. You need to respond to the information requested, or indicate when a response will be submitted.

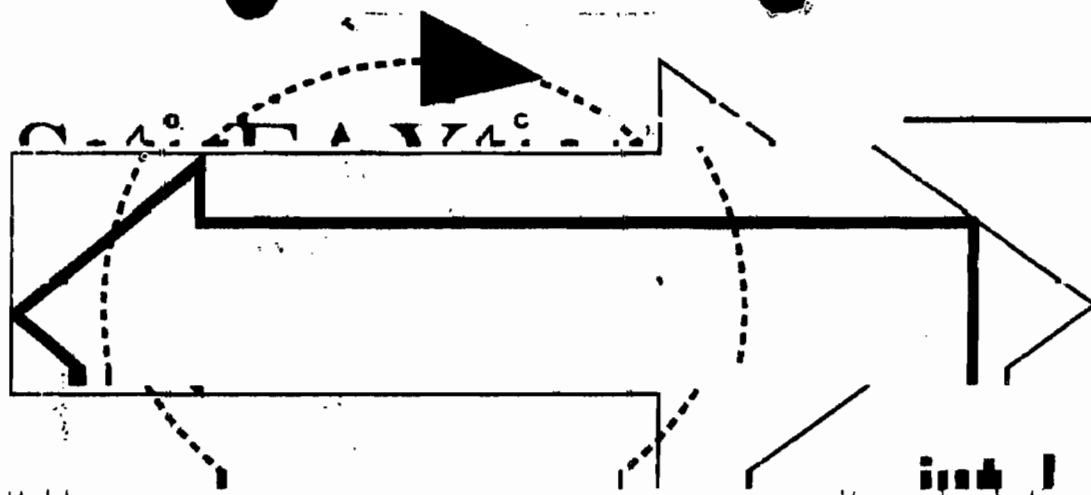
Sincerely,

  
John J. Taylor, P.E.  
Air Permit Engineer

Enclosures

copy: Mr. Gary Robbins - PCDEM

fpc94xxx.ill



John Redgrave

Page 1 of 6

Envelope Marker No. 4

**BEST AVAILABLE COPY**

July 21, 1994

Mr. John Taylor  
Department of Environmental Protection  
3314 Coconut Palm Drive  
Tampa, Florida 33619 8318

Re: Florida Power, Bartow Peaker No. 4, Permit No. A088-2592115 <sup>218</sup>

Mr. Taylor:

This office has reviewed Florida Power's application for renewal of permit No. A088-2592115. The facility is a major source and a major facility, and is required to be signed and sealed by a PE.

Once this issue is resolved and DEP determines a permit should be issued, the following recommendations are suggested:

The current permit does not restrict the sulfur content of the fuel oil. The County recommends that 0.5% by weight sulfur limitation be placed in the permit. This is the same limitation found in the Florida Power, Higgins Peaking Units' permit. Without a SO2 limit, the calculation of fees is difficult.

In Specific Condition No. 7, include, as part of the letter requesting test waiver, a requirement to include the number of gallons of fuel oil was burned and a copy of the fuel oil analysis.

The permit is attached for your consideration.

If you have any questions, please call me at (813) 464-4422. Sincerely,  
7-21-94

Sincerely,

Environmental Program Manager

PERMITEE:

Florida Power Corporation  
Post Office Box 14042  
St. Petersburg, Florida 33733

PERMIT/CERTIFICATION

Permit No: AC52-2532<sup>218</sup>~~115~~  
County: Pinellas  
Expiration Date: August 21, 1994  
Project: Bartow Peaking Unit No. 4

This permit amendment is issued under the provisions of Chapter 403, Florida Statutes and Florida Administrative Code Rules 17-200 through 17-207-1. The above named permittee is hereby authorized to perform, construct, operate the facility shown on the application and approved drawings, plans and other documents, attached hereto or on file with this Department and made a part hereof and specifically described as follows:

For the operation of an oil fired, gas turbine driven electrical generating unit, designated as Bartow Peaking Unit No. 4. The peaking unit is composed of a General Electric Company, Serial No. 335X118 electric generator driven by a General Electric Company, Model MS 200, Serial No. 317712 gas turbine. The turbine is fired on new No. 2 fuel oil, at a maximum rate of 121 barrels/hour or 714 MMBtu/hour. The sulfur content of the new No. 2 fuel oil shall not exceed 1.5% by weight. The unit be rated at a maximum electrical generating capacity of 37.7 MW. This unit's daily maximum performance is a function of ambient temperature, as shown in the attached graph of heat rate versus ambient temperature.

Location: Weedon Island, St. Petersburg, Pinellas County

DATE: 10-30-84 3:08:13 N NEDS NO: 0811 Point ID: 03

FILE: 10-30-84 1:51:16 167172

BEST AVAILABLE COPY

Unit No. 4

PERMIT CONDITIONS:

part of this permit is the attached 15 General Conditions.

Visible emissions from Bartow Peaking Unit No. 4 shall not be equal to or greater than 70% opacity [Rule 17-296, 310(2)(a), F.A.C.], for more than 40 hours during the next 12 months. Florida Power Corporation shall maintain records on site for the hours this peaking unit operates. Each year, when the VE test is due, a letter must be sent to the Air Section of the Department's Southwest District Office and the Pinellas County Department of Environmental Management, Air Quality Division, stating that the above limitations for the waiver have been satisfied. Regardless of fuel usage, a VE test shall be required

visible emission limitation of Specific Gravity shall be determined using DER Method 9 contained in Rule 17-297, F.A.C. The visible emissions test shall be conducted by a qualified person using source emission test procedures and reporting procedures with Rule 17-297, F.A.C.

Visible emissions test shall be conducted with the source operating at maximum permitted heat input. The maximum permitted heat input shall be the graph of "Ambient Temperature" versus "Heat Input" which was included in the 6/20/94 renewal application for Peaking Unit No. 4. This graph shall be a part of this permit. A copy of the permit shall include the maximum heat input versus ambient temperature during the compliance test, shall be included in the compliance test report. Rule 17-297, F.A.C.

The permittee shall notify the Pinellas County Department of Environmental Management, Air Quality Division, in writing at least 15 days prior to the date in which the compliance test is to begin. Rule 17-297, F.A.C.

Florida Power Corporation

Permit No.: ACE-123215  
Project: Bartow Peaking  
Unit No. 4

218



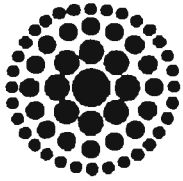
BEST AVAILABLE COPY

Peaking Unit No. 4 is permitted to operate at the following parameters:

A. Operating Parameters:

1. Maximum Load Rate 55.7 MW/hour
2. Maximum Heat Input Rate: 714 MMBTU/hour
3. Maximum Fuel Usage: 121 B3L/hour new No. 2 fuel oil

The BTU heating value, sulfur content (% by weight), API gravity and quality of the fuel being fired in the peaking unit, shall be based on a weighted 12-month average (calendar year) and be calculated from the following formula and the vendor's fuel oil analysis. This



**Florida  
Power**  
CORPORATION

**RECEIVED**  
JUN 21 1994  
Department of Environmental Protection  
SOUTHWEST DISTRICT

June 20, 1994

Mr. Jerry Kissel  
District Air Engineer  
Florida Department of Environmental Protection  
Southwest District  
3804 Coconut Palm Drive  
Tampa, Florida 33619

Dear Mr. Kissel:

Re: Renewal of Air Operation Permits for Florida Power Corporation (FPC)  
Combustion Turbine Peaking Units

0013 Bayboro Peakers P1-P4 (FDEP Permit Nos. AO52- 167163, -167164, -167165,  
and -167166)

0011 Bartow Peakers P1-P4 (FDEP Permit No. AO52- 167172, 167173, -167174,  
and -167175)

Florida Power Corporation (FPC) is in receipt of a letter from the Pinellas County Department of Environmental Management, Air Quality Division, dated April 26, 1994, providing notification that the above-referenced permits are due to expire on August 21, 1994. This letter serves to transmit the permit renewal applications (three copies of each) for the Bayboro and Bartow peaking units P1 through P4.

Unlike boiler steam units, combustion turbine (CT) performance is directly affected by ambient temperature conditions. By convention, CT capacities are expressed in terms of a unit's capability at a given reference temperature (e.g., typically at 59°F). However, the unit's overall performance is much more accurately described by its heat input versus ambient temperature curve. The highest performance occurs at the lowest ambient temperature. Depending on ambient temperature, it is possible to operate at less than 90 percent or greater than 100 percent of the maximum permitted heat input rate currently stated in the permit. Therefore, please find enclosed graphs of the maximum heat input versus ambient temperature for each of the Bayboro and Bartow peaking units. These curves were derived from performance data obtained from the units while operating at peak load.

ENVIRONMENTAL SERVICES DEPARTMENT

H2C · 3201 Thirty-fourth Street South · P.O. Box 14042 · St. Petersburg, Florida 33733 · (813) 866-5151



Printed on recycled paper

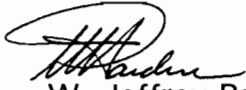
A Florida Progress Company

Mr. Jerry Kissel  
June 20, 1994  
Page 2

FPC requests that the curve for each peaking unit be incorporated into its operating permit. No physical changes or changes in the method of operation have occurred. The units have always had the capability to operate in the ranges given by the heat input curves. The curves were not submitted in the original permit application; only the capability at a given reference temperature was provided at that time. The incorporation and use of these curves will take into account the units' variable performance with ambient temperature and provide agency personnel with a reliable enforcement tool. Each unit would be in compliance with its permit as long as its heat input is under the curve at the appropriate ambient temperature.

If you should have any questions or require clarification of the enclosed, please do not hesitate to contact Mr. Scott Osbourn of my staff at (813) 866-5158.

Sincerely,



W. Jeffrey Pardue, C.E.P.,  
Manager, Environmental Programs

Enclosure

cc: Gary Robbins, Pinellas Co.

MEMORANDUM

TO: File

THRU: W. C. Thomas, P.E.

THRU: J. Harry Kerns, P.E.

FROM: George W. Richardson

DATE: January 24, 1990

SUBJECT: Pinellas County - AP  
Florida Power Corporation  
Bartow Peaking Units No. 1, 2, 3, & 4  
A052-167173, A052-167174, A052-167175, & A052-167172

These permit amendments are a result of the meeting held in this office on October 16, 1989 between the Department, the Pinellas County Department of Environmental Management and Florida Power Corporation. The following amendments are hereby made in all four permits:

SPECIFIC CONDITION NO. 4.

Change from:

4. Test the peaking unit for visible emissions at intervals of 12 months from the date August 3, 1989, if the peaking unit operated more than 400 hours during the preceding 12 month period, pursuant to Subsection 17-2.700(2)(a)8., F.A.C. Submit a copy of test data to the Air Sections of the Southwest District Office and the Pinellas County Department of Environmental Management within forty-five days of such testing (Section 17-2.700(2), Florida Administrative Code (F.A.C.)).

Change to:

4. Test the peaking unit for visible emissions annually between the dates of December 1, and February 28, if the peaking unit operated more than 400 hours during the preceding 12 month period, pursuant to Subsection 17-2.700(2)(a)8., F.A.C. Submit a copy of test data to the Air Sections of the Southwest District Office and the Pinellas County Department of Environmental Management within forty-five days of such testing (Section 17-2.700(2), Florida Administrative Code (F.A.C.)).

SPECIFIC CONDITION NO. 7.

Change from:

7. Maintain monthly records for the hours this peaking unit operates. If the peaking unit operated less than 400 hours per Specific Condition No. 4, submit these records at twelve month intervals from the date of August 3, 1989 to this office and the Pinellas County Department of Environmental Management, Air Quality Division in lieu of the visible emission compliance test.

Change to:

7. Maintain monthly records on site for the hours this peaking unit operates. If the peaking unit operated less than 400 hours per calendar year, submit these records in lieu of testing to this office and the Pinellas County Department of Environmental Management, Air Quality Division.

SPECIFIC CONDITION NO. 8.

Change from:

8. Fuel oil quality is to be monitored prior to delivery and a sample taken for each day of operation for a monthly composite analysis. The monthly fuel oil composite sample is to be analyzed for the following:

- a. BTU content
- b. API Gravity
- c. Density
- d. Sulfur Content by weight

as per Subsection 403.061(13), Florida Statutes.

Change to:

8. Fuel oil quality is to be analyzed prior to each delivery. The fuel oil sample is to be analyzed for the following and the analysis kept on site for future inspections:

- a. BTU content
- b. API Gravity
- c. Density
- d. Sulfur Content by weight

as per Subsection 403.061(13), Florida Statutes.

SPECIFIC CONDITION NO. 9.

Change from:

9. Compliance testing of emissions shall be accomplished while operating the peaking unit at 90-100% of the permitted capacity stated in Specific Condition No. 10. A compliance test submitted at operating rates less than 90% of the permitted capacities will automatically constitute an amended permit at the lesser rate. The permittee shall submit a statement of the operating mode and a copy of the fuel oil analysis as a part of the compliance test. Failure to submit the operating mode statement, fuel oil analysis and actual operating conditions may invalidate the test (Section 403.161(1)(c), Florida Statutes).

Change to:

9. Compliance testing of emissions shall be accomplished while operating the peaking unit at 100%  $\pm$  10% of the permitted capacity stated in Specific Condition No. 10. A compliance test submitted at operating rates less than 90% of the permitted capacities will automatically constitute an amended permit at the lesser rate. The permittee shall submit a statement of the operating mode and a copy of the fuel oil analysis as a part of the compliance test. Failure to submit the operating mode statement, fuel oil analysis and actual operating conditions may invalidate the test (Section 403.161(1)(c), Florida Statutes).

SPECIFIC CONDITION NO. 10.

Change from:

10. Based on the compliance test conducted on August 3, 1989 this peaking unit is permitted to operate at 43 MW/hour and 66 barrels/hour of new No. 2 fuel oil. If the peaking unit exceeds this permitted level by 10%, a compliance test must be conducted within 10 days, following Specific Conditions No. 4, 5 and 6.

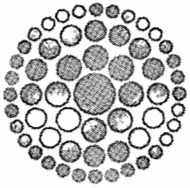
Change to:

10. Based on the compliance test conducted on August 3, 1989 this peaking unit is permitted to operate at 43 MW/hour and 66 barrels/hour of new No. 2 fuel oil. If the peaking unit exceeds this permitted level by 10%, a compliance test must be conducted within 15 days, following Specific Conditions No. 4, 5 and 6.

SPECIFIC CONDITION NO. 11.

Part (B), third line, "provis" should be "provide"

*George*



D. E. R.

NOV 15 1989

**Florida  
Power**  
CORPORATION

SOUTHWEST DISTRICT  
TAMPA

November 13, 1989

Dr. Richard D. Garrity  
District Manager  
Florida Department of  
Environmental Regulation  
Southwest District  
4520 Oak Fair Boulevard  
Tampa, Florida 33610-7347

Dear Dr. Garrity:

Re: Review of Draft Air Permit - Bayboro P1-P4, AO-52-167163 to 167166,  
and Bartow P1-P4, AO-52-167172 to 167175

Florida Power Corporation received the above draft permits on November 2, 1989.

A review was made of this draft permit. Listed below are our comments and recommendations:

Page 1 of 2

Specific Condition No. 4

Replace a period with a comma after February 28.

Specific Condition No. 10

In the original write-up, change notification of test to 15 days.

Dr. Richard D. Garrity  
Page 2  
November 13, 1989

Should further information be needed in regards to these changes, feel free to contact me at (813)866-4544 or Mr. A. W. Morneault of my staff at (813)866-5162.

Sincerely,

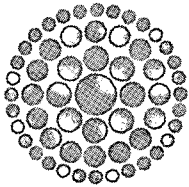
A handwritten signature in cursive script that reads "R. E. Parnelle".

R. E. Parnelle, P.E.  
Supervisor, Air Programs

bm

cc Gary Robbins/Pinellas County  
J. H. Kerns/FDER  
G. Richardson/FDER





**Florida  
Power**  
CORPORATION

October 17, 1989

Dr. Richard D. Garrity  
District Manager  
Florida Department of  
Environmental Regulation  
Southwest District  
4520 Oak Fair Boulevard  
Tampa, Florida 33610-7347

Dear Dr. Garrity:

Re: Review of Air Permit - Bayboro P1-P4, AO-52-167163 to 167166,  
and Bartow P1-P4, AO-52-167172 to 167175

Florida Power Corporation received the above permits for Bayboro units on September 18, 1989 and for Bartow units on September 29, 1989. We further requested an extension of the comment period for both sites to November 1, 1989 for Bayboro and November 18, 1989 for Bartow.

On October 16, 1989, a meeting was held at your Tampa office to discuss the special conditions for all eight permits cited above. In attendance were Mr. Gary Robbins, Pinellas County, Mr. J. H. Kerns, FDER, Mr. George Richardson, FDER, Mr. D. A. Shantz, FPC, and Mr. A. W. Morneault, FPC.

D. A. R.

OCT 27 1989

**SOUTH WEST DISTRICT  
TAMPA**

Dr. Richard D. Garrity  
Page 2  
October 17, 1989

As a result of this meeting, listed below are our comments and recommendations:

Page 2 of 3

Specific Condition No. 4

Change the wording to indicate an annual testing period between December 1 and February 28.

Reason: This change would allow testing during cooler months since the maximum load the units will run at is limited by the intake air temperature. The cooler the intake temperature, the higher load the unit will reach.

Specific Condition No. 7

Change the date of testing to match Specific Condition No. 4.

Specific Condition No. 8

Change the wording to "Fuel oil quality is to be monitored prior to delivery". Strike out the remaining first sentence. Strike out the words "composite" in the third line.

Reason: No. 2 fuel oil delivery to these two sites does not occur very often and the units do not run daily.

Page 3 of 3

Specific Condition No. 9

Change the wording to reflect the units will be tested  $\pm 10\%$  of full load. Our interpretation of "Operating Mode" will be "Operating Load".

Specific Condition No. 10

This condition only repeats conditions already stated and should be deleted.

Dr. Richard D. Garrity  
Page 3  
October 17, 1989

Specific Condition No. 11

Presently there are no PM<sub>10</sub> emission calculations available.

In part (B) there is a typo. "Provis" should be "provide".

Should further information be needed in regards to these permits, feel free to contact me at (813)866-4544 or Mr. A. W. Morneault of my staff at (813)866-5162.

Sincerely,

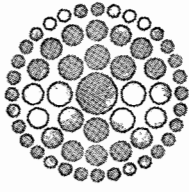
*A. W. Morneault*

R. E. Parnelle, P.E. *for*  
Supervisor, Air Programs

bm

cc Gary Robbins/Pinellas County  
J. H. Kerns/FDER

Bill  
Harry



**Florida Power**  
CORPORATION

November 2, 1989

Dr. Richard Garrity  
Florida Department of  
Environmental Regulation  
Southwest District  
4520 Oak Fair Boulevard  
Tampa, Florida 33610-7347

Dear Dr. Garrity:

Re: Reactivation - Bartow Peaking Unit #4, AO-52-89902

This is to inform you as per 17-2.210(d) that Florida Power Corporation is planning to return to service the above cited unit that has been in long-term reserve shutdown as per 17-2.210(c)(4). This unit will return to service on or about November 17, 1989.

The reasons for this return to service as per 17-2.210(2)(c)(2) is as follows:

- a. The above source was operated in compliance with all permits when shut down.
- b. System load demands must be met.

The other three peaker units at Bartow were returned to service in August 1988.

An acceptable date to Pinellas County and your department for a visible emission test will be arranged as soon as possible after the operational date of this unit.

Should you need further information, please contact me at (813)866-4544 or Mr. A. W. Morneault of my staff at (813)866-5162.

Sincerely,

*R. E. Parnelle*  
R. E. Parnelle, P.E.  
Supervisor, Air Programs

12/15/89

D. E. [unclear]

NOV 06 1989

bm  
cc Gary Robbins/Pinellas County

**SOUTH WEST DISTRICT  
TAMPA**

MEMORANDUM

TO: File

THRU: W. C. Thomas, P.E.

THRU: J. Harry Kerns, P.E. *JK*

FROM: George W. Richardson *GWR*

DATE: September 12, 1989

SUBJECT: Pinellas County - AP  
Florida Power Corporation  
Bartow Peaking Units Nos. 1, 2, 3 & 4  
A052-167173, 7174, 7175, & 7172

These permits are for the four electrical generating peaking units located at the Bartow Plant at Weedon Island, St. Petersburg, Pinellas County.

The units are composed of an General Electric generator driven by a General Electric turbine. The turbine is fired only with new No. 2 fuel oil. There are no pollution control devices. The units are allowed a visible emission of 20% opacity. These units are required to test for visible emissions annually if they were operated more than 400 hours.

Units 1, 2 & 3 were tested for visible emissions during the month of August, 1989 and all three units were in compliance. Unit No. 4 is down for repairs and is required to test within 30 days of startup.

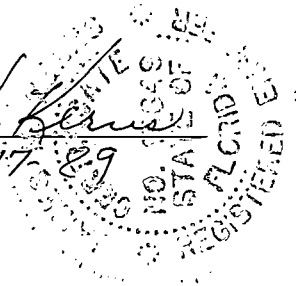
The PCDEM and I recommend each of the four permits be issued as conditioned.

CERTIFICATION

Application No. A052-167172

I HEREBY CERTIFY that the engineering features described in the above referenced application provide reasonable assurance of compliance with applicable provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Title 17. However, I have not evaluated and I do not certify aspects of the proposal outside of my area of expertise (including but not limited to the electrical, mechanical, structural, hydrological, and geological features).

\_\_\_\_\_  
(Signed) *James L. Kern* 9-17-89



\_\_\_\_\_  
(Date)

\_\_\_\_\_  
(Seal)

PERMIT APPLICATION STATUS SHEET

COMPANY: Florida Power Corp.

PROCESSOR: G. Richardson

PERMIT NO. A052-167172

DATE RECEIVED: 7/6/89

P.E. SEAL & SIGN: (Y)N

CHECK: (Y)N

0 Day 15 10/2

	DATE TASK COMPLETED	INITIALS
DATE REC'D BY SECTION:	<u>7/14/89</u>	<u>YMQ</u>
LOGGING BY SEC'Y	<u>7/20/89</u>	<u>YMQ</u>
Permitting Eng'r submit finished permit package & recommendations to supervisor.	<u>9/13/89</u>	<u>Com</u>
Permit Package to Dist. Engr.	<u>9/17/89</u>	<u>JK</u>
Permit Package to Dist. Mgr.	<u>9/27/89</u>	<u>WJ</u>
Permit Package Mailed out:	<u>SEP 28 1989</u>	<u>YMQ</u>

DATA FOLLOW-UP

Issue Date Updated on PATS:	<u>SEP 28 1989</u>	<u>YMQ</u>
Updated on WANG:	<u>SEP 28 1989</u>	<u>YMQ</u>



\*

SEP 28 1989

APPLICATION TRACKING SYSTEM

07/14/89

APPL NO:167172

APPL RECVD:07/06/89 TYPE CODE:A0 SUBCODE:00

LAST UPDATE:07/10/89

DER OFFICE RECVD:TPA DER OFFICE TRANSFER TO:\_\_\_

APPLICATION COMPLETE:00/00/00

DER PROCESSOR:THOMAS *Richardson Jr*

APPL STATUS:AC DATE:07/06/89 (ACTIVE/DENIED/WITHDRAWN/EXEMPT/ISSUED/GENERAL)

RELIEF:\_\_\_ (SSAC/EXEMPTIONS/VARIANCE)

(Y/N) N MANUAL TRACKING

DISTRICT:40 COUNTY:52

(Y/N) DNR REVIEW REQD?

LAT/LONG:27.51.35/82.36.09

(Y/N) N PUBLIC NOTICE REQD?

BASIN-SEGMENT:\_\_\_

(Y/N) N GOV BODY LOCAL APPROVAL REQD?

COE #:\_\_\_\_\_

(Y/N) Y LETTER OF INTENT REQD? (I/ISSUE D/DENY)

ALT#:\_\_\_\_\_

PROJECT SOURCE NAME:BARTOW PEAKING UNIT #4

STREET:WEEDON ISLAND

CITY:ST. PETE

STATE:FL ZIP:\_\_\_\_\_

PHONE:\_\_\_\_\_

APPLICATION NAME:FLORIDA POWER CORP.

STREET:P O BOX 14042

CITY:ST. PETE

STATE:FL ZIP:33733

PHONE:\_\_\_\_\_

AGENT NAME:\_\_\_\_\_

STREET:\_\_\_\_\_ CITY:\_\_\_\_\_

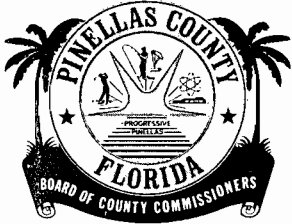
STATE:\_\_\_ ZIP:\_\_\_\_\_ PHONE:\_\_\_\_\_

FEE #1 DATE PAID:07/06/89 AMOUNT PAID:00750 RECEIPT NUMBER:00139985

B	DATE APPLICANT INFORMED OF NEED FOR PUBLIC NOTICE	- - -	___/___/___
C	DATE DER SENT DNR APPLICATION/SENT DNR INTENT	- - -	___/___/___
D	DATE DER REQ. COMMENTS FROM GOV. BODY FOR LOCAL APP.	- - -	___/___/___
E	DATE #1 ADDITIONAL INFO REQ--REC FROM APPLICANT	- - -	___/___/___
E	DATE #2 ADDITIONAL INFO REQ--REC FROM APPLICANT	- - -	___/___/___
E	DATE #3 ADDITIONAL INFO REQ--REC FROM APPLICANT	- - -	___/___/___
E	DATE #4 ADDITIONAL INFO REQ--REC FROM APPLICANT	- - -	___/___/___
E	DATE #5 ADDITIONAL INFO REQ--REC FROM APPLICANT	- - -	___/___/___
E	DATE #6 ADDITIONAL INFO REQ--REC FROM APPLICANT	- - -	___/___/___
F	DATE GOVERNING BODY REQUESTED SURVEY RESULTS/REPORTS	- - -	___/___/___
G	DATE FIELD REPORT WAS REQ--REC	- - -	___/___/___
H	DATE DNR REVIEW WAS COMPLETED	- - -	___/___/___
I	DATE APPLICATION WAS COMPLETE	- - -	07/06/89
J	DATE GOVERNING BODY PROVIDED COMMENTS OR OBJECTIONS	- - -	___/___/___
K	DATE NOTICE OF INTENT WAS SENT--REC TO APPLICANT	- - -	___/___/___
L	DATE PUBLIC NOTICE WAS SENT TO APPLICANT	- - -	___/___/___
M	DATE PROOF OF PUBLICATION OF PUBLIC NOTICE RECEIVED	- - -	___/___/___
N	WAIVER DATE BEGIN--END (DAY 90)	- - -	___/___/___

COMMENTS:





# BOARD OF COUNTY COMMISSIONERS

PINELLAS COUNTY, FLORIDA

315 COURT STREET  
CLEARWATER, FLORIDA 34616

## COMMISSIONERS

BRUCE TYNDALL - CHAIRMAN  
CHARLES E. RAINEY - VICE CHAIRMAN  
JOHN CHESNUT, JR.  
GEORGE GREER  
BARBARA SHEEN TODD

August 8, 1989

Mr. George Richardson  
Department of Environmental Regulation  
4520 Oak Fair Blvd.  
Tampa, Fla. 33610-7347

RE: Florida Power Corporation, Permit No. A052-167172; Bartow  
Peaking Unit No. 4; Replaces Permit No. A052-89902

Mr. Richardson:

This office has reviewed the APPLICATION FOR RENEWAL OF PERMIT TO OPERATE AIR POLLUTION SOURCES for the above mentioned source. The application is deemed complete except for a current compliance test. Pinellas County performed an inspection on 8/3/89, which revealed that the unit is down due to mechanical problems. It is not expected to start back up until the end of this year. The permit will require the source to test within 30 days of start-up. Pinellas County recommends that an operation permit be issued. The recommended permit conditions are attached.

Sincerely,

Gary Robbins, Environmental Engineer  
Air Quality Division

GR/0956E

APPLICANT:

Florida Power Corporation  
Post Office Box 14042  
St. Petersburg , Fl. 33733

PERMIT/CERTIFICATION

No. AO52-167172  
County:- Pinellas  
Expiration date: Aug. 31, 1994  
Project: Peaking Unit No. 4

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Rules 17-2 & 17-4. The above named permittee is hereby authorized to perform the work or operate the facility shown on the approved drawing(s) plans, and other documents, attached hereto or on file with the department and made a part hereof and specifically described as follows:

*335 X 118*

For the operation of a oil fired, gas turbine driven electrical generating unit. This unit is designated as Peaking Unit No. 4. The Peaking Unit is composed of an General Electric No. 320066, Model No. MS 7000, Serial No. ~~217712~~ electric generator driven by ~~two~~ *two* ~~gas turbines~~ *gas turbines*. ~~The turbines are designated as 4A (Engine Serial No. xxxxxxxx, Turbine Serial No. xxxxxxxx) and 4B (Engine Serial No. xxxxxxxx, Turbine Serial No. xxxxxxxx).~~ The Peaking Unit is fired on No. 2 Fuel Oil at a maximum rate of 121 barrels/hour or 714(106) Btu/hr. The unit is rated at a maximum electrical generating capacity of 55.7 MW. The unit can be operated with one or both turbines in operation.

*GEN. ELEC MODEL MS 7000 SER: NO: 217712 GAS TURBINE.*

Located at Weeden Island, St. Petersburg

UTM 17-342.2 E 3082.9 N NEDS No.: 0011 Point ID: 08

Replaces Permit No.: AO52-89902

SPECIFIC CONDITIONS:

1. A part of this permit is the attached 15 General Conditions.
2. Visible emissions from the Peaking Unit shall not be equal to or greater than 20% opacity in accordance with Subsection 17-2.610(2)(a), Florida Administrative Code (F.A.C.).
3. The Peaking Unit shall be fired on No. 2 fuel oil.
4. Test the peaking unit for visible emissions within 30 days of start-up and then at intervals of 12 months from the date of 8/13/89 pursuant to Subsection 17-2.700(2), F.A.C., if the Peaking Unit operates more than 400 hours during the preceding 12 month period. Submit a copy of test data to this office and the Pinellas County Department of Environmental Management, Air Quality Division within 45 days of such testing, Subsection 17-2.700(7), F.A.C.
5. Compliance with the emission limitations of Specific Condition No. 2 shall be determined using EPA Method 9 contained in 40 CFR 60, Appendix A and adopted by reference in Subsection 17-2.700, F.A.C. The minimum source sampling time shall be 60 minutes.
6. The Pinellas County Department of Environmental Management shall be notified in writing 15 days prior to compliance testing, Subsection 17-2.700(2)9., F.A.C.
7. During the compliance test the Peaking Unit shall be fired on No. 2 fuel oil which has been refined from crude oil and has not been used, and which may or may not contain additives.
8. Maintain monthly records for the hours this Peaking Unit operates. If the Peaking Unit operates less than 400 hours as per Specific Condition No. 4, submit these records at twelve month intervals from the date of August 13, 1989 to this office and the Pinellas County Department of Environmental Regulation, Air Quality Division in lieu of the visible emissions test.
9. Fuel oil quality is to be monitored prior to delivery and a sample taken for each day of operation for a monthly composite analysis. The monthly fuel oil composite sample is to be analyzed for the following:
  - a. Btu content
  - b. API Gravity
  - c. Density
  - d. Sulfur Content by weight

as per Subsection 403.061(13), F.S.

SPECIFIC CONDITIONS:

10. Compliance testing of emissions shall be accomplished while operating the Peaking Unit at  $\pm 10\%$  of the permitted capacity stated in specific condition No. 12. A compliance test submitted at operating rates less than 90% of the permitted capacities will automatically constitute an amended permit at the lesser rate. The permittee shall submit a statement of the operating mode and a copy of the fuel oil analysis as a part of the compliance test. Failure to submit an operation mode statement or operating at conditions which do not reflect the normal operating conditions may invalidate the data [Section 403.161(1)(c), Florida Statutes].
11. No objectionable odors will be allowed as per Subsection 17-2.620(2), F.A.C.
12. Based on the compliance test conducted on August 12, 1985 this source is permitted to operate at 47 MW/hour at 93 barrels/hour of No. 2. Fuel Oil. If the source exceeds this permitted level by 10%, a compliance test must be performed within 30 days following Specific Condition Nos. 4, 5, and 6.
13. Submit for this facility, each calendar year, on or before March 1, and emission report for the preceding calendar year containing the following information as per Subsection 403.061(13), F.S.:
  - A. Annual amount of materials and/or fuels utilized.
  - B. Annual emissions for particulate,  $PM_{10}$ , carbon monoxide,  $SO_2$ , and  $NO_x$  based on fuel use, operating hours, and fuel analysis (provide a copy of calculation sheet(s) and basis for calculation)
  - C. Any changes in the information contained in the permit application.

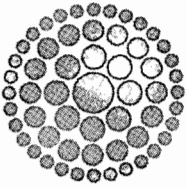
A copy of this report shall be submitted to the Air Sections of the Southwest District Office and Pinellas County Department of Environmental Management, Air Quality Division.

14. Three applications to renew this operating permit shall be submitted to the Southwest District of the Department of Environmental Regulation and one copy to the Pinellas County Department of Environmental Management, Air Quality Division sixty (60) days prior to the expiration date of this permit as per Section 17-4.090, F.A.C.

Issued this \_\_\_\_ day of \_\_\_\_\_  
19\_\_\_\_

STATE OF FLORIDA DEPARTMENT OF  
ENVIRONMENTAL REGULATION

\_\_\_\_\_  
Richard D. Garrity, Ph.D.  
Deputy Assistant Secretary



**Florida  
Power**  
CORPORATION

July 5, 1989

Dr. Richard D. Garrity  
District Manager  
Florida Department of  
Environmental Regulation  
Southwest District  
4520 Oak Fair Boulevard  
Tampa, Florida 33610-9544

Dear Dr. Garrity:

Subject: Renewal of Air Operating Permits  
Bartow Peaking Units P1-P4  
A052-89904, 89903, 89902 & 89907

Attached are four copies each of applications to renew the air operating permits for the above referenced cited units.

Also attached are four checks in the amount of \$750 each for the application fees for these units.

If you have any questions concerning these applications, please contact me at (813)866-4544 or Mr. A. W. Morneault of my staff at (813)866-5162.

Sincerely,

R. E. Parnelle, P.E.  
Supervisor, Air Programs

awm/bm

cc: Gary Robbins, Pinellas County

D. E. R.

JUL 6 1989

SOUTHWEST DISTRICT  
TAMPA

7-7-89

*Olivia*

*These are 4 similar  
& sources*

*Need 4 PATS Numbers*

*Jim*

INSPECTION REPORT FORM  
AIR POLLUTANT EMISSION SOURCES

FACILITY: Florida Power Corporation		DISTRICT: SOUTHWEST	COUNTY: PINELLAS
ADDRESS: Paul Bartow Plant - Weedon Island St. Petersburg, FL 33733		CONTACT: Mr. Ken Roy	
APIS NO.: 40TPA52001108	PERMIT NO.: AO52-89902	EXPIRATION DATE: 9/11/89	
SOURCE DESCRIPTION: Gas Turbine Peaking Unit #4			
INSPECTION DATE: 1/7/87	AUDIT TYPE: 3 - Major	COMPLIANCE STATUS: In Compliance By Shutdown	

INSPECTION COMMENTS/RECOMMENDATIONS:

AO52-89902 - Gas turbine peaking unit totally shutdown with lockouts in place.

Unit had dehumidifier inside combustion area. fuel tanks were empty (guages).

Inlet and exhaust vents were sealed to prevent moisture from corroding unit.

The unit is not scheduled to start up until 1989. (As per F.P.C. letter 7/25/86).

Unit is in compliance by shutdown.

INSPECTOR(S) NAME(S):  
ERIC FEHRMANN, Pinellas County Air Quality Division

SIGNATURE(S):  
*Eric Fehrmann*

DATE:  
1/8/87

(0034I)(a))

APIS UPDATED? S.F.

INSPECTION REPORT FORM  
AIR POLLUTANT EMISSION SOURCES

FACILITY Florida Power. Co. Bartow Plant		DISTRICT Southwest	COUNTY Pinellas
ADDRESS Weedon Is. St. Petersburg		CONTACT Phil Watkins	
APIS # 40TPA52-001108	PERMIT # A052-8990Z	EXPIRATION DATE 9/11/89	
SOURCE DESCRIPTION Gas Turbine Peaking unit # 4			
INSPECTION DATE 7/11/86	AUDIT TYPE 3-Major	COMPLIANCE STATUS Unknown	
INSPECTION COMMENTS/RECOMMENDATIONS  A052-8990Z - Gas Turbine peaking unit was in the first stages of being shut down until 1989. During the inspection the units were being readied for installation of dehumidifiers inside the turbines and the fuel tanks were empty. Inlet and exhaust vents are to be sealed to prevent moisture from entering units.			
INSPECTOR(S) NAME(S) E. Fehrmann			
SIGNATURE(S) E. Fehrmann		DATE 7/11/86	

PLANT 0011 FLORIDA POWER  
WEEDON ISLAND  
SAINT PETERSEURG  
J A HANCOCK  
P O BOX 14042  
ST PETERSBURG  
BARTOW PLANT

WEEDON ISLAND UTILITY FILE STATUS NEW ADD  
POWER PLANT  
FL. 33733  
AQCR=052 SIC=4911  
LAT=28:20:30N LON=82:18:17W  
UTM ZONE 17 342.5KM E. 3033.6KM N.

POINT 08 CONST PATS# OPER PATS# A052-89902  
ISS= / / EXP= / / ISS=10/05/84 EXP=09/11/89  
GAS TURBINE PEAKING UNIT # P-4  
SOURCE= IPP=92 EXIST COMM.PNTS. -  
STACK HT= 45FT DIAM=17.3FT TEMP= 930F FLOW=1043797CFM PLUME= CFT  
BOILER CAP= 0MBTU/HR FUEL FOR SPACE HEAT= .0%  
OPERATING PROCESS RATES YOR=84 RAW MATERIAL= 0 OTHER  
PRODUCT 0 OTHER FUEL 3102 GL/BRN  
NORMAL COND. DEC-FEB=25% MAR-MAY=25% JUN-AUG=25% SEP-NOV=25%  
PERMIT SCHEDULE 24HRS/DAY 7DAYS/WK 52WKS/YR  
AOR FOR 02/15/85 24HRS/DAY 7DAYS/WK 52WKS/YR  
DISTILLATE PEAKING UNIT  
COMPLIANCE NEDS=1 GRC=3 UPDATED09/84 SCHED.07/79 UPDATED07/31/79  
PERMIT=1 YCR=84 INSPECTED 03/02/84 NEXT DUE 08/13/84

SCCS

2-01-001-01 YOR=84 SOURCE=C RATE= 183 MAX= 8.082 KGL/BRN  
FUEL CONT SO2= .13% ASH= 0.0% 141MBTU FYCR=84 CONFID=2  
DISTILLATE #2 OIL BURNED IN INTERNAL COMBUSTION UNIT

POLLUTANTS MONITORED

TSP 11101 NORM= 15.52 EST/METH= 1/1 MAX.ALW= 45 TNS/YR.  
CTLS.PRI= 0 SEC= 0 EFF= 0.0% NEXT DUE 07/31/80 TEST/FREQ=1  
VE 11204 NORM= 600.20 EST/METH= / MAX.ALW= 60020 TNS/YR.  
CTLS.PRI= SEC= EFF= . % NEXT DUE 08/13/85 TEST/FREQ=1  
TESTED 08/02/84 AGENCY=3 REG=610(2)(A) COMPLIANCE=1  
EMITTED= 300.15 ALLOWED= 600.20LBS/HR OP-RATE= 50 OTH/ER  
CO 42101 NORM= 25.41 EST/METH= 3/1 MAX.ALW= 111 TNS/YR.  
CTLS.PRI= 0 SEC= 0 EFF= 0.0% NEXT DUE 00/00/00 TEST/FREQ=0  
SO2 42401 NORM= 78.17 EST/METH= 2/1 MAX.ALW= 1719 TNS/YR.  
CTLS.PRI= 0 SEC= 0 EFF= 0.0% NEXT DUE 07/31/80 TEST/FREQ=1  
NOX 42603 NORM= 210.32 EST/METH= 6/1 MAX.ALW= 444 TNS/YR.  
CTLS.PRI= 0 SEC= 0 EFF= 0.0% NEXT DUE 07/31/80 TEST/FREQ=1  
CH4 43201 NORM= 0.26 EST/METH= 0/1 MAX.ALW= 1 TNS/YR.  
CTLS.PRI= 0 SEC= 0 EFF= 0.0% NEXT DUE 00/00/00 TEST/FREQ=0



INSPECTION REPORT FORM  
AIR POLLUTANT EMISSION SOURCES

FACILITY PAUL L. BARTOW PLANT FLORIDA POWER CORPORATION		DISTRICT SOUTHWEST	COUNTY PINELLAS
ADDRESS WEEDON ISLAND ST. PETERSBURG, FLORIDA		CONTACT MR. DON TURNER PLANT OPERATIONS SUPERINTENDENT	
APIS # A0TPA52001108	PERMIT # A052-89902	EXPIRATION DATE 9/11/89	
SOURCE DESCRIPTION COMBUSTION TURBINE PEAKING UNIT NO. 4			
INSPECTION DATE 8/12/85	AUDIT TYPE MAJOR 2 - MINOR	COMPLIANCE STATUS IN COMPLIANCE	
INSPECTION COMMENTS/RECOMMENDATIONS  A052-89902 - COMBUSTION TURBINE PEAKING UNIT FIRED BY OIL NO. 2 AT APPROXIMATE RATE OF 65 GAL/MIN. OUTPUT RATE WAS 47 MW.  THE UNIT WAS TESTED FOR VISIBLE EMISSIONS. AVERAGE OPACITY DURING THE WORST SIX MINUTES OF OPERATION WAS 15%.  TOTAL OPERATING HOURS DURING PREVIOUS 12 MONTHS TO END OF JULY 1985 WERE 48.6 HOURS.			
INSPECTOR(S) NAME(S) RAMON SOLIS			
SIGNATURE(S) Ramon Solis		DATE 8/14/85	

Visible Emission Observation Form

SOURCE NAME FLORIDA POWER CORPORATION			OBSERVATION DATE 8/12/85				START TIME 1:35		STOP TIME 2:05					
ADDRESS PAUL L. BARTOW PLANT			SEC				SEC							
WEEDON ISLAND			MIN	0	15	30	45	MIN	0					
CITY ST. PETERSBURG			1	15	15	15	15	31						
STATE FL.			2	15	15	15	15	32						
ZIP			3	15	15	15	15	33						
PHONE 866-5728			4	15	15	15	15	34						
SOURCE ID NUMBER A052-89902			5	15	15	15	15	35						
PROCESS EQUIPMENT PEDKER No. 4			6	15	15	15	15	36						
OPERATING MODE FULL LOAD			7	15	15	15	15	37						
CONTROL EQUIPMENT NONE			8	15	15	15	15	38						
OPERATING MODE N/A			9	15	15	15	15	39						
DESCRIBE EMISSION POINT START RECTANGULAR STOP STACK			10	15	15	15	15	40						
HEIGHT ABOVE GROUND LEVEL START 45' STOP			11	15	15	15	15	41						
HEIGHT RELATIVE TO OBSERVER START 45' STOP			12	15	15	15	15	42						
DISTANCE FROM OBSERVER START 150' STOP			13	15	15	15	15	43						
DIRECTION FROM OBSERVER START 30° STOP			14	15	15	15	15	44						
DESCRIBE EMISSIONS START SMOKE STOP			15	15	15	15	15	45						
EMISSION COLOR START BLACK STOP			16	15	15	15	15	46						
PLUME TYPE: CONTINUOUS <input checked="" type="checkbox"/>			17	15	15	15	15	47						
FUGITIVE <input type="checkbox"/> INTERMITTENT <input type="checkbox"/>			18	15	15	15	15	48						
WATER DROPLETS PRESENT: NO <input checked="" type="checkbox"/> YES <input type="checkbox"/>			19	15	15	15	15	49						
IF WATER DROPLET PLUME: ATTACHED <input checked="" type="checkbox"/> DETACHED <input type="checkbox"/>			20	15	15	15	15	50						
POINT IN THE PLUME AT WHICH OPACITY WAS DETERMINED START 10 FT ABOVE OUTLET STOP			21	15	15	15	15	51						
DESCRIBE BACKGROUND START SKY STOP			22	15	15	15	15	52						
BACKGROUND COLOR START BLUE/WHITE STOP			23	15	15	15	15	53						
SKY CONDITIONS START 50% CC STOP			24	15	15	15	15	54						
WIND SPEED START 8 MPH STOP			25	15	15	15	15	55						
WIND DIRECTION START NE STOP			26	15	15	15	15	56						
AMBIENT TEMP. START 94° STOP			27	15	15	15	15	57						
WET BULB TEMP			28	15	15	15	15	58						
RH. percent			29	15	15	15	15	59						
23			30	15	15	15	15	60						
24				15	15	15	15							
25				15	15	15	15							
26				15	15	15	15							
27				15	15	15	15							
28				15	15	15	15							
29				15	15	15	15							
30				15	15	15	15							
<p>Source Layout Sketch      Draw North Arrow</p>			AVERAGE OPACITY FOR HIGHEST PERIOD				NUMBER OF READINGS ABOVE							
			15%				20 % WERE 0							
			RANGE OF OPACITY READINGS				MINIMUM				MAXIMUM			
			15%				15%							
OBSERVER'S NAME (PRINT)			RAMON SOLIS											
COMMENTS			LOAD 47 MW				OBSERVER'S SIGNATURE		DATE					
							Ramon Solis		8/12/85					
I HAVE RECEIVED A COPY OF THESE OPACITY OBSERVATIONS SIGNATURE			CERTIFIED BY				DATE							
			ETA/DER				3/13/85							
TITLE			DATE				VERIFIED BY		DATE					

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION

ANNUAL OPERATIONS REPORT FORM  
FOR AIR EMISSIONS SOURCES

For each permitted emission point, please submit a separate report for calendar year 1984 prior to March 1st of the following year.

I. GENERAL INFORMATION:

1. Source Name: Florida Power Corp. (Bartow Peaker #4)
2. Permit Number: A052-89902
3. Source Address: Weedon Island, St. Petersburg, FL 33702
4. Description of Source: Gas Turbine

II. OPERATING SCHEDULE: 24 hrs/day 7 day/wk 52 wks/yr  
Operated 58.9 hours in 1984

III. RAW MATERIAL INPUT PROCESS WEIGHT:

Raw Material	Input Process Weight	tons/yr
<u>N/A</u>		<u>tons/yr</u>
_____	_____	<u>tons/yr</u>
_____	_____	<u>tons/yr</u>
_____	_____	<u>tons/yr</u>
_____	_____	<u>tons/yr</u>
Product Output (tons/yr - cubic feet/yr)	_____	<u>tons/yr</u>

IV. TOTAL FUEL USAGE, including standby fuels. If fuel is oil, specify weight and sulfur content (e.g., No. 6 oil with 1%S).

<u>10<sup>6</sup> Cu. Ft. Natural Gas</u>	<u>182.70</u>	<u>10<sup>3</sup> gallons No. 2 Oil, 0.18 %S</u>
<u>10<sup>3</sup> gallons Propane</u>	_____	<u>10<sup>3</sup> gallons Kerosene</u>
<u>tons Coal</u>	_____	<u>10<sup>6</sup> lb Black Liquor Solids</u>
<u>tons Carbonaceous</u>	_____	<u>tons Refuse</u>
Other (Specify type and units)	_____	_____

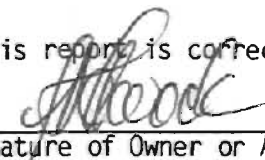
V. EMISSION LEVEL (tons/yr):

A. <u>0.457</u> Particulates	<u>Carbon Monoxide</u>
<u>6.194</u> Nitrogen Oxide	<u>Total Reduced Sulfur</u>
_____ Hydrocarbon	<u>Fluoride</u>
<u>2.302</u> Sulfur Dioxide	_____
Other (Specify type and units)	_____

B. Method of calculating emission rates (e.g., use of fuel analysis and materials balance, emission factors drawn from AP 42, etc.): Emission factors from AP-42.

VI. CERTIFICATION:

I hereby certify that the information given in this report is correct to the best of my knowledge.

  
 \_\_\_\_\_  
 Signature of Owner or Authorized Representative

J. A. Hancock  
 Vice President, Fossil Operations



BOARD OF COUNTY COMMISSIONERS

PINELLAS COUNTY, FLORIDA

315 COURT STREET

CLEARWATER, FLORIDA 33516

COMMISSIONERS

BARBARA SHEEN TODD, CHAIRMAN
JOHN CHESNUT, JR., VICE-CHAIRMAN
GABRIEL CAZARES
CHARLES E. RAINEY
BRUCE TYNDALL

September 10, 1984

D. E. R.

SEP 19 1984

SOUTH WEST DISTRICT
TAMPA

Mr. Richard Garrity, Ph.D.
S.W. District Manager
Department of Environmental Regulation
7601 Highway 301 North
Tampa, Florida 33610

Dear Mr. Garrity:

The Pinellas County Division of Air Quality, Engineering/Compliance Sections activities for the month of August 1984 are summarized as follows:

Citizen Complaints

Twenty-five (25) complaints were received in August:

- 12 - Odor Case File on City of Largo, A052-30168
5 - Odor Closed/Resolved
2 - Dust (Unpaved Street) Pending further Investigation
2 - Dust (Unconfined emissions) Closed/Referred
1 - Dust (Unconfined emissions) Pending
2 - Auto Spray Painting Closed/Resolved
1 - Fiberglassing Vapors Closed/Referred

Compliance Verification Inspections

- A. The following sources inspected in August are considered to be in full compliance:
1. Carrolls Bldg. Mat'ls., Inc. - Permits A052-77817, -80974
2. The West Company - Permit A052-56965. Stack test observed.
3. Florida Power Corp. - Bartow Plant - Permits A052-22551, -22553, -22554, -22555 (Peaking Units); A052-56650 (Generator #2) 3rd QTR, and the annual soot blowing stack tests observed.
4. Florida Power Corp. - Higgins Plant - Permit A052-56654 - 2nd half and the annual soot blowing stack tests observed.

Mr. Richard Garrity, Ph.D.  
S.W. District Manager

September 10, 1984  
Page -2-

5. Florida Power Corp. - Bayboro Plant - Permits A052-22556, -22557 (Peaking Units).

B. The following source is considered to be in non-compliance:

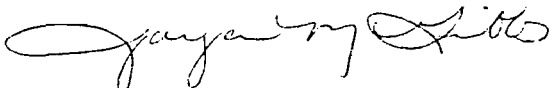
1. SPCA of Clearwater - Permit A052-40321. Continuous emissions from the incinerator. The facility operator contacted the service company immediately.

General

1. Pet Dairy, Inc. - Permits A052-61060, -61104, and -61102. V.E. tests waived due to the boiler sources not burning oil during the past year.
2. Prepared and submitted amendments to the CDS list to R. Vail, BAQM. (Copies sent to DER, S.W. District previously).
3. Coordinated with J. Estler, Air Permit Engineer, on cases involving DCCO's for ITD Industries and Zero Corp.
4. On 8/29/84 P.C. Division of Air Quality staff attended the meeting at Department of Environmental Regulations office regarding the Largo Sludge Dryer operation and continuing complaints against the source. City of Largo staff agreed to limit operations until the contracted odor control system is installed (expected late December 1984).

If there are any questions or if further information is needed regarding the contents of this report please contact this office at Suncom 570-6522.

Sincerely,



Joyce M. Gibbs, Chief  
Division of Air Quality

JM/PH/wn

Enclosures

TO: W. C. Thomas, P.E.  
THROUGH: Jim Estler *Jul 10-3-84*  
FROM: Jim McDonald *jm*  
DATE: September 26, 1984  
SUBJECT: Recommend Renewal of Florida Power Corporation's  
(Bartow) 4 Peaking Units A052-89907, 89904, 89903  
and 89902

On July 12, 1984, this office received Florida Power Corporation's applications to renew their operating air pollution permits for (4) four peaking units at their Bartow facility. Each unit has a design rating of 56.7 MW and burns No. 2 fuel oil (distillate) at a maximum rate of 132 barrels/hr.

Units 2 & 3 and 1 & 4 were tested for visible emission on August 1 and 2, 1984, respectively, and witnessed by the Pinellas County Department of Environmental Management. Each unit *passed* the test successfully and appeared to be operating satisfactorily.

On September 18, 1984, Mr. Peter Hessling and I reviewed the applications and agreed upon recommending the permits be issued as conditioned.

JLM/scm

COMPANY NAME

FLORIDA POWER CORPORATION

Curt  
Processor

File Number A052-89902

4

PERMIT APPLICATION STATUS SHEET

Type of permit applied for OPERATION

County PINELLAS

Date Received 7-12-84

P.E. seal & signature  
Check  
No check  
Letter of corp. standing

CLOCK  
DAYS

DATE TASK COMPLETED

INITIALS

CLOCK DAYS	DATE TASK COMPLETED	INITIALS
3	<u>7-17-84</u>	<u>Curt</u>
5	<u>7-18-84</u>	<u>DW</u>
28	<u>10-3-84</u>	<u>jm</u>
	request additional info *	
	information received *	
	Public Notice Published * (for Air Construction only)	
55	Letter of Intent sent to * Supervisor	
60	Letter of Intent submitted * to District Manager	
75	Intent to issue/deny mailed*	
80	Permitting Eng'r submit finished permit package & recommendations to supervisor	
83	Permit Package to Dist. Engr.	<u>10-3-84</u> <u>jm</u>
85	Permit Package to Dist. Manager	
90	Final Issuance/denial	

\*If needed, If not indicate by N/A



STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION

Nº 83378

RECEIPT FOR APPLICATION FEES AND MISCELLANEOUS REVENUE

Received from Florida Power Corp. Date 7-12-84  
Address P. O. Box 14042, St. Pete Dollars \$ 100.00  
Applicant Name & Address Diamonds above  
Source of Revenue Bartow Pecking Unit #4  
Revenue Code 001032 Application Number R052-089902  
By Monathy Pulham

672135



10/31/79

DER AIR PERMIT INVENTORY SYSTEM  
SOUTHWEST DISTRICT PINELLAS COUNTY

40/52/0011/08  
PAGE 1

PLANT 0011 FLORIDA POWER CORPORATION

WEEDON ISLAND  
SAINT PETERSBURG  
W P STEWART  
P O BOX 14042  
ST PETERSBURG . 33733  
BARTOW

UTILITY FILE STATUS SENT  
POWER PLANT

FL. 33733  
AQCR=052 SIC=4911  
LAT=28:20:30N LON=82:18:17W  
UTM ZONE 17 342.4KM E. 3082.8KM N.

POINT 08 CONST PATSM

OPER PATSM

A052-22555

ISS= / / EXP= / /  
GAS TURBINE PEAKING UNIT # P-4

ISS=10/23/79 EXP=09/11/84

SOURCE= IPP=92 EXIST ECAP COMM.PNTS. -

STACK HT= 45FT DIAM=38.8FT TEMP= 930F FLOW=1043797CFM PLUME= FT

BOILER CAP= 708MBTU/HR FUEL FOR SPACE HEAT= .0%

OPERATING PROCESS RATES YOR=79 RAW MATERIAL= 0 OTHER  
PRODUCT 0 OTHER FUEL 36306 LB/BRN

NORMAL COND. DEC-FEB=25% MAR-MAY=25% JUN-AUG=25% SEP-NOV=25%

PERMIT SCHEDULE 05HRS/DAY 7DAYS/WK 52WKS/YR

AOR FOR 07/31/79 05HRS/DAY 7DAYS/WK 52WKS/YR

DISTILLATE PEAKING UNIT

COMPLIANCE NEDS=1 ORC=2 UPDATE07/79 SCHED.07/79 UPDATED07/31/79

PERMIT=1 YOR=79 INSPECTED 02/04/79 NEXT DUE 02/04/80

SCC'S

1-01-005-01 YOR=79 SOURCE=C RATE= 36306 MAX= 5.071 LB/BRN  
FUEL CONT SO2= .18% ASH= 0.0% 263MBTU FYOR=79 CONFID=2

POLLUTANTS MONITORED

TSP 11101 NORM= 0.00 EST/METH= 9/1 MAX.ALW=9999999 TNS/YR.  
CTLS.PRI= 0 SEC= 0 EFF= 0.0% NEXT DUE 07/31/80 TEST/FREQ=1  
SO2 42401 NORM= 0.00 EST/METH= 44/1 MAX.ALW=9999999 TNS/YR.  
CTLS.PRI= 0 SEC= 0 EFF= 0.0% NEXT DUE 07/31/80 TEST/FREQ=1  
NOX 42603 NORM= 0.00 EST/METH= 152/1 MAX.ALW=9999999 TNS/YR.  
CTLS.PRI= 0 SEC= 0 EFF= 0.0% NEXT DUE 07/31/80 TEST/FREQ=1



## RECORD OF VISUAL DETERMINATION OF OPACITY

Location <i>Soutan P-4</i>	Hours of Observation <i>1410-1439</i>
Permit Number <i>A052-22555</i>	Observer <i>T.L. BROUETTE</i>
Date <i>August 2, 1984</i>	Observer Certification Date
Type Facility <i>Combustion Turbine Peaking Unit</i>	Point of Emissions <i>STACK</i>
Control Device <i>NONE</i>	Height of Discharge Point <i>~40'</i>

	Initial		Final
<b>CLOCK TIME</b>	<i>1410</i>		<i>1439</i>
<b>OBSERVER LOCATION</b> Distance to Discharge	<i>~400'</i>		<i>→ SAME</i>
Direction from Discharge	<i>SW</i>		
Height of Observation Point	<i>Ground</i>		
<b>BACKGROUND DESCRIPTION</b>	<i>sky - scattered clouds</i>		
<b>WEATHER CONDITIONS</b> Wind Direction	<i>ESE - SSE</i>		
Wind Speed	<i>5-10 mph</i>		
Ambient Temperature	<i>~90°F</i>		
<b>SKY CONDITIONS</b> (Clear, overcast % clouds, etc.)	<i>~10% clouds + bluish</i>		
<b>PLUME DESCRIPTION</b> Color	<i>(high) BK</i>		
Distance Visible			
Other Information			

SUMMARY OF AVERAGE OPACITY				
SET NUMBER	TIME		OPACITY	
	START	END	SUM	AVERAGE
1	1410	1439	117 x 15 3 x 20	~15
Readings ranged from <u>15</u> to <u>20</u> opacity.				
The source <input checked="" type="checkbox"/> was <input type="checkbox"/> was not in compliance with <u>~15%</u> at the time evaluation was made.				

- NOTES:**
1. Minimum of 24 readings to be taken at 15 second intervals.
  2. Readings are to be to the nearest 5% opacity.

OBSERVATION RECORD

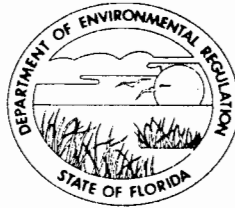
HOUR	MINUTE	SECONDS				STEAM PLUME (Check if applicable)		COMMENTS
		0	15	30	45	ATTACHED	DETACHED	
1410	0	15	15	15	15			
	1	15	15	15	15			
	2	15	15	15	15			
	3	15	15	15	15			
	4	15	15	15	15			
1415	5	15	20	15	15			
	6	15	15	15	15			
	7	15	15	15	15			
	8	20	15	15	20			
	9	15	15	15	15			
1420	10	15	15	15	15			
	11	15	15	15	15			
	12	15	15	15	15			
	13	15	15	15	15			
	14	15	15	15	15			
1425	15	15	15	15	15			
	16	15	15	15	15			
	17	15	15	15	15			
	18	15	15	15	15			
	19	15	15	15	15			
1430	20	15	15	15	15			
	21	15	15	15	15			
	22	15	15	15	15			
	23	15	15	15	15			
	24	15	15	15	15			
1435	25	15	15	15	15			
	26	15	15	15	15			
	27	15	15	15	15			
	28	15	15	15	15			
1439	29	15	15	15	15			
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Ramon Galis  
 W. F. Fessell  
 8/2/84

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION

SOUTHWEST DISTRICT

7601 HIGHWAY 301 NORTH  
TAMPA, FLORIDA 33610-9544



BOB GRAHAM  
GOVERNOR

VICTORIA J. TSCHINKEL  
SECRETARY

WILLIAM K. HENNESSEY  
DISTRICT MANAGER

June 16, 1983

Mr. D. A. Shantz, Supervisor  
Environmental Services  
Florida Power Corporation  
Post Office Box 14042  
St. Petersburg, FL 33733

Re: Pinellas County - AP  
Florida Power Corporation - Bartow Peaking Unit 4  
A052-22555

Dear Mr. Shantz:

We are in receipt of your April 6, 1983 request to modify the conditions of the above referenced permit. Specific Condition Number 1 is hereby deleted and replaced by the following Specific Condition:

1. This unit shall be tested for visible emissions at intervals of 12 months from the date of August 13, 1979 if the unit operates more than 5 days (120 hours) on fuel oil the preceding 12 months. A copy of the test results should be submitted to the Department's Southwest District Office and the Pinellas County Department of Environmental Management within 45 days of testing.

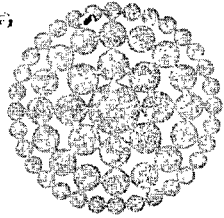
This letter must be attached to your permit and becomes part of that permit.

Sincerely,

Dan A. Williams, P.E.  
District Engineer  
Air, IW & HW Programs

JE/scm

cc: PCDEM



*Air*  
*Does Pinellas*  
*County agree*  
*ED*  
*Esther*  
*WCC*

**Florida  
Power**  
CORPORATION

April 6, 1983

Mr. Dan A. Williams, P.E.  
District Engineer  
Dept. of Environmental Regulation  
7601 Highway 301 North  
Tampa, FL 33610-9544

Subject: Higgins Peakers - A052-58633, 58634, 58635, 58636  
Bartow Peakers - A052-22551, 22553, 22554, 22555  
Bayboro Peakers - A052-22556, 22557, 22558, 22559

Dear Mr. Williams:

Florida Power agrees with the proposal, included in your letter of January 21, 1983, that an annual compliance test for visible emissions be required only if a unit operates more than 5 days (120 hours) on fuel oil per year. We request that the operating permits for our 12 peaking units be modified to include this condition.

Should you have any questions concerning this matter, please advise.

Sincerely,

D. A. Shantz, Supervisor  
Environmental Services

Shantz(W03)C4a-2

cc: T. L. Brouette  
R. E. Parnelle  
Readers

*copy to PCDEM  
4-15-83*

**D.E.R.**

APR 13 1983

SOUTHWEST DISTRICT  
TAMPA

# ROUTING AND TRANSMITTAL SLIP

ACTION NO

ACTION DUE DATE

1. TO: (NAME, OFFICE, LOCATION)

*Peter Hessling*

INITIAL

DATE

2.

INITIAL

DATE

3.

INITIAL

DATE

4.

INITIAL

DATE

REMARKS:

*Please let us know  
your comments on the  
attached*

INFORMATION

REVIEW &amp; RETURN

REVIEW &amp; FILE

INITIAL &amp; FORWARD

DISPOSITION

REVIEW &amp; RESPOND

PREPARE RESPONSE

FOR MY SIGNATURE

FOR YOUR SIGNATURE

LET'S DISCUSS

SET UP MEETING

INVESTIGATE &amp; REPT

INITIAL &amp; FORWARD

DISTRIBUTE

CONCURRENCE

FOR PROCESSING

INITIAL &amp; RETURN

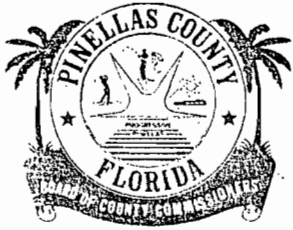
FROM:

*Tim Estler*

DATE

*4-15-83*

PHONE



BOARD OF COUNTY COMMISSIONERS

PINELLAS COUNTY, FLORIDA

315 COURT STREET

CLEARWATER, FLORIDA 33516

*Handwritten notes:*  
Circulate; ARJ AWB  
C. Lane  
C. Davis  
K.C.D.  
*Signature:* [Handwritten signature]

COMMISSIONERS

CHARLES E. RAINEY, CHAIRMAN  
BARBARA SHEEN TODD, VICE-CHAIRMAN  
GABRIEL CAZARES  
JOHN CHESNUT, JR.  
BRUCE TYNDALL

November 12, 1982

Mr. William K. Hennessey, District Manager  
Department of Environmental Regulation  
S.W. District Office  
7601 Highway 301 North  
Tampa, Florida 33610

Dear Mr. Hennessey:

The Division of Air Quality, Enforcement/Engineering Section's activities for the month of October 1982 are summarized as follows:

Citizen Complaints

Twelve complaints were received in October.

- |           |   |
|-----------|---|
| 8 - Odor  | 1 - Diesel fumes                                    |
| 2 - Smoke | 1 - Suspected vegetation damage from air pollutants |

Six of the odor complaints were logged against the Largo Sludge Dryer Plant (A052-30168).

Facility Inspections

A. The following facilities inspected in October are considered to be in full compliance. (Reports attached).

1. Industrial Concrete Industries - Permits A052-24170, 24171, 24174.
2. International Association of Mortuary Services - A052-40701.
3. National Cremation Society - A052-29986.
4. Acre Iron & Metal - A052-26499.
5. Pinellas Industries - A052-16021, 16022, 16023, 16024, 16025.

William K. Hennessey  
November 12, 1982  
Page -2-

B. The following facilities inspected in October are considered in non-compliance or otherwise noted.

1. Baynard-Thompson Funeral Home - A052-17968.  
Failure to submit annual V.E. test report.
2. Palms of Pasadena Hospital - A052-59239.  
Complaints received indicated functional non-compliance. Problem was corrected. Remains in administrative non-compliance due to lack of permits to operate industrial boilers.
3. Florida Power Corporation - Bartow Plant.  
Peaking Units - A052-22551, 22553, 22554, 22555.  
Listed as non-compliance in last month's report for not submitting VE tests when due. Testing was completed and the peaking units are now considered in compliance.

Bartow Plant - Unit #3 - A052-56651.  
This unit was tested to satisfy third quarter requirements. Test results not filed as yet.

Bartow Plant - Unit #2 - A052-56650.  
This unit was tested under full audit conditions by plant personnel and observed by DER staff. The unit failed the test by exceeding the emissions limiting standard for particulates. This unit is considered to be in non-compliance.

4. Florida Power Corporation - Bayboro Plant - Peaking Units.  
Permits A052-22556, 22557, 22558, 22559.  
Previously reported as unknown compliance status in September. V.E. tests were conducted and Units 3 and 4 are considered in compliance. Units 1 and 2 are still not tested.

#### General

1. Observed Method 25 testing at R.P. Scherer Corporation. Test was conducted to determine carbon absorber efficiency prior to submittal of application for operating permit. Results not yet received.
2. Attempted to perform inspections at Micro-Plate, Inc., a potential VOC source. They have denied entry without a search warrant.



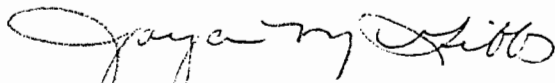
William K. Hennessey  
November 12, 1982  
Page -3-

Micro-Plate, Inc.

Copies of correspondence seeking compliance have been previously sent to the District DER office. The County Attorney's office has been notified, and will coordinate any action for warrants with the DER Office of General Counsel.

3. Mailed advance notices of tests due to four facilities. Copies attached.

Sincerely,



Joyce M. Gibbs, Chief  
Division of Air Quality

PAH/jh  
Enclosures

DER

COMPLIANCE VERIFICATION INSPECTION

NOV 17 1982  
INSPECTION

FLORIDA POWER CORPORATION  
BARTOW COMBUSTION TURBINE PLANT  
PINELLAS COUNTY  
NEDS NUMBERS: 052-0011-05, 06, 07 and 08  
PERMIT NUMBERS: A052-22551, 22553, 22554 and 22555  
DATES OF INSPECTION: OCTOBER 12 and 13, 1982

The Paul L. Bartow Combustion Turbine Plant is located in Weedon Island, St. Petersburg, Florida.

Plant contact persons were Mr. Robert Browning, Control Technician, and Mr. Stephen J. Thole, Plant Superintendent. Mr. Todd Brouette and Mr. Kenneth E. Roy from the Florida Power Corporation Testing Team performed the visible emissions compliance tests for the four combustion turbine units. Ramon Solis of Pinellas County Division of Air Quality D.E.M., performed the inspection and tested the four units for visible emissions.

The peaker units had last been inspected on September 2, 1982, but at that time they were not operating and therefore no visible emissions tests were performed.

During the inspections of October 12 and 13, 1982, the visible emissions test produced the following results: Average opacities during the worst six minutes of operation were 10% for units one, two and four, and 15% for unit three.

Even though the maximum output (production rate) is approximately 55.7 MW, the nominal output has been set at 50 MW. At the time of inspection, the units had a production rate of between 47 MW and 50 MW. The peaker units are fired by fuel oil No. 2 with approximate sulfur content of 0.18%. Fuel was being used at a rate of 75 gal/min for an output of 50 MW.

The Paul L. Bartow Combustion Turbine Plant is considered to be in compliance with Chapters 17-2 and 17-4, Florida Administrative Code.

RS/jh

# Best Available Copy

SOURCE NAME **BARLOW COMBUSTION TURBINE PLANT**  
 ADDRESS **WEEDON ISLAND**  
**ST PETERSBURG**  
 STATE **FLORIDA** ZIP **33713** PHONE **866-5728**

A052-22551 DATE **10/14/82**  
 OBSERVER'S NAME **RAMON SOLIS**  
 ORGANIZATION **PINELLAS COUNTY DIVISION OF AIR QUALITY**  
 CERTIFIED BY **ETA/DER**



DATE **9/16/82**

PROCESS **GAS TURBINE ELECTRIC GENERATOR NO. 1** OPERATING MODE **OVER ECL 90% FULL LOAD SIMW** START TIME **2:04** STOP TIME **2:27**

CONTROL EQUIPMENT **NONE** OPERATING MODE **N/A**

DESCRIBE EMISSION POINT **RECTANGULAR STACK**

EMISSION POINT HEIGHT ABOVE GROUND LEVEL **45'** EMISSION POINT HEIGHT RELATIVE TO OBSERVER **45'**

DISTANCE TO EMISSION POINT **300'** DIRECTION TO EMISSION POINT **295**

DESCRIBE EMISSIONS **SMOKE**

COLOR OF EMISSIONS **GRAY** CONTINUOUS  FUGITIVE  INTERMITTENT

WATER VAPOR PRESENT **NO** IF YES, IS PLUME ATTACHED  DETACHED  **N/A**

AT WHAT POINT WAS OPACITY DETERMINED **4 FT ABOVE SMOKE STACK**

DESCRIBE BACKGROUND **SKY**

COLOR OF BACKGROUND **WHITE/BLUE** SKY CONDITIONS **80% CC**

WIND SPEED **20 MPH** WIND DIRECTION **SE**

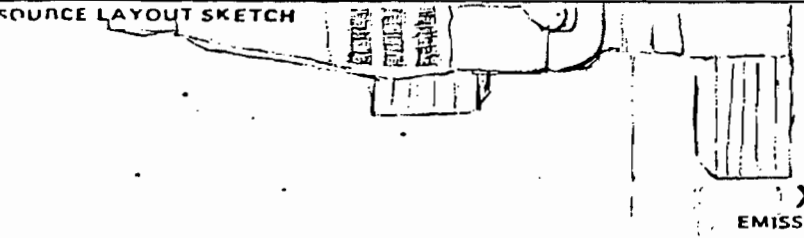
AMBIENT TEMPERATURE **78°F** RELATIVE HUMIDITY **65%**

	0	15	30	45	0	15	30
1	10	10	10	10	31		
2	10	10	10	10	32		
3	10	10	10	10	33		
4	10	10	10	10	34		
5	10	10	10	10	35		
6	10	10	10	10	36		
7	10	10	10	10	37		
8	10	10	10	10	38		
9	10	10	10	10	39		
10	10	10	10	10	40		
11	10	10	10	10	41		
12	10	10	10	10	42		
13	10	10	10	10	43		
14	10	10	10	10	44		
15	10	10	10	10	45		
16	10	10	10	10	46		
17	10	10	10	10	47		
18	10	10	10	10	48		
19	10	10	10	10	49		
20	10	10	10	10	50		
21	10	10	10	10	51		
22	10	10	10	10	52		
23	10	10	10	10	53		
24	10	10	10		54		
25					55		
26					56		
27					57		
28					58		
29					59		
30					60		

COMMENTS **100 GAL / MIN @ 80 SEC**

AVERAGE OPACITY WORST **10** NUMBER OF READINGS ABOVE **20** % WERE **0**

RANGE OF OPACITY READINGS FROM **10** TO **10**



OBSERVER'S SIGNATURE **Ramon Solis** DATE **10/12/82**

VERIFIED BY \_\_\_\_\_

I HAVE RECEIVED A COPY OF THESE OPACITY OBSERVATIONS. SIGNATURE \_\_\_\_\_ TITLE \_\_\_\_\_ DATE **//**

SOURCE NAME **FLORIDA POWER CORPORATION  
BARTOW COMBUSTION TURBINE PLANT**  
ADDRESS **WEEDON ISLAND  
ST PETERSBURG**

SOURCE ID NUMBER **A057-22553** OBSERVATION DATE **10/12/82**  
OBSERVER'S NAME (PRINT) **RAMON SOLIS**  
ORGANIZATION **PINELLAS COUNTY DIVISION OF AIR QUAL**

STATE **FLORIDA** ZIP  PHONE **866-5728**

CERTIFIED BY **ETA/DER**



DATE **9/16/82**

PROCESS **GAS TURBINE** OPERATING MODE **FULL LOAD 47MW**  
ELECTRIC GENERATOR NO. **2** OPERATING MODE **N/A**  
CONTROL EQUIPMENT **NONE**

START TIME **2:47** STOP TIME **3:17**  
0 15 30 45 0 15 30

DESCRIBE EMISSION POINT **RECTANGULAR STACK**  
EMISSION POINT HEIGHT ABOVE GROUND LEVEL **45'** EMISSION POINT HEIGHT RELATIVE TO OBSERVER **45'**  
DISTANCE TO EMISSION POINT **200'** DIRECTION TO EMISSION POINT **50°**

1	10	10	10	10	31			
2	10	10	10	10	32			
3	10	10	10	10	33			
4	10	10	10	10	34			
5	10	10	10	10	35			
6	10	10	10	10	36			
7	10	10	10	10	37			
8	10	10	10	10	38			
9	10	10	10	10	39			
10	10	10	10	10	40			
11	10	10	10	10	41			
12	10	10	10	10	42			
13	10	10	10	10	43			
14	10	10	10	10	44			
15	10	10	10	10	45			
16	10	10	10	10	46			
17	10	10	10	10	47			
18	10	10	10	10	48			
19	10	10	10	10	49			
20	10	10	10	10	50			
21	10	10	10	10	51			
22	10	10	10	10	52			
23	10	10	10	10	53			
24	10	10	10	10	54			
25	10	10	10	10	55			
26	10	10	10	10	56			
27	10	10	10	10	57			
28	10	10	10	10	58			
29	10	10	10	10	59			
30	10	10	10	10	60			

DESCRIBE EMISSIONS **SMOKE**

COLOR OF EMISSIONS **GRAY** CONTINUOUS  FUGITIVE   
INTERMITTENT

WATER VAPOR PRESENT **NO** YES  IF YES, IS PLUME ATTACHED **N/A** DETACHED

AT WHAT POINT WAS OPACITY DETERMINED **4 FT ABOVE SMOKE STACK EXHAUST**

DESCRIBE BACKGROUND **SKY** COLOR OF BACKGROUND **WHITE/BLUE** SKY CONDITIONS **85%CC**

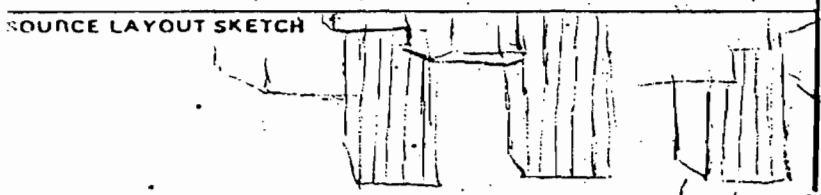
WIND SPEED **15MPH** WIND DIRECTION **SE**

AMBIENT TEMPERATURE **78** RELATIVE HUMIDITY **65%**

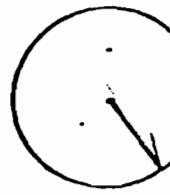
COMMENTS

AVERAGE OPACITY WORST **10%** NUMBER OF READINGS ABOVE **20** % WERE **0**

RANGE OF OPACITY READINGS FROM **10** TO **10%**



DRAW NORTH ARROW



OBSERVER'S SIGNATURE **Ramon Solis** DATE **10/12/82**

I HAVE RECEIVED A COPY OF THESE OPACITY OBSERVATIONS. SIGNATURE \_\_\_\_\_ DATE **11**

VERIFIED BY \_\_\_\_\_

TITLE \_\_\_\_\_

**Best Available Copy**

SOURCE NAME FLORIDA POWER CORPORATION  
 BARTOW PLANT PEAKER  
 ADDRESS WEEDON ISLAND  
 ST. PETERSBURG  
 STATE FLORIDA ZIP PHONE 866-5728

SOURCE ID NUMBER A052-22554  
 OBSERVATION DATE 10/13/82  
 OBSERVER'S NAME (PRINT) RAMON SOLIS  
 ORGANIZATION PINELLAS COUNTY DIVISION OF AIR QUALITY  
 CERTIFIED BY ETA/DER



DATE 9/16/82

PROCESS GENERATOR UNIT No. 3  
 COMBUSTION TURBINE  
 CONTROL EQUIPMENT NONE  
 OPERATING MODE FULL LOAD  
 OPERATING MODE N/A

START TIME 1:13  
 STOP TIME 1:43

EMISSION POINT HEIGHT ABOVE GROUND LEVEL 45'  
 EMISSION POINT HEIGHT RELATIVE TO OBSERVER 45'

1	10	10	10	10	31				
2	10	10	10	10	32				
3	10	10	10	10	33				
4	10	10	10	10	34				
5	10	10	10	10	35				
6	10	15	15	10	36				
7	15	15	15	15	37				
8	15	15	15	15	38				
9	15	15	15	15	39				
10	15	15	15	15	40				
11	15	15	15	15	41				
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13	15	15	15	10	43				
14	10	10	10	10	44				
15	10	10	10	10	45				
16	10	10	10	10	46				
17	10	10	10	10	47				
18	10	10	10	10	48				
19	10	10	10	10	49				
20	10	10	10	10	50				
21	10	10	10	10	51				
22	10	10	10	10	52				
23	10	10	10	10	53				
24	10	10	10	10	54				
25	10	10	10	10	55				
26	10	10	10	10	56				
27	10	10	10	10	57				
28	10	10	10	10	58				
29	10	10	10	10	59				
30	10	10	10	10	60				

DISTANCE TO EMISSION POINT 200'  
 DIRECTION TO EMISSION POINT 20°

DESCRIBE EMISSIONS SMOKE

COLOR OF EMISSIONS BLACK  
 CONTINUOUS  FUGITIVE   
 INTERMITTENT

WATER VAPOR PRESENT NO  YES   
 IF YES, IS PLUME ATTACHED  N/A  DETACHED

AT WHAT POINT WAS OPACITY DETERMINED 7 FT ABOVE STACK

DESCRIBE BACKGROUND SKY

COLOR OF BACKGROUND BLUE / WHITE  
 SKY CONDITIONS 20% cc

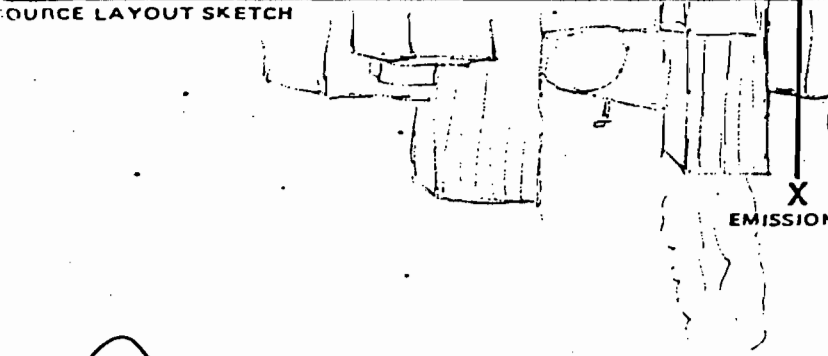
WIND SPEED 15 MPH  
 WIND DIRECTION SE

AMBIENT TEMPERATURE 83°  
 RELATIVE HUMIDITY 75%

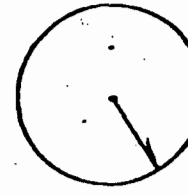
COMMENTS LOAD 50 MW

AVERAGE OPACITY WORST 6 MINUTES 15%  
 NUMBER OF READINGS ABOVE 20 % WERE 0

RANGE OF OPACITY READINGS FROM 10 TO 15%



DRAW NORTH ARROW



OBSERVER'S SIGNATURE Ramon Solis  
 DATE 10/13/82  
 CERTIFIED BY

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 SIGNATURE  
 TITLE  
 DATE

# Best Available Copy

SOURCE NAME **FLORIDA POWER CORP.**  
**BARTOW COMBUSTION TURBINE PLANT**  
 ADDRESS **WEEDON ISLAND**  
**ST PETERSBURG**  
 STATE **FLORIDA** ZIP **33706** PHONE **866-5728**

SOURCE ID NUMBER **A052-22555** DATE **10/13/82**  
 OBSERVER'S NAME (PRINT) **RAMON SOLIS**  
 ORGANIZATION **PINELLAS COUNTY DIVISION OF AIR QUALITY**  
 CERTIFIED BY **ETA/DER**



DATE **9/16/82**

PROCESS **UNIT NO. 4** OPERATING MODE **FULL LOAD**  
**GAS TURBINE GENERATOR**  
 CONTROL EQUIPMENT **NONE** OPERATING MODE  
 DESCRIBE EMISSION POINT **RECTANGULAR STACK**

START TIME **2:02** STOP TIME **2:32**  
 0 15 30 45 0 15 30

EMISSION POINT HEIGHT ABOVE GROUND LEVEL **45'** EMISSION POINT HEIGHT RELATIVE TO OBSERVER **45'**  
 DISTANCE TO EMISSION POINT **200'** DIRECTION TO EMISSION POINT **20°**

DESCRIBE EMISSIONS **SMOKE**

COLOR OF EMISSIONS **BLACK** CONTINUOUS  FUGITIVE   
 INTERMITTENT

WATER VAPOR PRESENT **NO**  YES  IF YES, IS PLUME ATTACHED  N/A  DETACHED

AT WHAT POINT WAS OPACITY DETERMINED **10 FT ABOVE STACK**

DESCRIBE BACKGROUND **SKY**

COLOR OF BACKGROUND **BLUE/WHITE** SKY CONDITIONS **20%**

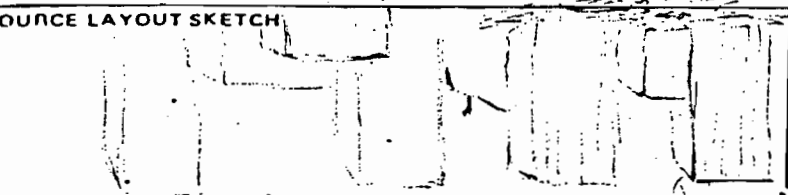
WIND SPEED **15MPH** WIND DIRECTION **SE**

AMBIENT TEMPERATURE **85°** RELATIVE HUMIDITY **75%**

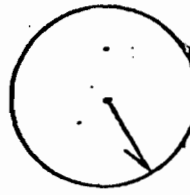
COMMENTS

1	5	5	5	5	31				
2	5	5	5	5	32				
3	5	5	5	5	33				
4	10	10	10	10	34				
5	10	10	10	10	35				
6	10	10	10	10	36				
7	10	10	10	10	37				
8	10	10	10	10	38				
9	10	10	10	10	39				
10	10	10	10	10	40				
11	10	10	10	10	41				
12	10	10	10	10	42				
13	10	10	10	10	43				
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15	10	10	10	10	45				
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30	10	10	10	10	60				

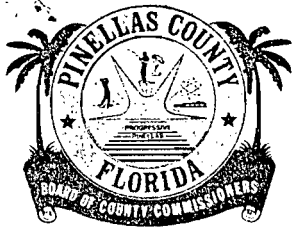
AVERAGE OPACITY WORST SIX MIN **10%** NUMBER OF READINGS ABOVE **20** \* WERE **0**  
 RANGE OF OPACITY READINGS FROM **5** TO **10**



DRAW NORTH ARROW



OBSERVER'S SIGNATURE **Ramon Solis** DATE **10/13/82** I HAVE RECEIVED A COPY OF THESE OPACITY OBSERVATIONS.  
 CERTIFIED BY \_\_\_\_\_ SIGNATURE \_\_\_\_\_ TITLE \_\_\_\_\_ DATE **//**



BOARD OF COUNTY COMMISSIONERS

PINELLAS COUNTY, FLORIDA

315 COURT STREET  
CLEARWATER, FLORIDA 33516

COMMISSIONERS

CHARLES E. RAINEY, CHAIRMAN  
BARBARA SHEEN TODD, VICE-CHAIRMAN  
GABRIEL CAZARES  
JOHN CHESNUT, JR.  
BRUCE TYNDALL

October 13, 1982

*circulate*  
*file individual inspection reports. file letter with*  
**D.E.R.**

**OCT 14 1982**  
**SOUTHWEST DISTRICT**  
**TAMPA**

Mr. William K. Hennessey, District Manager  
Department of Environmental Regulation  
S.W. District Office  
7601 Highway 301 North  
Tampa, Florida 33610

Dear Mr. Hennessey:

The Division of Air Quality, Enforcement/Engineering Section's activities for the month of September 1982 are summarized as follows:

Citizen Complaints

Seven complaints were received in September.

- |                     |                                  |
|---------------------|----------------------------------|
| 2 - Dusty Streets   | 2 - Odor                         |
| 2 - Paint Overspray | 1 - VOC odors from fibreglassing |

A complaint of paint overspray against the Lifeguard Corporation resulted in issuing a Warning Notice to the firm at fault. A copy of the letter is enclosed.

Facility Inspections

A. The following facilities inspected in September are considered to be in full compliance. (Reports attached).

1. Jethro Corporation - A052-47838.
2. Carrolls Building Materials, Inc. - A052-44899 and AC52-44898.
3. West Coast Crematory - A052-17070 and 17071.
4. Florida Power Corporation - Higgins Plant - Third quarter Stack Test Observation conducted on Unit #2, Permit A052-6207.  
V.E. tests done on the Peaking Units; Permits A052-58633, 58634, 58635, 58636.

William K. Hennessey  
October 13, 1982  
Page -2-

5. Honeywell, Inc. - Permits A052-55771 and A052-55772, Beryllium sources. Stack tests observed. Inspection and observation reports submitted previously.

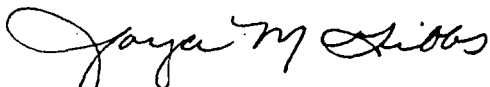
B. The following facilities inspected in September are in non-compliance or otherwise noted.

1. Florida Power Corporation - Bartow Plant - Peaker Units - A052-22551, 22553, 22554, 22555. Non-Compliance Status.  
Test due date was 8/13/82.  
The facility also has failed to conduct the third quarter stack tests on the steam generating Units #2 and #3. No late notice or correspondence was issued to the District Manager's office.
2. U.S.F., St. Pete Campus, Physical Plant - Industrial boilers fired by natural gas only are exempted from permitting requirements.

#### General

1. Conducted pre-submittal review of permits for Modern Graphic Arts to operate lithographic printing presses and a catalytic incinerator as a pollution control device.
2. Conducted permit condition negotiating sessions with The West Company and forwarded permit forms package to DER for permits to operate a VOC coating line.
3. Conducted technical contacts with R.P. Scherer Corporation, a pharmaceutical manufacturer, regarding permitting and compliance test methodology.
4. Completed and forwarded to the District office the permit packages for Aircraft Porous Media. The firm uses VOC's for solvent metal cleaning.
5. Attended the APCA meetings and the VOC workshop held at the District Offices.
6. Mailed ten advance notices of due dates for compliance test reports.

Sincerely,



Joyce M. Gibbs, Chief  
Division of Air Quality

PAH/jh  
Enclosures



COMPLIANCE VERIFICATION INSPECTION

FLORIDA POWER CORPORATION  
BARTOW PLANT - PEAKER UNITS  
PINELLAS COUNTY  
NEDS NUMBERS: 052-0011-05, 06, 07 and 08.  
PERMIT NUMBERS: A052-22551, 22553, 22554 and 22555  
DATE OF INSPECTION: SEPTEMBER 2, 1982

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The Paul L. Bartow Combustion Turbine Plant is located in Weedon Island, St. Petersburg, Florida.

Plant contact person was Mr. Stephn J. Thole, Plant Superintendent. Ramon Solis of Pinellas County Division of Air Quality D.E.M., performed the inspection.

The peaker units operate as reserve power generators when power demand is high or when the steam boilers or the nuclear power plant are down.

Nominal output for each one of the peaker units is 50 MW. At that rate, the units use approximately 70 gal/min of fuel oil No. 2, or 30,072 lbs/hr. Maximum output is rated at 55.7 MW as a ratio of gross generation to the number of hours the unit operates. However, that output can be affected by the ambient temperature. The oil No. 2 used as fuel has an approximate density of 7.16 lbs/gal. Percent sulfur content is 0.18%. Heat input is 139,692 BTU/gal.

The use of the peaker units has been declining steadily since the year 1979, as can be observed in the following table.

HOURS OF OPERATION AND FUEL USAGE, BARTOW PEAKERS

Year	Unit No. 1		Unit No. 2		Unit No. 3		Unit No. 4	
	Hours	Fuel*	Hours	Fuel*	Hours	Fuel*	Hours	Fuel*
1977	494	2015	466	1881	481	2062	840	3436
1979	1049	4464	899	3791	1019	4314	868	3648
1980	956	4064	912	3792	1204	5045	362	1539
1981	365	1470	478	1942	467	1883	304	1174

\* Fuel Units in Thousands of Gal.

The same decline can be observed by comparing the hours of operation during August 1979, versus August 1982:

HOURS OF OPERATION FOR THE MONTH OF AUGUST, BARTOW PEAKERS

Year	Unit No. 1	Unit No. 2	Unit No. 3	Unit No. 4
1979	163.0	125.0	136.0	142.0
1982	0.9	5.0	4.1	0.0

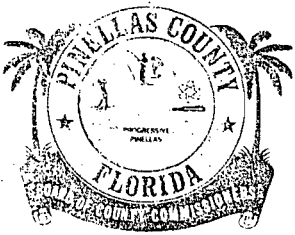
Compliance Verification Inspection  
Bartow Plant - Peaker Units  
Date of Inspection: September 2, 1982  
Page -2-

None of the peaker units were operating at the time of the inspection; therefore it was not possible to perform visible emissions tests. The Plant Manager was directed to contact PCDAQ whenever there is an opportunity to test the units.

Pending the above mentioned testing, the Bartow Peaker Units Plant is considered to be in an unknown status in regard to compliance with Chapters 17-2 and 17-4, Florida Administrative Code.

RS/jh

(1) Gene  
2) Dan



**BOARD OF COUNTY COMMISSIONERS**

**PINELLAS COUNTY, FLORIDA**

315 COURT STREET

CLEARWATER, FLORIDA 33516

**COMMISSIONERS**

- BRUCE TYNDALL, CHAIRMAN**
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- GABRIEL CAZARES**
- JOHN CHESNUT, JR.**
- BARBARA SHEEN TODD**

March 16, 1981

Mr. William Hennessey, District Manager  
 Southwest District Office  
 Florida Department of Environmental Regulation  
 7601 Highway 301 North  
 Tampa, Florida 33610

**D.E.R.**

**MAR 18 1981**

**SOUTHWEST DISTRICT  
TAMPA**

Dear Mr. Hennessey:

The Enforcement Section's activities, for the month of February, 1981, are summarized as follows:

Citizen Complaints

Thirty-six citizen complaints were received in February. Thirteen were attributed to deposition of pine pollen. Eight complaints were about odors (most due to natural sources in upper Tampa Bay/Safety Harbor). Three were prompted by smoke from chimneys. Three complaints were lodged against industrial sources releasing fugitive particulates. Four complaints concerned odors/fumes of a chemical nature from small and large commercial sources. Two complaints were against auto/body repair shops for paint over-spray. Two complaints were water quality related and forwarded to our main office. One complaint regarding a dusty street was received.

Compliance Inspections

A. The following two facilities were in a non-compliance status from previous inspections in January, and have since submitted the required tests or permit renewal and are considered to be in compliance.

1. S.P.C.A. of Clearwater - Permit A052-509, expired as of January 26, 1981. A current V.E. test and an application for permit renewal have been filed with DER-Tampa and with this office as of February 27, 1981.
2. General Materials - Permits A052-3154, -3155, -3156. All points lacked current V.E. tests. Acceptable test reports were received on February 19, 1981, and this source is considered to be in compliance.

B. The following facility continued in a non-compliance status through February.

1. S.P.C.A. of St. Petersburg - Permit A052-28253. Second warning notice sent February 10, 1981 giving 30-days extension for corrective action.

On February 20, 1981, the incinerator was tested again and failed due to excessive opacity and continuous emissions. The operator was given a verbal warning/advisement to cease operation until adequate repairs are made and unit re-tested by agency personnel. On February 23, 1981, met with shelter manager and an S.P.C.A. board member, and outlined course of action and repairs necessary to come into compliance. On February 25, 1981, third warning letter sent giving ten days for reply and/or corrective actions and warned permittee to cease operation. The unit was repaired and passed agency V.E. test and inspection on March 10, 1981. The permittee is planning to convert to a gas fired unit and have further extensive modifications/repairs made to the unit. They were advised to obtain a permit, to modify/construct for the source, from DER-Tampa. Copies of letters have been previously forwarded.

C. Two facilities were given Compliance Verification Inspections in February. Both are considered to be in compliance. Copies of these reports are attached.

1. Mease Hospital - Permit A052-16577. This source was initially inspected on February 4, 1981, and did not pass the V.E. test due to an exceedance of the three minute continuous opacity limit. The source was re-tested on February 12, 1981, and was operating in compliance.
2. Florida Power Corporation - Bartow Plant - Permits A052-15188, -6206, -23168, -6280, -22551, -22553, -22554, ~~-22555~~. This facility was inspected during stack testing on February 26, 1981. The plant was operating in compliance and a copy of the Field Observation checklist and V.E. test are attached.

D. General

1. Off-site surveillance was conducted on February 12, 1981 at the following locations in Tarpon Springs: Stauffer Chemical Company, Pinellas Concrete Products, Concrete Services. Also observed was Concrete Services in Clearwater. No excessive point source or fugitive emissions were observed at any location.
2. In response to several complaints on fugitive emissions, two facilities were visited on February 23, 1981. The weather conditions were quite dry and windy.
  - a. W. L. Cobb Construction Company on Starkey Road, Largo was observed to be exhausting a particulate trail from its stack above what is considered normal for this source. Also, fugitives from stockpiles and truck traffic were apparent. The plant manager, Phil McCord, was contacted and during a walk-through of the facility, the need for increased fugitive controls via watering/sprinklers was expressed out to him. Mr. McCord stated that repairs to the scrubber

system pumps and baffle plates were scheduled for the plant. He explained that these repairs would decrease the particulate trail from the stack exhaust.

- b. General Materials Company - Largo Plant - located at 20th Avenue, S.E., Largo was visited when excessive emissions were noted from the baghouse on the flyash silo as it was being loaded. Mr. John McMath, the plant manager, was contacted and he showed verification that a new baghouse was being ordered with expected delivery in early March. He stated that the baghouse was blown while being loaded approximately two weeks earlier. He was also advised to make use of increased yard maintenance and watering to control fugitive emissions.
3. Two facilities were given (30) day warning letters to submit V.E. test results which were over due. Both have submitted acceptable tests and are considered in full compliance. Copies of letters are attached.
    - a. Gulf Machinery - Permit A052-6978.
    - b. Clearwater Concrete Industries - Permit A052-15819.
  4. Scotty's Clearwater Truss Plant located at N. Keene Road, Clearwater was inspected at the request of the plant manager, Mr. Robert Cantarella, on February 4, 1981. The manager wanted recommendations on solutions to the plant's fugitive dust problem. A copy of the report is attached.

#### Technical

ITD Industries was visited on February 16, 1981 to ascertain progress in development of an application for a permit to construct/modify a V.O.C. source. Mr. Bruce Schrier, Technical Services Director and J.O'Brian, President, were contacted. Problems in fitting the data/information to the application form were discussed as well as noting the problem of achieving the emissions limit of not greater than 2.9 lbs/gal of VOC's. The firm manufactures high optical quality solar window films of a reflective and non-reflective type. Their testing of new formulas lasts for more than (1) year before they can begin to mass produce a given film type. Thus, new formulas or production modifications which may yield an acceptable emissions level could end up being scrapped if the new product shows inferior quality or durability during the year or so of testing/quality assurance. Also noted was the problem of maintaining market competitiveness with a continued product quality and cost while readjusting formula and production methods. The plant principals stated that if the emissions limit appeared to be unreachable after significant attempts at compliance, then they would have to consider seeking a variance from the rule. They requested information on this option as well as assistance in obtaining technical solutions to achieve compliance.

Mr. William Hennessey  
March 16, 1981

Page -4-

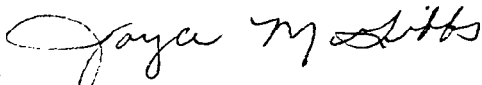
Personnel Actions

- Peter Hessling, Environmental Specialist I, promoted to Environmental Engineer position and put in charge of all Enforcement Section responsibilities, effective date March 9, 1981.
- Mr. Hessling attended the EPA/PEDCO workshop on technical aspects of plant inspection held in Tampa, February 17-19, 1981.
- Hired Ramon Solis for the position of Environmental Specialist II, Enforcement Section to be effective March 16, 1981.

Conclusion

The re-organization and lack of personnel in the Enforcement Section coupled with a backlog of complaints is the cause of the decreased number of facility inspections. This is expected to continue, for one month only, as the new personnel are orientated and trained to their respective positions. A revised schedule of plant inspections will be submitted with the next monthly report.

Sincerely,



Joyce M. Gibbs, Chief  
Division of Air and Water Quality

JMG/jh  
Enclosures

COMPLIANCE VERIFICATION INSPECTION

FLORIDA POWER CORPORATION (Bartow Plant)  
PINELLAS COUNTY  
NEDS NO: 0011-01 through 0011-08  
PERMIT NO: A052-6206  
DATE OF INSPECTION: January 24, 1980

-----

Florida Power Corporation Bartow Plant is located on Weedon Island in St. Petersburg, Florida. This plant was inspected on January 24, 1980 by Robert Barker of D.E.R. Plant contact was Todd Broulette, Environmental Engineer.

Bartow Plant consists of three (3) steam generating units and four (4) gas turbine-driven electric generating units:

Bartow Unit #1 (93.4 MW)	)	These three units fuel burned
Bartow Unit #2 (120.0 MW)	)	in boiler to produce steam to
Bartow Unit #3 (235 MW)	)	turn turbine to produce electricity.

The above three units are fueled with #6 fuel oil (2.5%<sup>S</sup> oil or less.)

PEAKING UNITS

Bartow P-1 (41.6 MW)	gas turbine fueled with #2 oil.
Bartow P-2 (40.7 MW)	" " "
Bartow P-3 (42.5 MW)	" " "
Bartow P-4 (41.7 MW)	" " "

Bartow Plant Units #1, #2, #3 (small boilers - less than 250 MW are not currently subject to a numerical emission limiting standard. Instead Section 17-2.05(6) Table II, E.(2) Florida Administrative Code requires that such plants "apply BACT per 17-2.03" to control emissions of particulates and sulfur dioxide. (See: Permitting requirements for oil burning boilers when Sulfur content of fuel is changed date November 29, 1979). Present emission standards are: Particulates 0.1#/hr.x 10<sup>6</sup> BTU's heat input - (SO<sub>2</sub>) 2.75#/hr.x 10<sup>6</sup> BTU's heat input - 40% opacity if units are tested quaterly for particulates.

Stack test results:

Bartow #1 (Tests on 2/1/80 and 2/4/80)

Particulate	0.088#/hr.x10 <sup>6</sup> BTU	State Method
Particulate	0.070#/hr.x10 <sup>6</sup> BTU	"F" Factor Method
SO <sub>2</sub>	2.29#/hr.x10 <sup>6</sup> BTU	(fuel analysis) 2.5% S oil
Opacity	15.8%	

Bartow #2 (Tests on 1/24/80, 1/25/80, 1/30/80)

Particulate	0.057#/hr.x10 <sup>6</sup> BTU	State Method
Particulate	0.051#/hr.x10 <sup>6</sup> BTU	"F" Factor Method
SO <sub>2</sub>	2.29#/hr.x10 <sup>6</sup> BTU	(fuel analysis) 2.5% S oil
Opacity	13.3%	

COMPLIANCE VERIFICATION INSPECTION

Page Two

Bartow #3 (Tests on 1/28/80 and 1/29/80)  
Particulate 0.085#/hr.x 10<sup>6</sup> BTU State Method  
Particulate 0.079#/hr.x 10<sup>6</sup> BTU "F" Factor Method  
SO<sub>2</sub> 2.29#/hr.x 10<sup>6</sup> BTU (fuel analysis) 2.5% S oil  
Opacity 20.8%

Visible emission tests are required annually for Bartow P-1,  
P-2, P-3, P-4 peaking units (20% opacity or less)

BARTOW PEAKING UNITS

Bartow P-1	Visible Emission Test	8/13/79	(In Compliance)
Bartow P-2	" "	8/13/79	(In Compliance)
Bartow P-3	" "	8/13/79	(In Compliance)
Bartow P-4	" "	8/13/79	(In Compliance)

PERMITS:

Bartow #1 (93.4 MW)	A052-6206	Expires 2/28/83	(#6 oil)
Bartow #2 (120 MW)	A052-23168	Expires 10/23/84	(#6 oil)
Bartow #3 (235 MW)	A052-6280	Expires 6/22/83	(#6 oil)
Bartow P-1 )	A052-22551	Expires 9/11/84	
Bartow P-2 ) Peaking	A052-22553	Expires 9/11/84	
Bartow P-3 ) Units	A052-22554	Expires 9/11/84	
Bartow P-4 )	A052-22555	Expires 9/11/84	

Florida Power Bartow Plant (all units) are in compliance with  
Chapter 17-2 and 17-4 F.A.C.

RB/clc



DER PERMIT APPLICATION TRACKING SYSTEM MASTER RECORD

FILE#00000022555 COE# DER PROCESSOR:BROWN DER OFFICE:TPA  
FILE NAME:GEORGE C. MOORE DATE FIRST REC: 08/06/79 APPLICATION TYPE:A0  
APPL NAME:FLORIDA POWER CORP. APPL PHONE:(813)866-4140 PROJECT COUNTY:52  
ADDR:P.O. BOX 14042 CITY:ST. PETERSBURG ST:FLZIP:33733  
AGNT NAME:GEORGE W. MARSHALL AGNT PHONE:(813)866-4420  
ADDR:P.O. BOX 14042 CITY:ST. PETERSBURG ST:FLZIP:33733

ADDITIONAL INFO REQ: / / / / / REC: / / / / /  
APPL COMPLETE DATE: 08/06/79 COMMENTS NEC:N DATE REQ: / / DATE REC: / /  
LETTER OF INTENT NEC:Y DATE WHEN INTENT ISSUED: / / WAIVER DATE: / /

HEARING REQUEST DATES: / / / / /  
HEARING WITHDRAWN/DENIED/ORDER -- DATES: / / / / /  
HEARING ORDER OR FINAL ACTION DUE DATE: / / MANUAL TRACKING DESIRED:N

\*\*\* RECORD HAS BEEN SUCCESSFULLY UPDATED \*\*\* 10/25/79 13:39:27

FEE PD DATE#1:08/06/79 \$0020 RECEIPT#00032555 REFUND DATE: / / REFUND \$  
FEE PD DATE#2: / / \$ RECEIPT# REFUND DATE: / / REFUND \$  
APPL:ACTIVE/INACTIVE/DENIED/WITHDRAWN/TRANSFERRED/EXEMPT/ISSUED:IS DATE:10/23/79  
REMARKS:BARTOW PEAKING UNIT P-4

File Number NOA2-22555

PERMIT APPLICATION STATUS SHEET

Type of permit applied for Air Operation

County Pineellas

Date Recieved 8/6/79

P.E. seal & signature   
Check   
No check   
Letter of corp. standing

CLOCK DAYS		DATE TASK COMPLETED	INITIALS
3	Logging by Sec'y	<u>8/6/79</u>	<u>RPT</u>
5	Review by Sec. head and transfer to permitting Engineer		
28	Completeness Review	<u>9-6-79</u>	<u>EW</u>
	request additiona info *		
	information received *		
	Public Notice Published * (for Air Construction only)		
55	Letter of Intent sent to * Supervisor		
60	Letter of Intent submitted * to District Manager		
75	Intent to issue/deny mailed *		
80	Permitting Eng'r submit finished permit package & recommendations to supervisor	<u>10-15-79</u>	<u>WNB</u>
83	Permit Package to Dist. Engr.		
85	Permit Package to Dist. Manager	<u>10-23-79</u>	<u>EW</u>
90	Final Issuance/denial	<u>10/23/79</u>	<u>RPT</u>

\*If needed, If not indicate by N/A

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION

No 32555

RECEIPT FOR APPLICATION FEES AND MISCELLANEOUS REVENUE

Received from Florida Power Corp. Date 8-6-79  
Address P.O. Box 14042, St. Petersburg Dollars \$ 20.00  
Applicant Name & Address George C. Moore, same address  
Source of Revenue Bartow Peaking Unit P-4  
Revenue Code 0101 Application Number A052-22555

344540

By Florella Barron



STATE OF FLORIDA  
DEPARTMENT OF POLLUTION CONTROL

POST OFFICE BOX 9205  
300 EAST CENTRAL AVENUE  
WINTER HAVEN, FLORIDA 33880

PETER P. BALJET  
EXECUTIVE DIRECTOR

W.D. FREDERICK, JR.  
CHAIRMAN

June 9, 1975  
Pinellas County - AP  
Florida Power Corp.

Florida Power Corporation  
P. O. Box 14042  
St. Petersburg, Florida 33733

Re: A052-2568 A052-2573 ✓  
A052-2569 A052-2574  
A052-2571 A052-2575  
A052-2572 A052-2576

Dear Sir:

The Department of Pollution Control Regulations require that visible emissions meet compliance of 20 percent opacity by July 1, 1975. (Chapter 17-2.04(1) )

- 1) Visible Emissions-No person shall cause, let, permit, suffer or allow to be discharged into the atmosphere any air pollutants from:
  - a) Existing Sources, until July 1, 1975, the density of which is equal to or greater than that designated as Number 2 on the Ringelmann Chart or the opacity of which is equal to or greater than 40 percent.
  - b) New Sources, and after July 1, 1975, existing sources, the density of which is equal to or greater than that designated as Number 1 on the Ringelmann Chart or the opacity of which is equal to or greater than 20 percent.
  - c) This subsection 17-2.04(1) does not apply to emissions emitted in accordance with specified emission limiting standards or in accordance with the process weight table (Table I) provided in this chapter.
  - d) If the presence of uncombined water is the only reason for failure to meet visible emission standards given in this section such failure shall not be a violation of this rule.

This letter is to notify you that visible emission test for each point source shall be submitted to the DPC West Central office in Winter Haven, by a certified observer no later than July 1, 1975.

If you have conducted a visible emission test within the last 6 months, a test need not be performed.

If you have any questions, please contact this office.

Sincerely,

J. H. Kerns, P.E.  
Regional Engineer  
West Central Region

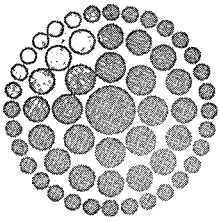
JHK/SLT/pm

John P. Middlemas  
BOARD MEMBER

Alice C. Wainwright  
BOARD MEMBER

Mark D. Hollis  
BOARD MEMBER

Y.E. Hall  
BOARD MEMBER



**Florida  
Power**  
CORPORATION

*File: Pinellas Co-AP*

**D.E.R.**

NOV 1 1978

**SOUTHWEST DISTRICT  
TAMPA**

October 24, 1978

Mr. P. D. Puchaty  
Florida Department of Environmental Regulations  
7601 Highway 301 North  
Tampa, FL 33610

Dear Mr. Puchaty:

RE: Bartow Peakers A052-2568, 2571, 2572, 2573

In accordance with Paragraph 10 of the referenced permits, the Visible Emission Reports are attached.

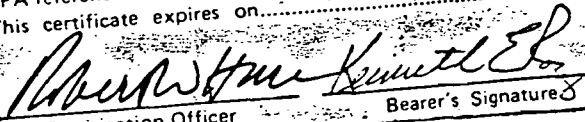
Sincerely,

D. A. Shantz, Supervisor  
Chemical and Environmental Services

Attachment

DAS/hew/M04  
(10/23)

LOCATION Baldwin P-4  
 PERMIT NUMBER A052-2573  
 DATE 5/3/78  
 TYPE FACILITY Gas Turbine  
 CONTROL DEVICE \_\_\_\_\_

STATE OF FLORIDA  
 DEPARTMENT OF ENVIRONMENTAL REGULATION  
 THIS IS TO CERTIFY THAT  
2/1/78  
**KENNETH ROY** has completed  
 the STATE OF FLORIDA visible emissions evaluation training  
 and is a qualified observer of visible emissions as specified by  
 EPA reference method 9.  
 This certificate expires on October 14, 1978  
  
 Certification Officer      Bearer's Signature

HOURS OF OBSERVATION 1:45-2:45  
 OBSERVER K.F. Roy  
 OBSERVER CERTIFICATION DATE 4/19/78  
 POINT OF EMISSIONS Stack  
 HEIGHT OF DISCHARGE POINT \_\_\_\_\_

CLOCK TIME  
 OBSERVER LOCATION  
 Distance to Discharge  
 Direction from Discharge  
 Height of Observation Point  
 BACKGROUND DESCRIPTION  
 WEATHER CONDITIONS  
 Wind Direction  
 Wind Speed  
 Ambient Temperature  
 SKY CONDITIONS (clear,  
 overcast, % clouds, etc.)  
 PLUME DESCRIPTION  
 Color  
 Distance Visible  
 Other Information

Initial			Final
1:45			2:45
200' 405'			
SE			
Ground			
Blue sky			
S			
> 5			
90°F			
Light blue			
Blue			
100 ft			

SUMMARY OF AVERAGE OPACITY

Set Number	Time Start--End	Opacity	
		Sum	Average
1	1:45-1:51	50	3.33
2	1:51-1:57	0	0
3	1:57-2:03	0	0
4	2:03-2:09	75	2.12
5	2:09-2:15	50	2.07
6	2:15-2:21	60	2.50
7	2:21-2:27	0	0
8	2:27-2:33	0	0
9	2:33-2:39	0	0
10	2:39-2:45	0	0

Readings ranged from 0 to 5% opacity.  
 The source was was not in compliance with ✓ at  
 the time evaluation was made.

- NOTES:
1. Minimum of 24 readings to be taken at 15 second intervals.
  2. Readings are to be to the nearest 5% opacity.

on line @ 11:20 A

OBSERVATION RECORD

Best Available Copy

Hr.	Min.	SECONDS				STEAM PLUME (check if applicable)		COMMENTS
		0	15	30	45	Attached	Detached	
	0	5	0	0	0			
	1	0	0	0	0			
	2	0	5	5	5			
	3	5	5	5	5			
	4	5	5	5	5			
	5	5	5	5	5			
	6	2	2	2	2			
	7	2	2	2	2			
	8	2	0	0	0			
	9	2	0	0	0			
	10	0	0	0	0			
	11	0	0	0	0			
	12	0	0	0	0			
	13	0	0	0	0			
	14	0	0	0	0			
	15	0	0	0	0			
	16	0	0	0	0			
	17	0	0	0	0			
	18	0	0	0	0			
	19	0	0	0	0			
	20	0	0	0	0			
	21	5	5	5	5			
	22	5	5	5	5			
	23	5	5	5	5			
	24	5	5	5	5			
	25	0	0	0	0			
	26	0	0	0	0			
	27	2	2	2	2			
	28	0	0	0	0			
	29	3	3	3	3			
	30	5	5	5	5			
	31	5	5	5	5			
	32	5	5	5	5			
	33	0	0	0	0			
	34	0	0	0	0			
	35	0	0	0	0			
	36	0	0	0	0			
	37	0	0	0	0			
	38	0	0	0	0			
	39	0	0	0	0			
	40	0	0	0	0			
	41	0	0	0	0			
	42	0	0	0	0			
	43	0	0	0	0			
	44	0	0	0	0			
	45	0	0	0	0			
	46	0	0	0	0			
	47	0	0	0	0			
	48	0	0	0	0			
	49	0	0	0	0			
	50	0	0	0	0			
	51	0	0	0	0			
	52	0	0	0	0			
	53	0	0	0	0			
	54	0	0	0	0			
	55	0	0	0	0			
	56	0	0	0	0			
	57	0	0	0	0			
	58	0	0	0	0			
	59	0	0	0	0			



STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION

THIS IS TO CERTIFY THAT

**KENNETH ROY**

has completed the STATE OF FLORIDA visible emissions evaluation training and is a qualified observer of visible emissions as specified by EPA reference method 9. This certificate expires on **October 14, 1978**

*Kenneth Roy*  
Bearer's Signature  
Certification Officer

LOCATION Barlow P-4  
PERMIT NUMBER A052-2573  
DATE 5/31/78  
TYPE FACILITY Gas Turbine  
CONTROL DEVICE \_\_\_\_\_

HOURS OF OBSERVATION 1:45-2:45  
OBSERVER K.E. Roy  
OBSERVER CERTIFICATION DATE 4/19/78  
POINT OF EMISSIONS Stack  
HEIGHT OF DISCHARGE POINT \_\_\_\_\_

CLOCK TIME

OBSERVER LOCATION  
Distance to Discharge

Direction from Discharge

Height of Observation Point

BACKGROUND DESCRIPTION

WEATHER CONDITIONS  
Wind Direction

Wind Speed

Ambient Temperature

SKY CONDITIONS (clear, overcast, % clouds, etc.)

PLUME DESCRIPTION  
Color

Distance Visible

Other Information

Initial			Final
1:45			2:45
200 yds			
SE			
Ground			
Blue sky			
S			
> 5			
90°F			
Light haze			
Black			
100 ft			

SUMMARY OF AVERAGE OPACITY

Set Number	Time Start--End	Opacity	
		Sum	Average
1	1:45-1:51	80	3.33
2	1:51-1:57	0	0
3	1:57-2:03	0	0
4	2:03-2:09	75	3.13
5	2:09-2:15	50	2.04
6	2:15-2:21	60	2.50
7	2:21-2:27	0	0
8	2:27-2:33	0	0
9	2:33-2:39	0	0
10	2:39-2:45	0	0

Readings ranged from 0 to 5 % opacity.

The source was not in compliance with \_\_\_\_\_ at the time evaluation was made.

NOTES:

1. Minimum of 24 readings to be taken at 15 second intervals.

2. Readings are to be to the nearest 5% opacity.

on line @ 11:30 A



OBSERVATION RECORD

Best Available Copy

Hr.	Min.	SECONDS				STEAM PLUME (check if applicable)		COMMENTS
		0	15	30	45	Attached	Detached	
	0	5	0	0	0			
	1	0	0	0	0			
	2	0	5	5	5			
	3	5	5	5	5			
	4	5	5	5	5			
	5	5	5	5	5	3		
	6	0	0	0	0			
	7	0	0	0	0			
	8	0	0	0	0			
	9	0	0	0	0			
	10	0	0	0	0			
	11	0	0	0	0	0		
	12	0	0	0	0			
	13	0	0	0	0			
	14	0	0	0	0			
	15	0	0	0	0			
	16	0	0	0	0			
	17	0	0	0	0	0		
	18	0	0	0	0			
	19	0	0	0	0			
	20	0	5	5	5			
	21	5	5	5	5			
	22	5	5	5	5			
	23	5	5	5	5	3.13		
	24	5	5	5	5			
	25	0	0	0	0			
	26	0	0	0	0			
	27	0	0	0	0			
	28	0	0	5	5			
	29	5	5	5	5	2.08		
	30	5	5	5	5			
	31	5	5	5	5			
	32	5	5	5	5			
	33	0	0	0	0			
	34	0	0	0	0			
	35	0	0	0	0	2.20		
	36	0	0	0	0			
	37	0	0	0	0			
	38	0	0	0	0			
	39	0	0	0	0			
	40	0	0	0	0			
	41	0	0	0	0	0		
	42	0	0	0	0			
	43	0	0	0	0			
	44	0	0	0	0			
	45	0	0	0	0			
	46	0	0	0	0			
	47	0	0	0	0	0		
	48	0	0	0	0			
	49	0	0	0	0			
	50	0	0	0	0			
	51	0	0	0	0			
	52	0	0	0	0			
	53	0	0	0	0			
	54	0	0	0	0			
	55	0	0	0	0			
	56	0	0	0	0			
	57	0	0	0	0			
	58	0	0	0	0			
	59	0	0	0	0	0		



DEPARTMENT OF ENVIRONMENTAL REGULATION

INTEROFFICE MEMORANDUM

For Routing To District Offices And/Or To Other Than The Addressee	
To: _____	Loctn.: _____
To: _____	Loctn.: _____
To: _____	Loctn.: _____
From: _____	Date: _____

TO: Files

THRU: Dan A. Williams

FROM: William H. Brown, II *WB*

DATE: April 12, 1978

SUBJECT: Florida Power Corporation, Bartow, Air Recon

Unit #1 is a 120 MW, 1197 x 10<sup>6</sup> BTU steam generator. Operated 8131.2 hours in 1977 burning #6 and #2 fuel oil emitting 250 T/yr. TSP, 2343 T/yr NO<sub>x</sub>, and 8314 T/yr. SO<sub>2</sub>. This unit had no PCD. The B&W burners have been modified, a fuel additive is used.

Unit #2 is a 122 MW, 1193 x 10<sup>6</sup> BTU steam generator. Operated 7653.9 hours in 1977 burning #6 and #2 fuel oil and natural gas. Emitting 79.24 T/yr. TSP, 15136 T/yr. NO<sub>x</sub>, and 2677 T/yr. SO<sub>2</sub>, no PCD.

Unit #3 is a 215 MW, 2049 x 10<sup>6</sup> BTU steam generator, operated 6505.3 hours in 1977 burning #6 and #2 fuel oil and natural gas. Emitting 388 T/yr. TSP, 998 T/yr. NO<sub>x</sub> and 10429 T/yr. SO<sub>2</sub>, no PCD. New low air burners.

4 peaking units using deisel fuel. These units emit 11.97 T/yr. TSP, 312.3 T/yr. NO<sub>x</sub>, and 90.6 T/yr. SO<sub>2</sub>.

This complex has a total emission of 729.2 T/yr. TSP. 18789 T/yr. NO<sub>x</sub>, 21510.6 T/yr. SO<sub>2</sub>. V.E. at time ot Recon < 20%. Plant seems to be in compliance.

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION



LOCATION BARTON P-4  
 PERMIT NUMBER 1052-2573  
 DATE \_\_\_\_\_  
 TYPE FACILITY PEAKING UNIT  
 CONTROL DEVICE NONE

Dennis A. Shantz, has completed the STATE OF FLORIDA visible emissions evaluation training and is a qualified observer of visible emissions as specified by EPA reference method 9.  
 This certificate expires on Oct. 13, 1977

*[Signature]*  
 Certification Officer

*[Signature]*  
 Bearer's Signature

HOURS OF OBSERVATION \_\_\_\_\_  
 OBSERVER DENNIS SHANTZ  
 OBSERVER CERTIFICATION DATE \_\_\_\_\_  
 POINT OF EMISSIONS \_\_\_\_\_  
 HEIGHT OF DISCHARGE POINT 30 FEET

CLOCK TIME \_\_\_\_\_  
 OBSERVER LOCATION \_\_\_\_\_  
 Distance to Discharge \_\_\_\_\_  
 Direction from Discharge \_\_\_\_\_  
 Height of Observation Point \_\_\_\_\_  
 BACKGROUND DESCRIPTION \_\_\_\_\_  
 WEATHER CONDITIONS \_\_\_\_\_  
 Wind Direction \_\_\_\_\_  
 Wind Speed \_\_\_\_\_  
 Ambient Temperature \_\_\_\_\_  
 SKY CONDITIONS (clear, overcast, % clouds, etc.) \_\_\_\_\_  
 PLUME DESCRIPTION \_\_\_\_\_  
 Color \_\_\_\_\_  
 Distance Visible \_\_\_\_\_  
 Other Information \_\_\_\_\_

Initial			Final
300 ft			
SW			
GROUND			
W			
WE			
0-5			
90			
50% Clouds			
GRAY			
-			
-			

SUMMARY OF AVERAGE OPACITY

Set Number	Time Start--End	Opacity	
		Sum	Average
1	2:00 - 2:06	240	10

Readings ranged from 10 to 10 % opacity.  
 The source was ~~was~~ not in compliance with 10 at the time evaluation was made.

- NOTES:  
 1. Minimum of 24 readings to be taken at 15 second intervals.  
 2. Readings are to be to the nearest 5% opacity.

SOUTH WEST DISTRICT  
 ST. PETERSBURG  
 10 5 1977

OBSERVATION RECORD

D. L. R.

AUG 23 1977

SOUTH WEST DISTRICT  
ST. PETERSBURG

Hr.	Min.	SECONDS				STEAM PLUME (check if applicable)		COMMENTS
		0	15	30	45	Attached	Detached	
	0	10	10	10	10			
	1	10	10	10	10			
	2	10	10	10	10			
	3	10	10	10	10			
	4	10	10	10	10			
	5	10	10	10	10			
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# OBSERVATION RECORD

D E R

AUG 23 1977

Hr.	Min.	SECONDS				STEAM PLUME (check if applicable)		COMMENTS
		0	15	30	45	Attached	Detached	
	0	10	10	10	10			
	1	10	10	10	10			
	2	10	10	10	10			
	3	10	10	10	10			
	4	10	10	10	10			
	5	10	10	10	10			
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STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION



LOCATION BARTON P-4  
 PERMIT NUMBER 1052-2573  
 DATE \_\_\_\_\_  
 TYPE FACILITY PEAKING UNIT  
 CONTROL DEVICE NONE

Dennis A. Shantz has completed the STATE OF FLORIDA visible emissions evaluation training and is a qualified observer of visible emissions as specified by EPA reference method 9. This certificate expires on Oct. 13, 1977

[Signature] Certification Officer  
[Signature] Bearer's Signature

HOURS OF OBSERVATION \_\_\_\_\_  
 OBSERVER DENNIS SHANTZ  
 OBSERVER CERTIFICATION DATE \_\_\_\_\_  
 POINT OF EMISSIONS \_\_\_\_\_  
 HEIGHT OF DISCHARGE POINT 30 FEET

CLOCK TIME

OBSERVER LOCATION  
Distance to Discharge

Direction from Discharge

Height of Observation Point

BACKGROUND DESCRIPTION

WEATHER CONDITIONS  
Wind Direction

Wind Speed

Ambient Temperature

SKY CONDITIONS (clear, overcast, % clouds, etc.)

PLUME DESCRIPTION  
Color

Distance Visible

Other Information

Initial			Final
300 ft			
SW			
GROUND			
<del>W</del>			
WE			
0-5			
90			
50% Cloudy			
GRAY			
-			
-			

SUMMARY OF AVERAGE OPACITY

Set Number	Time Start--End	Opacity	
		Sum	Average
1	2:00 - 2:06	240	10

Readings ranged from 10 to 10 % opacity.

The source was ~~was~~ not in compliance with 10 at the time evaluation was made.

NOTES:

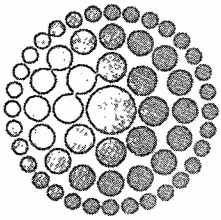
1. Minimum of 24 readings to be taken at 15 second intervals.

2. Readings are to be to the nearest 10 % opacity.

AUTO WEST DISTRICT  
 ST. PETERSBURG

AUG 23 1977

DENNIS SHANTZ



524

**Florida  
Power**  
CORPORATION

August 19, 1977

**D. E. R.**

**AUG 23 1977**

**SOUTH WEST DISTRICT  
ST. PETERSBURG**

Mr. P. D. Puchaty  
Florida Department of Environmental Regulation  
7601 Highway 301 North  
Tampa, FL 33610

Dear Mr. Puchaty:

Enclosed is the Visible Emission Reports for the following units:

Bartow P-4	A052-2573
Higgins P-1	A052-3120
Higgins P-2	A052-3118
Higgins P-3	A052-3119
Higgins P-4	A052-2036

Sincerely,

*D. A. Shantz /mj*

D. A. Shantz  
Environmental Engineer

DAS/hw

Enclosure

File: ENVIRON 5-1



**VISIBLE EMISSION FIELD REPORT**  
**FLORIDA POWER CORPORATION**  
**P.O. BOX 14042, ST. PETE., FLA. 33733**

DATE 1 Sept 76  
 TIME 1500

PERMIT NUMBER A052-2573  
 SOURCE NAME Barton P-4 COUNTY Pinellas  
 SOURCE LOCATION St Petersburg Fla  
 SOURCE DESCRIPTION (TYPE) Gas Turbine  
 POINT OF OBSERVATION South  
 DISTANCE TO SOURCE 150 ft

MIN	SECONDS				MIN	SECONDS			
	0	15	30	45		0	15	30	45
0	5		5		30				
1	1				31				
2	1				32				
3	1				33				
4					34				
5					35				
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26					56				
27	1				57				
28					58				
29	5		5		59				


DIRECTION OF OBSERVER FROM SOURCE South  
 DIRECTION OF WIND FROM SOURCE DER  
 WIND VELOCITY \_\_\_\_\_  
 DIRECTION OF SUN FROM SOURCE West  
 CLOUD COVERAGE (IN %) 20%

NOTE:  
 1. MINIMUM OF 25 READINGS MUST BE TAKEN.  
 2. READINGS ARE TO BE TAKEN EVERY 15-30 SECONDS TO THE NEAREST 5% OPACITY.

SUM OF OPACITY READINGS 300  
 TOTAL NUMBER OF READINGS 60

OPACITY =  $\frac{\text{SUM OF OPACITY READINGS}}{\text{TOTAL NUMBER OF READINGS}}$  = 5%  
 OBSERVER Dennis A. Shantz  
 NOTES - \_\_\_\_\_

STATE OF FLORIDA  
 DEPARTMENT OF ENVIRONMENTAL REGULATION



Dennis Shantz  
 \_\_\_\_\_, has completed the STATE OF FLORIDA visible emissions evaluation training and is a qualified observer of visible emissions as specified by EPA reference method 9.  
 This certificate expires on November 5, 1976

Dennis A. Shantz  
 Certification Officer      Bearer's Signature

THIS FIELD REPORT SHEET IS DRAWN IN ACCORDANCE WITH THE REQUIREMENTS (FOR THE OPACITY OF OMISSIONS) EPA STANDARDS OF PERFORMANCE FOR NEW STATIONARY SOURCES, FEDERAL REGISTER VOL. 36, NO. 247, DEC. 23, 1971 AND STATE OF FLORIDA DEPT. OF POLLUTION CONTROL AIR POLLUTION REGULATIONS F.A.C. CH. 17-2.



REUBEN O'D. ASKEW  
GOVERNOR

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION

CENTRAL SUBDISTRICT  
P.O. BOX 9205  
500 E. CENTRAL AVENUE  
WINTER HAVEN, FLORIDA 33880

JOSEPH W. LANDERS JR.  
SECRETARY

September 5, 1975  
Florida Power Corp.  
Pinellas County AP

*Bartow P-4*

Mr. W. P. Stewart  
Florida Power Corporation  
P.O. Box 14042  
St. Petersburg, Florida 33733

RE: 1974 Operations and  
Emission Inventory  
AC52-2100, A052-2568, A052-2571,  
A052-2572, A052-2573, A052-2569,  
A052-2574, A052-2575, A052-2576

Dear Mr. Stewart:

The Department of Environmental Regulation requires the periodic updating of operational data and control test records. (Chapter 17-4.14)

In order that the proper information is transmitted to this Department, please utilize the attached forms, which should be completed for the year 1974, and return to this office within 30 days of date on the letter.

Please use actual figures for items such as process weight, fuel consumption operating time and emission factors.

Thank you for your cooperation in this matter and if there are any questions, contact this office.

Sincerely,

*J. H. Kerns*  
J. H. Kerns, P.E.

JHK/DAT/pm

ANNUAL OPERATING REPORT  
Calendar year 1976

Submit a separate report for each permitted source by FEBRUARY 28, 1977

SECTION 1: General

SOURCE NAME: BARTOW P-4

MAILING ADDRESS: FLORIDA POWER CORPORATION

P. O. Box 14042, St. Petersburg, FL 33733

TELEPHONE NO: 813/866-4544

OPERATING PERMIT NO: A052-2573

SOURCE DESCRIPTION: Gas Turbine

D. E. R.  
MAR 10 1977  
SOUTH WEST DISTRICT  
ST. PETERSBURG

SECTION 2: PROCESS OPERATIONS:

586.8 hours (1976)

- a. DURATION OF OPERATION AND FREQUENCY: 24 hrs/dy 7 dys/wk 52 wk/yr  
e.g. 8 hrs perday, 5 dys per wk and 50 wk/yr.
- b. DESIGN CRITERIA: MAXIMUM OUTPUT 55.7 MW  
e.g. 850 MW, 750 tons/dy
- c. NORMAL(AVERAGE) OUTPUT 41.7 MW =  $\frac{\text{Gross Generation}}{\text{Hours Operated}}$   
e.g. 424 MW, 670 tons/dy.
- d. MAXIMUM PEAK THAT OCCURED DURING ANY ONE DAY 55.7 MW  
e.g. 910 MW, 810 tons/dy.

SECTION 3: TOTAL AMOUNT OF MATERIALS USED/PROCESSED, COMPUTED ON THE SAME BASIS AS PROCESS WEIGHT:

TYPE(MATERIAL)	INPUT PROCESS WEIGHT- DRY
N/A	N/A tons/yr
	tons/yr
	tons/yr
	tons/yr

SECTION 4: TOTAL AMOUNT OF FUEL USED. IF FUEL IS OIL, SPECIFY WEIGHT, e.g. NO 2, and % sulfur by weight. INCLUDE STANDBY FUELS.

10 <sup>6</sup> cu ft	2343.4	10 <sup>3</sup> gal NO. 2 OIL 0.18% SULFUR
10 <sup>3</sup> gal PROPANE		10 <sup>3</sup> gal KEROSENE
tons COAL		10 <sup>6</sup> lb BLACK LIQUOR SOLIDS
OTHER, specify type and units _____		

SECTION 5: EMISSION: ESTIMATED/TESTED EMISSIONS(TONS PER YEAR)

- a. Not tested tons of particulates 29.8 tons of sulfur dioxide
- Not Tested tons of nitrogen dioxide Not Tested tons of carbon monoxide
- Not Tested tons of hydrocarbon \_\_\_\_\_ tons \_\_\_\_\_ (other)

- b. STATE METHOD OF CALCULATIONS USED IN DETERMINING EMISSION RATES  

$$\left(\frac{\text{Lbs Oil}}{\text{Gas Oil}}\right) \left(\frac{42 \text{ Gal}}{\text{BBL}}\right) \left(\frac{\% \text{ S}}{\% \text{ S}}\right) \left(\frac{2 \text{ Lbs SO}_2}{\text{Lb S}}\right) \left(\frac{\text{BBLS}}{\text{BBL}}\right) \left(\frac{\text{Ton}}{2000 \text{ Lbs}}\right) = \text{Tons SO}_2$$

ANNUAL OPERATING REPORT  
calendar year 1976

SECTION 5(cont't)

c. STACK TESTED: NONE date \_\_\_\_\_

STACK TEST CONDITIONS: \_\_\_\_\_ PROCESS RATE DURING TEST \_\_\_\_\_

STACK TEST CONDUCTED BY: \_\_\_\_\_

STACK TEST WITNESSED BY: \_\_\_\_\_

SECTION 6: OPERATIONAL PROBLEMS, IF ANY: NORMAL

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

a. IMPROVEMENTS MADE TO PROCESS/POLLUTION CONTROL EQUIPMENT: NONE

\_\_\_\_\_  
\_\_\_\_\_

b. TYPE OF MAINTENANCE PERFORMED: ROUTINE

c. NUMBER OF UPSETS LASTING MORE THAN FOUR HOURS DURING THE YEAR: UNKNOWN

d. NUMBER OF UPSETS LASTING MORE THAN ONE HOUR BUT NOT MORE THAN FOUR HOURS: UNKNOWN

e. NUMBER OF UPSETS LASTING LESS THAN ONE HOUR: UNKNOWN

CERTIFICATION:

I HEREBY CERTIFY THAT THE INFORMATION GIVEN IN THIS REPORT IS CORRECT TO THE BEST OF MY KNOWLEDGE.

*R. E. Parnelle* for W.P. Stewart  
Signature of owner or authorized representative

R. E. Parnelle, Jr., Manager, Environmental Operations  
Typed name and title

March 4, 1977  
Date